

Identity in a Changing World
Series Editor: Jan D. Sinnott

Jan D. Sinnott
Joan S. Rabin *Editors*

The Psychology of Political Behavior in a Time of Change

 Springer

Identity in a Changing World

Series Editor

Jan D. Sinnott, Psychology Department, Towson University, Towson, MD, USA

The Identity in a Changing World book series explores the many facets of adult identity in a complex, global, rapidly changing, individual and social landscape and seeks to offer guidance on surviving and thriving in these changing environments. While humanity has always faced unparalleled (for that time) changes that impact identity, never before have information and interactions come at the current pace. This may include changes and demands in the conception of self, changes and demands coming from the local, national and global environment, and changes and demands from rapidly changing ideals and values. Contributors to the series come to it from many directions of scholarship and application, in an attempt to elucidate the many ways human psychology influences, among other things, politics, economics, values, ideals, relationships, selfhood, culture, and institutions. These explorations will culminate in suggestions for ways to mitigate the individual problems and distortions coming from a culture of rapid and confusing change. This series serves a general readership and college level students, as well as readers in many fields including researchers, practitioners, psychologists, educators, sociologists, political scientists, business administrators, philosophers, international relations experts, medical practitioners, and conflict specialists.

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*This book is dedicated to my kind, caring,
and courageous mother, Susan Joseph
Schurenstedt, who fought for democracy
as part of the German Underground and to
my father, Henry George Carl Schurenstedt,
who was a thoroughly decent and loving man
who abhorred demagogues of all types.*

Joan S. Rabin

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About the Editors

Jan D. Sinnott, PhD is a Professor of Psychology at Towson University in Baltimore, MD, and a Licensed Psychologist. She specializes in Lifespan Positive Development and the applications of existential, transpersonal, mind–body, and positive psychology to adult growth and development. After completing a Postdoc at the National Institute on Aging, she developed her theory of complex problem-solving in adulthood, termed Complex Postformal Thought. She has authored or co-authored over 125 scholarly and applied books and publications. Her research team is currently studying Complex Problem-Solving, Concepts of the Self, Intelligence, and Mindfulness. Her recent books include: *Positive Psychology: Advances in Understanding Adult Motivation* (2013, Springer), *Adult Development: Cognitive Aspects of Thriving Close Relationships* (2014, Oxford University Press), and *Identity Flexibility During Adulthood: Perspectives in Adult Development* (2017, Springer).

Joan S. Rabin, PhD is a retired Professor of Psychology at Towson University in Baltimore, MD. She served on advisory committees for both the major in Animal Behavior and the minor in Lesbian, Gay, Bisexual, and Transgender Studies at Towson, and has 20 publications and 40 conference presentations on the behavior of tropical sand fishes as well as issues relating to gender, diversity, the lesbian experience, and the relationship between biology and behavior. As a bio-psychologist, she spent many years doing scuba-based research on sand-dwelling tropical fishes with Dr. Eugenie Clark of the University of Maryland and Mote Marine Laboratory, and as a participant in the birth of the Women’s Studies Program at Towson, Dr. Rabin created courses in Sex Differences: Psychological Perspectives, Gender Identity in Transition, and the Psychology of Diversity. She served as project director for research in the Red Sea (Egypt), the Bismarck Sea (Papua New Guinea), as well as numerous sites in the Caribbean, Belize, and the Netherlands Antilles. Her most recent research trip (2015) was to the Solomon Islands of the South Pacific.

Introduction



Jan D. Sinnott

The literature on the relationship between psychology and politics is very extensive, almost overwhelmingly so. Authors coming from the domains of politics and social psychology dominate the ranks of writers in this field, but others more attuned to fields as diverse as neuropsychology, history and geography also add their wisdom. Understanding how we can find ourselves in such political turmoil, change, and confusion in the twenty-first century, especially in mature democracies, seems important to moving on in the right direction now, but it seems that this understanding is missing. Many feel anxious, overwhelmed and a little afraid of what we see in the current political discourse; many of us see citizens' ideas and behavior shaking up the current political environment. Does the political environment influence us? Do we partially create it?

The editors of this book, like many other citizens at this historical moment, wanted to understand the forces and outcomes in this current political moment. Even more than understanding, we wanted to help ourselves stay grounded during the rapid changes and heated emotions of our times. Talking with others convinced us that we were not alone in attempting to understand and deal with the rapid-fire change and drama of our times.

We editors have decided to approach discussion of the current interrelationship of psychology and politics from points of view not currently explored, different analytical points of view, outlined below.

Current issues point to the nature of the interaction between psychology and politics as including: the ability to think and problem solve in complex ways; gender roles; class and insecurity; models from biological change; and the mutual interaction of psychology and political behavior by individuals and by groups, given fear and uncertainty, when using complex problem solving ability.

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When psychology and politics interact they do so using emotions (especially fear), cognition (especially cognitive complexity), interpersonal forces including tribalism, and complex model interactions (such as chaos and self-regulating systems). We see these forces through the lens of current U.S. events and we wonder if politics transforms us, if we transform politics, or if this is a circular interaction.

We wanted to think about some skills for surviving current political upheavals. These might include creating a more flexible identity, calming fear and anxiety, growing complex problem solving abilities, learning to redefine the “crises”, and escaping the bonds of stereotypical gender roles, class expectations, and prejudice.

A key set of questions surrounds how the cultural definition of masculinity as “power” opens the way for authoritarianism. What are the cultural and biopsychological antecedents of masculinity as power? What is the evolutionary importance of physical strength for political beliefs? Does too much freedom and uncertainty affect current political changes? Does failure in adaptation to a rapidly changing world have a disproportionate effect on men as compared to women? We can now examine the biology of liberal and conservative brains, noting that liberals have larger anterior cingulate cortices, giving them a higher tolerance for uncertainty, while conservatives have larger right side amygdalas enhancing their sensitivity to fear.

With our current knowledge of the brain we can examine epigenetic influences on the psychobiology of politics. The role of glucocorticoid receptors in the hippocampus and other areas of the brain is currently being studied with the goal of understanding how these glucocorticoids regulate emotion and cognition, as well as their differential effects in women and men. Dualities are the enemy of reality, yet humans persist in their determination to order their psychological worlds in terms of artificial dualities, the most damaging of which is nature-nurture. The great divide between stereotypical conservatives and liberals is that the former rigidly conform to dualities while the latter live in a world of relativism. Dualism seems to be the foundation of authoritarianism.

In the chapters that follow, authors explore the many facets of the ways in which psychology influences political activity in today’s environment, and the ways in which today’s political activity influences human psychology. We have an international cast of authors. Individuals experience each other’s influence and societies influence each other. The issues of human body, behavior, and culture are interwoven among multiple cultures’ political activities. Chapters that follow also include clues for surviving the complexity of the current situation.

Summaries of chapters are presented below in alphabetical order, based on the first author’s last name. **The chapters appear in the book’s Table of Contents ordered by five dominant perspectives: Biopsychosocial perspectives; Cognitive perspectives; Social-emotional perspectives; National (United States) perspectives; and International perspectives.**

Sinan Alper, Onurcan Yilmaz and S. Adil Saribay discuss how cognitive styles influence political attitudes, using the dual-process model and construal level theory. Recent correlational and experimental studies demonstrate that differences in people’s thinking styles have an impact on their political attitudes. Whereas the dual

process model of mind relates social conservative attitudes to intuitive (vs. analytical) thinking style, construal level theory links abstract (vs. concrete) thinking style to political consistency and sophistication. Although empirical backing for each position is rather strong, there are some mixed findings regarding the causal influence of these thinking styles on political attitudes. There is no research that combines findings from these two different theoretical approaches. In this chapter, after summarizing these findings in the literature, we discuss the strengths and weaknesses of both theoretical approaches and how they relate to each other. Finally, the effects of these thinking styles on everyday political decision-making are examined.

Kester Carrara Throughout the history of the Brazilian public administration there have been conceptual, technological, political and ideological obstacles to social welfare. This has led to a general perception that the economy is failing and that public policies for access to goods and services have not been updated. The Behavioral Analysis of Culture (BAC) offers a way to understand this process. This chapter presents the main characteristics of BAC and discusses how it can contribute to the planning of public policies today, continuing with an analysis of the trends of sustainable social and economic integration in the American continent.

John C. Cavanaugh and Christine K. Cavanaugh focus on the important question of how to understand polarization. They find a solution using a cognitive-developmental lens. The current political polarization has resulted in numerous analyses based on various frames, including race, class, gender, bias, implicit theories, and so forth. However, little consideration has been given to the cognitive-developmental aspects of how people end up espousing a particular set of beliefs and values. They provide an overview of the developmental processes underlying differences in the ways in which adults seek, take in, analyze and evaluate information, and draw conclusions. They then argue that these processes result in different outcomes that may subsequently result in people adopting polarized positions. From there, they make the case that the specific information that is input into these processes is also critical, as gaps in the quality of the input may not be compensated for during processing, further exacerbating (and, essentially, guaranteeing) the likelihood of an outcome with the nature of a polarized position. Finally, they propose options from a cognitive-developmental perspective for addressing these issues through a redesigned curriculum and teaching-learning enterprise.

Elif Gizem Demirag Burak looks at the subtle but important nonverbal cues in leadership. People make social judgments about personal characteristics using the information that is derived from someone's face in less than 100 ms. Facial cues allow individuals to make a judgment about who can be a leader in a specific context. For instance, the evolutionary perspective suggests that people prefer dominant looking leaders in the times of war and intergroup conflict rather than times of peace and cooperation. Dominance can be defined as the use of intimidation and coercion to attain a social status based largely on the effective induction of fear. People who are high on dominance control their environments and influence others by using power, force, authority and threats.

In the light of existing studies, the aim of this chapter is twofold. The first part aims to explore leader, follower and context-related factors that lead individuals to

choose a dominant-looking leader. This part will be supported by recent empirical research conducted in Turkey. The study suggests that in contrast to non-dominant looking leaders, dominant looking leaders are found more threatening, angry, untrustworthy and unlikable. The chapter will discuss followers' personal interests and intensity of crisis as main factors, which increase preference for a dominant-looking leader. This part of the chapter will also touch upon a group of people who prefer a dominant looking leader even if there is no conflict. The second part will focus on the relationship between gender and dominant appearance with respect to leadership emergence. This part will critically discuss why female leaders are more likely to be selected when their facial characteristics reflects dominance, masculinity and power. Finally, the chapter aims to build on facial appearance and leadership literature providing a perspective from a collectivist culture where cultural values such as power distance make individuals more prone to choose dominant looking leaders.

Larry Froman moves toward a solution to some political difficulties by addressing pathways to social connection in a time of political and social polarization. The current dysfunction of our politics in today's society reflects threats to democratic values and to respectful debate of issues and policies. Democracies here in the United States and globally are under threat by growing trends of populist and extremist political movements that in part, reflect frustration, anger, and alienation among those in society who feel disenfranchised by traditional governing processes. Norms of civility have been replaced by personal attacks and appeals to bigotry. People who hold different political beliefs from those held by others are often viewed as enemies who lack legitimacy. In the US, our two main political parties have become increasingly polarized and trapped within their silos of rigid ideologies. So called "facts" are selectively woven together to justify preexisting positions. Compromise and finding common ground are viewed not as legitimate paths to addressing critical problems facing our country, but rather as betrayal and weakness. A solution may include addressing pathways to social connection.

Bobbi Gentry's topic is political identity development in a changing world. Political Identity Development remains an understudied area of identity development; however, in changing times, knowing where people are in their identity development informs citizens, candidates, and researchers how identity shapes our world. In a study of identity development across groups, levels of political identity development are defined and categorized. Based on categorization, similarities and differences that exist are highlighted, such as gender differences, age differences, and racial and ethnic differences. With a sample of over 1500, this study highlights enduring themes of development and recognizes opportunities to improve political identity development. Findings suggest age is not the only factor in identity development. Implications of the research include the possibility of manipulation by candidates and what we can do to improve identity development across the life spectrum.

Jennifer M. Gidley addresses the need for postformal psychology to become normal in times of exponential change such as we experience today. We are living in times of great transition, uncertainty and exponential change. In the 1990s the US Defense Department coined a new term to describe this period: VUCA. VUCA is an

acronym that stands for “Volatile, Uncertain, Complex and Ambiguous” and VUCA is even more relevant today than it was when coined 20 years ago. It characterizes not only society and economics but also politics. More recently VUCA has slipped beyond the Pentagon and entered the common vernacular—especially in the context of global leadership as well as in business and organizational studies. In this chapter she investigates the psychological and cultural factors operating in a VUCA world through an evolution of consciousness narrative. First, she introduces the growing body of research by cultural historians, sociologists, philosophers and others on the evolution of culture and consciousness. Second, she discusses the research by adult developmental psychologists on the types of reasoning that exist beyond Piaget’s “formal operations.” When these two bodies of research are integrated, they provide overwhelming evidence that suggests a new stage or structure of consciousness is currently emerging. From this perspective the chaos and turbulence arising in the political arena can be viewed from a different light. Furthermore, the types of cognitive, emotional and behavioral responses that we humans need to develop in order to thrive in this new milieu are remarkably synergistic with the qualities indicative of postformal reasoning. She draws out a number of qualities associated with postformal reasoning that are important for political leaders to embrace if they are to lead human evolution further, through conscious evolution, to prevent us spinning backwards. She identifies and discusses several postformal qualities that are adaptive and thus ‘normal’ for the present times. She shows that these qualities are exactly what is required if political leaders are to move us beyond our current crises and discusses how postformal reasoning will become the new ‘normal’ for dealing with complex, chaotic and uncertain futures.

Philip Giurlando discusses international politics from the focus on political betrayal and political agenda. This paper argues that the “feeling of political betrayal” actually is a discourse that thoroughly entangles feeling and narration into a single subjective impression. When felt by large numbers of citizens in the political realm, it motivates the desire to reassert national control over a realm where such control is perceived to have been lost. Subsequently, this sentiment may complicate initiatives in the international system that depend on surrendering or pooling national sovereignty. Expressions of “feeling betrayed” can be observed in the aftermath of the Great Recession and the consequent populist insurgencies impacting many Western countries, suggesting links between economic insecurity, feelings of betrayal, and the willingness to support non-mainstream political movements which demand a reassertion of national control. The paper attempts to demonstrate these links by analyzing Italy and Greece, two countries that saw a surge in support for populist groups after the Eurozone’s debt crisis.

Agnieszka Golec de Zavala, & Asteria Brylka, argue that the current wave of populism has been characterized by visible presence of conspiratorial ideation, explanations for events that—typically without evidence—assume secretive, malevolent plots involving collective actors. In this chapter, we argue that collective narcissism, i.e., resentment for the lack of recognition of one’s own group’s entitlement to privileged treatment, lies at the heart of populism. We propose that when people endorse national narcissism, the belief that their national group is exceptional is

continually violated by the realization that this exceptionality is not recognized by other groups. This motivates people to search for an explanation for the lack of recognition for their nation that would allow them to maintain its exaggerated image. Conspiracy theories provide external reasons why others question the exceptionality of the nation. They justify constant vigilance to threats to the nation's exceptionality and provide a reassurance that the nation is important enough to attract secretive plots from others. Antagonistic belief in the malicious plotting of others fits the general tendency associated with collective narcissism, to adopt a posture of intergroup hostility. Independently, the aversive arousal stemming from endorsing the collective narcissistic belief motivates people to affirm *any* available belief and search for *any* meaningful relations and patterns. This makes them likely to seize on *any* conspiracy theories because they offer coherent meaning systems often supported by elaborate arguments. Thus, conspiracy theories and conspiratorial thinking satisfy psychological needs associated with collective narcissism.

Alfie Kohn takes a sharper, critical focus by considering how to make sense of our “Narcissist-in-Chief”, President Trump. The psychological roots of public policy have perhaps never been clearer than in the case of Donald Trump, whose intense, insatiable need for approval and attention drive every aspect of his presidency. Democratic decision-making requires a capacity on the part of participants for collaboration, compromise, and perspective taking; the absence of these dispositions in the current Commander-in-Chief helps to explain the current tilt toward authoritarianism. Particularly salient is Trump's hyper-competitiveness—his compulsive need to be viewed as superior to others. This disposition, which has been empirically associated with narcissism, is at once a reflection of psychopathology and a contributor to isolation and other unhealthy outcomes. Trump's fear of being perceived as weak or a “loser” informs his administration's policies on a range of issues. It also reminds us of the competitiveness of the culture that produced him, one in which a man driven to defeat others is widely admired rather than pitied.

Hilary M. Lips looks at the combination of gender, power, and politics in her chapter entitled voice and votes. The 2016 presidential election produced disbelief, grief, and anger, particularly among women. Over the subsequent years and months, they have responded with increased political engagement and activism. A record number of female candidates stood for the 2018 elections, and the 116th Congress, seated in January, 2019, is the most diverse and most female in history. Yet there has been significant resistance to the rise of women's political power. The situation has revealed, in ways both old and new, the deep and pervasive bias in favor of male power, a revelation that is both shattering and energizing to feminists. Psychology has something to say about the ways in which these impacts have unfolded.

Alexandra Manoliu uses popular culture, namely the TV drama *House of Cards*, to examine transportation (a convergent process where mental systems and capacities become focused on the narrative) and identification as part of psychological reactions in the political realm. With the growing popularity of political TV series, we examine fans' impressions of the benefits they derive from watching the series. More precisely, are people under the impression that watching a fictional series increases their level of political information and interest and enables them to better

understand the real political world? Transportation into a narrative world and identification with fictitious characters are psychological mechanisms that have the potential to affect people's opinions and attitudes in real life. An online survey measured the level of transportation into the fictional political world and identification with the main character, among fans of a popular political TV series, *House of Cards*. The results indicate that those who were transported perceived the series as having a positive impact on their level of political interest and understanding of politics, even though the series did not give them the impression they gained real political information. Although we find signs of identification with the main character of the series, this did not affect people's impressions of the "benefits" of watching the series.

Robert D. Mather wonders about the effects of acknowledging both conservative and liberal social cognition in order to improve public science attitudes. His chapter describes the utility of a conservative ideology for science in the United States. The historical influence of Barry Goldwater and Ronald Reagan on modern conservatism is described as well as more recent components of the conservative coalition and the political polarization of the United States. Differences between liberals and conservatives about moral foundations and cognition are discussed. The chapter describes the unbalanced proportions of political ideology within higher education and the sciences. Implications of these proportions for science, environmental policies, and social policies are discussed. The general theme is that individual social cognitive processes have an impact on the outcome of larger systems. Both conservative and liberal groups need each other and both fall well short of incorporating the other's perspective. In this case, it results in science not having conservative input, which leads to voters not trusting or understanding scientists.

Shelley McKeown, Reeshma Haji, Jessie Bryant, Erwine Dela Paz, and Charlotte Flothmann are concerned with the dehumanization of Muslim immigrants shown in newspaper discourse during the UK 2015 general election. Immigration debates during the 2015 United Kingdom (UK) General Election (GE) and the subsequent UK vote to leave the European Union have arguably heightened media and public interest in immigration, particularly towards Muslim immigrants. In the present research, they focus on the nature and extent of de(humanizing) views of Muslim immigrants in UK newspaper sources around the time of the UK 2015 GE. Their research extends past work in a number of ways. First, they move beyond dehumanization processes alone and concurrently assess humanization in UK newspaper articles. Second, they consider both the content of the newspaper articles and reader comments, enabling inference concerning the influence of the former on the latter, and evaluate lay persons' expressions of (de)humanization. Third, they examine how (de)humanizing discourse may differ depending on the political orientation of the news source. Given that Muslims represent the second largest faith group in Britain, we believe that this topic is timely and relevant in the UK as well as other contexts where Muslim immigration is a topic of debate.

David R. H. Moscrop looks for solutions to political problems by examining how motivated reasoning undermines democratic deliberation. Immigration debates during the 2015 United Kingdom (UK) General Election (GE) and the subsequent

UK vote to leave the European Union have arguably heightened media and public interest in immigration, particularly towards Muslim immigrants. In the present research, we focus on the nature and extent of de(humanizing) views of Muslim immigrants in UK newspaper sources around the time of the UK 2015 GE. Our research extends past work in a number of ways. First, we move beyond dehumanization processes alone and concurrently assess humanization in UK newspaper articles. Second, we consider both the content of the newspaper articles and reader comments, enabling inference concerning the influence of the former on the latter, and evaluate lay persons' expressions of (de)humanization. Third, we examine how (de)humanizing discourse may differ depending on the political orientation of the news source. Given that Muslims represent the second largest faith group in Britain, we believe that this topic is timely and relevant in the UK as well as other contexts where Muslim immigration is a topic of debate.

Frederick Parente and John-Christopher Finley use their research experience to offer quantitative and qualitative methods for predicting geopolitical events. Predicting political, governmental, and economic events has a long history in democratic society. Economists rely on statistical methods for predicting the economic indicators and corporations require accurate forecasts to predict future market trends. Governments need estimates of future military readiness and likely changes in the geopolitical landscape. Polling during elections commonly is used to predict potential winners and losers and corresponding changes in the makeup of governing bodies. The diversity of need for prediction has led to the development of a variety of techniques and applications that, in turn, provide information about the knowable future. What follows is a discussion of various technologies that frequently are used to assess future trends, likely scenarios, and alternative geopolitical events. They begin with a summary of commonly used quantitative and qualitative methods for predicting the future.

They assert that quantitative and qualitative methods represent two ends of a research continuum. At one end, purely quantitative methods are those that do not require any human opinion input. At the other end, strictly qualitative methods verbally summarize the collective opinions group participants without much in the way of a statistical summary. In the middle are mixed methods that share more or less of each aspect. There are a few pure examples of the ends of the continuum. Therefore, most of their discussion focuses on mixed methods that merge the quantitative and qualitative domains. Their conversation ends with a summary of each of the models' advantages and disadvantages along with suggestions for best use practices when choosing relevant forecasting techniques.

Joan S. Rabin offers four chapters. The first describes the "biopsychology of political beliefs and behavior." Key factors underlie a conservative orientation: intolerance of ambiguity (dogmatism), need for order, social conformity, respect for authority, purity, structure, familiarity and closure, but also fear of threat and loss. Conservatives value stability, self-control and loyalty. They want to preserve rather than change, supporting existing institutions even if they are flawed. Conservatives also tend to be more conventional, organized, neat, clean, withdrawn, reserved, and rigid. They prefer less cognitive complexity, rely on strong categorization and

believe in personal responsibility. Conservatives are deeply bound by tradition and find social change to be threatening. Liberals tend to encompass openness, cognitive flexibility, creativity, novelty, change, complexity, compassion, optimism and even rebellion. They need cognitive stimulation, are curious, can tolerate ambiguity, are less squeamish and more open-minded. Liberals believe in equal opportunity and equality. Differences exist in the brains of liberals and conservatives. Conservatives have larger right side amygdalae, making them more susceptible to fear. The insula, which connects to the amygdala, has more gray matter volume in conservatives. The insula is involved with the experience of disgust and conservatives are strongly motivated by disgust. The anterior cingulate cortex which is larger in liberals enhances reasoning and decision-making. Epigenetics encompasses both hereditary factors and environmental influences, including culture. This difference in brain development is most likely based on epigenetics which encompasses both hereditary factors and environmental influences, including culture.

In the next chapter **Rabin** considers “how diversity in nature impacts political psychology.” The conservative worldview is congruent with biological concepts like survival of the fittest, maternal instinct, male competition and aggression. The liberal worldview is congruent with cooperation-based survival, male and female nurturance, social selection and self-domestication factors that reduce competition and aggression. Our political heritage from our closest relatives the chimpanzees and bonobos differs greatly, one power and aggression driven, and the other based on social alliances for peace. Diversity in nature encompasses everything from sex changing fish, female-only lizards, insects, spiders, arthropods and birds that are half female and half male, a transgender bird, and over 1000 species exhibiting same-sex intimate behavior. New thinking on evolution, including feminist perspectives, cultural evolution, aesthetic evolution and directed evolution provide ways to integrate recent research on animal and human behavior. Different theories of human evolutionary history provide insight into the environmental pressures that forged our development.

Rabin’s third chapter focuses on “behavioral epigenetics, the underpinnings of political psychology.” Following the foundational work of the ENCODE project the definition of a gene has changed from a specific DNA sequence coding for a protein to a process dominated by epigenetics. Epigenetics is a regulatory network that activates or silences genes based on environmental influences. Epigenetics is the interface between the environment and the genome. The relevance of epigenetics to social policy and therefore politics is that all environmental insult factors affect the human body, not just in the present but passed on in the epigenome to future generations. Transgenerational epigenetics can even pass the impact of trauma (such as from the Holocaust) from one generation to the next. Politics and social policy have yet to respond to the impact of epigenetics on health and disease. Psychological/ideological factors blocking acceptance of epigenetic influence on social policy are motivated reasoning, just world view, blaming the victim, and binding values. Both personal responsibility factors (which conservatives espouse) and the interactional influence of the environment (which liberals appreciate) are at work in producing epigenetic outcomes across generations.

The important issue of the failure in adaptation, the authoritarian response to social change, is the subject of **Rabin's** last chapters. Rapid social, technological, and eco-system changes are presenting us with unprecedented psychological pressures. Our brains and hormonal systems did not evolve to deal with rapid change, leaving a biological vulnerability relative to the human propensity to escape from freedom. Political ramifications of the shrinking middle class, income inequality, changing demographics, and an increased sense of threat interact with factors such as white identity, tribalism, populism, deep-seated long-simmering resentment and grievance, anti-Semitism, homophobia, racism, worldview, extremism, epigenetic consequences of low SES. The epigenetics of social conformity, cognitive rigidity, fear and threat reactivity, aggression, and disgust sensitivity relate to conservative political orientations and explain why people vote against their own economic interests. Psychological factors that help to explain political orientations are cognitive dissonance, mortality salience, terror management, the myth of upward social mobility, the propensity for belief, existential anxiety, and the need to belong. Political and personal support for the authoritarianism represented by Donald Trump is explained by the social trance, association with dominance, power, and traditional masculinity, Fox news, online conspiracy rants, and the insidiousness of following Hitler's *My New Order* manual for dictatorial ascendance.

Rabin also considers how democracy is threatened by the authoritarian response to social change. Rapid social, technological, and eco-system changes are presenting us with unprecedented psychological pressures. Our brains and hormonal systems did not evolve to deal with rapid change, leaving a biological vulnerability to authoritarianism. Political ramifications of the shrinking middle class, income inequality, changing demographics, and an increased sense of perceived threat interact with factors such as white identity, tribalism, populism, deep-seated long-simmering resentment and grievance, anti-Semitism, homophobia, racism, misogyny, white supremacy, and epigenetic consequences of low SES. Social conformity, decisional stress, nostalgia, cognitive rigidity, fear and threat reactivity, aggression, and disgust sensitivity relate to conservative political orientations and explain why people vote against their own economic interests. Psychological factors which help to explain political behavior are: cognitive dissonance, system justification motivation, compensatory control, ambiguity intolerance, motivated reasoning, obedience, cognitive load, social evaluative threat, uncertainty avoidance, mortality salience, weaponized lies, confirmation bias, the Dunning-Kruger effect, terror management, the myth of upward social mobility, attribution theory, the biological propensity for belief, moral politics, existential anxiety, and the need for cognitive closure and belonging. Political and personal support for the authoritarianism represented by Donald Trump is explained by the social trance, gaslighting, low information, association with dominance, power, and traditional masculinity, Fox news, use of online bots, spambots, memes, sockpuppets, trolls, astroturfing, and catfishing, online conspiracy rants, dog whistles, MAGA, and the insidiousness of following Hitler's *My New Order* manual for dictatorial ascendance.

Nidhi Sinha offers insight on the unconscious mechanisms underlying political beliefs and attitudes. The domain of politics, which is heavily guided by a sense of

power and authority, provides innumerable instances suggesting how unconscious processes could influence our political ideologies and decisions. Although early literature was not primarily aiming to study political cognition as such, methodologies used in these studies (for instance, Zimbardo's prison experiment, or Ash's conformity study) certainly indicate that politically inclined concepts have long been used to understand the unconscious mechanism behind cognition and behavior. With an introduction to the philosophical underpinnings of political psychology, this chapter informs its readers on how unconscious processes influence political attitude and behavior. In the similar vein, it will also introduce the concept of priming and will discuss research findings to indicate that individuals' political decisions (e.g., to vote or to not vote, which candidate to vote for) could be easily influenced without their conscious awareness. Consequently, the aim of this chapter is to provide empirical instances to suggest how media and external sources tend to influence attitude change among masses subliminally, especially in recent times when an easily accessible digital reach has simplified such persuasion. Therefore, the primary focus of this chapter is to enlighten its readers on how political beliefs, attitudes and behaviors could be guided and influenced primarily by unconscious forces.

Jan D. Sinnott's chapter is entitled psychology, politics and complex thought, a time for postformal thought in politics. This chapter offers a theoretical model of the components of the interaction between psychology and politics. What are the components of the current political change and drama that we all find so upsetting and confusing? Of course, there are many and this book offers a significant number of ideas. In this chapter the focus is on a few, suggesting that the situation today is influenced by elements of *identity* (either personal or group), by the *pace of change* (either fast or slow), by our *ability (or lack of it) to solve these life problems in complex ways*, and by *emotions* (especially related to fear). She examines the interconnection of those factors in the context of our current political experience (particularly our American experience) and discusses what we might do as individuals or groups to survive current upheavals by altering these factors using complex postformal problem solving.

John C. Wade and Bryan Richardson explain how psychological processes impact voter decision making. It has often been said that the political is personal. It may be more informative to say that the political is *psychological*. Although we like to think that voting decisions are based on a careful examination of facts and positions, a wealth of research evidence indicates that psychological factors, most of which operate beneath the level of awareness, have great influence on voting decisions. Although as humans we are blessed with logic and reason, we are also "cognitive misers," which means that we tend not to use any more mental energy than feels absolutely necessary. Although this has many adaptive benefits, especially in situations when quick action is necessary, it also presents many challenges, especially when we try to make informed decisions about complicated issues. This chapter examines the many ways that voting decision making is affected by a whole host of psychological processes, ranging across the role of classic psychological concepts such as defense mechanisms and heuristics to factors identified by recent research such as the "makes sense stopping rule." Although the primary focus of this

chapter is on voters, since many of the same challenges also impact politicians, the difficulties that governing officials face will also be briefly addressed.

Evangeline A. Wheeler tells us how belief in conspiracy theories addresses some basic human needs. Identifying the underlying psychology of individuals who believe in conspiracies is crucial as we face unsettling international tensions and sweeping domestic socio-political change. Individuals can have enormous power to affect the lives of others when they choose conspiratorial thinking (CT). What are the psychological and cognitive processes that produce CT? Research suggests that, contrary to what we tell ourselves, it is our emotions and beliefs and environmental contexts (and perhaps neurological states), rather than logical arguments appealing to reason, that usually determine our belief in CT. Because of a strong psychological need for complete explanations, coupled with feelings of social alienation, many people are prone to believe in conspiracies.

Welcome to the wide variety of interesting and thought-provoking ideas that may suggest some answers to the mystery of the interplay of psychology and politics. How do we influence politics? How does politics influence us? The editors hope that some of the ideas presented here will stimulate the next wave of research and understanding at this time in history when we are so desperately in need of awareness and survival strategies.

Part I
Biological Perspectives

Blue Brain-Red Brain: The Biopsychology of Political Beliefs and Behavior



Joan S. Rabin

The relationship between politics and biopsychology is complex. But first, an explanation of biopsychology itself is in order. As a biopsychologist I have frequently been asked to explain my speciality even to other psychologists. Biopsychology is all about the biology of behavior, human and animal. Biopsychologists are trained in the methodology of behavioral research and in biology but are psychologists not biologists. There are neurological underpinnings to behavior and these are being explored vigorously. Neuroscience is the study of the brain and nervous system in relation to function and behavior. Political science and neuroscience have been connecting for the last decade (Arciniegas & Anderson, 2017; Chawke & Kanai, 2016; Fowler & Schreiber, 2008; Haas, 2016; McDermott, 2009; Pedersen, Muftuler, & Larson, 2018). Biopsychology is part of that mix (Jost, Nam, Amodio, & Bavel, 2014; Kandler, Bleidorn, & Riemann, 2012; Marcus, 2013; Norris, Gollan, Berntson, & Cacioppo, 2010; Settle, Dawes, Loewen, & Panagopoulos, 2017).

The foundation of biopsychology rests on genetics, epigenetics and evolution (Dewsbury, 1991; Pinel & Barnes, 2018). Political orientations are influenced both by genetic heritage and by epigenetic influence as manifested in the neuroscience of brain and physiological development (Funk, 2013; Funk et al., 2013; Hatemi & McDermott, 2011; Hibbing, Smith, & Alford, 2014b; Kandler et al., 2012; Moore, 2015; Sidanius & Kurzban, 2013; Tuschman, 2013).

Epigenetics refers to critical environments that have molecular consequences that can alter how DNA gets read out to produce actual traits and functions (Goldberg, Allis, & Bernstein, 2007). Because epigenetics occurs on the molecular level considerable technical information is necessary to understand the process. Chapter “Behavioral Epigenetics: The Underpinnings of Political Psychology”

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covers the extraordinary process by which the environment and our genetic heritage work together to produce traits. Chapter “How Diversity in Nature Impacts Political Psychology” deals with our evolutionary history that gave rise to our species’ genetic heritage, and to the diversity that exists in nature.

Liberals and Conservatives

The comparison between liberals and conservatives that follows, requires a pause for definition. Conover and Feldman (1981) used political self-identification based on the premise that

the core symbolic meaning of these labels revolves around elements of ‘change vs. the preservation of traditional values’. In general, liberals seem to favor change and progress even at the expense of government involvement; conservatives, on the other hand, wish to preserve traditional arrangements particularly those threatened by government involvement. (p. 617)

Psychological research and theory have focused mostly on political conservatives because of the segue from conservatism to authoritarianism that has haunted generations after the political Armageddon of twentieth century fascism: “If classic personality theories are correct in positing that character rigidity and motivational threat are related to the holding of conservative attitudes, then system instability and other threatening circumstances should also increase conservative tendencies in the population as a whole” (Jost, Glaser, Kruglanski, & Sulloway, 2003, p. 340). The authors base their premise on works such as Erich Fromm’s *Escape from Freedom* (1941) and Wilhelm Reich’s *The Mass Psychology of Fascism 1946/1970* (written in the early 1930s). Jost et al. (2003) propose a single dimension theory of conservatism. Motivated social cognition is based on the premise that conservatives hold beliefs in large measure to fulfill underlying needs: “The core ideology of conservatism stresses resistance to change and justification of inequality and is motivated by needs that vary situationally and dispositionally to manage uncertainty and threat” (p. 340). A meta-analysis indicated that key factors underlie a conservative orientation: death anxiety (mortality salience), intolerance of ambiguity (dogmatism), need for order, structure, and closure, but also fear of threat and loss. Conservatives value stability and tradition. They want to preserve rather than change, supporting existing institutions even if they are flawed (Jost, 2017). Conservatives also tend to be more “conventional, orderly, organized, neat, clean, withdrawn, reserved, and rigid” (Carney, Jost, Gosling, & Potter, 2008, p. 834).

Liberals live in a different world, less fear and threat oriented, more hopeful. Liberals align with a very different set of traits, making them more flexible, innovative, progressive, tolerant, curious, expressive, enthusiastic, and novelty seeking. They are also more messy, disorganized, and more tolerant of dirt (Carney et al., 2008). “As a general rule, liberals are more open-minded in their pursuit of creativity, novelty, and diversity, whereas conservatives lead lives that are more orderly, conventional, and better organized” (Carney et al., 2008, p. 836).

Political Neuroscience

Biopsychology offers insight into these profound differences between those who self-identify as liberal or as conservative. An early study in political neuroscience used functional magnetic resonance imaging (fMRI) to study brain activity during a politically charged situation (Westen, Blagov, Harenski, Kilts, & Hamann, 2006). The researchers recorded how the brain is affected when either a Democrat or a Republican reacts to threatening information about their preferred political candidate. They found no difference in brain activity between Republicans and Democrats. Both groups engaged in motivated reasoning which allowed them to focus on what they already believed about the candidate and ignore information that contradicted those beliefs. This motivated reasoning was associated with activations of the ventromedial prefrontal cortex, anterior cingulate cortex, posterior cingulate cortex, insular cortex, and lateral orbital cortex.

Another early study of “politics on the brain” using fMRI, found that the ventromedial and prefrontal cortices were stimulated when political attitudes were being inculcated (Knutson, Wood, Spampinato, & Grafman, 2006). Being able to identify which specific areas of the brain are activated during political judgement and political decision making, in the context of motivated reasoning, sets the stage for the study of how Democrats and Republicans see the world.

The first of two studies, done in the new research area of political neuroscience, which differentiated between liberals and conservatives was conducted by David Amodio and his colleagues (Amodio, Jost, Master, & Yee, 2007) who used EEG electroencephalography. EEG recordings allowed them to measure the timing of brain activity which cannot be done with fMRI. They observed behavioral differences between liberals and conservatives which were reflected in the neurological functioning of the brain, specifically the anterior cingulate cortex.

The second neuroscience study differentiating liberals and conservatives was done by Douglas Oxley et al. (2008) and colleagues (Oxley et al., 2008) using both a physiological measure of arousal (skin conductance changes) and eye blinks (orbicularis oculi startle blink electromyogram “EMG” response). They found that conservatives react more strongly physiologically to startling noises and threatening pictures than do liberals.

The connection between biopsychology and political orientations is becoming clearer with each new study. Liberals and conservatives think differently (Eidelman, Crandall, Goodman, & Blanchar, 2012; Talhelm et al., 2015), feel differently (Oosterhoff, Shook, & Ford, 2018), process emotion differently (Ahn et al., 2014), experience sensation differently (Inbar, Pizarro, & Bloom, 2008; Liuzza et al., 2018), see the world differently (Hetherington & Weiler, 2018), process information differently (Carraro, Castelli, & Macchiella, 2011; Zamboni et al., 2009), are motivated differently (Clarkson et al., 2015; Hibbing, Smith, & Alford, 2014a; Jost, Stern, Rule, & Sterling, 2017), experience humor differently (Young, Bagozzi, Goldring, Poulsen, & Drouin, 2019), respond to new information differently (Tullett, Hart, Feinberg, Fetterman, & Gottlieb, 2016), and have different moral foundations (Haase & Starling-Alves, 2017; Haidt, 2012; Lakoff, 2016; Nam, Jost,

Kaggen, Campbell-Meiklejohn, & Van Bavel, 2018), and different conceptions of social justice, equality, empathy and fairness (Nam, Jost, & Feldman, 2017) all based on differences in physiology, brain structure and epigenetic outcomes (Hibbing et al., 2014b; Mendez, 2017; Pedersen et al., 2018).

“It is now possible to measure politically relevant biological predispositions with physiological, endocrinological, cognitive, and neuroscience techniques” (Hibbing, 2013, p. 1). The term “neuropolitics” (Schreiber, 2017) has recently come into being, as has “biopolitics” (Hetherington & Weiler, 2018), which join “political physiology” (Oxley et al., 2008) and “genopolitics” (Fowler & Dawes, 2013).

Amygdala and Anterior Cingulate Cortex

The key areas of the brain differentiating liberals and conservatives are the amygdala and the anterior cingulate cortex (Kanai, Feilden, Firth, & Rees, 2011). The amygdala is part of the limbic system or emotional system of the brain. The amygdala involves fear, rage, and anxiety (Babaev, Chatain, & Krueger-Burg, 2018; Chudasama, Izquierdo, & Murray, 2009; Janak & Tye, 2015), and is an older part of the brain in terms of evolutionary history (paleomammalian or old mammal brain). Fear cannot be experienced in the absence of the amygdala (Feinstein, Adolphs, Damasio, & Tranel, 2011). Conservatives have larger right-side amygdalae, making them more susceptible to fear. The anterior cingulate cortex involves reasoning and decision making and is a more recent evolutionary structure (neomammalian or new mammal brain). Liberals have larger anterior cingulate cortices, giving them a higher tolerance for uncertainty: “The regions implicated in risk and conflict, cognitive processes during which liberals and conservatives have been shown to differ in physiological response, are the similar regions shown by Kanai et al. (2011) to differ structurally in liberals and conservatives” (Schreiber et al., 2013, p. 2/Introduction, para. 4).

Intriguing research has been done on the difference between the brains of political liberals and conservatives. In addition to finding structurally larger anterior cingulate cortices in liberals and a larger right-side amygdala in conservatives, Kanai et al. (2011) found that the gray matter volume in the anterior cingulate cortex is greater in liberals whereas conservatives have greater volume in the right-side amygdala. Individual differences in gray matter density (volume) is directly associated with specific skills or traits: “differences in affective and cognitive empathy” (Eres, Decety, Louis, & Molenberghs, 2015, p. 305), achievement motivation (Takeuchi et al., 2014), facial expression recognition (Uono et al., 2016), and sensory processing (Yoshimura et al., 2017).

Trust and the Brain

The technique of event-related fMRI was used by Winston, Strange, O’Doherty, and Dolan (2002) to ascertain the brain response to judging a series of faces as being trustworthy or not. They found that the bilateral amygdala and the right-side insula

showed increased activity when an individual perceived that a face was untrustworthy. The amygdala is mainly involved with negative social stimulus processing (Santos, Almeida, Oliveiros, & Castelo-Branco, 2016).

In a study using functional neuroimaging to examine the perceived trustworthiness of people's faces, Todorov, Baron, and Oosterhof (2008) discovered that one "area in the right amygdala showed a negative linear response—as the untrustworthiness of faces increased so did the amygdala response" (p. 119). Conservatives have a larger and more voluminous right amygdala and also give evidence of being less trusting than liberals.

Consequences of High Level Anterior Cingulate Cortex Function

Electrical activity in the anterior cingulate cortex (ACC) has been associated with conflict monitoring, control, cognitive flexibility, and regulation of the self (Barbey, Colom, & Grafman, 2014; Botvinick, Braver, Barch, Carter, & Cohen, 2001). Activation in the ACC has also been linked to greater preference for social equality, whereas accuracy in a Go/NoGo task was linked to more openness to social change (Weissflog, Choma, Dywan, van Noordt, & Segalowitz, 2013). A more developed anterior cingulate cortex allows liberals to deal with ambiguous, novel, or conflicting information or situations, more comfortably (Amodio et al., 2007; Shook & Fazio, 2009).

Resolving emotional conflict situations is directly related to activity in the rostral anterior cingulate cortex (Etkin, Egner, Peraza, Kandel, & Hirsch, 2006).

Activation of the rostral cingulate during high conflict resolution trials was accompanied by a concomitant reduction in amygdalar activity. The degree to which rostral cingulate activation predicted reduced amygdalar activity, as well as the reduction in autonomic responsivity, a function regulated by the amygdala, was related to subjects' behavioral success at emotional conflict resolution". (Etkin et al., 2006, p. 877)

Cognitive Dissonance and the ACC

The larger ACC in the brain of liberals may well make it easier to reduce arousal from the amygdala and therefore reduce cognitive dissonance. Cognitive dissonance is stressful psychologically and physiologically. It is triggered when old beliefs (original cognitions) fail to match up with new evidence (new cognitions).

Cognitive dissonance can also be triggered when a choice is made between two preferred entities, indicating that action can trigger dissonance (Izuma et al., 2010). Arousal in the ACC was an indicator of how much dissonance was induced by "choice-induced preference change," thus "providing more solid evidence that dACC activity is a neural correlate of cognitive dissonance" (Izuma et al., 2010, p. 22017).

Liberals enjoy novelty while conservatives value stability (Mendez, 2017). Since novelty exposes one to potential dissonance-producing new cognitions, it may well be that a larger and great volume ACC allows liberals to seek out novelty even if potential dissonance might arise. Increasing tolerance for dissonance underlies the basic premise of higher education (Zimbardo, 1969). People can only incorporate new data that conflicts with old beliefs by changing their cognitions, and to do that, they need to be able tolerate dissonance while they are making that transition.

In a study using fMRI to track arousal in the dorsal ACC (dACC) during a dissonance arousing situation of conflict between an existing belief and contrary new information, the amount of electrical activation in the dACC mirrored the degree of conflict created by the task. “Our findings elucidate the neural representation of cognitive dissonance and support the role of the anterior cingulate cortex in detecting cognitive conflict and the neural prediction of attitude change” (van Veen, Krug, Schooler, & Carter, 2009, p. 1469). The dACC was also found to control the amygdala during conflict resolution, keeping dissonant emotion in check.

Partisan Cognitive Differences in Processing Risk

Registered Democrats and Republicans were recruited to take part in a risk-taking task while being monitored by fMRI (Schreiber et al., 2013). The task allowed participants to choose between a high but risky monetary payoff or a low but safer payoff. Republicans and Democrats engaged in the same amount of risk-taking behavior. Interestingly, although behavior did not differ between those supporting different political ideologies, the activity in their brains showed considerable difference between groups.

Democrats showed significantly greater activity in the left insula (a limbic system structure lying close to the amygdala), while Republicans showed significantly greater activity in the right amygdala: “These results suggest that liberals and conservatives engage different cognitive processes when they think about risk, and they support recent evidence that conservatives show greater sensitivity to threatening stimuli” (Schreiber et al., 2013, abstract). The authors propose a “two-parameter model of partisanship” based on the differential patterns of arousal in the right amygdala (conservatives) and left insula (liberals). Schreiber et al. (2013) maintain that using functional neuro-imaging data to assess brain regions active during risk taking activity can accurately distinguish between Democrats and Republicans 82.9% of the time.

Since the 1950s there has been a strong consensus that political beliefs are transmitted from parents to children as part of socialization. Schreiber et al. (2013) point out that assessing parental political affiliation gives a 69.5% level of accuracy in predicting the political affiliation of their adult children. Structural differences in the brains of individuals can predict party affiliation at a 71.6% level. So, the 82.9% accuracy of prediction factor for neuro-imaging of risk-taking behavior looks very impressive indeed. Schreiber et al. (2013) are so impressed with the amygdala

differences between conservatives and liberals that they refer to a “red brain” and a “blue brain”. They are nonetheless careful to point out that given the nature of brain plasticity,

acting as a partisan in a partisan environment may alter the brain, above and beyond the effect of the heredity. The interplay of genetic and environmental effects may also be driving the observed correlations between the size of brain regions and political affiliation. (Schreiber et al., 2013, p. 3/Discussion para. 3)

Consequences of Enhanced Right-Side Amygdala Function

The right amygdala is larger and denser in Republicans (Kanai et al., 2011) and amygdala function involves fear and anxiety. The reason that a two-parameter model of partisanship is highly predictive of political affiliation may have a great deal to do with the enlarged right-side amygdala of conservatives.

Conservatives have a strong tendency to avoid reading about scientific findings and are not very open to new information. “Avoidance of novel data is greater amongst people who are more politically conservative (Tullett et al., 2016, p. 129). The authors interpreted their data as indicating that conservatives “were not convinced that science is a good method to learn about the world” (p. 130).

Another possible interpretation can be derived from cognitive dissonance theory which focuses on the emotional consequences of exposure to new information. Cognitive dissonance is stressful; negative arousal from the amygdala disrupts normal functioning. Etkin et al. (2006) used fMRI to study emotional conflict that potentially leads to cognitive dissonance. They found that “activity in the amygdala and dorsomedial and dorsolateral prefrontal cortices reflects the amount of emotional conflict. By contrast, the resolution of emotional conflict is associated with activation of the rostral anterior cingulate cortex” (p. 877). Because Liberals have a larger ACC, they may be able to better tolerate cognitive dissonance. Novel data may not be threatening because of an enhanced ability to resolve conflict.

An explanation specific to the reluctance of conservatives to read scientific literature comes from Philip Zimbardo (1969). In order to avoid experiencing the cognitive dissonance caused by reading scientific data which conflicts with one’s beliefs, some people are strongly negatively motivated. With the goal of maintaining cognitive consistency, some people actively avoid situations that have the potential to be dissonance producing. Many people won’t even sign a petition because any decisive act has the potential to be dissonance producing. It is therefore possible to avoid negative arousal in the amygdala by avoiding new information. This negative motivation underlies an avoidance pattern that allows people to fend off potential dissonance in their daily lives (Zimbardo, 1969).

Nam, Jost, and Van Bavel (2013) asked liberals and conservatives to write an essay in support of one of the opposite party’s presidents. They “could not find a single Bush supporter who was willing, when given a choice, to write a counter-attitudinal essay suggesting that Obama is a better president than Bush” (General

Discussion, para. 2). They concluded that “in some situations at least, conservatives avoid dissonance-arousing situations to a greater extent than liberals do” (General Discussion para. 1).

Supporting the Status Quo

Conservatism is associated with support of existing conditions, “the way things are”. The amygdala has been strongly implicated in the system justification process underlying support for the status quo (Nam et al., 2018). Neuroimaging studies revealed that larger grey matter volume in the bilateral amygdala is associated with support for the existing hierarchical social structure. In this system justification situation, the status quo is viewed as being good, both beneficial and legitimate. Nam et al. (2018) also found that in individuals of both sexes and varying socio-economic groups, amygdala volume was linked to status quo support. People with increased amygdala volume were reluctant to participate in social protests and disinclined to offer assistance to the disadvantaged. Inequality was viewed as necessary, even appropriate. The authors conclude that “differences in social and political beliefs are not simply the product of deliberate considerations but are also deeply rooted in biological processes” (p. 336).

Negativity Bias

Pedersen et al. (2018) present a thorough overview of the research on negativity bias and conservative orientation. Negativity bias is about the tendency to focus more on negative stimuli than on positive stimuli, as well as to experience a greater reaction toward negative than positive stimuli (Norris et al., 2010). Pedersen et al. (2018) indicate that a negativity bias “predisposes individuals to gravitate toward conservative ideology, because conservatism prioritizes stability and the minimization of tangible threats, while liberal ideology prioritizes social change and egalitarianism” (p. 43). The foundation for this premise lies in the research linking an enhanced bias toward negative stimuli (Hibbing et al., 2014a; Jost et al., 2003) or threatening stimuli (Lilienfeld & Latzman, 2014) to a conservative orientation. In three separate meta-analysis studies, threat sensitivity and conservative orientation have been clearly connected (Burke, Kosloff, & Landau, 2013; Jost et al., 2003, 2017).

Using high resolution imaging, Pedersen et al. (2018) were able to document the relationship between the amygdala and the bed nucleus of the stria terminalis (BNST). The BNST is found in the basal forebrain and is very closely associated with the amygdala in both structure and function. Threatening stimuli produce activity in the BNST which has direct connections to the hypothalamic-pituitary-adrenal system of arousal as well as the autonomic nervous system (Davis, Walker, Miles, & Grillon, 2010). The dynamic connections between the BNST and the

amygdala are essential to responding to stimuli signaling either sustained threat, or uncertain, ambiguous threat.

Feldman (2013) has presented research leading to a two-dimensional theory of conservatism, economic and social. Pedersen et al. (2018) tested for both economic and social conservatism and found that people who are economic conservatives show an increase in the activity between the BNST and the amygdala when they experience threat. Thus, they also were first to show that amygdala function in economic conservatives changes in relation to threat. “Increased amygdala–BNST connectivity during threat may be a key neural correlate of the enhanced negativity bias found in conservatism” (Pedersen et al., 2018, p. 43). The researchers were unable to get a large enough sample of social conservatives to get statistically significant differences between liberals and conservatives in BNST-amygdala function.

Humans cannot possibly pay attention to all incoming stimuli. Stimuli are filtered so that attentional focus can be directed to whatever is deemed important. Selective attention toward threatening information, such as negative pictures, words, or faces, is commonly employed by conservatives (Carraro et al., 2011).

“Our core finding is that, compared with individuals on the political left, individuals on the right direct more of their attention to the aversive despite displaying greater physiological responsiveness to those stimuli” (Dodd et al., 2012, p. 646). Furthermore, “conservatives exhibit an enhanced sensitivity to angry targets” (McLean et al., 2014, p. 836) and “interpret ambiguous facial stimuli as expressing more threatening emotions” (Vigil, 2010, p. 547) as well as displaying an increased physiological response to negative stimuli (Oxley et al., 2008).

Economic and Social Conservatism in the Brain

Feldman (2013) has presented research leading to a two-dimensional theory of conservatism, economic and social. Pedersen et al. (2018) tested for both economic and social conservatism and found that people who are economic conservatives show an increase in activity between the BNST and the amygdala when they experience threat. Thus, they also were first to show that amygdala function in economic conservatives changes in relation to threat. “Increased amygdala–BNST connectivity during threat may be a key neural correlate of the enhanced negativity bias found in conservatism” (Pedersen et al., 2018, p. 43). The researchers were unable to get a large enough sample of social conservatives to get statistically significant differences between liberals and conservatives in BNST-amygdala function.

Arousal, Attention, and Voting

Using magnetic resonance imaging, a more powerful response was noted in the bilateral amygdala of participants when they were shown pictures of political candidates they planned to vote for than when they were shown pictures of candidates

they would not consider voting for (Rule et al., 2010). The researchers surmised that more salient or arousing candidates were more likely to get a person's vote. Arousal is part of amygdala function and appears to be highly relevant to voter behavior. Donald Trump is particularly skilled at arousing audiences. The amygdala function in candidate choice seems especially relevant to the Trump voter.

BrainWave Predicts Voting Behavior

Spark Experience (now SPARKNeuro), an emotion-response measurement company, used a device called BrainWave (electroencephalograms, galvanic skin responses, eye tracking and microfacial recognition) to assess attention and emotional responses to political candidates in 2016 (SPARKNeuro, 2016). Using this technology to sample voters in Pennsylvania and Florida the researchers (neuroscientist Ryan McGarry, and founder and CEO of Spark, Spencer Gerrol) predicted a Trump win (Bogage, 2016).

The key finding from BrainWave assessment is that keeping the attention of the voter is essential (Spark Neuro, 2016). Donald Trump excelled in keeping people focused on him even when people didn't even like him or the policies he was putting forward. An interesting feature of holding people's attention is that simple words and short sentences are easier to follow so Trump's very limited vocabulary is actually an asset. Voice patterns are critical in holding attention. Bernie Sanders keeps his listeners' attention in part because of the way his speech rises and falls in shifting tonalities. Hillary Clinton was much more articulate than her opponents, but Clinton's more level intonation pattern failed to hold attention neurologically. It turns out that longer sentences and more sophisticated vocabulary did not produce the same level of arousal in the brain as simple words and truncated sentences with many repeats (the Trump hallmark). The implications of BrainWave research for the 2020 election have not gone unnoticed (Lazauskas, 2019).

Storytelling and Attention

Another aspect of galvanizing attention and getting the message across to the recipient is storytelling. Human brains were made for storytelling (Martinez-Conde et al., 2019). Upon hearing a good story, the brain releases cortisol as attention is engaged. Then dopamine brings about rewarding arousal, followed by oxytocin which enhances empathy and connection, often leading to action (Rodriguez, 2017). To paraphrase Tyrion Lannister (Game of Thrones, HBO, season 8, episode 6), the person with the best story wins.

Emotional Engagement and the Amygdala

Triggering emotional reactions is vital to political candidate success because it makes people remember the candidate if their emotions have been engaged. BrainWave studies indicated that Trump aroused the highest level of emotion among all the candidates (Bogage, 2016; SPARKNeuro, 2016). Engendering powerful emotions affects the brain through the release of the stress hormones epinephrine and cortisol (a glucocorticoid) which enhance memory storage of emotionally arousing information. “Epinephrine, glucocorticoids, and specific agonists for their receptors administered after exposure to emotionally arousing experiences enhance the consolidation of long-term memories of these experiences” (McIntyre & Roozendaal, 2007, p. 265). The amygdala is a vital part of this process, specifically the lateral, basal, and accessory basal nuclei. Among the brain regions that the amygdala interacts with are the anterior cingulate, insular, entorhinal cortices, as well as the hippocampus which is central to the formation of new memories and is also associated with learning and emotions (McIntyre & Roozendaal, 2007). Of considerable interest in interpreting the full meaning of the neurological basis of voter influence is that the anterior cingulate, insular, and entorhinal cortices along with the amygdala are the exact structures that Kanai et al. (2011) found to differentiate conservatives from liberals.

Happiness

The amygdala is involved with both the experience of happiness and of sadness. Cunningham and Kirkland (2013) used fMRI scanning to measure activation in the amygdala while individuals looked at positive or negative photographs. What they found demonstrates the complexity of the happiness end of the emotional spectrum.

Unlike participants lower in happiness who showed a greater amygdala response primarily to negative stimuli, participants higher in happiness showed amygdala activation to both positive and negative stimuli. Critically, this pattern of results demonstrates that the enhanced amygdala response observed for happy people to positive stimuli need not come at the cost of sensitivity to negative stimuli. Indeed, if anything, the happier participants showed a greater response to negative than neutral stimuli than the less-happy participants. These data suggest that happiness does not reflect neural naiveté. That is, happy people are not insensitive to negative cues in the environment; rather, they may be tuned toward the most important aspects of the environment. This tuning may reflect a higher degree of affective flexibility, allowing happier people to respond adaptively to both environmental challenges and opportunities. (Cunningham & Kirkland, 2013, p. 765)

An intriguing area of investigation compares the degree of happiness as it relates to conservative or liberal world views. The first group of studies reported greater happiness for conservatives (Napier & Jost, 2008; Onraet, Van Hiel, & Dhont, 2013; Schlenker, Chambers, & Le, 2012). More recent examinations have found that conservatives self-report being happy but liberals actually display more happiness than

conservatives (Wojcik, Hovasapian, Graham, Moty, & Ditto, 2015). Furthermore, “self-deceptive enhancement was higher among conservatives than liberals” (Wojcik et al., 2015, p. 1243). Additionally, Onraet et al. (2013) in evaluating their finding of greater reported happiness in conservatives indicated that “psychological well-being may not only refer to subjective happiness, but also relates to the actualization of one’s potential and the extent to which one lives in accordance with oneself” (p. 512). A further clarification of political affiliation and happiness comes from Stavrova and Luhmann (2016) who point out that conservatives in the U. S. are happiest when the country is being governed in a conservative mode. They are less happy when liberals are in power.

Meaning and Purpose in Life

Another area of interest is conservative-liberal differences in degree of meaning and purpose found in life. Conservatives report having more meaning and purpose in their lives than liberals do (Newman, Schwarz, Graham, & Stone, 2019). Again, the question arises whether conservatives and liberals have different reporting patterns or whether there really is a difference in their meaning and purpose in life. This study controlled for religiosity since religious belief encompasses both meaning and purpose in life. Differences in life satisfaction and political orientation disappeared after adjusting for religiosity, leaving no difference between liberals and conservatives in life satisfaction. In evaluating their findings, the authors indicated that “conservatism also relates to stability and coherence, situational factors that can increase the subjective experience of meaning in life” (Newman et al., 2019, p. 501). Conservatism often splits between social and economic. Reports of greater meaning in life were associated with social conservatives more than economic conservatives.

The ACC and Religion

Inzlicht, McGregor, Hirsh, and Nash (2009) studied the ACC response in religious and non-religious people in Canada. Their sample was unusually diverse: “39% Christian, 21% Muslim, 14% Hindu, 11% Buddhist, and 15% other (including non religious)” (p. 387). Participants were asked to engage with the Stroop task which involves the names of colors printed in an ink color different from the color name (i.e. the word yellow printed in purple). They had a very short space of time in which to press a colored button corresponding to the color being named. “Stronger religious zeal and greater belief in God were associated with less firing of the ACC in response to error and with commission of fewer errors.... These results suggest that religious conviction provides a framework for understanding and acting within one’s environment, thereby acting as a buffer against anxiety and minimizing the

experience of error” (Inzlicht et al., 2009, p. 385). Michael Inzlicht and his colleagues went on to say that they “suspect that religion lowers anxiety-related neural activity” (2009, p. 391). It may well be that strong political beliefs serve the same function as religion. “Recent work by Amodio et al. (2007), for example, shows that conservatism is associated with similar levels of reduced ACC activity, implying that political ideology serves an anxiolytic function similar to that of religious belief” (Inzlicht et al., 2009, p. 391). Both religion and conservative political beliefs appear to reduce the ACC arousal connected to anxiety.

Compensatory Control Strategies: Religion and Political Belief

Threatening situations created in research settings actually intensify belief in a deity and also increase political convictions (Kay, Gaucher, Napier, Callan, & Laurin, 2008; Landau, Kay, & Whitson, 2015; Rutjens & Kay, 2017). Both religion and political conviction offer strategies for compensatory control. Humans have a deep need to have control over their lives, and live in a world that challenges control. “People protect the belief in a controlled, nonrandom world by imbuing their social, physical, and metaphysical environments with order and structure when their sense of personal control is threatened” (Kay, Whitson, & Gaucher, 2009, abstract). Compensatory control strategies allow us to feel more in control even if we really are not. It would appear that both religion and strong political belief systems offer buffers against anxiety. Uncertainty produces a state of negative arousal under which even people who are not religiously oriented will dramatically increase their personal beliefs to a level approximating religious devotion (McGregor, Zanna, Holmes, & Spencer, 2001). Whereas Karl Marx called religion the opiate of the masses, Inzlicht et al. (2009) allude to the “xanax of the people” (p. 391), noting that “one of religions’s primary functions may be to help people cope with existential uncertainty” (p. 386). Both religion and political conservatism reflect a powerful need for cognitive closure but also provide a viable compensatory control system to protect against uncertainty, conflict, and error.

The Insula

The findings that liberals have larger and denser anterior cingulate cortices compared to conservatives and that conservatives have larger and denser right-side amygdalae, have been seized upon by the popular media (Mooney, 2011; Vine, 2015; Wallace, 2011). The other neurological structures showing a conservative-liberal difference did not get much attention.

The “gray matter volume was significantly associated with conservatism in the left insula ... and the right entorhinal cortex” (Kanai et al., 2011, p. 679).

The Insula: Disgust and Disease Avoidance

There is a considerable body of research linking the insula, which connects to the amygdala, with the experience of disgust and also indicating that conservatives are strongly motivated by disgust (Aarøe, Petersen, & Arceneaux, 2017; Ahn et al., 2014; Inbar et al., 2008; Oosterhoff et al., 2018; Pizarro, Inbar, & Helion, 2011; Smith, Oxley, Hibbing, Alford, & Hibbing, 2011; Terrizzi Jr., Shooka, & Ventis, 2010). The left side insula, which has greater gray matter volume in conservatives, responded strongly when a research participant was shown pictures of people expressing disgust (Sprengelmeyer, Rausch, Eysel, & Przuntek, 1998). Furthermore, disgust and the “conservative obsession with cleanliness” go together. Helzer and Pizarro (2011) found that when people are reminded of physical cleanliness, they become more conservative and also make more harsh moral judgments with regard to sexual behavior.

Disgust has been linked to disease avoidance as part of the evolution of the behavioral immune system (Schaller, 2014, 2016). The avoidance of potential disease produces a series of actions related not only to cleanliness but to being repulsed by potential disease bearing targets. Disease avoidance within the construct of the behavioral immune system supports social conformity as well as an emphasis on adhering to cultural norms (Schaller, 2014, 2016). Conservatives show high degrees of social conformity and support of the cultural status quo.

Cognitive Processing and the Insula

The insula is a complex structure in the brain associated with social and emotional cognitive processing (Craig, 2011; Hatemi & McDermott, 2011; Menon & Uddin, 2010; Uddin, Nomi, Hébert-Seropian, Ghaziri, & Boucher, 2017). There is a neurobiology of fairness (Nam, Jost, & Feldman, 2017). In a neuroimaging study comparing equality and self interest in the brain, activation of the anterior insula was associated with “processing fairness and equality” and involved the use of “abstract reasoning on social rules” (Civai, Crescentini, Rustichini, & Rumiati, 2012, p. 110). The posterior insula is associated with intolerance of uncertainty (Knutson & Greer, 2008). The insula is also part of the achievement motivation system in the brain with greater gray matter in the insula and nearby brain structures being associated with higher competitive achievement motivation (Takeuchi et al., 2014).

Right Entorhinal Cortex

The entorhinal cortex is connected to the amygdala and is critical to establishing associations between the odor of something and the context in which it appears, during learned olfactory aversion to bad food (Ferry, Herbeaux, Javelot, & Majchrzak, 2015). The greater volume of the right entorhinal cortex in conservatives (Kanai

et al., 2011) could well be relevant to the ease of learning connections between certain odors and aversive consequences, engendering a rapid disgust reaction.

Brain and Behavioral Plasticity

In trying to understand the relationship between biology and life experience in producing a liberal or conservative outlook, it is vital to take into account the role of brain plasticity. The brain can change both physically and physiologically in response to environmental factors. We know that political behavior can be changed by environmental factors. In the aftermath of the 9/11/01 terrorist attacks on America, both conservatives and liberals became more conservative (Nail & McGregor, 2009). A follow up study indicated that liberals become both more politically conservative and psychologically conservative after being exposed to system injustice threat (situations where people do bad things but don't get punished) and mortality salience threat (making death feel imminent). The authors conclude that "conservative social cognition, whether political or psychological, is a defensive reaction against feelings of personal vulnerability" (Nail, McGregor, Drinkwater, Steele, & Thompson, 2009, p. 905). The results support the theory of motivated social cognition (Jost et al., 2003) which deems conservatism to function as an ego defense mechanism, protecting against anxiety and threat in life.

If social conservatives (as opposed to economic conservatives) are put in a situation where they are made to feel completely safe and secure, they express more socially progressive attitudes (Napier, Huang, Vonasch, & Bargh, 2017). Brain plasticity includes hormonal changes in specific situations. Conservatives have a strong need for safety and security. If these needs are fully met, the hormonal balance in the brain changes accordingly. Stress hormones diminish and the brain responds accordingly.

Analytic Thinking Liberals and Wholistic Thinking Conservatives

Talhelm et al. (2015) found that in both the United States and China, liberals excel in analytic thinking whereas conservatives exhibit wholistic thinking: "These results suggest that liberals and conservatives in the same country think as if they were from different cultures" (p. 250). The notion that analytic thinking creates one kind of cultural experience and wholistic thinking results in an entirely different cultural experience puts even more meaning into the concept of "blue-brain, red brain". Talhelm (2018) found that he could influence outcomes following the reading of political articles by prior training of individuals to operate more analytically or more holistically. This is an example of plasticity in brain function and needs to be given recognition to balance out information on the blue-brain/red-brain factors governing the lives of liberals and conservatives.

Conservatism and Low-Effort Thought

Behavioral plasticity occurs under a wide variety of circumstances. More conservative views were evinced by people who were either under the influence of alcohol, or limited in time available for a task, or under increased cognitive load, or engaging in a political situation in a cursory manner: “Together these data suggest that political conservatism may be a process consequence of low-effort thought; when effortful, deliberate thought is disengaged, endorsement of conservative ideology increases” (Eidelman et al., 2012, p. 808). There is no way to know if there were any biological changes associated with these behavioral changes or how long the effects would last. There have, however, been other studies which used fMRI to document the effects of the environment directly on the brain (Klimecki, Leiberg, Ricard, & Singer, 2014; Woollett & Maguire, 2011).

Changes in the Brain Relative to Compassion and Empathy

Liberals tend to be more empathetic than conservatives (Hasson, Tamir, Brahm, Cohrs, & Halperin, 2018). Compassion and empathy have different neural substrates (Klimecki et al., 2014). Compassion activates the pregenual anterior cingulate cortex, as well as the ventral striatum and medial orbitofrontal cortex, related to the emotional experiences of reward, love, and affiliation. Empathy is associated with activation in the right anterior insula which produces negative emotions (Uddin et al., 2017). Using functional magnetic resonance imaging (fMRI), Klimecki et al. (2014) explored the premise that compassion training can activate the parts of the brain associated with positive emotions and overcome the negative feelings and brain activity associated with empathy. They did short term training in compassion strategies and found changes in brain activity from negative to positive areas: “Whereas empathy training increased negative affect and activation in associated brain circuits, compassion training reversed these effects by strengthening positive affect and activation in networks associated to affiliation and reward” (Klimecki et al., 2014, p. 878). This brain plasticity in response to training is important to consider when weighing the fixity of conservative and liberal patterns of brain function. Training in compassion and loving kindness also generalized to greater positive emotions in life outside of the test situation.

Changes in the Brains of London Taxi Drivers

Taxi drivers in London over the course of a 4-year training period, experienced changes in the density of the hippocampus, part of the limbic system in the brain. An increase in the gray matter volume in the posterior hippocampus was noted over

the 4-year training period of taxi drivers in London: “We conclude that specific, enduring, structural brain changes in adult humans can be induced by biologically relevant behaviors engaging higher cognitive functions such as spatial memory” (Woollett & Maguire, 2011, p. 2109). The researchers compared the brains of those who succeeded in training against those who did not and found no changes in the brains of the trainees who dropped out:

Although our data show that environmental stimulation can drive structural brain changes, it may be that this hippocampal plasticity expresses itself only in certain individuals. The trainees that qualified may have had a genetic predisposition toward plasticity that the non-qualified individuals lacked. (Woollett & Maguire, 2011, p. 2113)

The epigenetic interaction of genes and environment occurs for every trait. The question of how powerful the DNA gene code contribution is to that interaction is in many ways a futile inquiry based on the notion that genes are deterministic. Genes evolved in a specific environment and need that environment to release the codes into action. Different environments trigger or suppress code release. Changes in the hippocampus and brain plasticity overall should be viewed in this light (Crews, 2014; Rabin, 1986, 2006).

Hormones of Stress: Hate in the Brain

Epinephrine and glucocorticoids are the hormonal powerhouses that fuel the body’s response to stress. The amygdala mediates the effects of these stress hormones (Richardson, Strange, & Dolan, 2004). The physiological state of the human body has a profound impact on both cognition and emotion. Conservatives seek stability not change. Being motivated by fear or by hope comes from an entirely different physiological world inside a person.

The role of glucocorticoid receptors in the hippocampus and other areas of the brain is currently being studied with the goal of understanding how these glucocorticoids regulate emotion and cognition.

The brain is the central organ of stress and adaptation because it perceives and determines what is threatening. Sex differences in glucocorticoid neurophysiology make women more likely to respond to stress with anxiety and depression whereas men are more prone to develop conduct disorder (one cannot control one’s behavior in a socially acceptable way) as well as metabolic related dysfunctions. (Gray, Kogan, Marrocco, & McEwen, 2017, p. 662)

The physical structure of the brain can be altered by the hormones generated by stress. In particular, the dendrites of the amygdala and hippocampus may be shortened or lengthened under the hormonal bombardment of stress (McEwen, Nasca, & Gray, 2016). Synaptic function is affected by the change in dendritic length, resulting in altered communication between neurons.

Hate Crimes, Stress and the Brain

There has been a tremendous increase in hate crimes in recent years (Beirich, 2019; Oudekerk, 2019). Glucocorticoid stimulation of the limbic system in some men needs to be considered as being relevant to hate crimes. While conservatives as a group are more fear motivated than liberals, extreme reactions to stress-produced fear is one component of what researchers have long designated as the “authoritarian personality” (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Hetherington & Weiler, 2018). Research on the neurobiological underpinnings of human aggression (Provençal et al., 2014; Rüscher et al., 2012; Waltes, Chiocchetti, & Freitag, 2016) combined with the research on the authoritarian personality (Bouchard, 2009; McCourt, Bouchard Jr., Lykken, Tellegen, & Keyes, 1999; Saunders & Ngo, 2016) produce findings relevant to the current political situation of extreme male Trump followers sending pipe bombs to liberals, relentlessly targeting African Americans, attacking LGBT people, endangering Muslims, and slaughtering Jews in a synagogue (Cai & Landon, 2019; Compton, 2017; Lach, 2018; Miller, 2019; Robertson, Mele, & Tavernise, 2018). The overall increase in inflammatory rhetoric resounding from Trump’s speeches and tweets has likely fomented a general rise in aggression which may well explain the increase in school shootings (Zaveri & Fortin, 2019).

Trump has been actively fueling fears of the loss of white dominance in America, resulting in an unprecedented rise in the number of active hate groups, most of which are white supremacist (Beirich, 2019). As I write this, my spouse calls out that there has been another synagogue shooting. “The gunman, ... a 19-year-old resident of San Diego, screamed that Jews were ruining the world as he stormed the synagogue ...” (Medina, Mele, & Murphy, 2019, April 28). The killer was an active white supremacist who posted an online hate-filled manifesto before setting out to kill Jews.

The document, an anti-Semitic screed filled with racist slurs and white nationalist conspiracy theories, echoes the manifesto that was posted to 8chan by the gunman in last month’s mosque slayings in Christchurch, New Zealand. The document’s author ... claimed to have been inspired by the Christchurch massacre, as well as the shooting in Pittsburgh, and motivated by the same white nationalist cause. (Medina et al., 2019, April 28)

This white supremacist rage is likely driven, at least in part, by glucocorticoid stimulation of the limbic system in authoritarian men. Very few women actively participate in violent hate crimes although some are active in less visible roles: “For every media report about a white male terrorist who is portrayed as a ‘lone wolf’ or a ‘madman,’ there are untold stories about the women who provide support for, nurture, and connect these groups and individuals” (Gordon, 2018, para. 7). Human aggression is predominantly male aggression (Denson, O’Dean, Blake, & Beames, 2018; Wrangham, 2018).

Culture and Aggression

The role of culture in male aggression must be taken into consideration so that the input from biology is not erroneously viewed as deterministic (Bosson & Vandello, 2011; Cohen, Nisbett, Bowdle, & Schwarz, 1996). Peaceful human cultures such as the Inuit of the Canadian arctic exemplify the possibilities culture offers despite male biology (Briggs, 1978). Even in baboon society, males can become peaceful in a group culture that discourages aggression (Sapolsky & Share, 2004) and bonobos, our closest chimpanzee relatives, live in a relatively peaceful matriarchy (de Waal, 1995, 2000).

Unfortunately, American culture is one of the most violent in the world based on the current murder rate (Grinshteyn & Hemenway, 2016). The mythology of the conquest of the American West (the frontier myth), informs the American character today (Grandin, 2019). Many fundamental societal issues remained unresolved as government used limitless frontier expansion to avoid dealing with basic threats to democracy brought about by the conflict between the poor and the rich (the powerful and the disenfranchised), by an economy based on the enslavement of human beings, and by the abuse of workers (especially recent immigrants). According to historian Greg Grandin (2019), these non-resolved issues underlie our current political situation.

Authoritarianism and Social Conformity

Social conformity is at the heart of authoritarianism. The neurocognitive correlates of social conformity have started to emerge, beginning in 2005 (Berns et al., 2005) and continuing onward (Morgan & Laland, 2012; Schnuerch & Gibbons, 2014; Wu, Luo, & Feng, 2016). Berns et al. (2005) found that changes in the functioning of the occipital-parietal network in the brain were associated with social conformity regarding social perception judgements. Independence from social influence was associated with an increase in the activity level of the amygdala and caudate.

Transcranial Random Noise Stimulation (tRNS) is a neuroscience technique that can stimulate specific parts of the brain non-invasively. This technique was used by Chawke and Kanai (2016) to access the dorsal lateral prefrontal cortex (DLPFC) while conservatives and liberals took in political campaign information. The findings were startling in that stimulation to the DLPFC produced “a significant increase in conservative values regardless of participant’s initial political orientation and the political campaign they were exposed to” (Chawke & Kanai, 2016, p. 621). The implications of this study are unsettling.

Authoritarianism, Religious Fundamentalism, and the Prefrontal Cortex

The neurological basis of authoritarianism focuses on the role of the prefrontal cortex in fostering doubt. The ventromedial nucleus of the prefrontal cortex “plays a critical role in the resistance of authoritarian persuasion intent on injuring others” (Asp, Ramchandran, & Tranel, 2012, p. 419). When the ventromedial nucleus is damaged, people are likely to orient toward both religious fundamentalism and authoritarianism (Zhong, Cristoforia, Bulbuliac, Kruegerde, & Grafman, 2017). The increase in fundamentalism is brought about by the damaged ventromedial nucleus of the brain which reduces the capacity for cognitive flexibility and openness.

Allostatic Overload

Allostasis is closely related to homeostasis, which keeps our systems in balance. Homeostasis involves the feedback system which allows constant adaptation to changing conditions in the body. Allostasis is the process by which homeostasis keeps systems in balance. “Allostatic overload, which can occur during chronic stress, can reshape the hypothalamic pituitary-adrenal axis through epigenetic modification of genes in the hippocampus, hypothalamus and other stress-responsive brain regions” (Gray et al., 2017, p. 661).

The mechanism that has evolved to keep us in balance becomes so overwhelmed that we experience negative arousal in the form of chronic anxiety. We very much want to reduce this cognitive and physiological discomfort and will go to great lengths to do so. This opens the door to political manipulations of our cognitions in the service of stress reduction. Trump’s endless drumbeat of the threat emanating from immigrants, terrorists, economic imbalances, trade imbalances, and general cultural change first raises the stress level and then lowers it with promises that Trump will take care of it all.

Stress, Authoritarianism, Democracy, and Trump

Most Americans today experience chronic stress (Gupta, 2019). Major sources of stress are childcare and employment related. Our culture of overwork is a big part of the problem. Stress levels are being reported as increasing every year.

The political situation has become a major source of stress as well (Stress in America™ Survey).

The question is whether the psychological distress that develops with chronic stress also threatens our ability to engage in democracy. Specifically, when considering ... racism,

financial stress, and authoritarianism we hypothesize that the best causal model, taking into consideration the concept of allostatic load, is that both racism and financial stress are contributors to the development of a sympathy towards authoritarianism. We further hypothesize that openness to authoritarianism is the strongest direct predictor of Trump support. (Buckwalter, 2018, para. 12)

Matthew MacWilliams (2016) polled 1800 registered voters across the U. S. and found that the trait which predicted who would vote for Trump was authoritarianism; "... education, income, gender, age, ideology and religiosity had no significant bearing on a Republican voter's preferred candidate" (para. 4). The only other trait that influenced Trump voters was fear of terrorism, but to a much lesser degree. "While its causes are still debated, the political behavior of authoritarians is not. Authoritarians obey. They rally to and follow strong leaders. And they respond aggressively to outsiders, especially when they feel threatened" (MacWilliams, 2016, para. 5).

Sean McElwee and Jason McDaniel (2017) found that economic distress was not a major factor in voting for Trump. Again, authoritarianism accounted for most Trump voters. Republicans are far more likely than Democrats to be authoritarian. Hetherington and Weiler (2018) found that over an 18-year period, authoritarian voters moved steadily from Democratic to Republican affiliation over social change issues of civil rights, gay rights, employment protections, etc., all of which seek a greater measure of equality for the disenfranchised. Mutz (2018) found that status threat, not economics, was the main driver for Trump supporters. As more equality has slowly emerged in the areas of civil rights, gay rights, and worker's rights (especially pertaining to race and gender), former Democrats have been affected by a perceived existential threat to their status in society.

Comfort Level with Different Kinds of Stimuli

Conservatives tend to favor order, structure, closure, less complexity and strong categorization (Mendez, 2017). Conservatives are deeply bound by tradition and find social change to be threatening. John Jost has done considerable research on differences between liberals and conservatives (Jost, Federico, & Napier, 2009). He describes a meta-analysis conducted in 2003 (Jost, Hennes, & Lavine, 2013; Jost, Noorbaloochi, & Van Bavel, 2014) as demonstrating "that a linear relationship exists between political orientation and closed mindedness. Specifically, as participants become more conservative ... their scores on uncertainty avoidance, intolerance of ambiguity, dogmatism, and mental rigidity increase more or less monotonically" (Jost, 2009, p. 135). Jost, Federico, and Napier (2009) examined the differences between conservatives and liberals and concluded that they differ with regard to "preferences for stability versus change, order versus complexity, familiarity versus novelty, conformity versus creativity, and loyalty versus rebellion" (p. 129). Politics is deeply embedded in the human species. "For example, 50 years ago the issue was interracial marriage; today it is gay marriage; and 50 years from now it will be something else; but the differences between those who embrace and those who eschew new lifestyles are a constant" (Hibbing, 2013, p. 1).

Social Change and Stress

The social change that this country has undergone due to globalization, demographics, and technology has produced a large group of people who feel that they have been left behind (Chua, 2018; Vance, 2016; Williams, 2017). The shift from the second wave of industrialization to the third wave of the information age has had drastic economic consequences for many (Eichengreen, 2018). Information overload brought on by the internet has made the feeling of being overwhelmed and left out even worse (Levitin, 2014). The ascendance of women's issues, minority issues, and LGBT rights have produced a culture shock for those people with tradition-based identities. A strong sense of grievance permeates their response to recent social changes (Chua, 2018).

Pace of Social Change

Toffler (1980) speaks of human history coming in waves. The first wave was agriculture and lasted about 10,000 years. The second wave was industrialization which lasted about 200–300 years. The third wave of information (computers and the internet) began around 1955 and may already be shifting into the fourth wave of micro technology and who knows what else. In any case, the third wave is unlikely to last more than 75 years total. The point here is that major earthshaking social change is happening faster: 10,000 years, 2–300 years, 65–75 years. The pace of change within each of these waves also accelerates so that in the twenty-first century things are changing faster than most people can process. Our level of information overload caused by internet bombardment is beyond processing and is therefore a source of significant stress (Levitin, 2014; Senior, 2019).

Homo sapiens evolved slowly during 300,000 years in the African savannah. This is the environment in which our sensory systems, cognitive capacity, physiology, etc. came into their modern form. Our physiological responses to stress do not work well in an environment where “fight or flight” is not an option (McEwen, 2012; Murray & Schaller, 2016). Many diseases and auto-immune responses are developing from the relentless triggering of stress hormones (Rough, 2019; Woody, Hooker, Zoccola, & Dickerson, 2018; Zhang, 2018).

Roxane de la Sablonnière (2017) has created a framework for understanding the psychological ramifications of social change. The key elements of social change are stability, inertia, incremental social change and dramatic social change (DSC). It is dramatic social change that presents the greatest challenge to successful adaptation. DSC can be understood in the context of: “the pace of social change, rupture to the social structure, rupture to the normative structure, and the level of threat to one's cultural identity” (de la Sablonnière, 2017, abstract). When change is rapid, and rupture to the social structure is followed by rupture to the normative structure, cultural identity may be severely threatened.

Donald Trump as president carries the potential for political transformations as well as changes in the United States' economic structure (rupture to social structure). The leadership of Trump's administration can carry major structural change that would then lead to a rupture of the normative structure. At this point, there are indications that this new governance (social structure) may very well affect the normative structure. Some members of the population have become more "open" to expressing their reluctance to have more immigrants come to the USA, which could eventually lead to a rupture in normative structure where different ethnic groups overtly fight each other within America. (de la Sablonnière, 2017, p. 13)

Emotional Responses to Social Change

Emotion plays an outsize role in human decision making, as compared to cognition (Brader & Marcus, 2013; Crigler & Hevron, 2017; Westen, 2008). *Homo sapiens* is far more of an emotion driven species than a rational one. Despite the magnificent cortical endowment that humans have evolved, much of human life experience is filtered through powerful biologically-based emotional systems. The nature of the emotions triggered by specific social changes can be especially devastating to the individual. When living beings (in this case, rats) go from a continuous high reward situation to a continuous low reward situation the emotional response is far more negative than if only low reward had been experienced (Crespi, 1942). Leo Crespi called this phenomenon the "depression effect". This is the emotional reality of many Americans who lost well-paying jobs in industries that out-sourced abroad and utilized robotic technology. Most of these workers could only find much less well-paid jobs from which advancement was not likely. Despair is a documented result among those who had good jobs and lost them compared to people who have always had low-paying jobs (Case & Deaton, 2017). This is emotional dynamite ready-made for seduction by an autocrat who promises better days (Eichengreen, 2018).

Reward Is Relative

Parenthetically, going from low reward to high reward produces an "elation effect" which produces greater positive emotion than that experienced by those receiving a continuous high reward (Crespi, 1942, 1944; Rabin, 1975). Those born to wealth do not experience their good fortune the same way as that those who have achieved wealth through their own merits, having started from very low reward situations. These emotional contrast factors play a significant role in human motivation. The American Dream is all about the elation effect from achieving financial and social well-being. This emotional high fueled post WWII generations, native born and immigrant Americans alike. American optimism stemming in part from the generalized elation effect underlies American identity. This very identity is being

challenged by the effects of the dramatic social change (DSC) described by de la Sablonnière (2017).

Those in the worst circumstances are the ones who have gone from low reward to high reward and back down to low reward due to economic and political situations entirely beyond their control. This brings on total despair for many, as indicated by the rising suicide rates of people in this situation. Cab drivers in New York, especially those who worked to buy a taxi medallion (which used to be worth a million dollars and now sells for \$200,000) are being destroyed by Uber and Lyft ride-hailing services (and the predatory lending to pay for taxi medallions). The rapid technological and social change brought on by smart phones and start-up companies offering ride-hailing services, combined to undermine the American Dream that hard work, sacrifice, and risk-taking will bring success and upward mobility (Fitzsimmons, 2018). This is an example of how technological change brings on social change that can destroy people who have done everything right and still lose.

Conservative and Liberal Traits in Social Evolution

Humans are a highly social species. In terms of evolutionary survival strategies, the social group becomes the survival unit rather than the individual, so not everyone has to have the same survival traits (Shults, Opie, Nelson, Atkinson, & Dunbar, 2014). This has resulted in some humans developing a capacity for cognitive flexibility and tolerance for ambiguity while others developed the need for structure, order, and conformity. The latter traits typical of conservatives can be helpful in society building. Cognitive flexibility is helpful in adjusting to rapid social change.

Humans and Emotion

Failure in adaptation to rapid social change is highly stressful (Toffler, 1970). Stress is physiological. It is also psychological. In the history of our species, social change has occurred very slowly and that is the environment in which our nervous system has evolved. The relatively slow pace of social change allowed for easy adaptation of human physiology to the different environments human inhabited.

Much of human physiology was inherited from mammalian ancestors, and the human emotional system goes back to reptilian ancestors. The fight or flight response embedded deeply in the adrenal-pituitary-hypothalamus system is an ancient mechanism extant in many species.

The magnificent human cerebral cortex sits atop an ancient emotional system; that is the paradox faced by the human species. Failing to acknowledge the power of emotions in human physiological and psychological functioning leads to an

unrealistic expectation of rational behavior as the norm for the species. The question of “why do people vote against their own interests” is answered by the biological reality that most people vote based on their emotions not their rational ability.

Conservatives and Rapid Social Change

Rapid social, technological, and even eco-system changes are presenting with the human species with unprecedented psychological pressures. Success as individuals and as a species depends on adapting to ongoing change in our environmental surround (Toffler, 1980) starting with the industrial revolution and continuing ever more rapidly up until our current technological era. The psychological consequences of failure to adapt to rapid social and environmental change has been termed Future Shock by Alvin Toffler (1970). Dealing with change is not easy for anybody but conservatives are more vulnerable because of their psychological need for stability, tradition, and fixity in life (Hetherington & Weiler, 2018; Rutjens & Kay, 2017).

Rage Against Change

Toffler argues that it is the pace of change not necessarily the direction of change that makes it difficult for humans to adapt successfully. Future Shock is a psychobiological condition which Toffler labels the “disease of change” (1970, p. 2). Repeated onslaughts of novelty, ambiguity, conflict and uncertainty brought on by rapid social and technological changes create stress which activates the pituitary gland which in turn produces adreno-cortico tropic hormone (ACTH). The adrenal cortex is stimulated by ACTH to release cortico-steroids directly into the bloodstream thus arousing the whole body (McEwen, 2012; McEwen & Gianaros, 2010). “Glucocorticoids are essential for adaptation to stressors (allostasis) and in maladaptation resulting from allostatic load and overload. Allostatic overload, which can occur during chronic stress, can reshape the hypothalamic–pituitary–adrenal axis through epigenetic modification of genes in the hippocampus, hypothalamus and other stress-responsive brain regions” (Gray et al., 2017, p. 661). This tremendously powerful hormone affects the body in both short-term and long-lasting ways.

Structures in the brain can be altered by stress hormones. The hippocampus, amygdala, and prefrontal cortex are especially vulnerable. The brain has a central role in stress and adaptation. The physiological processes underlying political orientations are powerful. “Stress from social change which the individual finds threatening when combined with genetic heritage can lead to aggression” (Korte, Jaap, Koolhaas, Wingfield, & McEwen, 2005, p. 3). This “rage against change” (Beirich, 2019, p. 35) has resulted in an enormous rise in hate killings since Trump assumed the presidency.

Origin of Brain Differences Between Liberals and Conservatives

The question quickly arises as to causality of brain differences between conservatives and liberals. Pedersen et al. (2018, p. 47) note that

the functional differences in neural threat reactivity associated with conservatism that we have observed could either be a heritable trait that predisposes individuals toward economic conservatism or a neural change that has developed because of the adoption of conservative economic views. In practice, political ideology and neural structure and function likely influence one another in a dynamic process that unfolds over time.

Hibbing et al. (2014b) address the question of causality more on the genetic side but do not under value the impact of the environment: “fairly small genetic differences get magnified by environmental forces to create distinct political predispositions” (p. 227). No one is advocating a simple deterministic view that genes cause behavior. They don’t. (See chapter “Behavioral Epigenetics: The Underpinnings of Political Psychology”).

In trying to get at the relationship between genetic and environmental sources of brain differences, it is common to find the term “hardwired” to describe the brain. As neurocognitive researcher and theorist Gary F. Marcus (2004) points out, the term “firmware” is more useful because even though something may leave the factory programmed a certain way, it can be updated. In this case, environmental input continuously updates brain function.

The environment is and always has been a critical factor in the genetic process. Traits would never emerge from DNA without stimuli outside the DNA triggering the release of genetic information. This epigenetic process allows differential activation of the genome in relation to environmental stimulation on every level from cellular physiology to learning and culture (Moore, 2015; Rabin, 1986).

Cultural Neuroscience

Brain differences between liberals and conservatives are very real and appear to produce different behaviors. However, the same structures in the brain can result in different behaviors in different cultures and sub-cultures (Freeman, Rule, Adams Jr., & Ambady, 2009). Biology is indeed compelling, but so is culture. Humans are a highly social species that relies on cooperation and nurturance as much as militance for survival. The field of cultural neuroscience is part of this reality. “Cultural neuroscience may best be defined as the application of cognitive neuroscience tools to answering questions about cultural differences in thought and behavior” (Rule, 2014, p. 4). The seemingly opposite approaches epitomizing brain research and cultural understanding are easily reconciled because the human brain evolved to acquire culture because our survival as a social species depended on it (Cavalli-Sforza & Feldman, 1981). “Without the requisite neurobiological capabilities, culture could not function, and the parameters of the human brain have, in this sense,

shaped the progression of culture since our evolutionary beginnings” (Ames & Fiske, 2010, p. 76). At the same time culture has shaped the brain: “work on neuroplasticity has provided an important theoretical rationale for the hypothesis that different aspects of the environment including tools, practices, and tasks can change brain connectivity and possibly even structure” (Kitayama & Huff, 2015, p. 2). A precursor to cultural neuroscience that captures the essence of this perspective comes from geneticists, Cavalli-Sforza and Feldman (1981), who maintain that cultural transmission is as powerful a force as genetic transmission. Joan Chiao (2011) has best captured the full implications of cultural neuroscience which she describes as “an emerging research discipline that investigates cultural variation in psychological, neural, and genomic processes as a means of articulating the bidirectional relationship of these processes and their emergent properties” (p. 742). Cultural neuroscience emphasizes the plasticity of the brain and how the brain has adapted to various cultural contexts (Rule, Freeman, & Ambady, 2013).

Cultural Shapes Brain Function and Voting Behavior

An example of how culture can shape brain function was provided by Freeman et al. (2009) who compared Japanese and American cultural influences on the caudate nucleus and the medial prefrontal cortex (mPFC) using fMRI. The caudate nucleus and mPFC are part of the mesolimbic system of reward in the brain. Japanese culture encourages subordinate behavior whereas American culture heavily favors dominant behavior. Participants viewed both dominant and subordinate stimuli. “In Americans, dominant stimuli selectively engaged the caudate nucleus, bilaterally, and the medial prefrontal cortex (mPFC), whereas these were selectively engaged by subordinate stimuli in Japanese The findings provide a first demonstration that culture can flexibly shape functional activity in the mesolimbic reward system, which in turn may guide behavior” (Freeman et al., 2009, p. 353).

Interestingly, in both Japanese and American cultures voting behavior triggered activity in the bilateral amygdala (Rule et al., 2010, p. 349) as measured by fMRI. Among its many functions the amygdala is involved with processing social information about other people. Participants were asked to vote based on the physical appearance of the candidates shown in pictures. “Candidates for whom participants chose to vote elicited stronger responses in the bilateral amygdala than candidates for whom participants chose not to vote” (Rule et al., 2010, p. 349).

Voting decisions appeared to stimulate the same neural response across cultures. The right side of the bilateral amygdala is larger and denser in conservatives (Kanai et al., 2011) so the finding that voting decision making and behavior in two very different cultures activates both sides of the amygdala is significant. However, American and Japanese voters’ amygdala arousal responded to very different traits. “Specifically, traits related to power (dominance and facial maturity) were related to American participants’ electoral choices whereas traits related to warmth (likeability and trustworthiness) were related to Japanese participants’ electoral choices” (Rule et al., 2010, p. 350).

Democratic and Republican Faces

When pictures of U.S. Senators were shown to research participants, they were able to accurately distinguish between Democrats and Republicans. Democrats were perceived to look warmer and Republicans to look powerful (Rule & Ambady, 2010). When participants were shown college yearbook pictures, they were again able to distinguish Democrats from Republicans based on the projection of warmth or power. The amygdala is strongly involved with processing facial trustworthiness (Santos et al., 2016).

Blue Brain: Red Brain

It is quite possible to argue as Hetherington and Weiler (2018) do, that liberals and conservatives comprise two entirely different cultures. Certain lifestyle choices are making those cultures both more distinct and more separate. Liberals and conservatives are prone to live in different places, be educated in different places, and more and more to live separate lives from one another. Democrats and Republicans used to live in the same neighborhoods throughout most of the twentieth century. Today “residential sorting by party” is so common that whole counties are more politically homogeneous than ever before.

Hetherington and Weiler (2018) have sorted the traits that distinguish conservative and liberal cultures. Most importantly, liberals and conservatives differ in worldview, with conservatives seeing the world as a dangerous place and liberals perceiving the world to be fundamentally safe. “Americans who see the world as a threatening place are also more likely to prefer meatloaf to chicken curry. They are more likely to listen to country music than hip-hop. They are more likely to drive a pick-up than a Prius. They are more likely to vote Republican than Democrat” (Hetherington & Weiler, 2018, p. xii).

Conservatives demonstrate a fixed psychological style that engenders comfort with homogeneity, conformity, and hierarchy. Liberals have a fluid psychological style that relates to heterogeneity, individualism, and equality. Conservatives tend to engage in straight forward thinking whereas liberals are more nuanced in their thinking. To a considerable extent liberals and conservatives are attracted to different kinds of jobs (Hetherington & Weiler, 2018).

The final question concerning the origins of brain differences among liberals and conservatives most certainly has to take into account the fact that from birth onward many Americans are developing in two different cultures. Given the tremendous impact of the social and physical environment on neural development (Castagne et al., 2016; Miller et al., 2009) perhaps the brains of liberals and conservatives develop differently. Brain maturation is an immensely complex epigenetic interaction between genetic heritage and environmental influences at every stage of development.

References

- Aarøe, L., Petersen, M. B., & Arceneaux, K. (2017). The behavioral immune system shapes political intuitions: Why and how individual differences in disgust sensitivity underlie opposition to immigration. *American Political Science Review*, *111*(2), 277–294. <https://doi.org/10.1017/S0003055416000770>
- Adorno, T., Frenkel-Brunswick, E., Levinson, D., & Sanford, N. (1950). *The authoritarian personality*. New York, NY: Harper & Row.
- Ahn, W. Y., Kishida, K. T., Gu, X., Lohrenz, T., Harvey, A., Alford, J. R., ... Montague, P. R. (2014). Nonpolitical images evoke neural predictors of political ideology. *Current Biology*, *24*(22), 2693–2699. <https://doi.org/10.1016/j.cub.2014.09.050>
- Ames, D. L., & Fiske, S. T. (2010). Cultural neuroscience. *Asian Journal of Social Psychology*, *13*, 72–82. <https://doi.org/10.1111/j.1467-839X.2010.01301.x>
- Amodio, D. M., Jost, J. T., Master, S. L., & Yee, C. M. (2007). Neurocognitive correlates of liberalism and conservatism. *Nature Neuroscience*, *10*, 1246–1247. <https://doi.org/10.1038/nn1979>
- Arciniegas, D. B., & Anderson, C. A. (2017). Toward a neuroscience of politics. *The Journal of Neuropsychiatry and Clinical Neurosciences*. Retrieved March 7, 2017, from <https://doi.org/10.1176/appi.neuropsych.17020046>
- Asp, E., Ramchandran, K., & Tranel, D. (2012). Authoritarianism, religious fundamentalism, and the human prefrontal cortex. *Neuropsychology*, *26*(4), 414–421. <https://doi.org/10.1037/a0028526>
- Babaev, O., Chatain, C. P., & Krueger-Burg, D. (2018). Inhibition in the amygdala anxiety circuitry. *Experimental & Molecular Medicine*, *50*(18), 1–16. <https://doi.org/10.1038/s12276-018-0063-8>
- Barbey, A. K., Colom, R., & Grafman, J. (2014). Architecture of cognitive flexibility revealed by lesion mapping. *NeuroImage*, *82*, 547–554. <https://doi.org/10.1016/j.neuroimage.2013.05.087>
- Beirich, H. (2019, Spring, 166). *Rage against change: White supremacy flourishes amid fears of immigration and nation's shifting demographics*. Intelligence Report: The Southern Poverty Law Center, pp. 35–61.
- Berns, G. S., Chappelow, J., Zink, C. F., Pagnoni, G., Martin-Skurski, M. E., & Richards, J. (2005). Neurobiological correlates of social conformity and independence during mental rotation. *Biological Psychiatry*, *58*(3), 245–253. <https://doi.org/10.1016/j.biopsych.2005.04.012>
- Bogage, J. (2016, June 23). Whom are you voting for? This guy can read your mind. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/.../whom-are-you-voting-for-this-guy-can-read-you>
- Bosson, J. K., & Vandello, J. A. (2011). Precarious manhood and its links to action and aggression. *Current Directions in Psychological Science*, *20*(2), 82–86. <https://doi.org/10.1177/0963721411402669>
- Botvinick, M. M., Braver, T. S., Barch, D. M., Carter, C. S., & Cohen, J. D. (2001). Conflict monitoring and cognitive control. *Psychological Review*, *108*, 624–652. <https://doi.org/10.1037/0033-295X.108.3.624>
- Brader, T., & Marcus, G. E. (2013). Emotion and political psychology. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 237–261). New York, NY: Oxford University Press.
- Briggs, J. L. (1978). The origins of nonviolence: Inuit management aggression. In A. Montague (Ed.), *Learning non-aggression: The experience of non-literate societies* (pp. 54–93). New York, NY: Oxford University Press.
- Buckwalter, J. G. (2018). *Why white Americans voted for trump—A research psychologist's analysis*. Techonomy. Retrieved from <https://techonomy.com/2018/.../white-americans-voted-trump-research-psychologists>

- Burke, B. L., Kosloff, S., & Landau, M. J. (2013). Death goes to the polls: A meta-analysis of mortality salience effects on political attitudes. *Political Psychology, 34*(2), 183–200. <https://doi.org/10.1111/pops.12005>
- Cai, W., & Landon, S. (2019, April 3). Attacks by white extremists are growing. So are their connections. *The New York Times*. Retrieved from <https://www.nytimes.com/interactive/2019/04/03/world/white-extremist-terrorism-christchurch.html>
- Carney, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology, 29*(6), 807–840. <https://doi.org/10.1111/j.1467-9221.2008.00668.x>
- Carraro, L., Castelli, L., & Macchiella, C. (2011). The automatic conservative: Ideology-based attentional asymmetries in the processing of valenced information. *PLoS One, 6*, e26456. <https://doi.org/10.1371/journal.pone.0026456>
- Case, A., & Deaton, A. (2017). Mortality and morbidity in the 21st century. *Brookings Institution* (pp. 397, 476). Retrieved from <https://www.brookings.edu/wp-content/uploads/2017/08/case-textsp17bpea.pdf>
- Castagne, R., Kelly-Irving, M., Campanella, G., Guida, F., Krogh, V., Palli, D., ... Chateau-Hyam, M. (2016). Biological marks of early-life socioeconomic experience is detected in the adult inflammatory transcriptome. *Scientific Reports, 6*, 38705. <https://doi.org/10.1038/srep38705>
- Cavalli-Sforza, L. L., & Feldman, M. W. (1981). *Cultural transmission and evolution: A quantitative approach*. Princeton, NJ: Princeton University Press.
- Chawke, C., & Kanai, R. (2016). Alteration of political belief by non-invasive brain stimulation. *Frontiers in Human Neuroscience, 9*, 621. <https://doi.org/10.3389/fnhum.2015.00621>
- Chiao, J. Y. (2011). Cultural neuroscience: Visualizing culture-gene influences on brain function. In J. Decety & J. T. Cacioppo (Eds.), *Oxford library of psychology. The Oxford handbook of social neuroscience* (pp. 742–761). New York, NY: Oxford University Press.
- Chua, A. (2018). *Political tribes: Group instinct and the fate of nations*. New York, NY: Penguin Press.
- Chudasama, Y., Izquierdo, A., & Murray, E. A. (2009). Distinct contributions of the amygdala and hippocampus to fear expression. *European Journal of Neuroscience, 30*, 2327–2337. <https://doi.org/10.1111/j.1460-9568.2009.07012.x>
- Civai, C., Crescentini, C., Rustichini, A., & Rumiati, R. I. (2012). Equality versus self-interest in the brain: Differential roles of anterior insula and medial prefrontal cortex. *NeuroImage, 62*, 102–112. <https://doi.org/10.1016/j.neuroimage.2012.04.037>
- Clarkson, J. J., Chambers, J. R., Hirt, E. R., Otto, A. S., Kardes, F. R., & Leone, C. (2015). The self-control consequences of political ideology. *Proceedings of the National Academy of Sciences of the United States of America, 112*(27), 8250–8253. <https://doi.org/10.1073/pnas.1503530112>
- Cohen, D., Nisbett, R. E., Bowdle, B., & Schwarz, N. (1996). Insult, aggression, and the southern culture of honor: An “experimental ethnography”. *Journal of Personality and Social Psychology, 70*, 945–960. Retrieved from <http://hdl.handle.net/2027.42/92155>
- Compton, J. (2017). Why are so many white nationalists ‘Virulently anti-LGBT’? *NBC Out*. Retrieved from <https://www.nbcnews.com/feature/nbc-out/why-are-so-many-white-nationalists-virulently-anti-lgbt-n794466>
- Conover, P. J., & Feldman, S. (1981). The origins and meaning of liberal/conservative self-identification. *American Journal of Political Science, 25*, 617–645.
- Craig, A. D. B. (2011). Significance of the insula for the evolution of human awareness of feelings from the body. *Annals of the New York Academy of Science, 1225*, 72–82. <https://doi.org/10.1111/j.1749-6632.2011.05990.x>
- Crespi, L. P. (1942). Quantitative variation of incentive and performance in the white rat. *American Journal of Psychology, 55*(4), 467–517.
- Crespi, L. P. (1944). Amount of reinforcement and level of performance. *Psychological Review, 51*, 341–357.
- Crigler, A. N., & Hevron, P. R. (2017). Affect and political choice. In K. Kenski & K. H. Jamieson (Eds.), *The Oxford handbook of political communication*. New York, NY: Oxford University Press.

- Cunningham, W. A., & Kirkland, T. (2013). The joyful, yet balanced, amygdala: Moderated responses to positive but not negative stimuli in trait happiness. *Social Cognitive and Affective Neuroscience*, 9(6), 760–766. <https://doi.org/10.1093/scan/nst045>
- Davis, M., Walker, D. L., Miles, L., & Grillon, C. (2010). Phasic vs sustained fear in rats and humans: Role of the extended amygdala in fear vs anxiety. *Neuropsychopharmacology*, 35(1), 105–135. <https://doi.org/10.1038/npp.2009.109>
- de la Sablonnière, R. (2017). Toward a psychology of social change: A typology of social change. *Frontiers in Psychology*, 8, 397. <https://doi.org/10.3389/fpsyg.2017.00397>
- Denson, T. F., O’Dean, S. M., Blake, K. R., & Beames, J. R. (2018). Aggression in women: Behavior, brain and hormones. *Frontiers in Behavior Neuroscience*, 12(81), 1–20. <https://doi.org/10.3389/fnbeh.2018.00081>
- de Waal, F. B. M. (1995). Bonobo sex and society: The behavior of a close relative challenges assumptions about male supremacy in human evolution. *Scientific American*, 272(3), 82–88. <https://doi.org/10.1038/scientificamericanmind0509-4>
- de Waal, F. B. M. (2000). Primates – a natural heritage of conflict resolution. *Science*, 289, 586–590. <https://doi.org/10.1126/science.289.5479.586>
- Dewsbury, D. A. (1991). Psychobiology. *American Psychologist*, 46, 198–205.
- Dodd, M. D., Balzer, A., Jacobs, C. M., Gruszczynski, M. W., Smith, K. B., & Hibbing, J. R. (2012). The political left rolls with the good and the political right confronts the bad: Connecting physiology and cognition to preferences. *Philosophical Transactions of the Royal Society*, 367, 640–649. <https://doi.org/10.1098/rstb.2011.0268>
- Eichengreen, B. (2018). *Economic grievance and political reaction in the modern era*. New York, NY: Oxford University Press.
- Eidelman, S., Crandall, C. S., Goodman, J. A., & Blanchar, J. C. (2012). Low-effort thought promotes political conservatism. *Personality and Social Psychology Bulletin*, 38, 808–820. <https://doi.org/10.1177/0146167212439213>
- Eres, R., Decety, J., Louis, W. R., & Molenberghs, P. (2015). Individual differences in local gray matter density are associated with differences in affective and cognitive empathy. *NeuroImage*, 117, 305–310. <https://doi.org/10.1016/j.neuroimage.2015.05.038>
- Etkin, A., Egner, T., Peraza, D. M., Kandel, E. R., & Hirsch, J. (2006). Resolving emotional conflict: a role for the rostral anterior cingulate cortex in modulating activity in the amygdala. *Neuron*, 51(6), 871–882. <https://doi.org/10.1016/j.neuron.2006.07.029>
- Feinstein, J. S., Adolphs, R., Damasio, A., & Tranel, D. (2011). The human amygdala and the induction and experience of fear. *Current Biology*, 21(1), 34–38. <https://doi.org/10.1016/j.cub.2010.11.042>. Epub 2010 Dec 16.
- Feldman, S. (2013). Political ideology. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 591–626). New York, NY: Oxford University Press.
- Ferry, B., Herbeaux, K., Javelot, H., & Majchrzak, M. (2015). The entorhinal cortex is involved in conditioned odor and context aversions. *Frontiers in Neuroscience*, 9, 342. <https://doi.org/10.3389/fnins.2015.00342>
- Fitzsimmons, E. G. (2018, December 2). Why are taxi drivers in New York killing themselves? *The New York Times*. Retrieved from <https://www.nytimes.com/2018/12/02/nyregion/taxi-driverssuicide-nyc.html>
- Fowler, J. H., & Dawes, C. T. (2013). In defense of genopolitics. *American Political Science Review*, 107(2), 362–374. <https://doi.org/10.1017/S0003055413000063>
- Fowler, J., & Schreiber, D. (2008). Biology, politics, and the emerging science of human nature. *Science*, 322(5903), 912–914. <https://doi.org/10.1126/science.1158188>
- Freeman, J. B., Rule, N. O., Adams, R. B., Jr., & Ambady, N. (2009). Culture shapes a mesolimbic response to signals of dominance and subordination that associates with behavior. *NeuroImage*, 47(1), 353–359. <https://doi.org/10.1016/j.neuroimage.2009.04.038>
- Funk, C. (2013). Genetics foundations of political behavior. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 237–261). New York, NY: Oxford University Press.

- Funk, C. L., Smith, K. B., Alford, J. R., Hibbing, M. V., Eaton, N. R., Krueger, R. F., ... Hibbing, J. R. (2013). Genetic and environmental transmission of political orientations. *Political Psychology, 34*(6), 805–819. <https://doi.org/10.1111/j.1467-9221.2012.00915.x>
- Goldberg, A. D., Allis, D. C., & Bernstein, E. (2007). Epigenetics: A landscape takes shape. *Cell, 128*, 635–638. <https://doi.org/10.1016/j.cell.2007.02.006>
- Gordon, G. (2018). American women of the far right. *The New York Review of Books*. Retrieved from <https://www.nybooks.com/daily/2018/12/13/american-women-of-the-far-right/>
- Grandin, G. (2019). *The end of the myth: From the frontier to the border wall in the mind of America*. New York, NY: Metropolitan Books.
- Gray, J. D., Kogan, J. F., Marrocco, J., & McEwen, B. S. (2017). Genomic and epigenetic mechanisms of glucocorticoids in the brain. *Nature Reviews Endocrinology, 13*(11), 661–673. <https://doi.org/10.1038/nrendo.2017.97>
- Grinshteyn, E., & Hemenway, D. (2016). Violent death rates: The US compared with other high-income OECD countries, 2010. *American Journal of Medicine, 129*(3), 545–552. <https://doi.org/10.1016/j.amjmed.2015.10.025>
- Gupta, S. (2019). *One nation under stress*. Retrieved from <https://www.hbo.com/documentaries/one-nation-under-stress>
- Haas, I. J. (2016). Political neuroscience. In J. R. Absher & J. Cloutier (Eds.), *Neuroimaging, personality, social cognition, and character* (pp. 355–370). Cambridge, MA: Academic/Elsevier.
- Haase, V. G., & Starling-Alves, I. (2017). In search of the moral-psychological and neuroevolutionary basis of political partisanship. *Dementia & Neuropsychologia, 11*(1), 15–23. <https://doi.org/10.1590/1980-57642016dn11-010004>
- Haidt, J. (2012). *The righteous mind: Why good people are divided by politics and religion*. New York, NY: Vintage Books.
- Hasson, Y., Tamir, M., Brahm, K. S., Cohrs, J. C., & Halperin, E. (2018). Are liberals and conservatives equally motivated to feel empathy toward others. *Personality and Social Psychology Bulletin, 44*(10), 1449–1459. <https://doi.org/10.1177/0146167218769867>
- Hatemi, P. K., & McDermott, R. (2011). *Man is by nature a political animal: Evolution, biology, and politics*. Chicago, IL: University of Chicago Press.
- Helzer, E. G., & Pizarro, D. A. (2011). Dirty liberals! Reminders of physical cleanliness influence moral and political attitudes. *Psychological Science, 20*(10), 1–6. <https://doi.org/10.1177/0956797611402514>
- Helzer, E. G., & Pizarro, D. A. (2011). Dirty liberals! Reminders of physical cleanliness influence moral and political attitudes. *Psychological Science, 20*(10), 1–6. <https://doi.org/10.1177/0956797611402514>
- Hetherington, M., & Weiler, J. D. (2018). *Prius or pickup? How the answers to four simple questions explain America's great divide*. New York, NY: Houghton Mifflin Harcourt Publishing Company.
- Hibbing, J. (2013, November 13). Why biology belongs in the study of politics. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/.../why-biology-belongs-in-the-study-of-politics/>
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014a). Differences in negativity bias underlie variations in political ideology. *Behavioral and Brain Sciences, 37*(3), 297–307. <https://doi.org/10.1017/S0140525X13001192>
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014b). *Predisposed: Liberals, conservatives, and the biology of political differences*. New York, NY: Routledge.
- Inbar, Y., Pizarro, D. A., & Bloom, P. (2008). Conservatives are more easily disgusted than liberals. *Cognition and Emotion, 23*(4), 714–725. <https://doi.org/10.1080/02699930802110007>
- Inzlicht, M., McGregor, I., Hirsh, J. B., & Nash, K. (2009). Neural markers of religious conviction. *Psychological Science, 20*(3), 385–392. <https://doi.org/10.1111/j.1467-9280.2009.02305.x>
- Izuma, K., Matsumoto, M., Murayama, K., Samejima, K., Sadato, N., & Matsumoto, K. (2010). Neural correlates of cognitive dissonance and choice-induced preference change. *Proceedings*

- of the National Academy of Sciences United States of America*, 107(51), 22014–22019. <https://doi.org/10.1073/pnas.1011879108>
- Janak, P. H., & Tye, K. M. (2015). From circuits to behaviour in the amygdala. *Nature*, 517(7534), 284–292. <https://doi.org/10.1038/nature14188>
- Jost, J. T. (2009). “Elective affinities”: On the psychological bases of left-right differences. *Psychological Inquiry*, 20(2), 129–141. <https://doi.org/10.1080/10478400903028599>
- Jost, J. T. (2017). Ideological asymmetries and the essence of political psychology. *Political Psychology*, 38(2), 167–208. <https://doi.org/10.1111/pops.12407>
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology*, 60(1), 307–337. <https://doi.org/10.1146/annurev.psych.60.110707.163600>
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339–375.
- Jost, J., Hennes, E. P., & Lavine, H. (2013). “Hot” political cognition: It’s self-group, and system-serving purposes. In D. Carlston (Ed.), *Oxford handbook of social cognition* (pp. 851–875). New York: Oxford University Press.
- Jost, J. T., Nam, H. H., Amodio, D. M., & Bavel, J. J. (2014). Political neuroscience: The beginning of a beautiful friendship. *Advances in Political Psychology*, 35(Suppl. 1), 3–42.
- Jost, J., Noorbaloochi, S., & Van Bavel, J. (2014). The “chicken-and-egg” problem in political neuroscience. *Behavioral and Brain Sciences*, 37(3), 317–318. <https://doi.org/10.1017/S0140525X13002616>
- Jost, J. T., Stern, C., Rule, N. O., & Sterling, J. (2017). The politics of fear: Is there an ideological asymmetry in existential motivation? *Social Cognition*, 35(4), 324–353. <https://doi.org/10.1521/soco.2017.35.4.324>
- Kanai, R., Feilden, T., Firth, C., & Rees, G. (2011). Political orientations are correlated with brain structure in young adults. *Current Biology*, 21(8), 677–680. <https://doi.org/10.1016/j.cub.2011.03.017>
- Kandler, C., Bleidorn, W., & Riemann, R. (2012). Left or right? Sources of political orientation: The roles of genetic factors, cultural transmission, assortative mating, and personality. *Journal of Personality and Social Psychology*, 102, 633–645. <https://doi.org/10.1037/a0025560>
- Kay, A. C., Gaucher, D., Napier, J. L., Callan, M. J., & Laurin, K. (2008). God and government: Testing a compensatory control explanation for the support of external systems. *Journal of Personality and Social Psychology*, 95, 18–35. <https://doi.org/10.1037/0022-3514.95.1.18>
- Kay, A. C., Whitson, J. A., & Gaucher, D. (2009). Compensatory control: Achieving order through the mind, our institutions, and the heavens. *Current Directions in Psychological Science*, 18(5), 264–268. <https://doi.org/10.1111/j.1467-8721.2009.01649.x>
- Kitayama, S. & Huff, S. (2015). Cultural neuroscience: Connecting culture, brain, and genes. In R. A. Scott & S. M. Kosslyn (Eds.), *Emerging trends in the social and behavioral Sciences*, p. 1–16. New York, NY: Wiley.
- Klimecki, O. M., Leiberg, S., Ricard, M., & Singer, T. (2014). Differential pattern of functional brain plasticity after compassion and empathy training. *Social Cognitive and Affective Neuroscience*, 9(6), 873–879. <https://doi.org/10.1093/scan/nst060>
- Knutson, B., & Greer, S. M. (2008). Anticipatory affect: Neural correlates and consequences for choice. *Philosophical Transactions of the Royal Society of London Series B, Biological sciences*, 363(1511), 3771–3786. <https://doi.org/10.1098/rstb.2008.0155>
- Knutson, K. M., Wood, J. N., Spampinato, M. V., & Grafman, J. (2006). Politics on the brain: An fMRI investigation. *Social Neuroscience*, 1, 25–40.
- Korte, S. M., Jaap, M., Koolhaas, J. M., Wingfield, J. C., & McEwen, B. S. (2005). The Darwinian concept of stress: Benefits of allostasis and costs of allostatic load and the trade-offs in health and disease. *Neuroscience & Biobehavioral Reviews*, 29(1), 3–38.
- Lach, E. (2018, October 24). The bombs addressed to Obama, Clinton, and Soros, and the history of anti-Soros hate-mongering. *The New Yorker*. Retrieved from <https://www.newyorker.com/.../the-bombs-addressed-to-obama-clinton-and-soros-and>

- Lakoff, G. (2016). *Moral politics: How liberals and conservatives think*. Chicago: University of Chicago Press.
- Landau, M. J., Kay, A. C., & Whitson, J. A. (2015). Compensatory control and the appeal of a structured world. *Psychological Bulletin*, *141*(3), 694–722. <https://doi.org/10.1037/a0038703>.
- Lazauskas, J. (2019, February 10). The neuroscience technology that could change the 2020 election. *Noteworthy-The Journal Blog*. Retrieved from <https://blog.usejournal.com/the-neuroscience-technology-that-could-transform-the-2020-election-bdf30397c5d6>
- Levitin, D. J. (2014). *The organized mind: Thinking straight in the age of information overload*. New York, NY: Penguin Random House.
- Lilienfeld, S. O., & Litzman, R. D. (2014). Threat bias, not negativity bias, underpins differences in political ideology. *Behavioral and Brain Sciences*, *37*(3), 318–319. <https://doi.org/10.1017/S0140525X1300263X>
- Liuzza, M. T., Lindholm, T., Hawley, C. B., Gustafsson Sendén, M., Ekström, I., Olsson, M. J., & Olofsson, J. K. (2018). Body odour disgust sensitivity predicts authoritarian attitudes. *Royal Society Open Science*, *5*(2), 171091. <https://doi.org/10.1098/rsos.171091>
- MacWilliams, M. (2016, January 17). The one weird trait that predicts whether you're a trump supporter: And it's not gender, age, income, race or religion. *Politico Magazine*. Retrieved from <http://www.politico.com/magazine/story/2016/01/donald-trump2016-authoritarian-213533>
- Marcus, G. E. (2004). *The birth of the mind: How a tiny number of genes creates the complexities of human thought*. New York, NY: Basic Books.
- Marcus, G. E. (2013). *Political psychology: Neuroscience, genetics, and politics*. New York, NY: Oxford University Press.
- Martinez-Conde, S., Alexander, R. G., Blum, D., Britton, N., Lipska, B. K., Quirk, G. J., ... Macknik, S. L. (2019). The storytelling brain: How neuroscience stories help bridge the gap between research and society. *Journal of Neuroscience*, *39*(42), 8285–8290. <https://doi.org/10.1523/JNEUROSCI.1180-19.2019>
- McCourt, K., Bouchard, T. J., Jr., Lykken, D. T., Tellegen, A., & Keyes, M. (1999). Authoritarianism revisited: Genetic and environmental influence examined in twins reared apart and together. *Personality and Individual Differences*, *27*, 985–1014.
- McDermott, R. (2009). Mutual interests: The case for increasing dialogue between political science and neuroscience. *Political Research Quarterly*, *62*, 571–583. <https://doi.org/10.1177/1065912909336273>
- McElwee, S. & McDaniel, J. (2017). Economic anxiety didn't make people vote trump, racism did. *The Nation*. <https://www.thenation.com/.../economic-anxiety-didnt-make-people-vote-trump-racis...>
- McEwen, B. S. (2012). Brain on stress: How the social environment gets under the skin. *Proceedings of the National Academy of Sciences United States of America*, *109*(2), 17180–17185. <https://doi.org/10.1073/pnas.1121254109>
- McEwen, B. S., & Gianaros, P. J. (2010). Central role of the brain in stress and adaptation: Links to 1343 socioeconomic status, health, and disease. *Annals of the New York Academy of Sciences*, *1186*(1344), 190–222. <https://doi.org/10.1111/j.1749-6632.2009.05331.x>
- McEwen, B. S., Nasca, C., & Gray, J. D. (2016). Stress effects on neuronal structure: Hippocampus, amygdala, and prefrontal cortex. *Neuropsychopharmacology*, *41*, 3–23. <https://doi.org/10.1038/npp.2015.171>
- McGregor, I., Zanna, M. P., Holmes, J. G., & Spencer, S. J. (2001). Compensatory conviction in the face of personal uncertainty: Going to extremes and being oneself. *Journal of Personality and Social Psychology*, *80*(3), 472–488. <https://doi.org/10.1037/0022-3514.80.3.472>
- McIntyre, C. K. & Roozendaal, B. (2007). Adrenal stress hormones and enhanced memory for emotionally arousing experiences. In F. Bermudez-Rattoni (Ed.), *Neural plasticity and memory: From genes to brain imaging*. Boca Raton, FL: CRC Press/Taylor & Francis.
- McLean, S. P., Garza, J. P., Wiebe, S. A., Dodd, M. D., Smith, K. B., Hibbing, J. R., & Espy, K. A. (2014). Applying the flanker task to political psychology: A research note. *Political Psychology*, *35*(6), 831–840. <https://doi.org/10.1111/pops.12056>

- Medina, J., Mele, C., & Murphy, H. (2019, April 28). One dead in synagogue shooting near San Diego; officials call it hate crime. *The New York Times*.
- Mendez, M. F. (2017). A neurology of the conservative-liberal dimensions of political ideology. *Journal of Clinical Neuropsychiatry and Clinical Neurosciences*, 29, 86–94. <https://doi.org/10.1176/appi.neuropsych.16030051>
- Menon, V., & Uddin, L. Q. (2010). Saliency, switching, attention and control: A network model of insula function. *Brain Structure and Function*, 214(5–6), 655–667. <https://doi.org/10.1007/s00429-010-0262-0>
- Miller, M. E. (2019, December 27). ‘The war of races’: How a hateful ideology echoes through American history. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/history/2019/12/27/war-races-how-hateful-ideology-echoes-through-american-history/>
- Miller, G. E., Chen, E., Fok, A. K., Walker, H., Lim, A., Nicholls, . . . Kobor, M. S. (2009). Low early-life social class leaves a biological residue manifested by decreased glucocorticoid and increased proinflammatory signaling. *Proceedings of the National Association of Science*, 106(34), 14716–14721. www.pnas.org/cgi/doi/10.1073/pnas.0902971106
- Mooney, C. (2011, June 13). Liberals are from the ACC, conservatives are from the amygdala? *Discover*. <https://www.discovermagazine.com/the-sciences/liberals-are-from-the-acc-conservatives-are-from-the-amygdala>. <https://doi.org/10.1177/0146167216636633>
- Moore, D. S. (2015). *The developing genome: An introduction to behavioral epigenetics*. New York, NY: Oxford University Press.
- Morgan, T. J. H., & Laland, K. N. (2012). The biological bases of conformity. *Frontiers in Neuroscience*, 6(87), 1–7. <https://doi.org/10.3389/fnins.2012.00087>
- Mutz, D. C. (2018). Status threat, not economic hardship, explains the 2016 presidential vote. *Proceedings of the National Academy of Sciences United States of America*, 115(19), E4330–E4339. <https://doi.org/10.1073/pnas.1718155115>
- Nail, P. R., & McGregor, I. (2009). Conservative shift among liberals and conservatives following 9/11/01. *Social Justice Research*, 22(2), 231–240. <https://doi.org/10.1007/s11211-009-0098-z>
- Nail, P. R., McGregor, I., Drinkwater, A. E., Steele, G. M., & Thompson, A. W. (2009). Threat causes liberals to think like conservatives. *Journal of Experimental Social Psychology*, 45(4), 901–907. <https://doi.org/10.1016/j.jesp.2009.04.013>
- Nam, H. H., Jost, J. T., & Feldman, S. (2017). The neurobiology of fairness and social justice: An introduction. *Social Justice Research*, 30, 289–299.
- Nam, H. H., Jost, J. T., Kaggen, L., Campbell-Meiklejohn, D., & Van Bavel, J. J. (2018). Amygdala structure and the tendency to regard the social system as legitimate and desirable. *Nature Human Behaviour*, 2, 133–138. <https://doi.org/10.1038/s41562-017-0248-5>
- Nam, H. H., Jost, J. T., & Van Bavel, J. J. (2013). Not for all the tea in China! Political ideology and the avoidance of dissonance-arousing situations. *PLoS One*, 8(4), e59837. <https://doi.org/10.1371/journal.pone.0059837>
- Napier, J. L., Huang, J., Vonasch, A. J., & Bargh, J. A. (2017). Superheroes for change: Physical safety promotes socially (but not economically) progressive attitudes among conservatives. *European Journal of Social Psychology*, 48(2), 187–195. <https://doi.org/10.1002/ejsp.2315>
- Napier, J. L., & Jost, J. T. (2008). Why are conservatives happier than liberals? *Psychological Science*, 19(6), 565–572. <https://doi.org/10.1111/j.1467-9280.2008.02124.x>
- Newman, D. B., Schwarz, N., Graham, J., & Stone, A. A. (2019). Conservatives report greater meaning in life than liberals. *Social Psychological and Personality Science*, 10(4), 494–503. <https://doi.org/10.1177/1948550618768241>
- Norris, C. J., Gollan, J., Berntson, G. G., & Cacioppo, J. T. (2010). The current status of research on the structure of evaluative space. *Biological Psychology*, 84(3), 422–436. <https://doi.org/10.1016/j.biopsycho.2010.03.011>
- Onraet, E., Van Hiel, A., & Dhont, K. (2013). The relationship between right-wing ideological attitudes and psychological Well-being. *Personality and Social Psychology Bulletin*, 39, 509–522. <https://doi.org/10.1177/0146167213478199>
- Oosterhoff, B., Shook, N. J., & Ford, C. (2018). Is that disgust I see? Political ideology and biased visual attention. *Behavioural Brain Research*, 336(15), 227–235. <https://doi.org/10.1016/j.bbr.2017.09.005>

- Oudekerk, B. (2019, March 29). *Hate Crime Statistics—Bureau of Justice Statistics (BJS)*. Retrieved from <https://www.bjs.gov/content/pub/pdf/hcs1317pp.pdf>
- Oxley, D. R., Smith, K. B., Alford, J. R., Hibbing, M. V., Miller, J. L., Scalora, M., ... Hibbing, J. R. (2008). Political attitudes vary with physiological traits. *Science*, *321*, 1667–1670.
- Pedersen, W. S., Muftuler, L. T., & Larson, C. L. (2018). Conservatism and the neural circuitry of threat: Economic conservatism predicts greater amygdala–BNST connectivity during periods of threat vs safety. *Social Cognitive and Affective Neuroscience*, *13*(1), 43–51. <https://doi.org/10.1093/scan/nsx133>
- Pinel, J. P. J., & Barnes, S. J. (2018). *Biopsychology* (10th ed.). Essex, England: Pearson Education Ltd..
- Pizarro, D. A., Inbar, Y., & Helion, C. (2011). On disgust and moral judgment. *Emotion Review*, *3*(3), 267–268. <https://doi.org/10.1177/1754073911402394>
- Provençal, N., Suderman, M. J., Guillemin, C., Vitaro, F., Côté, S. M., Hallett, M., ... Szyf, M. (2014). Association of childhood chronic physical aggression with a DNA methylation signature in adult human T cells. *PLoS One*, *9*(4), e89839. <https://doi.org/10.1371/journal.pone.0089839>
- Rabin, J. S. (1975). Effects of varying sucrose reinforcers and amobarbital sodium on positive contrast in rats. *Learning and Behavior*, *3*(4), 290–294.
- Rabin, J. S. (1986). Adaptation across the lifespan: Evolution, future shock, and sex roles. In J. D. Sinnott (Ed.), *Sex roles and aging: Theory and research from a systems perspective*. Basel, CH: Karger.
- Rabin, J. S. (2006, October). *Are we doomed by our genetic differences?* Paper presented at the 4th annual University of Maryland Faculty conference. Rethinking and Relearning Diversity, University of Maryland, College Park, MD.
- Reich, W. (1970). *The mass psychology of fascism* (V. R. Carfagno, translation). New York, NY: Farrar, Straus, & Giroux. (Original work published 1946)
- Richardson, M. K., Strange, B. A., & Dolan, R. J. (2004). Encoding of emotional memories depends on amygdala and hippocampus and their interactions. *Nature Neuroscience*, *7*, 278–285. <https://doi.org/10.1038/nn1190>
- Robertson, C., Mele, C., & Tavernise, S. (2018, October 27). 11 killed in synagogue massacre; suspect charged with 29 counts. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/10/.../active-shooter-pittsburgh-synagogue-shooting.htm>
- Rodriguez, G. (2017, July 21). This is your brain on storytelling: The chemistry of modern communication. *Forbes*. Retrieved from <https://www.forbes.com/sites/giovannirodriguez/2017/07/21/this-is-your-brain-on-storytelling-the-chemistry-of-modern-communication/#72435be8c865>
- Rough, J. (2019, March 30). From moms to medical doctors, burnout is everywhere these days. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/.../from-moms-to-medical-doctors-burnout-is-everywh...>
- Rule, N. O. (2014). Cultural neuroscience: A historical introduction and overview. *Psychology and Culture*, *9*(2). <https://doi.org/10.9707/2307-0919.1128>
- Rule, N. O., & Ambady, N. (2010). Democrats and republicans can be differentiated from their faces. *PLoS One*, *5*(1), e8733. <https://doi.org/10.1371/journal.pone.0008733>
- Rule, N. O., Freeman, J. B., & Ambady, N. (2013). Culture in social neuroscience: A review. *Social Neuroscience*, *8*, 3–10. <https://doi.org/10.1080/17470919.2012>
- Rule, N. O., Freeman, J. B., Moran, J. M., Gabrieli, J. D. E., Adams, R. B., Jr., & Ambady, N. (2010). Voting behavior is reflected in amygdala response across cultures. *Social Cognitive and Affective Neuroscience*, *5*(2–3), 349–355. <https://doi.org/10.1093/scan/psp046>
- Rüsch, S., Weber, N., Lieb, M., Philippen, K., Tuescher, A. O., Ebert, O., ... van Elst, L. T. (2012). Small amygdala-high aggression? The role of the amygdala in modulating aggression in healthy subjects. *The World Journal of Biological Psychiatry*, *13*(1), 75–81. <https://doi.org/10.3109/15622975.2010.541282>

- Rutjens, B. T., & Kay, A. C. (2017). Compensatory control theory and the psychological importance of perceiving order. In M. Burkowski, I. Fritsche, A. Guinote, & M. Kofta (Eds.), *Coping with lack of control in a social world*. New York, NY: Routledge.
- Santos, S., Almeida, I., Oliveiros, B., & Castelo-Branco, M. (2016). The role of the amygdala in facial trustworthiness processing: A systematic review and meta-analyses of fMRI studies. *PLoS One*, 11(11), e0167276. <https://doi.org/10.1371/journal.pone.0167276>
- Sapolsky, R. M. & Share, L. J. (2004). A pacific culture among wild baboons: Its emergence and transmission. Retrieved from <https://doi.org/10.1371/journal.pbio.0020106>
- Saunders, B., & Ngo, J. (2016). The right-wing authoritarianism scale. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of personality and individual differences*. New York, NY: Springer. https://doi.org/10.1007/978-3-319-28099-8_1262-1
- Schaller, M. (2014). When and how disgust is and is not implicated in the behavioral immune system. *Evolutionary Behavioral Sciences*, 8(4), 251–256. <https://doi.org/10.1037/ebs0000019>
- Schaller, M. (2016). The behavioral immune system. In D. M. Buss (Ed.), *The handbook of evolutionary psychology* (Vol. 1, 2nd ed., pp. 206–224). New York, NY: Wiley.
- Schlenker, B. R., Chambers, J. R., & Le, B. M. (2012). Conservatives are happier than liberals, but why? Political ideology, personality, and life satisfaction. *Journal of Research in Personality*, 26(2), 127–146.
- Schnuerch, R., & Gibbons, H. (2014). A review of neurocognitive mechanisms of social conformity. *Social Psychology*, 45, 466–478. <https://doi.org/10.1027/1864-9335/a000213>
- Schreiber, D. (2017). Neuropolitics: Twenty years later. *Politics and the Life Sciences*, 36(2), 114–131. <https://doi.org/10.1017/pls.2017.25>
- Schreiber, D., Fonzo, G., Simmons, A. N., Dawes, C. T., Flagan, T., Fowler, J. H., & Paulus, M. P. (2013). Red brain, blue brain: Evaluative processes differ in democrats and republicans. *PLoS One*, 8(2), e52970. <https://doi.org/10.1371/journal.pone.0052970>
- Senior, J. (2019, February 10). Our brains can't handle the trump era. *New York Times*, p. 2 SR.
- Settle, J. E., Dawes, C. T., Loewen, P. J., & Panagopoulos, C. (2017). Negative affectivity, political contention, and turnout: A genopolitics field experiment. *Political Psychology*, 38, 1065–1082. <https://doi.org/10.1111/pops.12379>
- Shook, N. J., & Fazio, R. H. (2009). Political ideology, exploration of novel stimuli, and attitude formation. *Journal of Experimental Social Psychology*, 45(4), 995–998. <https://doi.org/10.1016/j.jesp.2009.04.003>
- Shults, S., Opie, K. C., Nelson, E., Atkinson, Q. D., & Dunbar, R. (2014). Evolution of primate social systems. In R. I. M. Dunbar, C. Gamble, & J. A. J. Gowlett (Eds.), *Lucy to language: The benchmark papers* (1st ed.). Oxford, UK: Oxford University Press. <https://doi.org/10.1093/acprof:osobl/9780199652594.003.0014>
- Sidanius, J. & Kurzban, R. (2013). Toward an evolutionarily informed political psychology. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 205–236). New York, NY: Oxford University Press.
- Smith, K. B., Oxley, D. R., Hibbing, M. V., Alford, J. R., & Hibbing, J. R. (2011). Disgust sensitivity and the neurophysiology of left-right political orientations. *PLoS One*, 6(10), e25552. <https://doi.org/10.1371/journal.pone.0025552>
- Spark Neuro (2016). Measuring emotions: A foray into voters' mindsets. <https://sparkneuro.com/measuring-emotions-a-foray-into-voters-mindsets/>
- Sprengelmeyer, R., Rausch, M., Eysel, U. T., & Przuntek, H. (1998). Neural structures associated with recognition of facial expressions of basic emotions. *Proceedings Biological Sciences*, 265(1409), 1927–1931. <https://doi.org/10.1098/rspb.1998.0522>
- Stavrova, O. & Luhmann, M. (2016). Are conservatives happier than liberals? Not always and not everywhere. *Journal of Research in Personality*, 63, 29–35. <https://doi.org/10.1016/j.jrp.2016.04.011>
- Takeuchi, H., Taki, Y., Nouchi, R., Sekiguchi, A., Kotozaki, Y., Miyauchi, C. M., ... Kawashima, R. (2014). Regional gray matter density is associated with achievement motivation: Evidence

- from voxel-based morphometry. *Brain Structure & Function*, 219(1), 71–83. <https://doi.org/10.1007/s00429-012-0485-3>
- Talhelm, T. (2018). Hong Kong liberals are WEIRD: Analytic thought increases support for liberal policies. *Personality and Social Psychology Bulletin*, 44(5), 717–728. <https://doi.org/10.1177/0146167217746151>
- Talhelm, T., Haidt, J., Oishi, S., Zhang, X., Miao, F. F., & Chen, S. (2015). Liberals think more analytically (more “WEIRD”) than conservatives. *Personality and Social Psychology Bulletin*, 41(2), 250–267. <https://doi.org/10.1177/0146167214563672>
- Terrizzi, J. A., Jr., Shooka, N. A., & Ventis, W. L. (2010). Disgust: A predictor of social conservatism and prejudicial attitudes toward homosexuals. *Personality and Individual Differences*, 49(6), 587–592. <https://doi.org/10.1016/j.paid.2010.05.024>
- Todorov, A., Baron, S. G., & Oosterhof, N. N. (2008). Evaluating face trustworthiness: A model based approach. *Social Cognitive and Affective Neuroscience*, 3(2), 119–127. <https://doi.org/10.1093/scan/nsn009>
- Toffler, A. (1970). *Future shock*. New York, NY: Bantam Books.
- Toffler, A. (1980). *The third wave*. New York, NY: Bantam Books.
- Tullett, A. M., Hart, W. P., Feinberg, M., Fetterman, Z. J., & Gottlieb, S. (2016). Is ideology the enemy of inquiry? Examining the link between political orientation and lack of interest in novel data. *Journal of Research in Personality*, 63, 123–132. <https://doi.org/10.1016/j.jrp.2016.06.018>
- Tuschman, A. (2013). *Our political nature: The evolutionary origins of what divides us*. Amherst, NY: Prometheus.
- Uddin, L. Q., Nomi, J. S., Hébert-Seropian, B., Ghaziri, J., & Boucher, O. (2017). Structure and function of the human insula. *Journal of Clinical Neurophysiology*, 34(4), 300–306. <https://doi.org/10.1097/WNP.0000000000000377>
- Uono, S., Sato, W., Kochiyama, T., Sawada, R., Kubota, Y., Yoshimura, S., & Toichi, M. (2016). Neural substrates of the ability to recognize facial expressions: A voxel-based morphometry study. *Social Cognitive and Affective Neuroscience*, 12(3), 487–495. <https://doi.org/10.1093/scan/nsw142>
- van Veen, V., Krug, M. K., Schooler, J. W., & Carter, C. S. (2009). Neural activity predicts attitude change in cognitive dissonance. *Nature Neuroscience*, 12(11), 1469–1474. <https://doi.org/10.1038/nn.2413>
- Vance, J. D. (2016). *Hillbilly elegy: A memoir of a family and culture in crisis*. New York, NY: Harper.
- Vigil, J. M. (2010). Political leanings vary with facial expression processing and psychosocial functioning. *Group Processes & Intergroup Relations*, 13(5), 547–558. <https://doi.org/10.1177/1368430209356930>
- Vine, B. (2015, April 28). The neuroscience of politics. *Brain World*. Retrieved from <https://brain-worldmagazine.com/the-neuroscience-of-politics/>
- Wallace, L. (2011, April 12). Are liberals and conservatives hard-wired to disagree? *The Atlantic*. Retrieved from <https://www.theatlantic.com/politics/archive/2011/...liberals...conservatives.../237075/>
- Waltes, R., Chiocchetti, A. G., & Freitag, C. M. (2016). The neurobiological basis of human aggression: A review on genetic and epigenetic mechanisms. *American Journal of Medical Genetics Part B, Neuropsychiatric Genetics*, 171(5), 650–675. <https://doi.org/10.1002/ajmg.b.32388>. Epub 2015 Oct 22.
- Weissflog, M., Choma, B. L., Dywan, J., van Noordt, J. R., & Segalowitz, S. J. (2013). The political (and physiological) divide: Political orientation, performance monitoring, and the anterior cingulate response. *Social Neuroscience*, 8(5), 434–447. <https://doi.org/10.1080/17470919.2013.833549>
- Westen, D. (2008). *The political brain: The role of emotion in deciding the fate of the nation*. New York, NY: Public Affairs.
- Westen, D., Blagov, P. S., Harenski, K., Kilts, C., & Hamann, S. (2006). Neural bases of motivated reasoning: An fMRI study of emotional constraints on partisan political judgment in the 2004

- U.S. presidential election. *Journal of Cognitive and Neuroscience*, 18(11), 1947–1958. <https://doi.org/10.1162/jocn.2006.18.11.1947>
- Williams, J. C. (2017). *White working class: Overcoming class cluelessness in America*. Boston, MA: Harvard Business Review Press.
- Winston, J. S., Strange, B. A., O’Doherty, J., & Dolan, R. J. (2002). Automatic and intentional brain responses during evaluation of trustworthiness of faces. *Nature Neuroscience*, 5(3), 277–283. <https://doi.org/10.1038/nn816>
- Wojcik, S. P., Hovasapian, A., Graham, J., Moty, M., & Ditto, P. H. (2015). Conservatives report, but liberals display, greater happiness. *Science*, 347(6227), 1243–1246. <https://doi.org/10.1126/science.1260817>
- Woody, A., Hooker, E. D., Zoccola, P. M., & Dickerson, S. S. (2018). Social-evaluative threat, cognitive load, and the cortisol and cardiovascular stress response. *Psychoneuroendocrinology*, 97, 149–155. <https://doi.org/10.1016/j.psyneuen.2018.07.009>
- Woollett, K., & Maguire, E. A. (2011). Acquiring “the knowledge” of London’s layout drives structural brain changes. *Current Biology*, 21(24), 2109–2114. <https://doi.org/10.1016/j.cub.2011.11.018>
- Wrangham, R. (2018). Two types of aggression in human evolution. *Proceedings of the National Academy of Sciences*, 115(2) 245–253. <https://doi.org/10.1073/pnas.1713611115>
- Wu, H., Luo, Y., & Feng, C. (2016). Neural signatures of social conformity: A coordinate-based activation likelihood estimation meta-analysis of functional brain imaging studies. *Neuroscience & Biobehavioral Reviews*, 71, 101–111. <https://doi.org/10.1016/j.neubiorev.2016.08.038>
- Yoshimura, S., Sato, W., Kochiyama, T., Uono, S., Sawada, R., Kubota, Y., & Toichi, M. (2017). Gray matter volumes of early sensory regions are associated with individual differences in sensory processing. *Human Brain Mapping*, 38(12), 6206–6217. <https://doi.org/10.1002/hbm.23822>
- Young, D. G., Bagozzi, B. E., Goldring, A., Poulsen, S., & Drouin, E. (2019, November 20). Psychology, political ideology, and humor appreciation: Why is satire so liberal? *Psychology of Popular Media Culture*, 8, 134–147. <https://doi.org/10.1037/ppm0000157>
- Zamboni, G., Gozzi, M., Krueger, F., Duhamel, J., Sirigu, A., & Grafman, J. (2009). Individualism, conservatism, and radicalism as criteria for processing political beliefs: A parametric fMRI study. *Social Neuroscience*, 4(5), 367–383. <https://doi.org/10.1080/17470910902860308>
- Zaveri, M. & Fortin, J. (2019, May 1). Shooting at U.N.C. Charlotte on final day of classes. *The New York Times*, p. A15.
- Zhang, R. (Ed.). (2018). *The epigenetics of autoimmunity*. Cambridge, MA: Elsevier Science.
- Zhong, W., Cristoforia, I., Bulbuliac, J., Krueger, F., & Grafman, J. (2017). Biological and cognitive underpinnings of religious fundamentalism. *Neuropsychologia*, 100, 18–25. <https://doi.org/10.1016/j.neuropsychologia.2017.04.009>
- Zimbardo, P. (1969). *The cognitive control of motivation*. Glenview, IL: Scott/Foresman.

Behavioral Epigenetics: The Underpinnings of Political Psychology



Joan S. Rabin

The brains of liberals and conservatives differ both anatomically and physiologically. How did that come about? What mechanisms are at work that bring about different brains and brain function to human political animals? The answer lies in the intricate interplay between the environment and our genetic heritage.

From the time of Aristotle, the human animal has been viewed as being political because nature has endowed humans with both speech and the capacity for moral reasoning. The key for Aristotle is that people are deeply social beings and societies are based on politics (McLaughlin, 1997). The relationship between psychology and political behavior includes both genetic heritage and the epigenetic factors controlling that heritage. “The relative influence of genetic factors on complex political behaviors may be contingent upon the social and political environment in which individuals reside, work, and interact socially” (Boardman, 2011, p. 203–204).

Epigenetics is the process of gene regulation and is the pathway by which the environment releases or inhibits gene readout. Genes are code sequences in the DNA which are released or shut down by the epigenome surrounding the DNA.

In a special issue focusing on epigenetics in the journal, *New Genetics and Society*, Maurizio Meloni (2015, p. 117) asks “Is epigenetics the missing link between the social and life sciences? The interaction between genes and environment which is the essence of the epigenetic process takes the power of genetics from a coding sequence to a developmental-interaction in which the epigenetic process activates and regulates the genes in relation to environmental factors. “Epigenetics represents a blurring of the line between body and society. The way this will be turned into politics remains difficult to assess, however” (Meloni, 2015, p. 121). The chief influence of epigenetics on social policy and therefore politics is that all environmental insult factors affect the human body, not just in the present but passed

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Table 1 Epigenesis

Phenotype = a. physical appearance and physical traits of the organism b. stage of development of the organism
Genotype = the DNA code (adenine, thymine, cytosine, guanine) in the cell nucleus + mitochondrial DNA inherited only from the mother
Environment = everything else inside and outside of the organism that is not DNA

on in the epigenome to future generations. How this affects politics in relation to health care, pollution, child welfare, and other issues depends on many factors, both psychological and ideological, which are covered in this chapter.

Developmental-Interactionism to Epigenetics

In 1975, biologist Jerram Brown described the relationship between biology and behavior with a developmental-interactionist formula that he named epigenesis:

$P_1 + G_1 + E_1 = P_2$: Phenotype # 1 + Genotype # 1 + Environment # 1 = Phenotype # 2. The interaction between genetic potential (G_1), and environmental influences (E_1), during the first stage of development (P_1), sets the stage for the next stage of development (P_2). Environmental influences include ambient temperature, hormones, nutrition, social experience (especially nurturing), radiation and all other toxic entities (environmental insult factors). Whatever environmental factors are at work during a stage of development (P), release specific genes which are then available for the next stage of development. The relationship between genes and environment is so intimate that development cannot proceed without both. Possessing a specific genetic heritage is meaningless unless the right kind of environment is available to activate each gene. Evolution proceeds in an environmental context. There is an expected environment for the release of every stored bit of DNA-coded genetic information (Table 1).

Perspectives: Dualism vs Developmental-Interactionism

Bi-polar, dualistic thinking needs to be supplanted by a developmental-interactionist paradigm to accurately depict the relationship between genes and environment. Given the intimate developmental-interactionist relationship between genes and the environment, it is clear that no behavior can be attributed directly to genes. Genes do not cause behavior; they only provide the potential for traits and behaviors that the environment may or may not activate at a given stage of development (Moore, 2015; Boardman, 2011; Rabin, 1986). Therefore, to ask the nature-nurture question, “Is high intelligence, extremely aggressive behavior, or sexual orientation biologically or environmentally determined?” is simply not realistic. The question is

absurd, given the nature of the developmental-interactionist pattern of development. Of course, there is a genetic component to human intelligence, human aggression, and human sexual orientation but there is no simple gene directly causing a person to be smart, or dangerous, or gay or straight. Unfortunately, most people tend to think in terms of dichotomies and opposites rather than interactions. People want to know if something is this or that, when, in reality, most things are both.

Genes Don't Cause Behavior, Really

Despite the establishment of epigenetics as profoundly significant, the relationship between genetics and behavior is misunderstood by the vast majority of people everywhere, including journalists and even university faculty and students. The paradigm within which most people operate is overly simplistic and naively causative. The notion that genes can determine behavior is widely accepted. "People still tend to believe that genes are deterministic, and most individuals are largely ignorant of the complex ways in which genes and the environment interact" (Suhay & Jayaratne, 2013, p. 219). "A limited understanding of genes, however, does not prevent people from offering spontaneous genetic explanations for the behavior of others" (Dar-Nimrod & Heine, 2011, p. 804). Gisela Kaplan and Lesley Rogers (2003) directly attack pervasive biological determinist (genes cause behavior) thinking. "Knowledge of the separate fields of behavior and genetics already indicates that we should not expect to find a single gene, or even a sequence of genes, that is responsible for any specific pattern of human behavior" (Kaplan & Rogers, 2003, p. 11). This is equally true for schizophrenia, alcoholism, depression, cancer, and all the other traits being currently explored for their genetic basis.

Getting the Word Out

It is somewhat daunting that after all these years (about 50) of personally advocating an epigenetic approach to behavioral traits, I note that we are still fighting to reach the awareness of the majority of professionals, not just the public in general. This is especially ironic given that recently an even greater level of complexity has presented itself. Recent research findings indicate that epigenetic influences on the DNA can become part of the epigenome that is passed on to future generations (Champagne, 2008, 2010; Schultz, 2010; Crews, 2011; Kellerman, 2013; Bygren, Tinghög, Carstensen, Edvinsson, Kaati, Pembrey, & Sjöström, 2014; Tobi, Sliker, Luijk, Dekkers, Stein, Xu, & Heijmans, 2018; Tollefsbol, 2019). Lamarck's view of evolution as the permanent incorporation of environmentally achieved capacities (learning in one generation is transferred to the next generation) was completely overshadowed by Mendelian genetics. At present, Neo-Lamarckian and Neo-Mendelian genetics are merging in a way that scientists never imagined possible;

not the complete absorption of environmental experience into the genome as Lamarck thought but neither the absolute inviolability of genetic heritage by the environment that Mendel envisioned. Today we have to allow for a more subtle environmental influence on evolution, the change in the epigenome, not the genome.

Dichotomous Cognition

“Binarisms permeate the foundations of our western culture and intellectual framework—native/foreign, black/white, man/woman, heterosexual/homosexual—but are the fixed essentialisms implicit in such models truly reflective of the reality of human experience (actual and literary)?” (Rabin, 2004, p. 1). The question raised by Jessica Rabin illuminates the problem faced by scientific researchers. The data indicate human experience and traits as a continuum not a dichotomy. Dualities are the enemy of reality, yet many people persist in their determination to order their psychological worlds in terms of artificial dualities particularly when it comes to the nature-nurture divide. In a world of relativity this core essentialist worldview is problematic. Beware simple answers and equally beware simple questions that demand either-or answers. Nature-nurture is a false dichotomy because genes don’t cause behavior, and the environment must interact with our personal genetic make-up, such that the same environment may produce opposite effects in different individuals.

“Epigenetic research is on the verge of delivering a death knell to the nature-nurture debate by undermining the dichotomous thinking that all too commonly conditions questions about how structures and functions both develop and evolve” (Witherington & Lickliter, 2017, p.66). In a recent publication entitled “Behavioral epigenetics: The last nail in the coffin of genetic determinism”, David Bjorklund (2018) maintains that everyone in developmental science is an interactionist now but the nature of that interaction still leaves differences in points of view. Bjorklund endorses David Moore’s (2015) explication of the interaction underlying behavioral epigenetics. The key to understanding the relationship between genetics and epigenetics is context. Moore emphasizes that the same gene operates differently under different environmental influences.

Environmental Learning Perspectives; Social Constructionism, Behavior Modification, etc.

Just as epigenetics undermines genetic determinism it also negates the perspective of extreme environmental determinism (social constructionism). Epigenetics puts an end to the notion that the environment can cause everything and that we are born a “blank slate”. Learning is a powerful dynamic in the life of species,

Homo sapiens, but it is an interactive process that must work with the specific biology of the individual. Theories of behavior modification and other purely environmental explanations of behavior fail to consider the distinct biological journey of development for each individual. Social constructionism and behavior modification are powerful perspectives, but they must take into account the genetic and epigenetic underpinnings of behavior to be effective. Modifying behavior with a system of rewards is only effective if each individual views the reinforcers as actually being rewarding. Biological differences affect reward perception. “The distinctive effects of conscious and unconscious rewards on executive performance are modulated by individual differences in reward sensitivity” (Capa & Bouquet, 2018, p. 148). Further complications arise from individual reward histories which affect both emotion and behavior greatly (Rabin, 1975).

Ironically, in the *Time* magazine (2018) Special Report, *Beyond Hate*, both biological determinism and environmental determinism (learning) explanations of hate are given, as hate is presented as either instinctive or learned, the ultimate dichotomy. “Hate, among all our base instincts, is the most distinctly human (Benjamin, p. 24). “You’re not born knowing how to hate. And you’re not born knowing how to love. You learn them both.” (Judy Sheppard, mother of Matthew, interviewed by Katie Couric, p. 28)

Temperament and Personality

When Judy Sheppard says that a person is not born knowing how to hate or to love it seems like a very simple straightforward truth about the impact of learning in development. The complication is that the ability to love or to hate is about human emotional systems and these are subject to both genetic and epigenetic influence. Individuals are not genetically identical in the way each one’s emotional system is constructed. Genetic differences in temperament have long been documented and are part of the standard psychology literature. Thomas, Chess, and Birch (1970) described different temperamental styles in some babies: easy, difficult, and slow-to-warm-up, with the majority of babies unclassified.

“Both temperament and personality refer to an individual’s basic position towards environmental change and challenge ... that emerge early in life and remain consistent throughout development . . . Further, both are thought to have a genetic component” (Coleman, 2012, p. 106). Jack Block and Jeanne Block (2006) studied the personalities of nursery school children and 20 years later checked for a relationship between early childhood personality traits and adult political orientation.

Preschool children who 20 years later were relatively liberal were characterized as: developing close relationships, self-reliant, energetic, somewhat dominating, relatively under-controlled, and resilient. Preschool children subsequently relatively conservative at age 23 were described as: feeling easily victimized, easily offended, indecisive, fearful, rigid, inhibited, and relatively over-controlled and vulnerable. (p. 734)

The Blocks concluded that personality traits observable in young children have a constitutional origin which interacts with the cultural environment to produce a certain approach to life that “tends, over the years, to evolve into a worldview” (2006, p. 747), which includes a political orientation. It is essential to recognize that the cultural surround includes parents and other family members who exert significant influence on the developing child. In many cases this influence becomes a predisposing environment.

Underlying genetic predispositions typically need predisposing environments to release them (Manuck & McCaffery, 2014). Since all genes need environmental triggers to be activated, the relationship between the two is intertwined. The same environment can result in opposite outcomes depending on the genetic substrate and epigenetic interaction. The same genes can yield different outcomes in different environments.

Same Genes, Different Outcomes

A significant step forward in epigenetics has occurred with the data derived from the twin study in space. The astronaut twin brothers, Scott and Mark Kelly, participated in a NASA study where one twin (Scott) stayed on the International Space Station for one year (2015–2016) while his brother, Mark, remained on earth. Both brothers did the exact same physical, physiological and cognitive tests at the same time over the one-year period. The environment of the zero-gravity space station stimulated thousands of genes into action. The data indicated that Scott Kelly experienced major epigenetic changes resulting in impaired cognitive function, most likely from the specific environmental factors of zero gravity, radiation exposure from the space environment and stress (Zimmer, 2019).

Same Environment, Different Outcomes

The classic behavioral genetics research studies were done at the Jackson Laboratory in Bar Harbor, Maine, using various breeds of dogs. Daniel Freedman (1958) worked with John Scott and John Fuller (1965) to raise four breeds of dogs under either disciplined or indulgent conditions. Disciplined Shetland sheepdogs were described as being neurotic as adults, whereas indulged Shetland sheepdogs were normal. Disciplined beagles were normal as adults, but indulged beagles were neurotic. The identical environment produced opposite behavioral outcomes depending on the genetics connected with each breed of dog. All genes evolve in specific environments, including social environments. A Shetland sheepdog bonds to the sheep herder as a puppy and is treated with great gentleness and kindness. This results in a life-long bond between the herder and the dog who will do anything for the herder. The beagle is a one-person hunting dog. The hunter continuously gives directions to

the beagle who is raised in a disciplined fashion. The beagle's emotional system requires direction and discipline in order to be stress-free. The Shetland sheepdog's emotional system is very fragile, and the dog will deteriorate over time with discipline, becoming fat and excessively timid. Indulgence produces a deep emotional bond (love?) between the Shetland sheepdog and its caregiver. The indulged sheepdog is courageous, supremely competent, confident, and clever.

There is an expected environment for most genes because evolution takes place in specific environmental contexts. The expected "predisposing environment" (Manuck & McCaffery, 2014) that releases the genetic code is one of discipline for the beagle and indulgence for the Shetland sheepdog. If the predisposing environment is not present the genetic code cannot be released. Essentially, the animal or human is deprived of their genetic potential.

Biological Determinism Perspectives

The Instinct Problem

Although the relationship between neuroscience, genetics, and politics is now covered in some Political Psychology textbooks, especially Marcus (2013), not enough attention has been addressed to the all-important epigenetic influence on the psychobiology of politics. It is difficult to appreciate the complexity inherent in how genes affect behavior. The simple biological determinism approach is seductive precisely because of its simplicity. In *Political Tribes* Amy Chua (2018) speaks of a "tribal instinct" to belong and exclude. The term "instinct" is the embodiment of direct genetic determination of behavior. In fact, one part of the definition of instinct is "genetically determined behavior" (Brown, 1975). The traditional definition of instinct is far more complicated. Instinctive behavior must occur in every member of the species of the same sex and the same age. Further, behavior must be unlearned, complex, rigidly fixed/stereotyped, and released by specific stimuli (Tinbergen, 1951; Lorenz, 1952). If whenever you see the word instinct you substitute "stimulus-specific genetically determined stereotyped behavior" the misuse of the concept will be evident. Stimulus-specific genetically determined stereotyped tribal behavior tends to give one pause more than "tribal instinct" which flows right past our awareness. Of course, few people will comfortably utilize such cumbersome phraseology, so the misuse of the word instinct permeates our communications surround.

Instinct Definitional Confusion

Just to make things more challenging, evolutionary psychologists have brought back the term instinct and define it entirely differently from the original concept put forward by Konrad Lorenz (1952) and Niko Tinbergen (1951). The definition found

in the textbook, *Behavioral genetics*, negates the original ethological definition completely: “*Instinct* means an innate behavioral tendency, not an inflexible pattern of behavior” (Plomin, DeFries, McClearn, & McGuffin, 2008, p. 344).

The problem with this new definition is that the average person sees the word *instinct* and thinks that it means “biologically determined” not “innate behavioral tendency”. So, when Amy Chua (2018) writes of a “tribal instinct” there is a high likelihood that her reader will assume that all humans will automatically form into small homogeneous groups, a motivation they were born with, and controlled by their biology. Evolutionary psychologists, assuming the mantle of E. O. Wilson’s (1975) sociobiology, may well have achieved resolution in changing the definition of a problematic concept like *instinct* from a biologically fixed entity to a biological “tendency”, but scientific clarity has not benefitted.

Sociobiology

The idea that genes can cause behaviors was made popular by E. O. Wilson who founded the discipline of sociobiology. In his 1975 book, *Sociobiology: The new synthesis*, Wilson presents a disturbing and disheartening view of the future of humankind and of multiculturalism. According to Wilson, because of the evolutionary history of the human species, human genes make it inevitable that there will always be male dominance, racism, rape, and war. Wilson incorporated some of Konrad Lorenz’s views from his book, *On aggression* (1963, 1966), in establishing this perspective on human nature. It is not irrelevant that Konrad Lorenz was part of Adolf Hitler’s propaganda ministry and used his theories on aggression to support the superiority of the biologically based concept of “militant enthusiasm” which was the foundation of the Nazi *Übermensch* master race.

Wilson (1975) maintains that gender norms are to a large extent biologically determined (Fausto-Sterling, 1985/1992). Sex roles are viewed as biologically based. Historically, biology has been used as a means of limiting women’s identities and aspirations. Science in the early twentieth century was used to demean women. Because women’s brains tend to be smaller than men’s, women were declared to be unable to handle complex reasoning (Hubbard, 1990). When the perspective of sociobiology hit in the 1970s, women were again encouraged to embrace a life limited by nurturing and domestic activities.

Human Nature

The concept of human nature has been debated throughout human history. The current drift toward biological determinism can be detected even in a philosophical OP-ED piece on the fragility of democracy in *The New York Times* (2019). Costica Bradatan quotes Konrad Lorenz (*On aggression, 1966*), who maintains that human

nature is “unreasoning and unreasonable” and results in endless aggression as our natural state of being. Bradatan (2019, p. A19) states that “humans are not predisposed to living democratically. One can argue that democracy is ‘unnatural.

The closest living relatives to humans are the common chimpanzee (*Pan troglodytes*) and the bonobo (*Pan paniscus*), according to DNA studies (Gibbons, 2012). Richard Wrangham (2018) maintains that humans resemble power seeking patriarchal chimpanzee ancestors with regard to proactive aggression and the more peaceful, matriarchal bonobo ancestors regarding reactive aggression. Nikolas Christakis (2019) sees biological heritage very differently. He argues that all humans share the basis for creating a good society. The key to unraveling these philosophical perspectives is understanding modern genetics/epigenetics, and realizing that almost nothing is absolutely determined by our biological heritage. Human nature is not an absolute fixed entity, but an ongoing process guided by epigenetics far more than genetics. Biologist, Joseph Graves, Jr. (2015) emphasizes that “the complexity of biological variation generated by genetic, epigenetic, environmental, and chance effects vitiates simplistic biological determinism” (abstract).

Biological Determinism

Over four decades have passed since Wilson’s *Sociobiology*, and society is now inundated with information on the mapping of the human genome, genetic engineering, and the genetics of behavior, much of it still framed in a deterministic way. It would appear that the biological determinism view of humankind propounded by Wilson is taking over a sizable proportion of the media. Too many people now think that everything from schizophrenia and depression to sex differences and sexual orientation is a simple matter of genetics. The basic underlying premise of the biological determinism perspective, the belief that biology directly causes behavior, provides a philosophical certainty and simplicity which is welcomed in times of rapid social change.

Epigenetics and Sexual Orientation

A perfect example of the biological determinism perspective is the search for the “gay gene”. A single gene is incapable of producing complex behaviors. A concept such as a “gay gene” fails to recognize the enormous role that the environment plays in activating genetic codes and influencing phenotypic outcomes. Epigenetics complicates the very concept of causality. If everything is interactive, then where does the “cause” lie? Living beings are complicated and simple causation is not a realistic expectation. The wrong question gets asked. It is not about the cause of human sexual orientation but rather the process of causation.

An excellent example of how the new genetics and epigenetics affects our understanding of human behavior is the diversity of human sexual orientation. Heterosexual, bisexual, same-sex sexual orientation, inter-sex, transsexual and all the variations in between are based on developmental processes. These are not finite categories but rather a continuum. Chromosomal, hormonal, and environmental interactions produce the outcome. The basic pattern of sexual development is female in all mammals (Lips, 2019). Information on the Y chromosome may switch the developmental pattern from female to male if the genetic codes are successfully read-out epigenetically. The complexity of the sexual development process is covered in detail by Hodes, Walker, Labonté, Nestler, and Russo (2017). Fetal androgen level is a key factor in switching development from female to male. A relatively new theory of same-sex orientation has focused on epigenetically canalized androgen signaling during fetal development (Rice, Friberg, & Gavrillets, 2012). The focus on epigenetics in sexual development continues with the work of Tuck Ngun and Eric Vilain (2014). As research on the epigenetics of sexual orientation progresses, it will be possible to better appreciate the complex interaction between hormones, timing, stress, signaling systems, and all the other factors that make up this developmental interaction between genes and environment.

Challenges to Biological Determinism

The biological determinism perspective has been strongly challenged since the middle of the twentieth century. The focus of the debate early on was the instinct concept. The theories of instinctive behavior proposed by Konrad Lorenz (1952) of Germany, founder of ethology (the study of animal behavior in natural settings), and Niko Tinbergen (1951) were receiving considerable media attention. Biological determinism thinking flourished. Many eminent North American psychologists and biologists such as Donald Hebb (1949), Daniel Lehrman (1953, 1965), followed later by Ethel Tobach, 1976; Steven Jay Gould, 1982; and Ruth Hubbard, 1990) offered cogent scientific arguments against this biological essentialist view of behavior. By the middle of the 1970s, Konrad Lorenz's theory of instinct was rejected by increasing numbers of researchers; behavioral ecology and neurobiology became the means of understanding the relationship between biology and behavior (Sack, 2018). But the underlying premise of the biological determinism of behavior roared back with Wilson. Given the extraordinary new findings in genetics, a new appreciation of epigenetic complexity will clarify that biological determinism in humans is a virtual impossibility.

Genetics

The definition and the understanding of genes is shifting as gene mapping and gene function studies provide ever more new perspectives. A good starting point is one definition provided by Michael Snyder and Mark Gerstein (2003, p. 260) in

“Defining genes in the genomics era.” Genes are “a sequence encoding a functional product” (Snyder & Gerstein, 2003, p. 260). Genes are a sequence of four nucleotide bases (adenine, thymine, cytosine, guanine) arranged in a double helix structure. The genetic code for a given protein is simply the arrangement of the four nucleotide bases in a long string. Genes make proteins (the building blocks of the body) by the sequence of amino acids determined by the inherited code. Genes are the DNA codes which carry the potential for the emergence of traits, characteristics, and functions by specifying the sequence of amino acids that can be produced from a given code. The word potential is critical. Having the genetic code for a trait does not mean that an individual will actually have the trait. The expression of genes into the phenotype of the individual depends upon the existence of environmental triggers. Stimuli bring about the expression of genes. Mello (2004) has identified a gene in the telencephalon of the brain of songbirds that is activated by the sound of a species’ song being sung. The song turns on the gene.

Passing on the DNA Code

Environmental stimuli release specific pieces of stored genetic information from the nucleus of the cell where DNA resides. Messenger RNA takes the code from the DNA, leaves the cell nucleus and takes the genetic code to the mitochondria in the cell (Moore, 2015). The ribosomes are the factory areas of the cell where transfer RNA positions the code as a template from which sequences of amino acids can be strung together, forming proteins. These proteins go on to become tissues, hormones, organs, blood, neurons, etc. Thus, heredity sets the potentials for development, but the environment releases the stored genetic information, producing the actual course of development.

Genetics in the Time of ENCODE

The preceding explanation of genes and genetics is the foundation on which the discourse surrounding genetic influences on behavior, cognition, and motivation is based. That was before ENCODE (Encyclopedia of DNA Elements). Starting in 2003, after the completion of the Human Genome Project which sequenced the DNA code, ENCODE was initiated to attempt to interpret the human DNA sequence. ENCODE is about process not code.

Following the multiple publications of ENCODE findings by the 30+ research teams, with over 400 scientists worldwide involved, everything has changed, including the definition of a gene. Mark Gerstein, leader of the Yale University research team in the ENCODE consortium gives this update to their definition of a gene: “A gene is a union of genomic sequences encoding a coherent set of potentially overlapping functional products” (Gerstein et al., 2007, p. 669). The problem for us is

that the concept of the gene is only hypothetical and constantly changing as new research emerges. “The gene: A concept in trouble” (Moore, 2015, p. 26) describes the dilemma we face as we can no longer say that a discrete sequence of DNA codes for a specific protein. It is not just the gene, but the network that makes the human genome functional. Context has become a critical aspect of genetics. The same genetic code will produce different proteins under different environments. The context in which the DNA operates determines how the genetic code will be read out in transferring the code from DNA to messenger RNA (Moore, 2015).

Genetics: From Blueprint to Regulatory Network

Poised at a critical turning point in the history of genetics, recent work (e.g. in genomics, epigenetics, genomic plasticity) obliges us to critically reexamine many of our most basic concepts. For example, I argue that genomic research supports a radical transformation in our understanding of the genome—a shift from an earlier conception of that entity as an effectively static collection of active genes to that of a dynamic and reactive system dedicated to the context specific regulation of protein-coding sequences (Keller, 2014, p. 2423).

Evelyn Fox Keller is describing the impact of epigenetics on functional genetics such that the line between the two is becoming progressively blurred. “We know that the discovery of epigenetic inheritance is upsetting our traditional understandings of genetics . . . , yet there is little doubt that its discovery and its integration into mainstream genetics is indeed rocking the foundations of that science, and it is doing so in ways that have enormous implications for our conceptual framing of its core questions about heredity, development, and evolution.” (Keller, 2014, p. 2423) The old idea of a genetic blueprint embedded in DNA codes that result in specific traits is totally gone. “Instead, DNA segments often contain information that is ambiguous, and that must be edited and rearranged in context-dependent ways before it can be used” (Moore, 2015, p. 26). We now know that the human genome is not just about the genes but rather a network that makes it all come together functionally. Mark Gerstein describes the current situation in genome world as having “a parts list of what makes us human . . . What we are doing is figuring out the wiring diagram of how it all works” (Hathaway, 2012, para. 4). The parts are the DNA codes documented by the Human Genome Project. The wiring diagram is the regulatory network discovered by ENCODE, almost unimaginable in its complexity.

Transcription

Transcription happens when the genetic code in the cell nucleus is transferred to messenger RNA to be taken out of the nucleus to the cell body. A specific segment of DNA is copied into an RNA segment using the enzyme RNA polymerase. Transcription factors are special genes that do not code for proteins but that can

activate or silence thousands of coding genes. The transcription factors are connected at different levels and working together they can regulate the approximately 20,000 human protein coding genes (Gerstein et al., 2012). “Epigenetic factors affect the expression of a gene by altering the ability of transcription factors to bind to the regulatory sites that regulate the gene’s activity” (Moore, 2015, p. 67). The overall regulatory system is the story of modern genetics.

Our genome is far more complex than originally thought. Regions that contain instructions for making proteins, which carry out life’s functions, account for only about 1 percent of our genome. ENCODE has shed light on the other 99%. Almost 80 percent of the genome is biochemically active, much of it involved in some sort of regulation of genes. Vast regions of our DNA once considered “junk” contain some 400,000 regulators called enhancers, which play a key role activating or silencing genes despite residing far away from the gene itself. (Hathaway, 2012, para. 1)

Epigenetics

Epigenetics replaces nature-nurture, genetic vs. environmental determinism thinking with an intimate developmental interaction between genes and environment at every stage of development. “Epigenetics involves modifications of the activation of certain genes during the development of complex organisms, and thus describes any aspect other than DNA sequence that influences the development of an organism” (Kim, 2009, p. 515). Since the environment, both internal and external is anything that is not DNA, epigenetics is the means by which environmental stimuli affect the readout of the genetic code. “Epigenetic mechanisms are molecular events that govern the way the environment regulates the genomes of organisms. Epigenetic processes lead to individual differences in appearance, physiology, cognition, and behavior—the group of traits known as the *phenotype*.” (Powledge, 2011, p. 588)

Behavioral Epigenetics

The term behavioral epigenetics is distinguished from epigenetics when it is the cells of the brain that are affected. “Behavioral epigenetics refers to the study of how signals from the environment trigger molecular biological changes that modify what goes on in brain cells.... If research on epigenetics is in its infancy, research on behavioral epigenetics is in embryo.” (Powledge, 2011, p. 588) Here, the term environment encompasses pretty much everything that is not the DNA: social experience, nutrition, exercise, hormones, ambient temperature, radiation and toxicological exposures that occur at every stage of development from embryo to old age.

Tactile stimulation is especially important for primate development. Cuddling is an expected part of the developmental environment. Evolution occurs within social environmental contexts. The normative evolutionary environment for humans, and

other primates is highly tactile. Rhesus monkeys who were given extra handling by researchers, had lower stress levels and more confidence. Better memory and less fear with novelty were evident (Simpson, Sclafani, Paukner, Kaburu, Suomi, & Ferrari, 2019).

Epigenetics: Gene Regulation

The traditional definition of a gene is a protein coding sequence. With only 1.2% of the genome devoted to coding for proteins the new focus in genetics is on the other 98.8%. Gene regulation is the story bequeathed by ENCODE (Gerstein et al., 2007).

To a significant extent epigenetics is gene regulation. Gene regulation is all about “responding to signals, first, from the immediate environment of the DNA, but ultimately from the distal environment—from the cytoplasm, from the environment outside the cell, and finally, from the environment beyond the organism.” (Keller, 2016, p. 26).

Epigenetics History

It has taken a very long time from the first modern glimmerings of an epigenetic approach conceptualized by Waddington (1942, 1957), formularized by Brown (1975), and expanded into a typology of gene-environment correlations by Plomin, DeFries, and Loehlin, (1977), to the current appreciation of how profoundly the environment can affect how and even if we receive our genetic heritage (Crews, 2011, 2014; Gray, Kogan, Marrocco, & McEwen, 2017; Kong, Thorleifsson, Frigge, Vilhjalmsón, Young, Thorgeirsson, . . . Stefansson, 2018; Moffitt, Caspi, & Rutter, 2006; Sassone Corsi & Christen, 2012; Zhang, 2018). Today there are textbooks and entire courses in epigenetics (Armstrong, 2014; Cabej, 2019; Moore, 2015). Popular versions of epigenetics are even available for the non-scientist (Carey, 2012; Francis, 2012).

How Epigenetics Works

The molecular events that allow the environment to modify genetic readout are **DNA methylation** and **histone modification**, both of which can alter gene function. **Chromatin remodeling** turns genes on and off and controls proteins in specific cells in the body. **Interference RNA** can silence the DNA, along with the effects of **small non-coding RNAs** and **micro RNAs**. **Non-coding RNAs** regulate how genes are expressed. But the key factor in changing the very definition of the word gene is **RNA splicing** which determines the sequence of the genetic code.

DNA Methylation

A major epigenetic mechanism involving direct chemical modification to the DNA is called DNA methylation. DNA methylation can alter gene function as part of the process of epigenetics. In biochemistry, the term methylation refers to the substitution of a methyl group (CH₃) for a hydrogen atom. Cytosine is one of four nucleotide bases that form the genetic code (the others being guanine, adenine, and thymine). DNA methylation changes cytosine into 5-methylcytosine and this can affect how a gene will be expressed. Environmental stimuli, including physiological stimuli, can trigger activity in the neurons which can modulate the pattern of DNA methylation (Moore, Le, & Fan, 2013). DNA methylation is able to regulate the expression of a gene by mobilizing the proteins involved in the repression of that gene or by inhibiting the chemical binding of relevant transcription factors to the DNA. In either case the result is that the gene is turned off or silenced by DNA methylation.

Histone Modification

Histone modification can also alter gene function. Histones are proteins (chromatin) made up of the amino acids, arginine and lysine. DNA binds to histones, coiling around the histones to form chromosomes. Histone modification means that the amino acids in the histone protein can be altered either by the process of methylation (adding one to three methyl groups), or by acetylation, the substitution of an acetyl group (CH₃CO) for hydrogen. Transcription is the process by which the DNA sequence of a gene is copied to an RNA molecule. In order for a gene to be transcribed it needs to be activated just when it is needed. Signals for this activation come from the internal and external environment and are therefore epigenetic. The process of histone modification turns genes on.

Chromatin Remodeling

Chromosomes are made of chromatin. Chromatin is made of protein, RNA, and DNA. Chromatin remodeling involves changing chromatin from a compressed state to a form that allows gene transcription to take place. Gene transcription is when a segment of DNA code is transferred to RNA, especially messenger RNA. No genetic readout can occur without chromatin remodeling to allow passing the code from the cell nucleus (DNA to mRNA) to the ribosomes in the cell body where proteins are assembled (mRNA to tRNA). This makes chromatin remodeling important in controlling gene expression and an essential part of the epigenetics process (Knudsen et al., 2018).

RNA Interference (RNAi)

One mechanism that allows the environment to modify genetic readout is **RNA interference** which can silence the DNA. RNA interference (RNAi) was discovered in 1998 by Andrew Fire and Craig Mello who received the Nobel Prize in 2006 for identifying a basic mechanism that can control whether genetic information from the DNA actually gets to make a protein. RNAi can silence parts of the DNA code by shutting down the messenger RNA which takes the code from the cell nucleus to the ribosomes where proteins are manufactured.

Non-coding RNA (ncRNA)

Although non-coding RNA does not carry the code for protein it does influence the cellular surround in enzymatic, structural, and regulatory ways. A variety of ncRNAs have epigenetic influences. Their main effect is on the regulation of gene expression.

Small Non-coding RNA (siRNA)

Small non-coding RNA can activate or silence genes in conjunction with histone modifications that influence chromatin structure and affect transcription. According to recent research, “small RNAs regulate the duration of epigenetic inheritance” (Hourii-Zeevi & Rechavi, [2017](#), p. 46).

Micro RNAs (miRNA)

A sub-category of small non-coding RNA are micro RNAs. They are under the control of environmental influences and can alter the readout of the gene either by interfering with the translation of DNA to RNA or by destabilizing messenger RNA. Micro RNAs can indirectly affect DNA methylation (Ghosh, Öner, Duca, Bekaert, Vanoirbeek, Godderis, & Hoet, [2018](#)).

Splicing RNA

The long strands of DNA are composed of mostly non-coding sequences interspersed between the coding nucleotides. “RNA splicing, discovered in 1977, is the name of the intriguing and surprising aspect of gene expression that takes a

seemingly nonsensical segment of DNA and extracts the useful sequence information within it” (Moore, 2015, p. 33). RNA splicing occurs in the cell nucleus after the genetic code on the DNA is transcribed onto the precursor for messenger RNA. At this point a process occurs wherein the splicing RNA removes the **introns** (non-coding areas of the DNA) and connects the **exons** (coding areas of the DNA) together forming an unbroken sequence. This process produces the pure coding form of messenger RNA.

RNA splicing and post-traumatic stress disorder Experience can affect how the RNA splicing will work. Lubin, Roth, and Sweatt (2008) describes a situation common to psychology laboratories in the twentieth century. A rat is put in a learning situation (a maze, a runway, a Skinner box with a bar to press). When rats are put in a new environment, memories are formed by cells in the hippocampus of the brain. A specific DNA segment labeled *Bdnf*, will produce a neurotrophin critical to memory. If the rats are exposed to trauma in the novel environment (being immobilized in the presence of a cat) the same DNA segment (*Bdnf*) will produce a different form of the protein. This has the effect of suppressing micro RNA production and DNA methylation. The neurotrophin associated with *Bdnf* fails to emerge (DNA methylation is strongly involved with learning and memory in the hippocampus). DNA methylation is susceptible to environmental modification and “changes in *Bdnf* DNA methylation are an important aspect in potentially understanding how traumatic stress affects the hippocampus” (Lubin et al., 2008, p. 923). Post-traumatic dysfunction in the hippocampus can affect memory and learning. Lubin et al. (2008) have established a critical link in our understanding of the epigenetic nature of post-traumatic stress disorder.

Epigenetic Imprints: Genomic Imprinting

Genomic imprinting is part of epigenetics. Epigenetic markers cause genes to be expressed in the DNA inherited from one parent and suppresses the DNA from the other parent. “The difference between the parental genomes is believed to be due to gamete-specific differential modification, a process known as genomic imprinting. The study of transgene methylation has shown that methylation patterns can be inherited in a parent-of-origin-specific manner, suggesting that DNA methylation may play a role in genomic imprinting” (Li, Beard, & Jaenisch, 1993, p. 362).

Mom and Dad Can Shut the Other Parent’s Genes Down

DNA methylation can result in the silencing of some genes or clusters of genes in the egg, the sperm or in the zygote (the new organism created by the fusion of the egg and the sperm). The silencing is brought about by alleles from either parent. The result is that only one parent’s gene is functional in the offspring, the other parent’s

gene having been epigenetically turned off. Even though the child has received 46 chromosomes from each parent, not every gene on each chromosome is functional, some having been turned off by the other parent's gene (Moore, 2015).

Mules and Hinnies

Closely related species can interbreed producing viable young. This interbreeding is a genetic dead end in that the offspring are sterile. A mule is created when the mother is a horse and the father is a donkey. Alleles (forms of a gene) from the mother produce the characteristic long ears and large size of the mule. However, if the mother is a donkey the result is an animal known as a hinny. Hinnies have small ears and are small in size. In each case, the mother's genes have taken over as the process of genomic imprinting silenced the father's genes. Imprinted genes discovered so far have been centered on the development of the placenta and overall embryonic and fetal development (Powledge, 2011).

Parental Epigenetics

Genomic imprinting is epigenetic and does not operate under Mendelian patterns of trait transmission. "Mammals have evolved an epigenetic way to track the parental origin of some of their chromosomes ... epigenetic marks distinguish chromosomes that originated in a male from those that originated in a female; such chromosomes are said to have 'imprinted' regions (Moore, 2015, p. 46). Only some chromosomes are parentally marked, others are interchangeable, making no difference whether they came from the mother or the father, and not subject to the silencing of imprinting.

In those chromosomes in which it occurs, imprinting can influence epigenetic gene regulation, particularly with regard to brain function. Here is an epigenetic situation where one parent may pass genes on to their offspring, but those genes do not get to produce anything because environmental cues from the other parent's chromosome have shut down the genes. This means that just having a gene does not guarantee getting the trait or traits that the gene codes for. Every gene must be activated to be functional. Epigenetics is the process by which genes become activated or silenced. Genomic imprinting is one of the epigenetic mechanisms by which rather than activating a gene and releasing its code, the gene is silenced.

Genetic Systems and Adaptation to Changing Environments

Evelyn Fox Keller (2010) in "Goodbye nature vs nurture debate," makes quite clear that there is nothing left to debate. There are no separate entities. Genes require the environment in order to function and the environment can change gene function

through the various epigenetic processes. “While genes were originally regarded as effectively autonomous formal agents, and DNA as collections of genes, contemporary research suggests that an organism’s DNA constitutes a far more complex system designed to adapt and respond to the environment in which it finds itself” (Keller, 2012, p. 132). This is a thematic concept that establishes the nature of adaptation and survival. This arrangement makes adaptation to changing environments a part of normative functioning of our genetically based systems.

Epigenetics Across the Lifespan

Epigenetics represents the very essence of the process of development. Timing is essential to how genes are regulated by the epigenetic process. Many genes can only be triggered at certain times in the developmental lifespan. The older a person gets the more that the environmental impact via epigenetics has become part of that person’s developmental history. Epigenetic markers exist in the epigenome and can be traced and studied by researchers. DNA methylation and histone modification carry traces of their epigenetic history.

Genome and Epigenome

Epigenomics is a new field of study dealing with epigenetic modifications related to cell genetics. The term, epigenomics, is comparable to genomics, a term created in 1986 (Kuska, 1998) to acknowledge that technological advances now make it possible to study the entire genome. In the same way it is now possible to study the action of the environment on the genes which is what the epigenome is. The epigenome is a process not a thing. The epigenome is comprised of biochemicals and proteins capable of attaching to the DNA and turning genes on and off. Once again, the epigenome is a biochemical and physiological process and not an actual finite entity.

Twin Studies

Identical twin studies give us insight into epigenetics in development. The DNA of twins is the same but the older they get the more that they differ epigenetically. A foundational study conducted in Spain compared 80 twins ranging in age from 3 to 74 years.

We found that, although twins are epigenetically indistinguishable during the early years of life, older monozygous twins exhibited remarkable differences in their overall content and genomic distribution of 5-methylcytosine DNA and histone acetylation, affecting their

gene-expression portrait. These findings indicate how an appreciation of epigenetics is missing from our understanding of how different phenotypes can be originated from the same genotype (Fraga, Ballestar, Paz, Ropero, Setien, Ballestar, ... Esteller, 2005, p. 10604)

About one-third of the twins studied indicated the presence of epigenetic differences in DNA methylation as well as in histone modification both of which affect gene expression. Epigenetic differences were more noticeable in “twins who were older, had different lifestyles, and had spent less of their lives together, underlining the significant role of environmental factors in translating a common genotype into a different phenotype” (Fraga et al., 2005, p. 10609).

The Epigenetics of Anxiety

Cornelius Gross and Rene Hen (2014) reviewed the literature on environmental and genetic influences on the development of lifelong anxiety. They concluded that both structural and functional alterations to the brain result from the impact of early experience on genetic potential. “Lifelong susceptibility to anxiety can be determined by the combined influence of genetic and environmental factors on early development” (Gross & Hen, 2004, abstract).

Context Dependent Epigenetics of Maternal Behavior

“Genes ... are not able to determine phenotypes independently of their environments” (Moore, 2015, p. 35). The context in which genes operate determines how they will function. An example of Context-Dependent molecular epigenetics would be the finding that pups of mothers who exhibit high levels of licking and grooming are less reactive to stress as adults. The stimulation provided by licking and grooming increases the secretion of serotonin (5-hydroxytryptamine), a neurotransmitter which modulates everything from learning, memory, and cognition to reward and positive emotions. Maternal licking and grooming also stimulates DNA methylation in an area specific to glucocorticoid receptors in the hippocampus (Weaver et al., 2004). Licking and grooming by the mother “altered the offspring epigenome at a glucocorticoid receptor (GR) gene promoter in the hippocampus”. These changes “persisted into adulthood and were associated with altered histone acetylation and transcription factor (NGFI-A) binding to the GR promoter.” (Weaver et al., 2004, p. 847).

A review by Turecki and Meaney (2016) indicated that since 2004, numerous studies have been conducted, supporting and enlarging upon Weaver et al.’s findings. Adults who were badly treated as children show increased methylation of the glucocorticoid receptor gene (NR3C1). These epigenetic modifications of the NR3C1 gene affect the adrenal-pituitary-hypothalamic stress system in adverse ways. The greater the abuse the higher the degree of methylation of the NR3C1 gene. (Perroud, Paoloni-Giacobino, Prada, Olie, Salzmann, Nicastro, Malafosse 2011).

These findings are relevant to mental health problems in adults, but also to violent political extremism. Glucocorticoids work with dopamine to keep the brain in balance. When the genes underlying these hormones are epigenetically modified, high levels of aggression can result.

The hippocampus is central to memory and is part of the limbic system of emotion in the brain. Maternal care in the young brings about changes in way the hippocampus glucoreceptors respond. “These findings suggest that maternal care influences hippocampal GR expression, and thus HPA function in the offspring, through epigenetic alterations that regulate NGFI-A binding to the exon 1₇ promoter” (Weaver et al., 2004, p. 850). By influencing the hypothalamus-pituitary-adrenal system (HPA) the emotional system of the offspring is impacted. The point of including these biochemical specifics is to emphasize the **process** nature of epigenetics. Maternal care is at the center of mammalian existence. The quality of maternal care has lifelong emotional consequences for the offspring.

Specific Environmental Triggers Release Genetic Codes: Epigenetic Developmental Adaptation in Extreme Environments

Extreme environments have produced some of the most remarkable adaptations (Ilardo & Nielsen, 2018). “Developmental adaptation” is the term used by Roberto Frisancho to describe the process that allows for survival traits to develop, especially in extreme climates:

adult biological traits are the result of the effects of the environment and the physiological responses that the organism makes during the developmental state ... This concept is based upon the fact that the organism’s plasticity and susceptibility to environmental influence are inversely related to developmental states of the organism so that the younger the individual the greater is the influence of the environment and the greater the organism’s plasticity (Frisancho, 2009, p. 694).

Other similar terms in the literature on epigenetic influence in extreme climates are acclimatization, ontological acclimatization, and developmental adjustment.

Arctic peoples have thermoregulation properties that allow them to be warm in extreme cold (Leonard, 2018). If an infant is exposed to cold on a regular basis during development, this highly efficient thermoregulation system is activated. The ambient cold temperature is the environmental trigger that epigenetically releases the underlying genetics for enhanced thermoregulation. Today many arctic peoples live in pre fabricated, centrally heated housing. Infants no longer experience ambient cold on a regular basis. The generation of arctic youngsters whose parents also did not experience extreme cold developmentally, does not develop the enhanced thermoregulation of their ancestors because the environmental trigger was absent, so their genes remain dormant. Early development in the cold is a critical environmental trigger that unlocks their genetic heritage (Rode & Shephard, 1984, 1994; Shephard & Rode, 1996).

A second factor in cold adaptation in arctic peoples involves the type of fat that develops. Brown adipose tissue burns off quickly producing available energy, as opposed to white fat which is hard to displace from storage in the body (Sambeat, Gulyaeva, Dempersmier, & Sul, 2017). Adaptation to extreme cold results in greater amounts of brown adipose tissue in arctic peoples triggered by epigenetic activity in the developing infant. The sperm of the father is epigenetically programmed by the cold to stimulate brown adipose tissue development in the infant (Sun, Dong, Becker, Dapito, Modica, Grandl, ... Wolfrum, 2018). Recent research on epigenetic mechanisms central to developmental adaptation to extreme cold environments focuses on DNA methylation and histone modification of thermogenic genetic codes (Sambeat et al., 2017). The thermogenic DNA codes do not change, but without cold exposure these codes never become activated. The trait is entirely epigenetically controlled. Modern arctic peoples have lost the ability to activate their genetic heritage because they now live in heated pre fabricated homes.

The genetics of arctic survival can become liabilities, with dramatic environmental change such as the loss of cold exposure, exacerbating health problems such as diabetes and obesity (Jørgensen, 2016). Genes evolve in specific environments. Change the environment and the epigenetics for activating those genes is gone. Modern arctic peoples no longer have largely brown fat for quick energy but rather more of the white fat that stores energy in the body but is very difficult to reduce. Beyond the special adaptations of arctic peoples to a harsh environment, for modern humans obesity is a major problem because we are not living in the environments in which we evolved and we are not living the active lifestyles of our ancestors (Heitmann et al., 2012). Activity level has a powerful epigenetic influence on our genetics.

Epigenetics Across Generations

Jean-Baptiste Lamarck and Charles Darwin focused on different aspect of evolution. Lamarck, a scientist and professor at the National Museum of Natural History in France, published his first book on evolution in 1802: "Research on the Organization of Living Bodies."

Lamarck believed that traits acquired during one's lifetime could be passed on to one's descendants. Charles Darwin, educated at Edinburgh University, was a naturalist who developed his theory of evolution while studying plants and animals during the 5-year voyage of the British research ship *Beagle*. Darwin (1859) believed that traits were acquired very slowly over many lifespans as an adaptation to different environments.

Mendelian genetics follows Darwin's vision of slow change: "the phenotypic switch at the population level and beyond typically occurs over hundreds or thousands of generations as the genotype leading to a modified phenotype of greater fitness slowly inserts itself into the general population However, the effect of epigenetic inheritance may not only be potentially broad and sweeping, but may

also be felt immediately in a population” (Burggren, 2016, p. 1). Traits are often epigenetically activated in entire populations by powerful environmental triggers such as a dramatic change in rainfall in a single season. The remarkable thing is that these traits, acquired in a single generation may be passed on to the next generation. This is the part of epigenetics that supports Lamarck’s view of evolution and grabs our attention.

Context-Dependent and Germline-Dependent Epigenetics

Epigenetic modifications can either be Germline-Dependent or Context-Dependent, referring to the necessity of the causal stimulus being present in the life of the individual; in the case of Germline-Dependent modifications the exposure is historical, occurring in a generation in the distant past while in Context-Dependent modifications the exposure is experienced during the individual’s life history (Crews, 2011, p. 393).

Context-Dependent epigenetics follows the rules of Darwinian evolution in bringing about changes within an individual’s lifetime. Germline-Dependent epigenetics reflects Lamarck’s theory of evolution, with environmentally triggered changes in the epigenome crossing over from one generation to the next.

“Environmental epigenetics provides a molecular mechanism to directly alter phenotype variation generationally” (Skinner, 2015, p. 1296). Michael Skinner (2015) has devised a unified theory of evolution which merges neo-Darwinian and neo-Lamarckian evolution with “the integration of environmental epigenetic and genetic aspects of evolution” (p. 1296). It is quite possible to view epigenetics as a subset of genetics. “Contemporary epigenetics is also not inconsistent with Darwinian natural selection, and is properly a subset of conventional genetics” (Robison, 2019, p. 67). It is important to understand that what is being compared is not the original nineteenth century theories of Lamarck and Darwin but rather the modern versions referred to as neo-Lamarckian and neo-Darwinian. Neo-Lamarckian evolutionary theory focuses on passing on characteristics evolved under direct environmental influence. Neo-Darwinism incorporates Mendelian genetics as the underlying mechanism of the evolutionary process.

The distinction between context-dependent and germline epigenetics is complex. If the environmental trigger keeps occurring, then context-dependent epigenetics will assert itself in every generation exposed to that environment. This has been the case for thousands of generations of arctic peoples.

‘Context-dependent’ epigenetic inheritance that affects phenotype results from direct and continuing exposure within or across generations to an environmental stressor. As long as the stressor is present, the phenotype remains modified. By contrast, so-called ‘germline-dependent’ inheritance results when the germline of an organism is directly affected, and phenotypic modifications consequently persist across generations in the absence of the original causative agent (i.e. the environmental stressor). (Burggren, 2015, p. 81)

The key distinction between context and germline dependent epigenetics is that only in germline-dependent epigenetics does the change in phenotypic potential continue after the environmental trigger no longer exists. A modification triggered by a specific environmental situation such as famine is passed on to future generations that have never experienced famine.

Epi-marks

Epigenetic markers, referred to as epi-marks, are molecular changes that act on DNA to affect how genes will be expressed (turned on or off). Epi-marks do not alter genetic information codes, but only whether those codes will be activated or not. The molecular changes associated with epi-marks include chromatin restructuring which influences the rate of gene transcription in both coding and non-coding segments. Epi-marks are the molecular changes in DNA methylation and histone modification following epigenetic action (Moore, 2015). The term epi-marks is used to denote that epigenetic changes have occurred in the epigenome. These epi-marks can be traced from one generation to the next.

Transgenerational Epigenetics (Germline Dependent Epigenetics)

What David Crews (2011) calls Germline-Dependent epigenetics has become more widely known as transgenerational epigenetics (Tollefsbol, 2019). It is challenging to imagine the existence of transgenerational epigenetics. The idea that what happened to one's grandparent, or parent could be reflected in the epigenome of the grandchild or child is difficult to accept. Sadly, there are human studies that indicate the possibility of germline epigenetics: Transgenerational transmission of trauma: Psychiatric evaluation of offspring of former "Comfort Women," survivors of the Japanese military sexual slavery during World War II (Lee et al., 2019); Epigenetic transmission of Holocaust trauma: can nightmares be inherited? (Kellermann, 2013); Change in paternal grandmothers' early food supply influenced cardiovascular mortality of the female grandchildren (Bygren et al., 2014); The Dutch Hunger Winter and the developmental origins of health and disease (Schultz, 2010).

The Överkalix Study: The Discovery of Transgenerational Epigenetics in Humans

The power of transgenerational epigenetics was first discovered in the parish records of the remote Swedish town of Överkalix situated above the arctic circle. Lars Olav Bygren grew up in Överkalix, became a researcher and did an epidemiological

study on how the food available to one generation at a critical point in development affected succeeding generations. Records from 1799 onward indicated regular periods of famine. Bygren and his colleagues studied the records children who experienced famine during their slow growth period which precedes the adolescent growth spurt (Kaati, Bygren, & Edvinsson, 2002). They found that boys who experienced famine during the slow growth period had sons who were less likely to die from cardiovascular disease and grandchildren who were less likely to die from complications stemming from diabetes. On the other hand, boys who had an excessive amount of food available during their slow growth period had grandchildren who were at greater risk for dying of complications from diabetes. What happens during the slow growth period in boys affects sperm development. Food supply was an epigenetic factor which altered the epigenome in the sperm sufficiently that the change was passed on to future generations.

The Dutch Hunger Winter came about in 1944–1945 when the Nazi occupiers blocked food supplies from coming into the Netherlands. Many thousands died but the ultimate tragedy is that the children born to mothers who starved during that period are still feeling the effects today. Higher levels of obesity, diabetes and schizophrenia have been recorded in the adult children of starved mothers.

Transgenerational Transmission of Trauma

In recent years, post-traumatic stress disorder (PTSD) has been elevated to high degree of general awareness. We now accept that individuals can experience a level of stress that leads to trauma and affects their nervous system functioning on a long-term basis. The next step is to become aware that trauma experienced in one generation can be passed on epigenetically to future generations (Tollefsbol, 2019). It would appear that stress can transmit across generations. The children of Holocaust survivors may be subject to debilitating anxiety and depression and may experience nightmares of being tortured, persecuted, pursued, or obliterated (Kellermann, 2013). Children of Korean women who were forced into sexual slavery by the Japanese military during World War II showed “increased irritability, problems with aggression control, negative worldview, and low self-esteem” if their mothers suffered from posttraumatic stress disorder (Lee et al., 2019, p. 249). According to Natan Kellermann (2013) over 500 studies of transgenerational trauma have been published.

The explanation that best fits the data is epigenetic transmission of trauma. When DNA in the cell nucleus is transcribed into RNA, the transcriptome can be passed on to the next generation in the epigenome. Not just the genome but the epigenome gets passed on to the next generation. The epigenome contains regulatory information (Moore, 2015). If that regulatory information is changed by extreme life trauma the effects can be transmitted across generations. Research studies have had considerable success in identifying epi-marks indicative of changes in the epigenome specific to traits in animals (Crews, Gillette, Scarpino, Manikkam, Savenkova, &

Skinner, 2012; Guerrero-Bosagna, Morisson, Liaubet, Rodenburg, de Haas, Košťál, & Pitel, 2018). Finding epi-marks in human transgenerational studies has been more challenging. In his textbook on behavioral epigenetics, Moore (2015) stated there were no research findings of epi-marks in human transgenerational studies. First reports of epi-marks are just beginning to emerge. Analysis of blood samples from 422 prenatally starved adults who survived the Dutch Hunger Winter has shown DNA methylation changes associated with metabolic disorders establishing likely epi-marks. “Our data are consistent with the hypothesis that epigenetic mechanisms mediate the influence of transient adverse environmental factors in early life on long-term metabolic health” (Tobi, Slieker, Luijk, Dekkers, Stein, Xu ... Heijmans, 2018, Discussion, para. 3).

Research on primates is helpful in gaining a wider perspective on transgenerational epigenetics. Primatologist Stephen Suomi (2011) has found that “specific gene-environment interactions can influence behavioral and biological reactions to social stress not only throughout development but also across successive generations of rhesus monkey families” (p. 289).

Dissenting view of Transgenerational Epigenetics in Humans

Geneticist Bernhard Horsthemke (2018) has engaged in extensive epigenetic research but he hesitates to fully endorse transgenerational transmission of traits in the evolutionary history of humans. He emphasizes the challenge involved in providing conclusive proof of germline transmission of traits, in either experiments or observational research.

... even if the molecular mechanisms exist to transmit epigenetic information across generations in humans, it is very likely that the transgenerational transmission of culture by communication, imitation, teaching and learning surpasses the effects of epigenetic inheritance and our ability to detect this phenomenon. Cultural inheritance has certainly had an adaptive role in the evolution of our species, but the evidence for transgenerational epigenetic inheritance, . . . , is not (yet) conclusive. For now, I remain skeptical. (Horsthemke, 2018 p. 3, Roadmap, para. 5)

Categories of Epigenetic Influence

Irene Lacall and Rossella Ventura (2018) have devised three categories of epigenetic influence. Direct epigenetics (DE) and two forms of indirect epigenetics, within (WIE) and across (AIE). DE is about the changes brought about through direct experience with the environment during an individual’s lifespan. WIE focuses on gestation and the changes that occur within the uterus. “When an epigenetic change produced by a direct experience (DE) is transmitted to the offspring, that same experience becomes an indirect environmental trigger for the ontogenetic development of the new individual (Lacall & Ventura, 2018, para.1). The transgenerational aspect of this category system is the “across indirect epigenetics” (AIE). This category “describes what happens from the moment of conception back toward the

parents' earlier life experiences (and even grandparents . . .), which asynchronously set the composition of germ cells (and possibly that of the intrauterine environment)" (Lacall & Ventura, 2018, para 3).

A New Understanding of Genetics

Much of what is covered in this chapter requires significant cognitive stretching for most people. A world of foundational genetics is shifting both dramatically and rapidly. To go from thinking of a gene as an entity, to appreciating the complex process involved in bringing forth a trait, requires considerable cognitive flexibility and some patience. A DNA coding sequence can produce different outcomes in different environments. This makes it problematic to designate a specific gene, or series of genes as being responsible for producing a given behavioral trait. Contrasting perspectives on the viability of gene/behavioral trait research are obvious in the study of political behavior and genetics/epigenetics.

Political Implications of Genetics and Epigenetics

Peter Hatemi has focused his research studies on the relationship between biology and politics. He and co-author Rose McDermott (2012) emphasize that there is a "mutual co-dependence between genes and environment in forming political behaviors" (abstract). The difficulty in linking genetic heritage to political behavior becomes especially clear in analyzing the aggregate data from over 12,000 twin pairs from five different democratic countries over the course of 40 years. "... a single gene or small group of genes does not directly influence ideological preferences. Rather, thousands of genetic variants of very small effects and constellations of genes interact with each other and the environment to influence behavior, indirectly" (Hatemi et al., 2014, p. 292).

Biology does influence politics. "The combined evidence suggests that political ideology constitutes a fundamental aspect of one's genetically informed psychological disposition" (Hatemi et al., 2014, p. 283). The complexity of genetic and epigenetic processes challenges people's understanding that political orientation carries heritable components. The irony is that political conservatives orient toward a biological determinism explanation of traits and behaviors whereas liberals orient more to environmental influences on traits and behaviors. These differing orientations are the result of genetically based factors epigenetically working through the developmental environment. Therein lies the irony.

Political Behaviors and Genetics

"There is fairly consistent evidence that some proportion of political behaviors and attitudes can be traced to genetic differences between people. Voter turnout (Fowler & Dawes, 2008), broad political participation, partisan intensity, and political

attitudes (Alford et al., 2005)” (Boardman, 2011, p. 185). Jason Boardman goes on to caution that these studies have not taken the “additive genetic variance” completely into account in calculating heritability. When this is done “the estimated heritability for political behavior decreased by nearly one-third” (Boardman, 2011, p. 204). There remains a definite influence of genetics on political behavior, but it is not simple to place the environmental interactions into the equation. Boardman concluded that “complex behaviors such as these require a simultaneous understanding of both genetic and environmental influences” (p. 204). It is this simultaneous aspect that presents the challenge in how the data are analyzed and presented.

Environmental and Genetic Factors Create Political Orientations: Twin Studies

Environmental and genetic influences interact epigenetically to determine political positions. Nevertheless, it is possible to get a sense of the role of heredity in relation to a trait or behavior. Twin studies are the gold standard for weighing the relative contributions of heredity and environment to behavior, although the intimate epigenetic relationship between DNA and environmental triggers makes this a problematically tricky endeavor.

John Alford, Carolyn Funk & John Hibbing (2005) pioneered the use of twin studies to look for connections between political attitudes and heredity. They separated out the influence of genetics, shared environment, and unshared environment, and found that genetic factors are an important component in forming political attitudes and ideologies. The meaning of this finding was clarified by Alford et al. (2005, p. 163) in the critical disclaimer they set forth for all twin studies: Partitioning the origins of human traits, whether they be physiological or behavioral, into the discrete, quantifiable components of genetic inheritance, shared environment, and unshared environment should not be taken to imply that these components work separately. Rather these numbers only provide a rough indication of the influence of three categories of independent variables that are intimately intertwined.

Thus, even when researchers find a hereditary basis for a behavior, the epigenetic nature of that finding is understood (Funk, 2013; Hibbing, Smith, & Alford, 2014). On the other hand, it is vital to acknowledge the role of heredity in behavior. Alford and his colleagues (2005, p. 174) make clear that their findings “offer a direct challenge to common assumptions and interpretations that political attitudes and behavioral tendencies are shaped primarily or even exclusively by environmental, especially familial, factors.” In an extended twin study, Christian Kandler, Wiebke Bleidorn, and Rainer Riemann (2012) examined all of the critical variables in determining causality of “left or right” political orientations: genetics, culture, nonrandom mating (choice of spouse), and the “big five” personality traits of openness, conscientiousness, extraversion, agreeableness, and neuroticism. They focused on the two central aspects of political orientation: the acceptance of inequality and the rejection of change in the system. Kandler et al. (2012) found that genetic factors

influenced the toleration of inequality and rejection of change. They “did not find evidence for environmental transmission from parents to offspring. That is, the observed resemblance between the political views of parents and adult offspring did not derive from parental socialization independent of their genetic contribution” (p. 639). Kandler et al. based their left-right analysis on John Jost’s (2006) research which has shown that conservatives are comfortable with inequality and uncomfortable with system change. Jost links these two factors together, in that acceptance of the status quo means accepting inequality.

The political influence of spouses presents an interesting situation. Genetics contribute to political orientations, but it also happens that people often choose spouses with similar politics. Thus, the assortative mating-based choice of spouse may in part be determined by the genetic aspects of traits that orient toward the left or right of the political spectrum. Further, interacting with a politically similar spouse presents environmental influences on political behavior, which could “intensify or deepen these particular attitudes” (Kandler et al., 2012, p. 640).

The Heritability Problem

The research findings from twin studies are reported in terms of heritability of traits, which is based on variations within groups. This represents a “statistical investigation focused on variation rather than causality” (Moore & Shenk, 2017, The Group vs. Individual Flaw, para. 4). High heritability of traits like toleration of inequality and rejection of change doesn’t mean what it seems to. Heritability is often misunderstood to indicate causality, such that genes are seen to directly cause the trait. This genetic determinism perspective is a profound over-simplification that does not reflect that complexity of the epigenetic process by which traits emerge. Genetic influences on the development of traits can never be separated from the specific environmental context.

Unfortunately, media coverage of twin studies typically frames the findings in a deterministic manner such that unsubstantiated concepts like “born criminal” and “maternal instinct” get perpetrated. Twin studies report the variation within groups, and do not apply to individuals. “Twin studies have reaffirmed the strong public impression that some physical and personality traits can be passed directly from parent to child through DNA. While understandable, this impression is flatly incorrect . . .” (Moore, & Shenk, 2017, Twin Studies, para. 1). Rather than inheriting traits from their parents, people inherit developmental resources. Added to DNA are many nongenetic resources: the various forms of RNA and proteins, along with the somatic, social, and also cultural environments in which development occurs. “All complex traits are a consequence of developmental processes” (Moore & Shenk, 2017, Conclusion, para. 3). How, then, does one interpret findings of biological influences on political behavior? Simply put, there are biological influences on all traits and behaviors. “Inherited genetic variations do influence every aspect of our biological and psychological identities, but those influences are mediated and

modulated by all of the environmental inheritances that constantly interact with those genetic variants” (Moore & Shenck, 2017, *We Inherit*, para. 2).

Political Traits

Voter behavior has a genetic component according to twin research by Fowler and Dawes (2008). Voting on a regular basis was linked to genetic factors relating to social behavior. A gene (DRD2) involved with dopamine was connected indirectly to voting mediated by affiliation with a political party (Dawes & Fowler, 2009; Settle, Dawes, & Fowler, 2009). The gene DRD4, is also part of the reward system in the brain based on the hormone dopamine. It was found to link indirectly with attraction to new experiences, an aspect of liberal voters (Settle, Dawes, Christakis, & Fowler, 2010). In 2017 a large “genopolitics” field experiment was undertaken to examine voter participation (Settle, Dawes, Loewen, & Panagopoulos, 2017). Genetic predisposition toward negativity overrode environmental encouragement to engage in voting.

Political engagement was found to be enhanced by higher cognitive ability and an increased openness to experience in a study using the German twin study sample. These traits were found to have certain genes in common. “When it comes to cognitive ability, we find that genetic factors make up 90% of the correlation between this trait and participation” (Weinschenk, Dawes, Kandler, Bell, & Riemann, 2019, p. 11). As far as political interest, the researchers found that “genetic factors account for 100% of the correlation between cognitive ability and political interest” (p. 12).

Carolyn Funk and her colleagues (Funk et al., 2013) conducted the first twin study of American adults that targeted political traits. They found that constructs different from the Big Five personality factors, formed an underlying psychological construct based on social structure and order, which defines politics. Core political predispositions feeding into this elemental political construct were “right-wing authoritarianism, values indices, and measures of political ideology” (Funk et al., 2013, p. 816).

Hibbing et al. (2014, p. 227) emphasize that “fairly small genetic differences get magnified by environmental forces to create distinct political predispositions”. Parenthetically, political moderates may be a mixture of influences or no predisposed influence at all. “Just because some people are shaped by these predispositions does not mean everyone has them. In fact, it may be that many people do not but the people who are predisposed tend to be those who are far more vocal” (Hibbing et al., 2014, p. 228).

Personality and Political Orientation

Human personality has a well-documented genetic component (Caprara & Vecchione, 2013). Studies have been conducted to examine the relationship between personality and political ideology; “these findings suggest that openness to

experience predicts a liberal ideology, while conscientiousness predicts a conservative ideology” (Funk, 2013, p. 248). The connection between conscientiousness and conservatism is weaker than that between openness to experience and liberalism. “Thus, in both the United States and Europe, liberals and left-wing voters tend to present themselves as more open-minded, creative, and novelty seeking than conservatives and right-wing voters, who in turn present themselves as more orderly, conventional, and organized . . .” (Caprara & Vecchione, 2013, p. 31).

Conservative Interpretations of Causality

Political conservatives are much more likely to attribute perceived differences in race and socioeconomic class to genetic determination (Keller, 2005). They are also likely to engage in the “naturalistic fallacy” of believing that things that are natural are also good. This gives rise to a sense of human nature being a biological given and not modifiable.

For most people, invoking genes to account for differences between social groups or among individuals implies that those differences are inherent and stable. . . . Thus, genetic explanations have significant political meaning, potentially legitimizing differences that are perceived as “natural” and discouraging efforts to equalize (i.e., reduce or eliminate) differences. Many scholars have therefore viewed genes as a likely “conservative” force in public opinion because they serve to justify the status quo. (Suhay & Jayaratne, 2013, p. 498)

Conservative Belief in Genetic Determinism

Elizabeth Suhay and Toby Jayaratne (2013) studied the connection between political orientations and belief in genetic determinism. They examined perceptions of race and social class differences with regard to intelligence, skill in mathematics, motivational drive, and use of violence. Conservatives were more likely to attribute their perceived differences in these qualities among poor people and people of color to genetic determination. The researchers noted that these beliefs did not extend to expectations toward individual members of these groups.

A consequence of genetic explanations for behavior is that government programs to help disadvantaged people are viewed with extreme skepticism. The connection between beliefs of genetic determinism and attitude toward government policy is notable in conservatives. Resistance to government intervention into social problems underlies the conservative worldview. “Theoretically, . . . genetic explanations for perceived race and class differences can justify opposition to government efforts to address race and class inequities, as many believe that inequalities determined by nature cannot (and perhaps should not) be ameliorated by government policy” (Suhay & Jayaratne, 2013, p. 499).

Liberal Perspectives

Liberals tend to believe that environmental factors are the major causal agents of the observed differences in people's behavior, motivation, and traits. The environment is enormously important, not as a causal agent but rather as an interactive one. People differ in that some environments meet their biological propensities better than others. Yet, the environment can bring about biological changes within both the brain and the body. The interaction is endlessly complex and highly individualistic. Increasing the quality of the environment is one area where intervention in development is possible. It is becoming increasingly important.

Epigenetics and Environmental Insult Factors

Epigenetics changes our relationship with the environment. We now understand that the environment directly impacts on our biology. We are in an interrelationship with the environment. Eco-feminism emphasized this from a philosophical perspective. Epigenetics makes the same point from a scientific viewpoint. Major environmental insult factors endanger our existence. According to the World Health Organization, in 2016 “environmental risk factors, such as air, water and soil pollution, chemical exposures, climate change, and ultraviolet radiation caused 12.6 million deaths” Li, Chen, Li, & Tollefsbol, (2019).

Pollutants are especially dangerous during prenatal development. “From atmospheric pollution, endocrine-disrupting chemicals to heavy metals, research increasingly suggests that environmental pollutions have already produced significant consequences on human health. Moreover, mounting evidence now links such pollution to relevant modification in the epigenome” (Li et al., 2019). If we do not care for the environment we will pay with cancer, pulmonary disease, stress related diseases, etc., and our children will pay even more (Ghosh et al., 2018; Knudsen et al., 2018; Nilsson, Sadler-Riggelman, & Skinner, 2018). Fine particulate matter in the air is of special danger and is linked to neurological disorders in children. “Developmental disabilities, such as learning disabilities, developmental delays, autism, and attention-deficit/hyperactivity disorder (ADHD), affect one in six children in the United States, and the rate of these disorders is rising” (Payne-Sturges et al., 2019, p. 550). The authors warn that the current lowering of pollution standards in the United States will result in even more damage to children.

The concept of environmental racism has risen out of the terrible consequences of living in polluted environments. More racial minorities live in polluted environments (Newkirk, 2018) although, in general, poorer people are far more likely to live in damaging surroundings than wealthier people.

Low socioeconomic status (SES) is associated with negative environmental factors that have an epigenetic impact on health (Miller et al., 2009). Neurons and circuits in the brain that are sensitive to stress can be programmed by early experiences in life (Bolton, Short, Simeone, Daglian, & Baram, 2019). Beyond the direct effects of environmental insult factors on the brain of the infant and young child, children

can be affected by their parents' childhood developmental exposure to risk factors in the environment. Increasingly, the findings from animal and human studies indicate that "parents' childhood experiences may transfer epigenetic marks that could impact the development of their offspring independently of and in interaction with their offspring's perinatal and early childhood direct exposures to stress stemming from socioeconomic disadvantage and adversity" (Scorza, Duarte, Hipwell, Posner, Ortin, Canino, & Monk, 2019, p.119).

Environmental Pollution and the Epigenetics Diet

Because neonatal environmental influences have life-long consequences it is essential to protect the developing organism as much as possible. Amazingly, recent research has revealed a diet to help protect the fetus from environmental pollutants. This epigenetics-oriented diet based on a "class of bioactive dietary compounds such as isothiocyanates in broccoli, genistein in soybean, resveratrol in grape, epigallocatechin-3-gallate in green tea, and ascorbic acid in fruits, has been shown to modify the epigenome leading to beneficial health outcomes" (Li et al., 2019). Politicians who insured the provision of free broccoli, soybeans, grapes, green tea, and fruits to low SES pregnant women, would be saving a significant share of the astronomical cost of dealing with damaged children.

Increased understanding of epigenetics and our relationship to the environment can help us right now. Sadly, current governmental policies are not only increasing pollution but also reducing prenatal care, nutrition programs and education for poor women (Gibbens, 2019; Editorial Board, 2018; Taylor, 2017). If the general public knew how much is at stake government policies might be directed differently.

Epigenetics, Environment, and Politics

The notion of the encapsulated existence of humans, separate from the environment, is over. We connect in deep, intimate and strongly biological ways. The attitude of conservatives toward the environment tends toward exploitation, neglect, and detachment. The same attitudinal tendency is likely to prevail regarding genetic determinism over epigenetic interactionism. The combination does not bode well for subscribing to governmental policies for dealing with environmental sources of carcinogens and other environmental insult factors.

Fiscal conservatism as an ideology, or way to see the world, is reflected in the attitude that industrial activity is not upsetting the natural environment, and does not need to be reduced The world view purporting humans have the right to modify nature, and that no change in attitude is necessary to solve environmental problems teeters in an area potentially harmful to the survival of all (Jo, Allen, Castano, & Allen, 2007, p. 22–23).

It does not help the human connection to the environment that Trump's war on science has undermined science in the federal government (Union of concerned scientists, 2019. The state of science in the Trump era). However, there is a sign of possible change among some conservatives regarding the environment. Recognition of global warming is starting to happen, especially among younger conservatives. Calls for a better relationship with the environment are appearing in conservative media (Chappell, 2018). A recent study in the *Journal of Environmental Psychology* (Gehlbach, Robinson, & Vriesema, 2019), used a cognitive dissonance reduction strategy to connect conservatives to the reality of climate change (global warming). By first demonstrating the power of science and clarifying that most people believe in science, the researchers were able to use the link to create cognitive consistency between belief in science and belief in climate change.

Psychological Barriers to Epigenetics Acceptance: Motivated Reasoning, Just World View, Blaming the Victim, and Binding Values

Elizabeth Suhay and Toby Jayaratne (2013) perceive a major psychological process problem regarding how science is perceived by people. Motivated reasoning (Kahan, 2013) allows political beliefs to override objectivity in evaluating data. Information incongruent with one's political beliefs is interpreted more harshly than information supporting one's pre-existing beliefs.

The public picks and chooses from a variety of available messages about influences on human characteristics with an eye toward justifying their preexisting political stances. This tendency likely reinforces political polarization in the electorate, with ideologues of all stripes believing that the science of human difference is on their side (Suhay & Jayaratne, 2013, p. 518).

Combined with motivated reasoning, the belief in a just world makes it much harder for people to respond to and act on the new scientific data on how epigenetic factors affect poverty, disease, and neurological developmental disabilities. Belief in a just world (Lerner, 1980) is based on the premise that people get what they deserve. Melvin Lerner and Carolyn Simmons (1966) found that in general people are quite eager to believe that those whom fortune has favored deserved their benefits and those who experienced bad things were equally deserving of their suffering. This is the genesis of the "blame the victim" mentality which is so prevalent in American culture.

Binding values are moral principles foundational to group coherence. Binding values are a critical aspect of the conservative worldview and yet another psychological factor which fosters blaming the victim. Upholding group values is more important than focusing on the harm done to the victim, especially when the victim's individual or group status stands in contrast to that of the perceiver. "Binding values focus on prohibiting behavior that destabilizes groups and relational ties: disloyalty, disobedience to authority, and behavior reflecting spiritual and sexual impurity" (Niemi & Young, 2016, p. 1239). Blaming the victim psychology makes

it that much harder to focus on the epigenetics of the causality interactional process. Conservative ideology represents a barrier which needs to be breached or bridged to allow science-based reality to be acknowledged.

Epigenetics and Political Worldviews

Clearly, epigenetics presents striking political challenges. Epigenetics used in a developmental-interactionist paradigm completely undermines politically deterministic thinking. Shea Robison (2016, p. 31) has captured the essence of epigenetics as “the study of the biological process through which genes are turned on and off, including how some of these processes respond to environmental influences, the effects of which can be potentially heritable across multiple generations.” Robison (2016, p. 32) goes on to point out that the “modification of the conventional understanding of gene expression and gene-level inheritance has a number of politically significant consequences.”

According to Robison (2016, 2019) the political consequences of epigenetics derive from the interesting overlap of political narratives which it spans. Both personal responsibility factors (which conservatives espouse) and the interactional influence of the environment (which liberals appreciate) are at work in producing epigenetic outcomes across generations. This is a way in for conservatives and liberals to examine the implications of the science of epigenetics together. There will be many personal and political benefits from doing so.

Connecting Between Liberals and Conservatives

Potential bridges between conservatives and liberals exist but barriers need to be negotiated. The way that stories relating to genetic determinism are covered in the liberal *New York Times* vs conservative *The Wall Street Journal* often differ in line with the ideological bent of these newspapers. *The New York Times* ascribes both sexual orientation and obesity primarily to genetics whereas *The Wall Street Journal* ascribes race and class differences primarily to genetics. But according to the researcher Shea Robison (2016), epigenetics was handled identically by both newspapers. He sees this as a sign of hope that epigenetics can span the ideological divide.

Epigenetics and the Concept of Self

Epigenetics has the potential to alter the worldview of thoughtful people. The definition of the self is changed by epigenetics. Conservatives rely on the concept of the self and personal responsibility as the center of their worldview. Robison (2016) refers to this as the “atomistic self” where self-interest and self-sufficiency form the

foundation of human motivation and action. Epigenetics has a philosophical aspect in addition to political ramifications. In the context of epigenetics, the self is relational, continuously influenced by environmental stimulation, including stimulation from other people. Robison (2016) calls upon the political theory of the 17th century Dutch philosopher, Baruch Spinoza, to emphasize this relational dimension of the self. He sees Spinoza as a potential philosophical bridge between atomistic individualism (conservatives) and relationality (liberals).

The Jewish sage, Hillel (born 110 years before the common era: BCE), is one of the most revered and respected of the ancient philosophers of ethics. His most famous saying is “If I am not for myself, then who will be for me? And if I am only for myself, then what am I? And if not now, when?” Hillel emphasized the critical nature of community for human survival but also the primary human need to care for oneself and one’s identity. The urgency of the need to combine these oppositional directives is extolled by Hillel. We would do well to listen.

References

- Alexander, G. (1979). Cold thermogenesis. *International Review of Physiology*, 20, 43–155.
- Alford, J. R., Funk, C. L., & Hibbing, J. R. (2005). Are political orientations genetically transmitted? *American Political Science Review*, 99(2), 153–167. <https://doi.org/10.1017/S0003055405051579>
- Armstrong, L. (2014). *Epigenetics*. New York: Garland Science.
- Bradatan, C. (2019, July 5). Democracy is for the gods. *The New York Times*. www.nytimes.com > 2019/07/05 > opinion > why-democracies-fail
- Bjorklund, D. F. (2018). Behavioral epigenetics: The last nail in the coffin of genetic determinism. *Human Development*, 61, 54–59. <https://doi.org/10.1159/000481747>
- Block, J., & Block, J. H. (2006). Nursery school personality and political orientation two decades later. *Journal of Research in Personality*, 40, 734–749. <https://doi.org/10.1016/j.jrp.2005.09.005>
- Boardman, J. D. (2011). Gene-environment interplay for the study of political behaviors. In P. K. Hatemi & R. McDermott (Eds.), *Man is by nature a political animal: Evolution, biology, and politics* (pp. 185–206). Chicago, IL: The University of Chicago Press.
- Bolton, J. L., Short, A. K., Simeone, K. A., Daglian, J., & Baram, T. Z. (2019). Programming of stress-sensitive neurons and circuits by early-life experiences. *Frontiers in Behavioral Neuroscience*, 13, 30. <https://doi.org/10.3389/fnbeh.2019.00030>
- Brown, J. L. (1975). *Evolution and animal behavior*. New York: Norton.
- Burggren, W. W. (2015). Dynamics of epigenetic phenomena: Intergenerational and intragenenerational phenotype ‘washout’. *Journal of Experimental Biology*, 218, 80–87. <https://doi.org/10.1242/jeb.107318>
- Burggren, W. W. (2016). Epigenetic inheritance and its role in evolutionary biology: Re-evaluation and new perspectives. *Biology*, 5(2), 24. <https://doi.org/10.3390/biology5020024>
- Bygren, L. O., Tinghög, P., Carstensen, J., Edvinsson, S., Kaati, G., Pembrey, M. E., & Sjöström, M. (2014). Change in paternal grandmothers’ early food supply influenced cardiovascular mortality of the female grandchildren. *BMC Genetics*, 15(1), 12. <https://doi.org/10.1186/1471-2156-15-12>
- Cabej, N. (2019). *Epigenetic principles of evolution* (2nd ed.). Cambridge: Academic.
- Capa, R. L., & Bouquet, C. A. (2018). Individual differences in reward sensitivity modulate the distinctive effects of conscious and unconscious rewards on executive performance. *Frontiers in Psychology*, 9, 148. <https://doi.org/10.3389/fpsyg.2018.00148>
- Caprara, G., & Vecchione, M. (2013). Personality approaches to political behavior. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 23–58). New York: Oxford University Press.

- Carey, N. (2012). *The epigenetics revolution: How modern biology is rewriting our understanding of genetics, disease, and inheritance*. New York: Columbia University Press.
- Champagne, F. A. (2008). Epigenetics mechanisms and the transgenerational effects of maternal care. *Frontiers in Neuroendocrinology*, 29(3), 386–397. <https://doi.org/10.1016/j.yfrne.2008.03>
- Champagne, F. A. (2010). Epigenetic influence of social experiences across the lifespan. *Developmental Psychobiology*, 52(4), 299–311. <https://doi.org/10.1002/dev.20436>
- Chappell, H. (2018, January 18). Time for conservatives to break the anti-environmentalist mold. *The American Conservative*. <https://www.theamericanconservative.com/articles/time-for-conservatives-to-break-the-antienvironmentalist-mold/>.
- Christakis, N. (2019). *Blueprint: The evolutionary origins of a good society*. New York: Little, Brown Spark.
- Chua, A. (2018). *Political tribes: Group instinct and the fate of nations*. New York: Penguin Press.
- Coleman, K. (2012). Individual differences in temperament and behavioral management practices for nonhuman primates. *Applied Animal Behaviour Science*, 137(3-4), 106–113.
- Crews, D. (2011). Epigenetic modifications of brain and behavior: Theory and practice. *Hormones and Behavior*, 59(3), 393–398. <https://doi.org/10.1016/j.yhbeh.2010.07.001>
- Crews, D. (2014). Nature, nurture and epigenetics. *Molecular and Cellular Endocrinology*, 398, 42–52. <https://doi.org/10.1016/j.mce.2014.07.013>. Epub 2014 Aug 4.
- Crews, D., Gillette, R., Scarpino, S. V., Manikkam, M., Savenkova, M. I., & Skinner, M. K. (2012). Epigenetic transgenerational inheritance of altered stress responses. *Proceedings of the National Academy of Sciences*, 109(23), 9143–9148. <https://doi.org/10.1073/pnas.1118514109>
- Dar-Nimrod, I., & Heine, S. J. (2011). Genetic essentialism: On the deceptive determinism of DNA. *Psychological Bulletin*, 137(5), 800–818. <https://doi.org/10.1037/a0021860>
- Darwin, C. (1859). *On the origin of species by means of natural selection* (p. 1998). Hertfordshire: Wordsworth Editions Limited.
- Dewsbury, D. A. (1991). Psychobiology. *American Psychologist*, 46, 198–205.
- Epstein, D. (2013). *How an 1836 famine altered the genes of children born decades later*. <https://io9.gizmodo.com/how-an-1836-famine-altered-the-genes-of-children-born-d-1...>
- Fausto-Sterling, A. (1985, 1992). *Myths of gender: Biological theories about women and men*. New York: Basic Books.
- Fire, A., Xu, S., Montgomery, M. K., Kostas, S. A., Driver, S. E., & Mello, C. C. (1998). Potent and specific genetic interference by double-stranded RNA in *Caenorhabditis elegans*. *Nature*, 391(6669), 806–811.
- Fowler, J. H., & Dawes, C. T. (2008). Two genes predict voter turnout. *Journal of Politics*, 70(3), 579–594. <https://doi.org/10.1017/S0022381608080638>
- Fowler, J. H., & Dawes, C. T. (2013). In defense of genopolitics. *American Political Science Review*, 107(2), 362–374. <https://doi.org/10.1017/S0003055413000063>
- Fowler, J. H., Settle, J. E., & Christakis, N. A. (2011). Correlated genotypes in friendship networks. *Proceedings of the National Academy of Science USA*, 108(5), 1993–1997. <https://doi.org/10.1073/pnas.1011687108>
- Fraga, M. F., Ballestar, E., Paz, S. M., Ropero, S., Setien, F., Ballestar, M. L., ... Esteller, M. (2005). Epigenetic differences arise during the lifetime of monozygotic twins. *Proceedings of the National Academy of Sciences*, 102(30), 10604–10609. <https://doi.org/10.1073/pnas.0500398102>
- Francis, R. C. (2012). *Epigenetics: How our environment shapes our genes*. New York: W. W. Norton.
- Freedman, D. G. (1958). Constitutional and environmental interactions in rearing four breeds of dogs. *Science*, 127(3298), 585–586. <https://doi.org/10.1126/science.127.3298.585>
- Frisancho, R. A. (2009). Developmental adaptation: Where we go from here. *American Journal of Human Biology*, 21(5), 694–703. <https://doi.org/10.1002/ajhb.20891>
- Funk, C. L. (2013). Genetic foundations of political behavior. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 237–261). New York: Oxford University Press.
- Funk, C. L., Smith, K. B., Alford, J. R., Hibbing, M. V., Eaton, N. R., Krueger, R. F., ... Hibbing, J. R. (2013). Genetic and environmental transmission of political orientations. *Political Psychology*, 34(6), 805–819. <https://doi.org/10.1111/j.1467-9221.2012.00915.x>

- Gehlbach, H., Robinson, C. D., & Vriesema, C. C. (2019). Leveraging cognitive consistency to nudge conservative climate change beliefs. *Journal of Environmental Psychology, 61*, 134–137. <https://doi.org/10.1016/j.jenvp.2018.12.004>
- Gerstein, M. B., Bruce, C., Rozowsky, J. S., Zheng, D., Du, J., Korbel, J. O., ... Snyder, M. (2007). What is a gene, post-ENCODE? History and updated definition. *Genome Research, 17*(6), 669–681. <https://doi.org/10.1101/gr.6339607>
- Gerstein, M. B., Kundaje, A., Hariharan, M., Landt, S. G., Yan, K.-K., Cheng, C., ... Snyder, M. (2012). Architecture of the human regulatory network derived from ENCODE data. *Nature, 489*, 91–100. <https://doi.org/10.1038/nature11245>
- Ghosh, M., Öner, D., Duca, R. C., Bekaert, B., Vanoirbeek, J., Godderis, L., & Hoet, P. (2018). Single-walled and multi-walled carbon nanotubes induce sequence-specific epigenetic alterations in 16 HBE cells. *Oncotarget, 9*(29), 20351–20365. <https://doi.org/10.18632/oncotarget.24866>
- Gibbons, A. (2012). Bonobos join chimps as closest human relatives. *Science | AAAS*. <https://www.sciencemag.org/news/2012/.../bonobos-join-chimps-closest-human-relativ...>
- Gould, S. J. (1982). *The mismeasure of man*. New York: Norton.
- Graves, J. L. (2015). Great is their sin: Biological determinism in the age of genomics. *The ANNALS of the American Academy of Political and Social Science, 661*(1), 24–50. <https://doi.org/10.1177/0002716215586558>
- Gray, J. D., Kogan, J. F., Marrocco, J., & McEwen, B. S. (2017). Genomic and epigenetic mechanisms of glucocorticoids in the brain. *Nature Reviews Endocrinology, 13*(11), 661–673. <https://doi.org/10.1038/nrendo.2017.97>. Epub 2017 Sep 1.
- Gross, C., & Hen, R. (2004). The developmental origins of anxiety. *Nature Reviews Neuroscience, 5*, 545–552. <https://doi.org/10.1038/nrn1429>
- Guerrero-Bosagna, C., Morisson, M., Liaubet, L., Rodenburg, T. B., de Haas, E. N., Košťál, L., & Pitel, F. (2018). Transgenerational epigenetic inheritance in birds. *Environmental Epigenetics, 4*(2), 1–8. doi:<https://doi.org/10.1093/eep/dvy008.eCollection> 2018 Apr.
- Hall, S. S. (2019, February 20). The lost generation: Trump's environmental policies are putting the health of American children at risk. *New York Magazine*. <https://nymag.com/intelligencer/> <https://nymag.com/intelligencer/2019/02/trump-epa-risking-health-of-american-children.html>
- Hatemi, P. K., & McDermott, R. (2011). *Man is by nature a political animal: Evolution, biology, and politics*. Chicago: University of Chicago Press.
- Hatemi, P. K., Medland, S. E., Klemmensen, R., Oskarsson, S., Littvay, L., Dawes, C. T., ... Martin, N. G. (2014). Genetic influences on political ideologies: Twin analyses of 19 measures of political ideologies from five democracies and genome-wide findings from three populations. *Behavior Genetics, 44*(3), 282–294. <https://doi.org/10.1007/s10519-014-9648-8>
- Hathaway, B. (2012, September 5). Yale team finds order amidst the chaos within the human genome. *Biostatistics*, Yale School of Public Health.
- Hebb, D. (1949). *The organization of behavior*. New York: Wiley.
- Heitmann, B. L., Westerterp, K. R., Loos, R. J. F., Sørensen, T. I. A., O'Dea, K., McLean, P., ... Westerterp-Plantenga, M. S. (2012). Obesity: Lessons from evolution and the environment. *Obesity Reviews, 13*(10), 910–922. <https://doi.org/10.1111/j.1467-789X.2012.01007.x>
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014). *Predisposed: Liberals, Conservatives, and the biology of political differences*. New York: Routledge.
- Hodes, G. E., Walker, D. M., Labonté, B., Nestler, E. J., & Russo, S. J. (2017). Understanding the epigenetic basis of sex differences in depression. *Journal of Neuroscience Research, 95*(1-2), 692–702. <https://doi.org/10.1002/jnr.23876>
- Horsthemke, B. (2018). A critical view on transgenerational epigenetic inheritance in humans. *Nature Communications, 9*(2973). <https://doi.org/10.1038/s41467-018-05445-5>
- Houri-Zeevi, L., & Rechavi, O. (2017). A matter of time: Small RNAs regulate the duration of epigenetic inheritance. *Trends in Genetics, 33*(1), 46–57. <https://doi.org/10.1016/j.tig.2016.11.001>. Epub 2016 Dec 9.
- Hubbard, R. (1990). *The politics of women's biology*. New Brunswick, NJ: Rutgers University Press.
- Ilardo, M., & Nielsen, R. (2018). Human adaptation to extreme environmental conditions. *Current Opinion in Genetics & Development, 53*, 77–82. <https://doi.org/10.1016/j.gde.2018.07.003>

- Jørgensen, M. E. (2016). Obesity and diabetes — an Arctic challenge. *International Journal of Circumpolar Health*, 69(4), 320–321.
- Kaati, G., Bygren, L., & Edvinsson, S. (2002). Cardiovascular and diabetes mortality determined by nutrition during parents' and grandparents' slow growth period. *European Journal of Human Genetics*, 10, 682–688. <https://doi.org/10.1038/sj.ejhg.5200859>
- Kahan, D. M. (2013). Ideology, motivated reasoning, and cognitive reflection. *Judgment and Decision Making*, 8(4), 407–424.
- Kandler, C., Bleidorn, W., & Riemann, R. (2012). Left or right? Sources of political orientation: The roles of genetic factors, cultural transmission, assortative mating, and personality. *Journal of Personality and Social Psychology*, 102, 633.
- Kaplan, G., & Rogers, L. J. (2003). *Gene worship: Moving beyond the nature/nurture debate over genes, brain, and gender*. New York: Other Press.
- Keller, J. (2005). In genes we trust: The biological component of psychological essentialism and its relationship to mechanisms of motivated social cognition. *Journal of Personality and Social Psychology*, 88(4), 686–702.
- Keller, E. F. (2010). Goodbye nature vs nurture debate. *New Scientist*, 207(2778), 28–29. [https://doi.org/10.1016/S0262-4079\(10\)62277-4](https://doi.org/10.1016/S0262-4079(10)62277-4)
- Keller, E. F. (2012). Genes, genomes, and genomics. *Biological Theory*, 6(2), 132–140. <https://doi.org/10.1007/s13752-012-0014-x>
- Keller, E. F. (2014). From gene action to reactive genomes. *Journal of Physiology*, 592, 2423–2429.
- Keller, E. F. (2016). Thinking about biology and culture: Can the natural and human sciences be integrated? *The Sociological Review*, 64(1), 26–41. <https://doi.org/10.1111/2059-7932.12011>
- Kellermann, N. P. (2013). Epigenetic transmission of Holocaust trauma: Can nightmares be inherited? *Israeli Journal of Psychiatry and Related Sciences*, 50(1), 33–39.
- Kim, Y. (2009). Future directions for behavior genetics. In Y. Kim (Ed.), *Handbook of behavior genetics* (p. 515). New York: Springer.
- Knudsen, M. T., Faisal, F. I., Rezwani, I., Jiang, Y., Karmaus, W., Svanes, C., & Holloway, J. W. (2018). Transgenerational and intergenerational epigenetic inheritance in allergic diseases. *Journal of Allergy and Clinical Immunology*, 142(3), 765–772. <https://doi.org/10.1016/j.jaci.2018.07.007>
- Kong, A., Thorleifsson, G., Frigge, M. L., Vilhjalmsdottir, B. J., Young, A. I., Thorgeirsson, T. E., ... Stefansson, K. (2018). The nature of nurture: Effects of parental genotypes. *Science*, 359, 424–428. <https://doi.org/10.1126/science.aan6877>
- Kuska, B. (1998). Beer, Bethesda, and biology: How genomics came into being. *Journal National Cancer Institute*, 90(2), 93.
- Lacal, I., & Ventura, R. (2018). Epigenetic inheritance: Concepts, mechanisms and perspectives. *Frontiers in Molecular Neuroscience*, 11, 292. <https://doi.org/10.3389/fnmol.2018.00292>. eCollection 2018.
- Lee, J., Kwak, Y., Kim, Y. J., Kim, E. J., Park, E. J., Shin, Y., & Lee, S. I. (2019). Transgenerational transmission of trauma: Psychiatric evaluation of offspring of former “Comfort Women,” survivors of the Japanese military sexual slavery during World War II. *Psychiatry Investigation*, 16(3), 249–253. <https://doi.org/10.30773/pi.2019.01.21>. Epub 2019 Mar 21.
- Lehrman, D. S. (1953). A critique of Konrad Lorenz' theory of instinctive behavior. *Quarterly Review of Biology*, 28(4), 337–363.
- Lehrman, D. S. (1965). Interaction between internal and external environments in the regulation of the reproductive cycle of the ring dove. In F. A. Beach (Ed.), *Sex and behavior* (pp. 355–380). New York: Wiley.
- Leonard, W. R. (2018). Centennial perspective on human adaptability. *American Journal of Physical Anthropology*, 165, 813–833. <https://doi.org/10.1002/ajpa.23401>
- Lerner, M. J., & Simmons, C. H. (1966). Observer's reaction to the “innocent victim”: Compassion or rejection? *Journal of Personality and Social Psychology*, 4(2), 203–210. <https://doi.org/10.1037/h0023562>
- Lerner, M. J. (1980). *The belief in a just world*. New York: Springer Science-Business.
- Li, E., Beard, C., & Jaenisch, R. (1993). Role for DNA methylation in genomic imprinting. *Nature*, 366(6453), 362–365.

- Li, S., Chen, M., Li, Y., & Tollefsbol, T. O. (2019). Prenatal epigenetics diets play protective roles against environmental pollution. *Clinical Epigenetics*, *11*(1), 82. <https://doi.org/10.1186/s13148-019-0659-4>
- Lips, H. (2019). *Gender: The basics* (2nd ed.). New York: Routledge.
- Lorenz, K. Z. (1952). *King Solomon's ring*. London: Methuen Publishing.
- Lubin, F. D., Roth, T. L., & Sweatt, J. D. (2008). Epigenetic regulation of BDNF gene transcription in the consolidation of fear memory. *Journal of Neuroscience*, *28*, 10576–10586. <https://doi.org/10.1523/JNEUROSCI.1786-08.2008>
- Manuck, S. B., & McCaffery, J. M. (2014). Gene-environment interaction. *Annual Review of Psychology*, *65*(1), 41–70. <https://doi.org/10.1146/annurev-psych-010213-115100>
- Marcus, G. E. (2013). *Political psychology: Neuroscience, genetics, and politics*. New York: Oxford University Press.
- McLaughlin, M. (1997). The ultimate political animal. *Res Publica*, New York: Springer.
- Mello, C. V. (2004). Gene regulation by song in the auditory telencephalon of songbirds. *Frontiers in Bioscience*, *9*(1-3), 63–73.
- Meloni, M. (2015). Epigenetics for the social sciences: justice, embodiment, and inheritance in the postgenomic age. *New Genetics and Society*, *34*(2), 125–151.
- Miller, G. E., Chen, E., Fok, A. K., Walker, H., Lim, A., Nicholls, E. F., ... Kobor, M. S. (2009). Low early-life social class leaves a biological residue manifested by decreased glucocorticoid and increased proinflammatory signaling. *Proceedings of the National Association of Science*, *106*(34), 14716–14721. <https://doi.org/10.1073/pnas.0902971106>
- Moffitt, E., Caspi, A., & Rutter, M. (2006). Measured gene-environment interactions in psychopathology: Concepts, research strategies, and implications for research, intervention, and public understanding of genetics. *Perspectives on Psychological Science*, *1*(1), 5–27. <https://doi.org/10.1111/j.1745-6916.2006.00002.x>
- Moore, D. S. (2015). *The developing genome: An introduction to behavioral epigenetics*. New York: Oxford University Press.
- Moore, D. S., & Shenk, D. (2017). The heritability fallacy. *Wiley Interdisciplinary Reviews: Cognitive Science*, *8*(1-2). <https://doi.org/10.1002/wcs.1400>
- Moore, L. D., Le, T., & Fan, G. (2013). DNA methylation and its basic function. *Neuropharmacology*, *38*(1), 23–38. <https://doi.org/10.1038/npp.2012.112>
- Newkirk II, V. R. (2018, February 28). Trump's EPA concludes environmental racism is real. *The Atlantic*. <https://www.theatlantic.com/politics/archive/2018/02/the-trump-ad...>
- Ngun, T. C., & Vilain, E. (2014). The biological basis of human sexual orientation: Is there a role for epigenetics? In D. Yamamoto (Ed.), *Epigenetic shaping of sociosexual interactions: From plants to humans* (pp. 167–184). Cambridge, MA: Elsevier.
- Niemi, L., & Young, L. (2016). When and why we see victims as responsible: The impact of ideology on attitudes toward victims. *Personality and Social Psychology Bulletin*, *42*(9), 1227–1242. <https://doi.org/10.1177/0146167216653933>
- Nilsson, E., Sadler-Riggleman, I., & Skinner, M. K. (2018) Environmentally induced epigenetic transgenerational inheritance of disease. *Environmental Epigenetics*. *4*(2), 1–13, dvy016.
- NIH: National Human Genome Research Institute. (2016, April 1). <https://www.genome.gov/about-genomics/fact-sheets/Epigenomics-Fact-Sheet>
- Payne-Sturges, D. C., Marty, M. A., Perera, F., Miller, M. D., Swanson, M., Ellickson, K., ... Hertz-Picciotto, I. (2019). Healthy air, healthy brains: Advancing air pollution policy to protect children's health. *American Journal of Public Health*, *109*(4), 550–554. <https://doi.org/10.2105/AJPH.2018.304902>
- Pembrey, M., Saffery, R., & Bygren, L. O. (2014). Human transgenerational responses to early-life experience: Potential impact on development, health and biomedical research. *Journal of Medical Genetics*, *51*, 563–572. <https://doi.org/10.1136/jmedgenet-2014-102577>
- Perroud, N., Paoloni-Giacobino, A., Prada, P., Olié, E., Salzmann, A., Nicastro, R., & Malafosse, A. (2011). Increased methylation of glucocorticoid receptor gene (NR3C1) in adults with a history of childhood maltreatment: A link with the severity and type of trauma. *Translational Psychiatry*, *1*(12), e59–e59. <https://doi.org/10.1038/tp.2011.60>

- Plomin, R., DeFries, J. C., & Loehlin, J. C. (1977). Genotype-environment interaction and correlation in the analysis of human behavior. *Psychological Bulletin*, *84*, 309–322. <https://doi.org/10.1037/0033-2909.84.2.309>
- Plomin, R., DeFries, J. C., McClearn, G. E., & McGuffin, P. (2008). *Behavioral genetics*. New York: Worth Publishers.
- Powledge, T. M. (2011). Behavioral epigenetics: How nature shapes nurture. *Bioscience*, *61*(8), 588–592. <https://doi.org/10.1525/bio.2011.61.8.4>
- Pray, L. A. (2004). Epigenetics: Genome meet your environment. *The Scientist*, *18*, 14–20.
- Rabin, J. S. (1975). Effects of varying sucrose reinforcers and amobarbital sodium on positive contrast in rats. *Learning and Behavior*, *3*(4), 290–294.
- Rabin, J. S. (1986). Adaptation across the lifespan: Evolution, future shock, and sex roles. In J. D. Sinnott (Ed.), *Sex roles and aging: Theory and research from a systems perspective*. Basel: Karger.
- Rabin, J. G. (2004). *Surviving the crossing: (Im)migration, ethnicity, and gender in Willa Cather, Gertrude Stein, and Nella Larsen*. New York: Routledge.
- Rice, W. R., Friberg, U., & Gavrilets, S. (2012). Homosexuality as a consequence of epigenetically canalized sexual development. *Quarterly Review of Biology*, *87*(4), 343–368.
- Robison, S. K. (2016). The political implications of epigenetics: Emerging narratives and ideologies. *Politics and the Life Sciences*, *35*(2), 30–53. <https://doi.org/10.1017/pls.2016.14>
- Robison, S. K. (2019). *Epigenetics and public policy: The tangled web of science and politics*. Santa Barbara: ABC-CLIO.
- Rode, A., & Shephard, R. J. (1984). Growth, development, and acculturation – A ten-year comparison of Canadian Inuit children. *Human Biology*, *56*, 217–230.
- Rode, A., & Shephard, R. J. (1994). Physiological consequences of acculturation: A 20-year study of an Inuit community. *European Journal of Applied Physiology*, *69*, 516–524.
- Sack, H. (2018). *Konrad Lorenz and the study of instinctive behaviour of animals*. SciHi Blog Daily blog on science, tech, & art in history. 7 November [scihi.org/konrad-lorenz-behaviour-animal/](https://doi.org/10.1017/pls.2016.14)
- Sagiv, S. K., Bruno, J. L., Baker, J. M., Palzes, V., Kogut, K., Rauch, S., ... Eskenazi, B. (2019). Prenatal exposure to organophosphate pesticides and functional neuroimaging in adolescents living in proximity to pesticide application. *Proceedings of the National Academy of Sciences*, *116*(37), 18347–18356.
- Sambeat, A., Gulyaeva, O., Dempersmier, J., & Sul, H. S. (2017). Epigenetic regulation of the thermogenic adipose program. *Trends Endocrinology and Metabolism*, *28*(1), 19–31. <https://doi.org/10.1016/j.tem.2016.09.0>
- Sassone Corsi, P., & Christen, Y. (Eds.). (2012). *Epigenetics, brain and behavior*. New York: Springer.
- Schulz, L. C. (2010). The Dutch Hunger Winter and the developmental origins of health and disease. *Proceedings of the National Academy of Sciences*, *107*(39), 16757–16758. <https://doi.org/10.1073/pnas.1012911107>
- Scorza, P., Duarte, C. S., Hipwell, A. E., Posner, J., Ortin, A., Canino, G. J., & Monk, C. (2019). Research Review: Intergenerational transmission of disadvantage: Epigenetics and parents' childhoods as the first exposure. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *60*(2), 119–132. <https://doi.org/10.1111/jcpp.12877>
- Scott, J. P., & Fuller, J. L. (1965). *Genetics and the social behavior of the dog: The classic study*. Chicago: University of Chicago Press.
- Settle, J. E., Dawes, C. T., & Fowler, J. H. (2009). The heritability of partisan attachment. *Political Research Quarterly*, *62*(3), 601–613. <https://doi.org/10.1177/1065912908327607>
- Settle, J. E., Dawes, C. T., Christakis, N. A., & Fowler, J. H. (2010). Friendships moderate an association between a dopamine gene variant and political ideology. *Journal of Politics*, *72*(4), 1189–1198. <https://doi.org/10.1017/S0022381610000617>
- Settle, J. E., Dawes, C. T., Loewen, P. J., & Panagopoulos, C. (2017). Negative affectivity, political contention, and turnout: A genopolitics field experiment. *Political Psychology*, *38*, 1065–1082. <https://doi.org/10.1111/pops.12379>
- Shephard, R. J., & Rode, A. (1996). *Health consequences of 'modernization': Evidence from circumpolar peoples*. Cambridge: Cambridge University Press.

- Simpson, E. A., Sclafani, V., Paukner, A., Kaburu, S. S. K., Suomi, S. J., & Ferrari, P. F. (2019). Handling newborn monkeys alters later exploratory, cognitive, and social behaviors. *Developmental Cognitive Neuroscience*, 35, 12–19. <https://doi.org/10.1016/j.dcn.2017.07.0>
- Skinner, M. K. (2015). Environmental epigenetics and a unified theory of the molecular aspects of evolution: A neo-Lamarckian concept that facilitates neo-Darwinian evolution. *Genome Biology and Evolution*, 7(5), 1296–1302. <https://doi.org/10.1093/gbe/evv073>
- Snyder, M., & Gerstein, M. (2003). Defining genes in the genomics era. *Science*, 300, 258–260.
- Suhay, E., & Jayaratne, T. E. (2013). Does biology justify ideology? The politics of genetic attribution. *Public Opinion Quarterly*, 77(2), 497–521. <https://doi.org/10.1093/poq/nfs049>
- Sun, W., Dong, H., Becker, A. S., Dapito, D. H., Modica, S., Grandl, G., ... Wolfrum, C. (2018). Cold-induced epigenetic programming of the sperm enhances brown adipose tissue activity in the offspring. *Nature Medicine*, 24(9), 1372–1383. <https://doi.org/10.1038/s41591-018-0102-y>
- Suomi, S. J. (2011). Risk, resilience, and gene-environment interplay in primates. *Canadian Academy of Child and Adolescent Psychiatry*, 20(4), 289–297.
- Terrizzi, J. A., Jr., Shook, N. J., & McDaniel, M. A. (2012). The behavioral immune system and social conservatism: A meta-analysis. *Evolution and Human Behavior*, 34(2), 99–108.
- Thomas, A., Chess, S., & Birch, H. G. (1970). The origin of personality. *Scientific American*, 223(2), 102–109. <https://doi.org/10.1038/scientificamerican0870-102>
- Tinbergen, N. (1951). *The study of instinct*. New York: Oxford University Press.
- Tobach, E. (1976). Evolution of behavior and the comparative method. *International Journal of Psychology*, 11(3), 185–201.
- Tobi, E. W., Sliker, R. C., Luijk, R., Dekkers, K. F., Stein, A. D., Xu, K. M., ... Heijmans, B. T. (2018). DNA methylation as a mediator of the association between prenatal adversity and risk factors for metabolic disease in adulthood. *Science Advances*, 4(1), 4364. <https://doi.org/10.1126/sciadv.aao4364>
- Toffler, A. (1970). *Future shock*. New York: Bantam Books.
- Toffler, A. (1980). *The third wave*. New York: Bantam Books.
- Tollefsbol, T. (Ed.). (2019). *Transgenerational epigenetics* (Vol. 13, 2nd ed.). Cambridge, MA: Academic.
- Turecki, G., & Meaney, M. J. (2016). Effects of the social environment and stress on glucocorticoid receptor gene methylation: A systematic review. *Biological Psychiatry*, 79, 87–96. [www.biologicalpsychiatryjournal.com/article/S0006-3223\(14\)00967-6/pdf](http://www.biologicalpsychiatryjournal.com/article/S0006-3223(14)00967-6/pdf)
- Uddin, M., Aiello, A. E., Wildman, D. E., Koenen, K. C., Pawelec, G., de Los Santos, R., ... Galea, S. (2010). Epigenetic and immune function profiles associated with posttraumatic stress disorder. *Proceedings of the National Academy of Science USA*, 107, 9470–9475. <https://doi.org/10.1073/pnas.0910794107>
- Waddington, C. H. (1942). The epigenotype. *Endeavor*, 1, 18–20.
- Waddington, C. H. (1957). *The strategy of the genes: A discussion of some aspects of theoretical biology*. London: George Allen & Unwin.
- Weinschenk, A. C., & Dawes, C. T. (2018). Genes, personality traits, and the sense of civic duty. *American Politics Research*, 46(1), 47–76. <https://doi.org/10.1177/1532673X17710760>
- Weinschenk, A., Dawes, C., Kandler, C., Bell, E., & Riemann, R. (2019). New evidence on the link between genes, psychological traits, and political engagement. *Politics and the Life Sciences*, 38(1), 1–13. <https://doi.org/10.1017/pls.2019.3>
- Wilson, E. O. (1975). *Sociobiology: The new synthesis*. Cambridge, MA: Harvard University Press.
- Witherington, D. C., & Lickliter, R. (2017). Transcending the nature-nurture debate through epigenetics: Are we there yet? *Human Development*, 60(2-3), 65–68. <https://doi.org/10.1159/000478796>
- Wrangham, R. W. (2018). Two types of aggression in human evolution. *Proceedings of the National Academy of Sciences*, 115(2), 245–253.
- Zhang, R. (Ed.). (2018). *The epigenetics of autoimmunity*. Cambridge, MA: Elsevier Science.
- Zimmer, C. (2019, April 12). *Sibling rivalry of sorts in a study of life in orbit* (p. A20). *The New York Times*.

How Diversity in Nature Impacts Political Psychology



Joan S. Rabin

We are the human primate and our biological heritage is not irrelevant to our behavior, motivation and emotions. Most books and research on evolutionary heritage stress traits and not behaviors. If we want to understand how our evolutionary heritage influences our behavior we need to understand animal behavior (ethology). We have been called the political animal by everyone from Aristotle to Peter Hatemi and Rose McDermott (*Man is by nature a political animal: Evolution, biology, and politics*). Politics is based on social relationships and humans are profoundly social, as are our nearest relatives, the chimpanzees and bonobos. Politics is ultimately about power. Humans, chimpanzees, and bonobos create power dynamics within social structure.

It is also critical not to lose sight of the underlying developmental interaction of genetics and environment such that an examination of our evolutionary heritage and the relevant ethology does not mean that we have suddenly shifted toward a genetic determinism explanation of evolution and behavior. Sidanius & Kurzban, (2013) present an evolutionary approach to political psychology which rejects the nature/nurture dichotomy. “For any trait of any organism, it must be true that changes to its genes or its developmental environment could alter the trait—the construction of the phenotype is inherently an interaction” (p. 212). On the other hand, Hibbing, Smith, & Alford (2014), conclude that studies of the genetics of taste preference in fruit flies are relevant to the biopsychology of politics because “variation in tastes and preferences ... is connected to political orientations” (2014, p. 90–91) and the underlying genetics explains some of our differences. Liberals and conservatives differ in taste, preferences, lifestyles, and just about everything else (Hetherington & Weiler, 2018).

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Perspectives

Evolution from a Feminist Perspective

The advent of the 21st century has brought a powerful new feminist view of biology. Books by eminent feminist biologists directly challenge sociobiology and biological determinism in science. Evolutionary biologist, Joan Roughgarden (2004), reconceptualizes the nature of sexual identity in the animal and human world. Behavioral ecologist, Marlene Zuk (2003) insists that we stop politicizing animal behavior and instead enjoy the diversity of animal life in nature for its own sake while still adhering to the scientific method. Brain development and animal behavior specialists Gisela Kaplan and Lesley Rogers (2003) offer a feminist perspective on the “gene hysteria” that is overtaking modern culture. The genetic determination explanations for gender differences that abound ignore the profound influences of culture and environment on behavior. Kaplan and Rogers reiterate the discouraging history within sociobiology of linking genetics and hormones to the fixed determination of women’s roles in society, a long history of linking biological determination to human limitation.

These efforts were presaged by feminist evolutionary biologists such as primatologist Sarah Hrdy (*The woman that never evolved*, 1981) and avian behavioral ecologist Patricia Gowaty (*Feminism and evolutionary biology*, 1997). Geneticist Evelyn Fox Keller (1982, 2000) suggested that science could benefit from increased objectivity brought by feminist perspectives. All of these feminist scholars operate within an interactionist framework as opposed to a nature-nurture model that invites biological determinism of traits and behaviors. “Anyone who studies behavior quickly realizes that it is impossible to separate the environment from the organism experiencing it, so that all traits are necessarily the result of an interaction between the animal and its perceived world” (Zuk, 2003, p. 50). Keller (2010) titled her article in the *New Scientist* “Goodbye nature vs nurture debate,” indicating that biological determinism was effectively demolished by epigenetics.

Ruth Hubbard, a Harvard biochemist, “wrote essays critiquing the assumptions of Charles Darwin, E. O. Wilson and Watson and Crick. Her work largely dismantled biological theories about gender inequality” (Corbett, 2016, para. 8). She recognized that the very questions in science came almost exclusively from white men who were limited by a gendered experience of life which placed men at the center of power and privilege. “Most of the difficulties derive from the fact that true objectivity is not possible for human beings rooted in cultural traditions” (Lowe & Hubbard, 1979, p. 144).

Biological Determinism Problem

The science of biology is of importance to many feminists because women’s biology has been used to rationalize women’s oppression (Bleier, 1984, 1986; Fehr, 2008; Hubbard, 1990; Tonn, 2018). This has far reaching implications for political

psychology. Many of the positions common to conservatives are based on a socio-biological view of women's genetically pre-ordained roles.

Feminists have pointed out that much of the political power of these sorts of biological arguments arises from problematic assumptions of determinism ... assumptions of a close connection between women's biology, in terms of genes, hormones, and physiology, and women's psychological attributes and social positions. The general notion is that biology, as opposed to culture, is static and fixed. As a result, some contend that any political activity designed to change or improve women's condition is trying to create an 'unnatural' system that is doomed to fail (Fehr, 2011, 2018, p. 3).

Sociobiology

This view from the early nineteenth century science was revived and energized by Wilson (1975). Wilson's sociobiology has created a biological justification for the societal and institutional oppression of women with its framework of biological determinism of behavior. But evolution need not be interpreted in this way. Other evolutionary biologists see our biological heritage in much more enlightened terms (Gould, 1979; Cliquet, 1984; Gowaty, 1997; Hrdy, 1981, 2009; Roughgarden, 2004). Early on Cavalli-Sforza and Feldman (1981) countered Wilson's approach with a mathematical analysis that demonstrated how powerful cultural transmission of behavior can be. In modern times sociobiology has morphed into behavioral ecology and neurobiology which can range from deterministic to interactionist in outlook.

Robert Sapolsky (2017) points out that much of the vitriol around sociobiology has quieted as modern sociobiologists have toned down the extremes of the biological determinism perspective. At the same time the meteoric rise of epigenetic analysis in the last decade has reframed the whole notion of determinism such that a more interactionist approach has become common, especially in medical research (Moffitt, Caspi, & Rutter, 2006; Zhang, 2018). Yet, "epigenetics, which is just beginning to attract public attention and policy discussion, challenges conventional understanding of gene-environment interaction and intergenerational inheritance and perhaps much more besides" (Robison, 2016, p. 30). Because epigenetics is a process not a structure like a DNA molecular sequence, it is more likely that a flexible liberal brain, more used to dealing in gray areas, will accommodate to the reality of epigenetics more readily than a more fixed conservative brain. Process is far more challenging to conceptualize than structure. Whatever their cognitive style or brain function pattern, most people would rather deal with the fixed than the fluid.

Developmental Interactionism, Epigenetics and Diversity

Epigenetics activates and regulates genes in the DNA. Jerram Brown's (1975) formula is a helpful way to visualize epigenetics at work in a developmental interaction: $P_1 + G_1 + E_1 = P_2$. The phenotype represents both the physical appearance of

the organism and the stage of development that the organism is in. The genotype represents the genes (DNA codes) that are available to be activated at a specific stage of development. The environment represents both the internal and external environment impinging on the organism at that stage of development (Phenotype #1 + Genotype #1 + Environment #1 = Phenotype #2). Many genes can only be activated at specific developmental stages, and never again. Epigenetics is the means by which the environment influences when and if the genetic code will be read-out. It is important to focus on the developmental aspect of epigenetics because the timing of epigenetic stimulation is critical to the outcome.

Paradigms provide ways of understanding how things work. The developmental interactionist paradigm provides an elegant framework for appreciating the impact of the diversity of behavior on living systems (Rabin, 2006, 2007). This paradigm of how genes and environment work intimately together to produce the nuances of traits and behaviors replaces the atavistic nature-nurture absurdity that has hounded the discipline of Psychology throughout the 20th century and even in to the 21st.

Epigenetics and Ethology

The study of animal behavior in the laboratory (Comparative Psychology) and in the wild (Ethology) contributes valuable insights into human proclivities and helps us to appreciate how evolution and genetics have shaped our heritage. Conservatives are wedded to tradition and are more comfortable with dualistic opposites, particularly male-female. They are more likely to feel threatened by ambiguity. The research on the diversity of biological sex has revealed a world filled with diversity where the concept of normal is severely challenged. Sexual diversity and sexual ambiguity in nature present a problem for the conservative mind. Yet, most people are unaware of this rich diversity and the term opposite sex is the most commonly used in our culture when speaking of women and men. The sexes are far from opposites and sexual diversity is the theme in nature. This is something we all need to become more familiar with so that we are more comfortable with the reality of nature rather than the prevailing myths in our culture.

Nurturance Versus Aggression: The Serotonin Factor

Rhesus monkeys are found in widely ranging climates and living conditions. There is a long tradition in Comparative Psychology of gathering principles of development relevant to humans from research on rhesus monkeys, *Macaca mulatta* (Harlow, 1971). Serotonin is a hormone critical to normal emotional functioning. A step in the manufacture of serotonin in the nervous system involves a biochemical called CSF 5-HIAA (cerebrospinal fluid 5-hydroxyindoleacetic acid). Low levels of CSF 5-HIAA are “associated with impaired impulse control, severe aggression, and

social incompetence” in both humans and rhesus monkeys (Westergaard, Suomi, Higley, & Mehlman, 1999, p. 440). CSF 5-HIAA levels are genetically related.

Some people and some rhesus monkeys are born with low levels of CSF 5-HIAA due to their genetic heritage. However, the expression of these genes into behavior can be greatly influenced by the kind of nurturing experience the youngster receives. In the case of rhesus monkeys, Stephen Suomi (2003) has demonstrated that “good mothering can protect against poor genes” by affecting the expression of the genes into phenotypes.

Monkeys who were well nurtured showed higher serotonin levels than monkeys who received very little nurturance. The well nurtured monkeys demonstrated acceptable social behavior and aggression levels within their groups despite their genetic heritage that made it harder for them to produce appropriate serotonin levels.

Suomi (2004) specifically indicates that biobehavioral phenotypes are modifiable by the early environment. The strength of the attachment between infant and mother is a critical factor in offsetting the influence of genes that have the potential to produce inadequate levels of serotonin in the primate. If we put what Suomi is describing into the format of the epigenesis model of Jerram Brown (1975) then $G_{30} + E_{30} + P_{30} = P_{31}$.

G_{30} = serotonin level

E_{30} = degree of maternal nurturance

P_{30} = infancy

P_{31} = next stage of development in infancy

Whether an individual generally behaves aggressively or peacefully is the consequence of a complex interaction between genes and environment, especially during the early stages of post-natal development. This is as true in rhesus monkeys as in the human primate. If we want to understand the roots of early aggression we must look beyond a simple biological determinism model (you have the gene, you have the behavior) to a developmental-interactionist model (Brown, 1975; Rabin, 1986) in which genes and environment are bound up in an intricate relationship that cannot be functionally separated.

Gonadotropin-Releasing Hormone and the Epigenetics of Fertility

Mating and social rank are closely linked for many animals. Lower rank animals frequently fail to mate. In the cichlid fish *Astatotilapia (Haplochromomis) burtoni* *Astatotilapia (Haplochromomis) burtoni* males come in two phenotypes. The high-ranking males are a vibrant yellow color in addition to the blue color that characterizes all males. Low ranking males are not only dull colored but sterile. However, if the dominant male is removed from the group (usually thorough predation) the subordinate male will change color in minutes and his behavior will also change as he begins to court females for the first time first time. This rapid physical and behav-

ioral change in response to a social environmental stimulus is remarkable. Even more extraordinary is the change in the fish's reproductive system that makes him fertile in one week after the removal of the dominant male from the group. Burmeister, Jarvis, and Fernald (2005) have demonstrated the link between the social environment (E) and the activation of a specific gene (G) during the adult stage of development (P). The change in the social environment signaled by the removal of the dominant male cichlid resulted in the activation of a gene known as immediate-early gene *egr-1* in the brain (anterior preoptic area) of the subordinate fish. The expression of immediate-early gene *egr-1* triggered a molecular cascade that resulted in physiological changes that made the fish fertile. Thus, the social environment was the trigger for genetic activity influencingcontrolling reproduction and dominance behavior.

Evolution: Theories and Modifications

It is critical that a complete and thorough understanding of biological reality is obtained before a discussion of biopsychology and politics can take place. Most people are unfamiliar with the specifics of evolutionary theory. Although conservatives are prone to believing that women's place in the world is ordained by "nature," they often do not believe that evolution is the process by which nature exists. The notion that nature is immutable and God-given leads to an expectation of strict biologically based gender limitations. Throughout the history of the nineteenth and twentieth centuries men have banned women from participating in everything from medical school to the Boston marathon based on theories of mental and physical limitation that bear no relation to the evolutionarily based adaptive capacity and flexibility of species *Homo sapiens*. The conservative perspective of fixity of biologically-based traits limits the nurturance capacity expected of men. Both genders are perceived as being fixed into certain sex roles by biology (Sinnott & Rabin, 2012). Evolution is the process by which we have obtained our genetic heritage. It is vital to appreciate how evolution operates and how it does not and just what that genetic heritage is.

Natural Selection

Charles Darwin (1859) explained much of what he observed of evolution in nature by the process of natural selection (traits that increase survival in a specific environment will be selected). Darwin realized that for the most part it is the environment itself that operates as the selection factor. Natural selection means environmental selection. Each genetic code that we possess worked well in a specific environment.

Darwinian Sexual Selection

Darwin was aware that natural selection does not account for the extreme traits observable in many species (such as the peacock's enormous and spectacularly adorned tail). Darwin explained traits such as bright colors in male birds and antlers in male deer as based on sexual selection rather than natural selection. He argued that it is not the environment that selects these traits but rather the female. According to Darwin males evolve dramatic colors, patterns, and appendages so that the female will be stimulated enough to mate with the most outstanding male. Darwin also believed that males struggle among themselves for "possession" of the female.

The Darwinian view of sexual selection has been absorbed into Western Culture with the notion of women as sexual teases and men needing extreme physical qualities to attract women. The notion of males competing with each other for the affections of women also derives from Darwin. This view is compatible with conservative thinking about women. Because alternative views of evolution are not widely known even liberals often adhere to the Darwinian view of sexual selection. This is why it is so important to learn of other perspectives on evolution.

Joan Roughgarden (2004) is an evolutionary biologist who is reasonably comfortable with Darwin's theory of natural selection, as well as his main point that all life on earth has descended from a single source. However, Roughgarden takes strong exception to Darwin's theory of sexual selection. She is not the only feminist to do so. Hrdy (1981) and Gowaty (1997) have argued for a thorough reevaluation of Darwin's theory of sexual selection based on modern research data.

Social Selection

Roughgarden (2004) goes on to propose an entirely different way of explaining the selection process which works to produce both ornamental and sexual traits. She views these traits as derived from a process of social selection in evolution. Physical traits that confer social acceptance within the group are selected for in the course of evolution. She argues persuasively that sexual selection does not account for the data as effectively as social selection. Darwin argued that male rivalry and female choice are the dynamics that account for the process of sexual selection and the sometimes bizarre traits that animals exhibit (such as the excessive antlers of elk or the peacock's tail). Roughgarden (2004, p. 175) maintains that rather than seeking each other's genes animals within a species are trying to "obtain access to resources that enable the production and survival of the young... they are seeking access to the resources that each controls." Emphasis then redounds to those physical traits that confer social acceptance within the group. Roughgarden calls these "social-inclusionary traits" that explain everything from the female spotted hyena's penis to the placement of female genitalia in bonobos that allows face to face same-sex sexual behavior. Social inclusionary traits are fundamental to the evolution of societies, both animal and human (Christakis, 2019).

Social Inclusion

Japanese macaques are very social primates and live in mixed-sex groups of 50 to 200. Females form strong relationships with each other based on same-sex courtship and copulation. They do this despite the availability of males and will in fact repel males who try to come between them. Joan Roughgarden (2004) explains the frequency of female same-sex behavior in these monkeys quite simply. In terms of the dominance system among females there is a social necessity to make and keep allies. Female same-sex bonds offer not just pleasure but social inclusion, operating as “social-inclusionary traits” (p. 147).

Within this provocative feminist framework for understanding evolutionary survival animals are not seeking each other’s genes but rather they are seeking access to resources that each has. By sharing these resources reproduction becomes possible. Social selection is evolutionary selection for those physical and behavioral traits that enhance social acceptance within the group. This replaces Darwin’s theory of sexual selection with its emphasis on coy females and sperm-spreading males. The social selection paradigm completely undermines the claim that all males are biologically driven, rape-prone sperm spreaders and all women are teasers, endlessly evaluating the genetic suitability of a male suitor.

Social and Environmental Influences on Baboon and Chimpanzee Aggression

Traditionally in an ethology course, baboons have been used as an example of male hierarchy and male power through aggression (DeVore & Washburn, 1964). It took female primatologists to discover the role of female baboons in the power structure of baboon society (Altmann, 1980: *Baboon mothers and infants*; Small, 1984: *Female primates: Studies by women primatologists*). Female baboons live longer and become the repositories of ecological knowledge. They guide the troop to water when there is drought, remembering those far off places that retain water under the driest conditions. When a baboon troop travels, these older females are at the center of the troop where they are the most protected. The baboons at the periphery of the group are the adolescent males who are the most expendable and the most vulnerable to predation by leopards who prey on the outermost animals rather than face the combined power of the high-ranking males more centrally located.

It turns out that high levels of aggression in male baboons may not be a fixed part of their heritage. Robert Sapolsky and Lisa Share (2004) studied a troop of olive baboons in Kenya who switched from a high aggression culture to a low aggression culture after the most aggressive males died of bovine tuberculosis acquired from a garbage dump. The less aggressive males in the troop had avoided the dump because of the constant fighting over the concentrated food area. After the high-ranking males died the troop became much more peaceful and this new culture was main-

tained even when new males entered the troop from other troops. The new males adopted the culture of their new troop, shedding the culture of their birth troop. This research by Sapolsky and Share exemplifies the importance of considering environmental and social context when trying to explain behavior. What initially looked like biologically driven behavior of high aggression in males turned out to be culturally modifiable.

Male aggression in the common chimpanzee has been well documented (de Waal, 1982/2007; Goodall, 1990; Peterson & Wrangham, 1997). There are four subspecies of the common, or central chimpanzee. The western chimpanzee (*Pan troglodytes verus*) is much less violent than the more frequently studied central chimpanzee (*Pan troglodytes troglodytes*). The western chimpanzee is the only sub-species to live in a mixed savannah forest habitat, similar to that of our early human (hominin) ancestors. “For bonobos and western chimpanzees, ecological factors apparently allow relatively high gregariousness, which reduces the risk of experiencing a lethal attack” (Wilson, Boesch, Gilby, Hohmann, Itoh, Hashimoto . . . Wrangham, 2014, p.415). Once again, the environmental and social context exerts a moderating influence on aggression.

New Pathways in Evolution: Directed Evolution

Who would imagine that evolution could be harnessed in a process called “directed evolution” to create new enzymes and other biomolecules that can save the planet and life on earth. Frances Arnold recently received the Nobel Prize in Chemistry (2018) for doing just that. Existing proteins are chosen for some feature that seems useful. The gene that codes the protein is mutated through a polymerase chain reaction. The resulting microbes are able to do things never before imagined: carbon and silicone can be bonded together as can carbon and boron (Arnold, 2018). Arnold, an ardent environmentalist, explained that “in the lab, we’re discovering that nature can do chemistry we never dreamed was possible” (Angier, 2019, p. D1). Directed evolution can produce unique enzymes that trigger chemical reactions that are cleaner and more efficient than current chemical protocols which rely on solvents, plastics and precious metals (Angier, 2019). Even the manufacture of biofuels can be made with far less damage to the environment (Krämer, 2018). The protein engineering of directed enzyme evolution copies how natural selection operates in the evolutionary process.

Domestication

Domestication of wild species indicates a clear pattern of reduced aggression (Belyaev, Ruvinsky, & Trut, 1981). Traits such as aggression tend to evolve in concert with a group of traits. The selection process which lowers aggression affects

these ancillary traits as well. Domesticated animals “tend to exhibit correlations across traits that are not only behavioural but also morphological, physiological and cognitive, including variations in body coloration, cranial shape, dentition, brain size, activation of the hypothalamic pituitary adrenal (HPA) axis and problem-solving abilities” (Hare, Wobber, & Wrangham, 2012, p. 1). The skull of domesticated animals retains a juvenile structure making the cranium, jaw, and canine teeth smaller, and reducing bony ridges and other protrusions. The brain becomes smaller and frequently so does the body. Sexually dimorphic traits (non-reproductive physical traits that distinguish the sexes) are frequently significantly reduced. Serotonin levels are increased reducing reactive aggression. Social differences emerge such that domesticated animals show greater tolerance and more pro-social behaviors and play activity (Wrangham, 2019).

Silver foxes were selectively bred based on their behavior toward humans at 7 months of age (Trut, Oskina, & Kharlamova, 2009). Fox kits that approached humans and did not bite were bred together. After 20 generations these foxes were as tame as dogs. They exhibited tail wagging, and submissive posturing. The foxes uttered a high-pitched whine around humans, a sound usually made by kits toward their mother. The change in the physical features of the foxes was dramatic. Floppy ears, curly or shortened tails, and a piebald coloration were common. Sexual dimorphism was reduced in males such that they more closely resembled females. The domesticated foxes had markedly lower levels of stress related corticosteroid levels and lower levels of corticosteroid reactivity to stimuli. Conversely, these foxes had high levels of serotonin (Hare et al., 2012). This biochemical combination reduces aggression (Belyaev et al., 1981).

Self-Domestication

The identical process of lower aggression, juvenilized physical appearance, and lessened sexual dimorphism that happens with the artificial selection process of domestication of wild animals also occurs when animals self-domesticate. Wolves changed into dogs on their own, not through human intervention (Hare, 2013). Those wolves whose temperaments allowed them to get closer to humans and their food resources benefitted greatly from the easily obtained calories. It was mostly the female wolves who had lower stress levels that were able to do this. Their offspring were more numerous and better nutritioned than that of completely wild wolves. This evolutionary benefit brought about the same self-domestication pattern that artificial selection produced in foxes.

The history of dogs is the “survival of the friendliest” (Hare, 2013). Brian Hare notes, “the physical changes that appeared in dogs over time, including splotchy coats, curly tails, and floppy ears, follow a pattern of a process known as self-domestication. It’s what happens when the friendliest animals of a species somehow gain an advantage. Friendliness somehow drives these physical changes, which can begin to appear as visible byproducts of this selection in only a few generations” (Handwerk, 2018, para. 20).

Survival of the Fittest

Political conservatives go for “survival of the fittest” based on the competition and dominance scenario rather than the cooperation and egalitarianism scenario more enticing to liberals (Jost et al., 2003; Tuschman, 2013). For political conservatives the world is a dangerous place, therefore competition and self-interest are appropriate survival strategies. Liberals perceive the world as a much friendlier place where the essential goodness of people prevails. Which scenario you go with matters greatly. Sadly, most people have only heard of Darwin’s survival of the fittest and not the more recent modifications of evolutionary theory that stress cooperation and fairness. Even worse, most people do not understand what fitness means. Fitness is measured by the number of off-spring produced who successfully make it to adulthood and go on to also reproduce. Fitness is about putting genes into the gene pool of a species long-term and is not a measure of strength or ferocity.

Fitness Value of Social Skills

“Caring, friendships, and the fitness value of social skills” have been demonstrated by Clay and de Waal (2013, p. 18121) in their research with bonobos in the Democratic Republic of the Congo. Bonobos are the other chimpanzee (*Pan paniscus*). Smaller and lighter weight than the better known, common chimpanzee (*Pan troglodytes*), bonobos are found only in the Congo (Diogo, Molnar, & Wood, 2017; de Waal, 1995; Kano, 1992). The development of socio-emotional competence in bonobos comes about through achieving a specific skill set regarding relationships. Bonobos have to learn how to form and maintain relationships and how to behave in an accepted way in social situations. Emotional learning is as important. Bonobos have to become sensitive to emotional cues from others and most important, they have to be able to control their own emotions in a social setting (Clay & de Waal, 2013). The end result is a remarkably peaceful society, although not entirely aggression free during mating (Hohmann & Fruth, 2003). Clearly, in bonobo society social skills have high fitness value.

Cognitive Rigidity Versus Cognitive Flexibility

Zero tolerance (absolute enforcement of regulations with no exceptions) is an example of the rule-bound more rigid conservative cognitive style reminiscent of the red-light green-light decision making of the blue-footed booby (Gould, 1983). Boobies nest in guano rings that they create to delineate their territory. If a nestling stays within the guano circle it is nurtured and fed, if the young booby ventures outside the circle the parent will attack it. The brain of the booby cannot process complexity.

Zero tolerance in nature is sad to watch and it can be just as damaging when humans apply it. The whole evolutionary point of species *Homo sapiens* is survival through problem solving capacity. We are the learning species. In that mode, flexibility is essential to dealing with complexity and ambiguity. Liberals tend toward flexibility, a high tolerance for ambiguity and uncertainty, and attraction to new experiences and sensations Mendez (2017). Staunch conservatives are more likely to go with the blue-footed booby approach and tend to approve of zero tolerance protocols, denying the very essence of species *Homo sapiens*.

Ecofeminism and Cooperation

Modern industrial and technological society has subjugated and devalued both nature and women (Merchant, 1980). Ecofeminism is based on the view that “life in nature (which includes human beings) is maintained by means of cooperation, and mutual care and love” (Mies & Shiva, 1993, p. 164). This feminist emphasis on cooperation is reflected in Roughgarden’s (2004) concept of social inclusion. Cooperation is as important a force in evolution as competition (Dobzhansky, 1962). This powerful insight alters the original Darwinian conception of competition for resources being the driving force for evolutionary change. More recent theory and research has filled in the specifics of the ecofeminism vision of cooperation in evolution (Boyd & Richerson, 2009; Hammerstein, 2003; Sachs, Mueller, Wilcox, & Bull, 2004; Tomasello, Melis, Tennie, Wyman, & Herrmann, 2012). Hopefully, the new book by Nicholas Christakis, *Blueprint: The evolutionary origin of a good society* (2019), will help to mitigate the popular survival-of-the-fittest notion of dominance by the emphasis on “social suites”. The nucleus of every society is the social suite consisting of individuality, love, friendship, social networks, cooperation, in-group preference, a degree of egalitarianism, and capacity for both learning and teaching in a social context. “These traits are evolutionarily rational, in other words, enhancing our Darwinian fitness and advancing our individual and collective interest” (Christakis, 2019, p. 15). Christakis notes that even human infants have a sense of fairness and reciprocity which form the basis of cooperation.

Cooperation, Fairness and Reciprocity

Cooperation is based on the premise of fairness and reciprocity. Our primate relatives are highly attuned to fairness. Capuchin monkeys demonstrate a finely honed sense of fairness and reciprocity. When two monkeys are housed side by side and each given a cucumber reward for presenting a token to the researcher all is well. But when one monkey is given a grape while the other still gets a less desirable cucumber slice for the same behavior, the injustice is obvious and the monkey gets very upset (Brosnan & de Waal, 2003).

Collaborative foraging in early humans represented a winning strategy for survival. The nature of foraging made cooperation mutually beneficial. Interdependence became an effective way for the group to survive. This mutualistic collaboration formed the basis of such interdependence. As a result of this evolutionary history, humans tend to share rather generously and fairly (Tomasello et al., 2012).

Humans, as already evident in young children, have evolved a suite of cognitive and motivational mechanisms for sharing food cooperatively, coordinating and communicating toward joint goals with complementary roles, and engaging in various kinds of reputation-based social selection (including a concern for self-reputation as a cooperater)—what we have called skills and motivations for joint intentionality (Tomasello et al., 2012, p. 680).

Cultural Evolution

Cultural evolution of society-wide cooperation occurs especially fast in rapidly changing environments (Boyd & Richerson, 2009). The habitats occupied by early humans underwent rapid change due to climate instability (Potts & Sloan, 2010). The capacity for culture to respond much more quickly than genetic evolution allowed for rapid adaptation to new circumstances. Cooperation made these adaptations work.

“Humans have a constellation of psychological traits built for culture, including the tendency to conform to what others are doing ...” (Christakis, 2019, p. 367). Conformity and cooperation go together. Unfortunately, conformity is also the basis of authoritarianism.

Status in social groups of animals is typically about dominance based on power. But status can also be accorded in relation to prestige based on the benefits an animal can offer. Lemurs who possess important survival information or skills are accorded prestige and play a central role in ring-tailed lemur (*Lemur catta*) society (Kulahci, Ghazanfar, & Rubenstein, 2018). We have evolved to value prestige even at a young age. “Insecure politicians exploit these types of cues, making ostentatious displays of fawning audiences in order to enhance their prestige in the eyes of others” (Christakis, 2019, p. 369). Trump’s constant returning to his political base for rallies during his presidency speaks volumes about his need for prestige.

Evolution of the Human Primate

“Humans are culture-bearing and culture-dependent animals not only in myth, ritual, and art forms but also in social structure, technology, and use of the environment” (Tanner, 1981, p. 22). The major primate adaptation that made human culture possible is decelerated early growth allowing a greatly extended infancy and childhood (humans have the longest childhood of any animal). The more closely a primate is related to *Homo sapiens* the slower the growth pattern and the longer the period of maternal attachment in infancy and childhood. Emotion plays a large role

in the infant learning environment thanks to the strong maternal-infant bond typical of primates. Social interactions with immediate and extended family members provide a rich learning environment for humans and our closest primate relatives.

Sapiens means wise in Latin. *Homo sapiens* would be better categorized as the “learning” being as our wisdom is very much in question given the human track record of environmental destruction, species extinction, and warfare starting very early in our history. Learning comes about through observation, imitation, practice and reinforcement. It is the ultimate social experience for the young of our species and our primary survival mechanism as a species.

Our chances of survival as individuals is remote. We aren’t very fast compared to our predators, we don’t have any armament such as claws or large sharp fangs, we don’t possess any protective armored coverings or even a thick pelt. What we do have is our brains and an astounding capacity for endless learning. This allows us to create complex tools and technology for survival. But the most important survival tool we have is our social interconnectedness. “Essentially, the human condition is one of interdependence and this comprises a large part of our adaptation capacity” (Rabin, 1986, p. 26).

Close Relatives

Our nearest hominid relatives are the common chimpanzee and the bonobo, the two species of the genus *Pan*. The common chimpanzee (*Pan troglodytes*) is familiar to most people. The other chimpanzee, the bonobo (*Pan paniscus*) is similar in appearance, being somewhat slimmer and smaller than the taller and stockier common chimpanzee although bonobos in the wild are more muscular than captive bonobos. Two features that quickly distinguish the two species is that bonobos have pink lips compared to the brown of the common chimpanzee and bonobos have stylishly long head hair which often falls into a natural part down the middle. Finally, the deep pant hoot of the common chimpanzee made famous by Dr. Jane Goodall is missing in the bonobo which has a higher pitched voice (de Waal, 1995).

The common chimpanzee and the bonobo separated from their common ancestor somewhere between one million years ago (Prüfer, Munch, Hellmann, Akagi, Miller, Walenz, . . . & Pääbo, 2012) and two million years ago (Diogo, Molnar, & Wood, 2017). “In fact, it is now becoming increasingly accepted that the bonobo-chimpanzee divergence was mainly due to the barrier to gene flow created by the formation of the Congo River c.1.5–2.5 Mya” (Diogo et al., 2017). All bonobos are found in the Democratic Republic of the Congo, below the Congo River. Chimpanzees are more widely distributed across Africa. They can be found north of the Congo River but also in western Tanzania (Gombe National Park), western Uganda, and southern Senegal. The common chimpanzee divides into four subspecies which differ from each other in local cultures: Western chimpanzee (*Pan troglodytes verus*), Central chimpanzee (*Pan troglodytes*), studied by Jane Goodall, Eastern chimpanzee (*Pan troglodytes schweinfurthii*), and Nigeria-Cameroon

chimpanzee (*Pan troglodytes ellioti*). Chimpanzees have been extirpated from Gambia, Burkina Faso, Benin, and Togo. They occupy habitats ranging from savanna woodlands, to mixed grassland-forest and even tropical forests, from sea level to about 3000 m in elevation (Chimpanzees, WWF).

Chimpanzee and Bonobo Differences

The most striking difference between bonobos and chimpanzees is their social structures. Rather than the male domination typical of the common chimpanzee, bonobos live in a female centered society that is both egalitarian and peaceful. Females that have achieved full adulthood are either the same social rank as males or outrank some males (Furuichi, 2011). Female bonobos create powerful alliances with other females that are constantly reinforced with sexual contact (specifically genital-genital rubbing). These female alliances prevent the aggression-based male dominance structure typical of the common chimpanzee (Strier, 2016). Effectively, it is the mothers who run bonobo society and even influence male rivalries thereby determining dominance rankings among males (de Waal, 1995; Legrain, Stevens, Alegria Iscoa, & Destrebecqz, 2011; Surbeck, Mundry, & Hohmann, 2010).

Another important feature separating chimpanzees from bonobos is that adult bonobos continue to engage in extensive play behavior. This is considered to be a tension diffusing mechanism that helps keep bonobo society relatively peaceful.

Bonobos use empathy to stay connected and coordinated in the social system (Clay, Palagi, & de Waal, 2018; de Waal, 2019a, 2019b). Chimpanzees do not display this high degree of empathy in their social interactions. Interestingly, there are differences in the neural circuitry of the brain between bonobos and chimpanzees. Bonobos have more gray matter in the right dorsal amygdala and the right anterior insula, areas associated with the perception of distress in others and in oneself (Rilling, Scholz, Preuss, Glasser, Errangi, & Behrens, 2011). Political conservatives have larger right side amygdalas and are highly sensitive to threat-induced fear (Kanai, Feilden, Firth, & Rees, 2011; Ressler, 2010). Another neurological difference distinguishing bonobos from chimpanzees is the larger connection between the ventral anterior cingulate cortex and the amygdala. This pathway is involved with mediating aggressive impulses (Rilling et al., 2011).

“Caring, friendships, and the fitness value of social skills” have been demonstrated by Clay and de Waal (2013, p. 18121) in their research with bonobos in the Democratic Republic of the Congo. The development of socio-emotional competence in bonobos comes about through achieving a specific skill set regarding relationships. Bonobos have to learn how to form and maintain relationships and how to behave in an accepted way in social situations. Emotional learning is as important. Bonobos have to become sensitive to emotional cues from others and most important, they have to be able to control their own emotions in a social setting (Clay & de Waal, 2013). The end result is a remarkably peaceful and egalitarian society, although not entirely aggression - free during mating (Hohmann & Fruth, 2003).

Bonobos offer a strong example of Joan Roughgarden's theory of social inclusion as well as laying the foundation for cooperation and a peaceful society. This is accomplished with friendship bonds supported by sex. Tension and stress are diffused with quick sexual pairings in every possible combination. Sex is used to reassure one another and to keep things calm. Make love not war is the bonobo anthem (de Waal, 2000).

Self-Domestication in Bonobos

Hare, Wobber & Wrangham (2012, p. 1) believe that the bonobos arrived at their current relatively peaceful and egalitarian social structure and culture by the process of self-domestication: "Evolution of bonobo psychology is due to selection against aggression". They attribute the smaller canine teeth, smaller jaw, juvenilized skull and more gracile body to self-domestication around reducing aggression.

Mating behavior is changed by self-domestication. Females have longer periods in which they are sexually receptive reducing the pressure on males to jockey with each other for access to fertile females. This has the effect of reducing overall aggression between males. In the common chimpanzee males attack females on a regular basis in an attempt to secure exclusive mating access through intimidation. Males vie with each other for social status as higher ranking males have better access to females. Since the window for fertile mating is short there is intense pressure on the males to mate successfully. None of this is true for bonobos. The extended fertility period reduces friction between males and males rarely attack a female. If a bonobo male does attack a female she rapidly assembles a coalition of other females who beat the male robustly (Hare et al., 2012; Wrangham, 2019). Humans extend this paradigm in that fertility is continuous for a significant portion of the lifespan.

Becoming an alpha male through hostile encounters with other males is linked with increased mating opportunities for chimpanzees. This is not so for bonobos. Male social rank in bonobos is determined by the social rank of the mother. Sons of high-ranking mothers have much easier access to females than sons of low ranking mothers. Sons remain closely attached to their mothers throughout their lives whereas adult females leave the natal group and move to a new group. Bonobos readily receive new members into their social groups. A unique feature of bonobos is that they form female-male friendships of equal power (Legrain et al., 2011; Surbeck et al., 2010; Wrangham, 2019).

Another important feature separating chimpanzees from bonobos is that adult bonobos continue to engage in extensive play behavior. This is considered to be a tension diffusing mechanism that helps keep bonobo society relatively peaceful. "Among bonobo females, characterized by social competence and affiliation, social play might enhance their behavioral flexibility and increase their socially symmetrical relationships which, after all, are the basis for their egalitarian society" (Palagi, 2006, abstract).

Self-domestication has resulted in dramatic change in the biochemistry of the bonobo brain. “Higher levels of serotonin in the brain are associated with reduced reactive aggression. Strikingly, in bonobos, the amygdala contains twice as many serotonergic axons (nerves responding to serotonin) as it does in chimpanzees, suggesting one way in which bonobos have evolved a greater ability to regulate aggressive and fearful impulses.” (Wrangham, 2019, p. 94).

Why and How Bonobos and Chimpanzees Diverged in Evolution

The answer to the divergence of chimpanzees and bonobos into such different social and physical structures is gorillas. There are no gorillas south of the Congo River where bonobos evolved. Gorillas compete with chimpanzees for the same food resources. This puts pressure on chimpanzees to find enough food and forces them to disperse in their quest to sustain themselves. The social structure of chimpanzees has been called a fission-fusion system that operates well under ecological constraints on food acquisition (Lehmann, Korstjens, & Dunbar, 2006).

Bonobos did not have to compete with gorillas for food so they were able to sustain a coherent group structure while feeding. This stability allowed strong social bonds to develop and function during social encounters. Female allies were always nearby if males became too aggressive. Bonobos also show a high level of tolerance for neighboring groups. Recently a case of food sharing of a valuable meat resource both within and between bonobo groups was documented (Fruth & Hohmann, 2018). The basis for this high level of tolerance is explained by the abundance of food resources and by female dominance in bonobo society (Furuichi, 2011).

Emotion in the Lives of Our Closest Relatives, the Chimpanzees and Bonobos

Emotion is the key to motivation whether it is the human primate or the non-human primate. Franz de Waal (2019a, b) documents the full range of emotions of our closest relatives the bonobos (*Pan paniscus*) and the chimpanzee (*Pan troglodytes*). The behavior and emotions of bonobos and chimpanzees gives us insight into our heritage as the human primate. It is all there. Everything from empathy to sorrow, joy to grief exists in the lives of our closest relatives (de Waal, 2019a, b; Goodall, 1986, 1990).

Jane Goodall set the standard for research on chimpanzees when she became the first person to live among chimpanzees and record their lives in the wild. She was accepted to Cambridge University for graduate study without ever having obtained an undergraduate degree. She spent 5 years with the wild chimpanzees in Gombe Stream National Park, Tanzania, starting in 1960. When she defended her PhD dissertation in 1965 (*Behaviour of free-living chimpanzees*) she was (and still is) the world’s leading authority on chimpanzee society. She even raised her son, Hugo,

better known as Grub, among the chimpanzees for a while (Goodall, 1986, 1990). During her 30 years with the Kasakela chimpanzee community in Gombe, Goodall documented all the emotions that we think of as human, especially compassion, altruism and love but also fear. Goodall changed the definition of human as the tool-maker by being the first to describe tool-making in the chimpanzee. Her knowledge of evolving chimpanzee culture is unmatched in the study of animal behavior.

Political Chimpanzees

Frans de Waal (1982, 2007) wrote extensively about political behavior in chimpanzees (*Pan troglodytes*). Comparisons with human situations border on the eerie: Forming alliances and coalitions, engaging in deception, status motivation, and the ability to reconcile. Reconciliation between warring males was accomplished by means of the intervention of female “mediators” (King, 2012). De Waal believes that human political activity has its basis in evolution and is visible in the lives of chimpanzees and bonobos.

Whereas de Waal (1982, 2007) studied chimpanzees mostly in captivity at the Burgher’s Zoo in Arnhem, the Netherlands, for his book on *Chimpanzee politics*, Goodall and various colleagues have documented many political interactions between both male and female wild chimpanzees over 60 years at Gombe. The alpha male needs the support of a few other males with whom he makes strong alliances and forms operational coalitions to maintain power. Aggression is common in maintaining political power among males. The female alpha chimpanzee uses social relationships and strength of personality to maintain power (Cohen-Brown, 2018). High ranking females show large reserves of patience and confidence as well as strength (Wallauer, 2019). Recent observations at the Jane Goodall Institute’s Gombe Stream Research Center have indicated that extended family groups can wield enormous power, engaging in aggressive encounters with other females and even banding “together to intimidate or retaliate against a high-ranking male in the community” (Wallauer, 2019).

It is vital to remember that Goodall’s research legacy has given us the understanding that chimpanzee society is held together by altruism, strong friendships, and sharing of resources and knowledge. This insight is often lost in the over-emphasis on chimpanzee aggression.

Funk et al. (2013) examined the relationship between political orientations and environmental and genetic influences. They emphasize that “though we refer to predispositions as having substantial heritable components, this does not mean that they are determined by genetic factors” (p. 809). They conclude that political dispositions have common genetic and environmental underpinnings and indeed that these political orientations may be yet another aspect of human personality. Perhaps these political orientations are part of chimpanzee personality as well.

Political Bonobos

Bonobo society is a matriarchy and power is divided between females and reinforced through sex between female partners. Females are the first to eat, they get groomed more than males, they will coerce males if needed, and are generally in charge. Amy Parish (1996) believes that the key to female power in bonobos is “lesbian sex”. The deep emotional pleasure in evidence when females rub their genitalia up against each other creates a bond which becomes the basis for redoubtable social coalitions.

Political Dominance, Aggression and Gender

Sociobiologists and some primatologists, deduce that human nature as derivative of the evolutionary heritage from the common chimpanzee (*Pan troglodytes*) is hard wired for male dominance and male sexual coercion (Peterson & Wrangham, 1997). Richard Wrangham somewhat softens his stance on inborn aggression in his new book, *The goodness paradox* (2019). Nevertheless, chimpanzee societies are typically characterized as physically aggressive, male-bonded and male-dominated. If male power is seen to be biologically ordained because we carry chimpanzee genes then deterministic thinking is ascendant. Many political conservatives are comfortable with the notion that males are biologically ordained to govern. Political liberals will be much happier about the genes we carry from our bonobo heritage and the behavioral flexibility contained in that biological legacy. In either case, genes interact with the present day social, physical, and physiological environment in an epigenetic process that can alter what is produced. Deterministic thinking is inappropriate for either the chimpanzee or the bonobo scenario.

Our genetic closeness to bonobos can be used to study bonobo social behavior for clues as to possible survival strategies during our own evolution. Bonobos are welcoming to bonobo strangers and readily share food with them. This prosocial behavior establishes social bonds. “Bonobo networking has much to teach us about the origins of the human network we all rely upon” (Tan, Ariely, & Hare, 2017).

Close Genetic Relationship Between Humans, Bonobos, and Chimpanzees

We share 99% of our DNA with chimpanzees and bonobos, sort of. Humans share about 1.6% DNA only with bonobos not common chimpanzees. In the same vein humans and common chimpanzees share about 1.6% DNA that we do not share with bonobos. “The bonobo genome shows that more than 3% of the human genome

is more closely related to either bonobos or chimpanzees than these are related to each other.... About 25% of human genes contain parts that are more closely related to one of the two apes than the other.” (Prüfer et al., 2012, p. 530).

It is not possible to determine which of the two great apes we are more closely related to as we share different genes with each of them that they do not share with each other. This complicated evolutionary history comes about because the ancestral population that gave rise to all of us, humans, chimpanzees, and bonobos, was large (approximately 27,000 breeding adults) and quite genetically diverse. The ancestral line leading to humans split off from the line leading to modern chimpanzees and bonobos over four million years ago. The common chimpanzee (*Pan troglodytes*) and the bonobo (*Pan paniscus*) separated from their common ancestor either one million years ago (Prüfer et al., 2012) or two million years ago (Diogo et al., 2017). What we are left with is the fact that modern humans, bonobos, and chimpanzees retain somewhat different subsets of the diverse gene pool of that shared ancestral group four million year ago (Prüfer et al.; Gibbons, 2012). “Chimpanzees and bonobos each possess certain characteristics that are more similar to human traits than they are to one another’s” (Prüfer et al., 2012, p. 528).

In addition to the data from genetics we now have the first study of bonobo anatomy. An intriguing finding has emerged. The muscles of bonobos which are indicators of physical function, are closer to human anatomy than to chimpanzee anatomy (Diogo et al., 2017). Perhaps we evolved more along the lines of bonobos than chimpanzees.

Savanna Hypothesis

The key to understanding what made humans diverge from the evolutionary pathways of bonobos and chimpanzees is adaptation to a newly created environment. When the African savanna was formed from a prolonged drought that reduced Africa’s forests, ancestral humans (hominins) ventured out of the forest, leaving behind both bonobos and chimpanzees. The adaptations suited for forest dwelling began to be overtaken by traits more suited for survival in the open savanna: walking completely upright, complex tool making, enlargement of the brain (especially the cerebral cortex), complex language, complex mental activity (problem solving, learning), extended childhood learning time, reduced sexual dimorphism, complex social behavior, and development of technology for rapid adaptation to changing needs. This is known as the savanna hypothesis which explains human evolution as a series of adaptations to the dry, open grasslands dotted with acacia trees of the African savanna (Bender, Tobias, & Bender, 2012).

Based on extensive anthropological research Nancy Tanner (1981) hypothesized that a critical evolutionary pathway came about because of women and children. A key technological innovation which allowed our earliest hominin ancestors to make the transition to the environment of the African savanna was successful gathering of plants and small animals such as insects.

It is, therefore, highly probable that it was women with offspring who developed the new gathering technology and that this was the innovation critical to the ape-human divergence. It is further reasonable to suppose that the technological innovations associated with gathering had a powerful impact on subsequent biological evolution. Mothers who were the best gatherers—that is, who were most intelligent, who used tools most effectively, who walked and carried most efficiently, and who shared gathered food—had children who were the most likely to survive. (Tanner, 1981, p. 268)

Variability Selection Hypothesis

A new theory of human evolution has been put forward by Rick Potts of the Smithsonian's Human Origins Program (Potts & Sloan, 2010). Potts expands the notion of our special human traits coming from adaptation to the single stable environment of the African savanna to the idea that we evolved because we were able to adapt to changing environments. It was the very instability of the environment that drove human adaptations (Potts, 1996, 2013; Potts & Faith, 2015).

Given the fluctuations of climate in human evolution, natural selection may be more about “survival of the versatile” than survival of the fittest (Potts & Sloan, 2010). Potts sees flexibility as the key to survival and gives the name ‘variability selection’ to his theory. In an interview for NOAA Potts describes his theory:

Variability selection is a form of natural selection that explains adaptation as a response to dramatically increased variability in the environment. When climate and other aspects of the environment vary dramatically, it can really affect the survival and success of an organism and its offspring over time. The effects can be evident in the gene pool and adaptations of an organism over time. Ultimately, organisms that can cope with widely varying conditions have a better chance of surviving novel and unpredictable environments... Over time and in different places where our ancestors lived, environments varied widely. Variability selection proposes that major features of human evolution were actually ways that our ancestors became more adaptable. It's a process of selection and adaptation to environmental variability, and it accounts for traits that cannot be explained by adaptation to any one environment or trend. For example, our large brains are useful for processing a wide range of information, our teeth and ability to make tools are useful for consuming a wide variety of foods, our sociability helps us team up with others when our survival is threatened (Scott, 2016, para. 2).

The research on long-term climate patterns indicates that the special adaptations characteristic of the genus *Homo* (hominins) and species *Homo sapiens* occurred during the greatest changes in global climate. This environmental instability was the factor driving hominin adaptation and evolution, according to Richard Potts and Chris Sloan (2010). Foraging hominins had to be flexible in their genetic possibilities to be able to respond to rapid climate changes with modified phenotypes. Rather than evolving in relation to one specific habitat, human ancestors became more and more able to cope with changing environments. “. . . important changes in stone technology, sociality, and other aspects of hominin behavior can now be understood as adaptive responses to heightened habitat instability” (Potts, Behrensmeier, Faith, Tryon, Brooks, Yellen, ... Renaut, 2018, abstract).

A large research undertaking on subdivided populations of hominins across Africa (Scerri, Thomas, Manica, Gunz, Stock, Stringer, & . . . Chikhi, 2018) gives powerful support to Potts' theory. Hominin fossils have been found in widely dispersed locations in Africa that had very different ecosystems, climates, and habitat diversity. Different tool cultures emerged in different parts of Africa. These groups also differed in population size. The conclusion drawn by the authors is that human evolution occurred in different populations across Africa.

How humans evolved matters very much in understanding the exact nature of our biological heritage. Evolving in relation to a specific habitat is very different from evolving to be capable of adapting to changing environments. One implies a fixity of traits whereas the other extols flexibility of response. Most likely, our human capacity for survival is based on our ability to adapt to change. Many species have gone extinct because they were perfectly adapted to a highly specific environment. When that environment was modified by climate or other events the over specialized species went extinct (Raia, Carotenuto, Mondanaro, Castiglione, Passaro, Saggese, ... Fortelius, 2016).

Self-Domestication in Humans

Humans most likely self-domesticated by selecting for lower aggression, similar to bonobo adaptation. The genomic signs of self-domestication have been elucidated in recent research (Theofanopoulou, Gastaldon, O'Rourke, Samuels, Martins, Delogu, ... Boeckx, 2017). In comparing modern humans with Neanderthals, clear indicators of self-domestication are evident: reduction of sexual dimorphism, reduction in tooth and jaw size, more gracile body structure, smaller brow ridges and noses, and even a smaller cranial capacity commensurate with shorter stature. When the DNA of Neanderthals and Denisovans is compared to that of modern humans, differences in the genetics of the neural crest emerge. The point of the study was "to identify domestication-related pathways that could be suggestive of a self-domestication process in anatomically modern humans (AMH). The fact that we find neural crest-related changes in AMH compared to Neanderthals/Denisovans, and that such changes are also found in another species hypothesized to have undergone a self-domestication process (bonobos), reinforces our hypothesis that self-domestication took place in our species" (Theofanopoulou et al., 2017). A physiological change vital to the self-domestication process is the lowering of activity in the hypothalamus-pituitary-adrenal axis (the stress response system in the brain).

The key to the underlying genetic changes accompanying self-domestication is the neural crest. The embryo separates into three layers, the endoderm, mesoderm, and ectoderm. But a fourth embryological development factor exists, the neural crest. Neural crest cells move to every part of the developing body affecting a wide variety of traits. In this manner selection for low aggression brought along a string of unrelated traits, the ones we associate with self-domestication (Wrangham, 2019).

Selection for low aggression is a process that can involve killing. Lower ranking males could band together to take on a bully or tyrant Alpha male. With a coordinated effort based on cooperation the group of males could succeed in killing the Alpha male and therefore eliminating his genes from the gene pool (Wrangham, 2019). This pattern reflects evolution from a chimpanzee ancestor as bonobos lowered aggression simply because it did not pay, and in fact, was counterproductive in achieving sexual access to females.

Human evolution produced a more egalitarian society during the early forager-hunter period (Kaplan, Hooper, & Gurven, 2009). Once agriculture and food storage came into being, inequalities arose both with regard to gender and to individual power and resources.

Preadaptations for the Journey to Human

Many traits developed during the evolutionary journey of the precursor primate of modern bonobos, chimpanzees, and humans are critical to the ultimate success of the human species. Preadaptations for the human primate most commonly cited refer to physical features such as a relatively large body size with a relatively large brain and grasping hands with opposable thumbs. The ultimate human adaptation for evolutionary survival is culture (Boyd & Richerson, 2009; Gould, 2002; Laland, Odling-Smee, & Myles, 2010; Tanner, 1981). Preadaptations for culture can be seen in gorilla, orangutan, chimpanzee and bonobo society and even in capuchin monkeys and Japanese macaque societies (McGrew, 1998). Chimpanzees and Japanese monkeys “show innovation, dissemination, standardization, durability, diffusion, and tradition in both subsistence and nonsubsistence activities . . .” (McGrew, 1998, p. 301). The key to culture and human survival is social cooperation (Boyd & Richerson, 2009). Humans show greater social cooperation than any other species.

Culture and Social Learning

Culture existed almost as soon as the genus *Homo* came into being (Alperson-Afil et al., 2009). Culture makes rapid adaptation to local circumstances possible. While the high level of human intelligence is clearly vital to the ascendancy of *Homo sapiens*, Robert Boyd and Peter Richerson (2009) argue that only culture could have made possible the human ecological success that allowed us to survive in greatly diverse habitats, from the desert to the arctic. They go on to describe a model of evolution that explains why humans were able to develop such a high degree of cooperation. Human psychology concurrently evolved a core of pro-social motivation.

Social learning allows human populations to accumulate adaptive information over many generations, leading to the cultural evolution of highly adaptive behaviors and technology. Because this process is much faster than genetic evolution, human populations can evolve cultural adaptations to local environments, an especially valuable adaptation to the chaotic, rapidly changing world of the Pleistocene. However, the same psychological mechanisms that create this benefit necessarily come with a built-in cost. To get the benefits of social learning, humans have to be credulous, for the most part accepting the ways that they observe in their society as sensible and proper, and such credulity opens up human minds to the spread of maladaptive beliefs. (Boyd & Richerson, 2009, p. 3286)

This built-in propensity for maladaptive beliefs underlies the ease with which humans fall prey to conspiracy theories, blood libels, partisan extremism, authoritarianism, or just plain silly gossip. Our reliance on the group for survival is our strength but also contains a potential psychological weakness. We are born believers, but not discriminating ones (Levitin, 2014, 2016; Shermer, 2011). This has unfortunate consequences in politics, particularly with regard to populism and authoritarianism.

Culture, Social Environment, Epigenetics, and Evolution

“Humans have especially sophisticated perceptual capacities, enabling them to respond to a wide range of complex visual, auditory, linguistic and behavioural/emotional signals in their extended environment. Research has recently begun to show that responses to such signals can extend all the way down to the level of gene expression” (Keller, 2016, abstract). The mechanism by which the social environment can influence epigenetic development in evolution is close upon us. The consequences for human evolution of our intense social embeddedness may extend to altering the read-out of our genes by epigenetic responsiveness to human perception. Culture may indeed be part of the process affecting how our genes work to produce traits.

Diversity in Nature

The wonder of diversity bequeathed to us by the processes of natural selection, sexual selection, and social selection in the evolution of species allows us to move beyond the narrow confines of our traditional cultural conceptualizations of sex roles and gender stereotypes. As part of biodiversity in nature we find remarkable variety in patterns of reproduction, sexual development, and sexual orientation. The diversity of patterns of reproduction and sexuality that abound in nature demonstrates the flexibility of both animal and human behavior. New models of relationships between living things provide a different perspective from which to interpret the vast array of behavioral plasticity and creativity characterizing animal behavior in the wild. Paradigms such as ecofeminism and social selection focus on coopera-

tion being the equal of competition as the driving force in the evolution of species. Same-sex intimate behaviors and pair bonds in animals are widespread across species and common in primates. This diversity is an example of behavioral plasticity in nature.

How we understand our place in the biological world informs our identity. Those who rely on the fixed genetic determination of behavior paradigm are likely to be both conservative and fundamentalist. The more people understand the vast diversity of our biological heritage the more it can strengthen cognitive flexibility and a more pliant and comfortable identity.

Single-Sex Patterns of Reproduction

Most people assume that sexual reproduction (female ova + male sperm) is universal among animals. It is enjoyable to expand upon the story of the whiptail lizard (*Cnemidophorus neomexicanus*), a species consisting entirely of females who reproduce by cloning (Crews, 1987). A single female in isolation can produce genetically identical daughters. If two females encounter each other they may engage in mutual sexual stimulation in which the hormone estrogen brings on “female” copulatory behavior patterns and progesterone brings on “male” copulatory behavior patterns in each lizard alternatively (they take turns). Under this stimulation pattern each female produces more daughters than if she reproduces in isolation.

More than eight species of female-only whiptail lizards are found in steambeds in Mexico, New Mexico and Texas. Hawaiian geckoes are also all females and can be found thorough out the islands of the South Pacific. There are entire species of fish that are all female. Among vertebrates in general all female species can be found in most groups (Roughgarden, 2004).

Epigenetics of Temperature-Based Sexual Development

Ambient temperature is a powerful epigenetic influence on cellular development in the embryo. Alligators lay a large number of eggs in a huge mass of decaying swamp vegetation. These eggs are incubated by the heat given off by the decaying vegetation in warm climates. The eggs are layered at different levels of the vegetation mass such that those nearer to the top experience warmer ambient temperatures than those nearer the bottom. If the temperature is 91 degrees and above, all the eggs hatched will be males. If the ambient temperature is 88 degrees and below all the hatchlings will be female (Ferguson & Joanen, 1982). Turtles are the opposite, with warmer temperatures producing females and cooler ones producing males. Sea turtles dig huge holes in the beach sand and lay hundreds of eggs. Because of global warming, greater heat is reaching lower into the holes and resulting in sex ratios that can be skewed by as much as 116 females for every male (Jensen, Allen, Eguchi,

Bell, LaCasella, Hilton, . . . & Dutton, 2018). The underlying genetic and epigenetic mechanisms for temperature-determined sex have recently been determined (Radhakrishnan, Literman, Neuwald, & Valenzuela, 2018). DNA methylation and histone acetylation genes were the most responsive to epigenetic ambient temperature stimulation.

Sexual Development

The basic pattern of sexual development is female in all mammals (Lips, 2019). This is not entirely a default situation since certain genes (Wnt-4 and DAX-1) are necessary for female development to progress (Sinisi, Pasquali, Notaro, Bellastella 2003). However, male development can only happen by changing the direction of development. Information on the Y chromosome may switch the developmental pathway from female to male if the genetic codes are successfully read-out epigenetically. The developmental environment can be influenced by many factors, especially hormones. Possession of a Y chromosome does not ensure that a male organism will develop. Biological sex is an outcome of epigenetic process not genetic determinism.

Sex Changers

Most people assume that if you are born one sex you stay that way. This brings us to the world of sex-changing fishes (Todd, Liu, Muncaster, & Gemmell, 2016). At least one-third of all tropical fish changes sex (Warner, 1984) and also “2% of all extant teleost species scattered across more than 20 taxonomic families in 9 orders” (Avisé & Mank, 2009, p. 152). There are three major sex change paradigms: Female to male (protogynous hermaphrodite), male to female (protandrous hermaphrodite), and serial bi-directional sex changers (serial hermaphrodites), including simultaneous hermaphrodites (Todd, Liu, Muncaster, & Gemmell, 2016). Hart, Kratter, Crowley (2016). In some families of tropical coral reef fishes, sex changing is so common that biologists needed to create the word “gonochoristic” to describe those species with two distinct sexes in which males always stayed males and females always stayed females. Imagine a world in which it is necessary to designate which individuals remain the same sex throughout their lives!

Sex Changers: Female to Male (Protogynous Hermaphrodites)

Sex changers are protogynous hermaphrodites, in which all members of the species are born female and some of them change into males in late adulthood, as needed for reproduction. Examples of protogynous hermaphrodites are groupers, wrasses,

porgies, parrotfishes, and angelfishes (Todd et Al., 2016). Species such as *Malacanthus plumieri*, the sand tilefish (Clark, Rabin, & Holderman, 1988), *Malacanthus brevirostris*, the short-nosed tilefish, and *Parapercis hexoptalma*, the spotted sand perch (Clark, Pohle, & Rabin, 1991) live in small groups consisting of one male and one to seven females, each with its own dwelling made of coral rubble tunneled into and on top of the sand. Most members of these species spend their entire lives as females but retain the potential to change into males if the resident male is lost to predation.

Sexism and Androcentrism in Science

In 1987 I presented a paper on the sand tilefish at the Sixth Biennial Conference on the Ecological and Evolutionary Ethology of Fishes (Clark et al., 1988; Clark, Rabin, Bunyan, Murdock, Shen, & Petzold, 1989). At the conference one of the presenters, Yvonne Sadovy, reflecting on the morning symposium devoted to sex change in fishes, indicated that no one had questioned the basic premise that changing from female to male was desirable and sought after by the fish. She pointed out that it was perfectly possible that females benefitted from remaining female and that the sex-changer was forced to switch by pressure from more dominant females. This is a perfect example of how the world view of many male researchers precludes certain possibilities because in their minds being male is the superior status.

I raised another androcentric-thinking concern at the conference, that of the word “harem” to describe the social structure of a single male, multiple female mating system. This is not a neutral word, and indeed the historical reality of the harem situation is associated with slavery for women. To take such a loaded word from human culture to describe behavior in fishes is far from the neutrality and objectivity that is the heart of scientific endeavor. Even so, the word harem is almost universally used in ethology.

“The term ‘harem’ implies a dominant male (Rosser, 1986) and may obscure the possibilities of a less agentic (individualistic, hierarchically oriented), more communal (cooperative) power structure within the group” (Clark et al., 1988, p. 283). Interestingly, it is the female who decides if mating will occur on any given night. Each fish has its own elaborate burrow piled high and round with coral rubble. Each evening the male swims to each burrow where the resident female is waiting. The male does a dramatic dance to entice the female to mate but if she is not interested she merely turns away and dives into her burrow. The rejected male moves on to the next burrow. This pattern of behavior does not appear to reflect the male power structure that sociologists and historians describe for human harems. The sand tilefish, *Malacanthus plumieri*, exhibits a social structure in which females have their own elaborate private residences which they build and maintain. Males do not have more imposing burrows (Rabin, Benveniste, & Clark, 1988; Rabin & Clark, 1989). In human society this would amount to autonomy, freedom, and power and not the virtual slavery of the harem. The way animal behavior is described in science has enormous ramifications for society and for politics.

Sex Changers: Male to Female (Protandrous Hermaphrodites)

Whereas the protogynous pattern of sex change is the most common, nature also provides protandrous hermaphrodites such as the anemonefish or clown fish (Warner, 1984), and the barramundi, a giant perch from Australia (Domingos, Budd, Banh, Goldsbury, Zenger, & Jerry, 2018). In this relatively rare pattern all the young are born male and they all change in to females when they reach later adulthood. All large clown fish are females, all small clown fish are males. The female is dominant over the males and keeps a group of males within her territory, only one of which is a breeding male (Fricke, 1979). The sex change in protandrous hermaphrodites is epigenetically controlled. One epigenetic trigger for the barramundi is the change from the freshwater of its early years to the saltwater of adulthood. “Epigenetics is involved in sex differentiation of gonochoristic and hermaphroditic fish species, whereby two genes *dmrt1* (pro-male) and *cyp19a1* (pro-female) are known to play major roles” (Domingos et al., 2018, abstract). It is enlightening to learn that epigenetics is part of sexual development in fishes that do not change sex (gonochoristic species).

Two-Way Sex Changers (Serial Hermaphrodites)

Things get even more interesting with the fish that are two-way sex changers. Coral gobies (*Paragobiodon echinocephalus*) can change sex and sometime later change back again to their original sex (Kuwamura, Nakshima, & Yogo, 1994). Multiple sequential sex changes back and forth can also occur in coral gobies (Nakshima, Kuwamura, & Yogo, 1995). The protogynous angelfish (*Centropyge ferrugata*) can change from a male back to a female if it encounters a rival dominant male (Sakai, Karino, Kuwamura, Nakashima, & Maruo, 2003). The chalk bass (*Serranus tortugarum*) is so sexually flexible that it can change sex rapidly back and forth as it exchanges eggs with its partner who does the same. This strategy allows the caloric burden of egg production to be shared between mating pairs (Hart, Kratter, Crowley, 2016).

Female and Male Together in One

Gynandromorphs are those rare animals that have a combination of male and female tissues which in certain cases results in the animal appearing half male and half female bilaterally. Gynandromorphs can also appear in a mosaic pattern of female and male patches across the body (Butler, 2017). A cardinal which showed bright red male colors on the left and dull buff female colors on the right was studied in the field for months (Peer & Motz, 2014). Another cardinal drew media fame frequent-

ing a bird feeder in a suburban back yard (Weintraub, 2019). This one had male coloration on the right side and female on the left, making it possible that it might mate since birds' ovaries are only functional on the left side. In addition to birds, gynandromorphs can be found in crustaceans and other arthropods, spiders, and insects (Butler, 2017).

Sexual Orientation in Nature

Socially conservative people believe that being gay goes against “nature” and is therefore unnatural (Whitehead, 2014; Bienkov, 2017; Wood & Bartkowski, 2004). Socially liberal people believe that diversity in sexual orientation needs to be supported and people who are different from the norm need to be protected (Jost, 2009; Hetherington & Weiler, 2018). Very few on either side understand that diversity is normative in nature (Bagemihl, 1999).

At the heart of disruption to the traditional social order is the defiance of the male-female bond. Same-sex intimate relationships are perceived as being a direct threat to the stability of the social architecture that provides order and continuity (Tuschman, 2013). Conservatives are more likely to be deeply challenged by non-traditional partnering because of this destabilization threat. Same-sex relationships have traditionally been called “unnatural”. Nothing could be farther from the reality of the natural world.

Same-Sex Intimacy Is “Natural”

In a much-cited book published in 1951, Ford and Beach indicated the variability and range of sexual partner behavior across species. Since then we have many more examples of same-sex intimate behaviors in a variety of primates and other mammals from rhesus monkeys to dolphins to giraffes (Bagemihl, 1999; Bailey & Zuk, 2009; Lane, Haughan, Evans, Tregenza, & House, 2016; Sommer & Vasey, 2006; Vasey & Forrester, 2015). Sex in nature is a riot of diversity rather than the simple male-female duality most people expect).

Bruce Bagemihl (1999) provided an encyclopedic examination of the existence of same-sex intimate behavior in nature. “Homosexual behavior occurs in more than 450 different kinds of animals worldwide, and is found in every major geographic region and every major animal group” (p. 12). In 2006, the Natural History Museum of the University of Oslo created an animal homosexuality exhibit. The museum researchers found over 1000 examples of species of animals engaging in same-sex intimate behavior (Homosexuality in the Animal kingdom—Naturhistorisk museum, <https://www.nhm.uio.no/besok-oss/utstillinger/.../againstnature/gayanimals.html>).

Same-Sex Attraction and Evolution

The core issue of natural selection in evolution is reproduction. Bagemihl answered the question of how same-sex behaviors could be selected for in evolution by pointing out that “reproduction is not necessarily a required component of ‘survival’—in some instances, it may be beneficial for a species or an ecosystem as a whole if some of its members do not procreate.” (1999, p. 249). This allows some animals to be helpers in raising the young or foraging for food and puts less population stress on the environment.

Inclusive Fitness Hypothesis

In Darwin’s theory of evolution fitness is a measure of reproductive success. If same-sex couples do not reproduce how can they be fit and pass their genes on? The answer is inclusive fitness which operates through the reproductive success of closely related kin. If a non-breeding animal increases the survival rate of offspring of closely related kin then the non-reproducing animal still has a measure of fitness since it shares many genes with close relatives and these will be passed on (Strier, 2016).

Social Glue Hypothesis

Another adaptive explanation of same-sex relationships is that they represent a kind of social glue that maintains alliances between pairs. This can be seen in male dolphin pairs who spend lifetimes together (Mann, 2005) and female bonobos who retain power through sexually based alliances (de Waal, 2000).

Evolutionary Origins

Because same-sex intimacy is so widespread in the animal and human world it likely has evolutionary origins. Nathan Bailey and Marlene Zuk (2009) examined this premise:

The evolutionary origins of same-sex sexual behaviors can be decoupled from their present function. It does not matter whether they arise as a byproduct of selection on other traits, genetic drift or millions of years of carefully honed adaptation driven by selection. They can have the same evolutionary consequences regardless of their independent causes. This highlights a key feature of same-sex sexual behaviors: they are flexibly deployed in a variety of

circumstances, for example, as alternative reproductive tactics, as cooperative breeding strategies, as facilitators of social bonding or as mediators of intrasexual conflict. Once this flexibility is established, it becomes in and of itself a selective force that can shape selection on other aspects of physiology, life history, social behavior and even morphology (p. 6).

Flexibility is a critical factor in evolutionary success. Both physical and social environments can change quickly. Behaviors that work in a variety of contexts have significant survival value.

Aesthetic Evolution

Recently, Richard Prum (2017) has offered a whole new way and very old way to look at sexual selection (mate choice). Charles Darwin was the first to propose a theory of aesthetic evolution which is driven by the preferences of mostly females, but sometimes males, when choosing a mate. In *Descent of man* Darwin used the phrase “a taste for the beautiful” to describe why one animal is attracted to another. Darwin had to abandon his theory because of pressure from a contemporary rival evolutionary theorist, A. R. Wallace (Prum, 2012). What Prum (2012, 2017) adds to Darwin’s idea is that perception is the key to beauty and depends on the nervous system and especially the sensory system of the individual. He gives numerous examples of the co-evolution of plants and their pollinators as the groundwork to understanding how physical traits can co-evolve in relation to perceived attraction of the choosing mate.

Aesthetic Evolution of Same-Sex Attraction

Prum (2017) has a theory of how human same-sex intimacy might have evolved. He believes that female and male same-sex attraction evolved separately. Because primate and human females have to leave their birth group (female-dispersal based societies) they are in need of allies in their new social group. Female alliances are of great value and can be strengthened by sexual ties, as in bonobo society. These alliances increase the autonomy of females by offering protection from unwanted male sexual coercion. (This dynamic also operates in societies where females do not have to leave the natal group).

Male same-sex orientations evolved as a by-product of female choice in heterosexual mating. According to Prum, females were attracted to more aesthetically pleasing, and more pro-social personality traits in male suitors. This selection pressure operated to expand male sexual desires including same-sex attractions.

Same-Sex Intimate Relationships in Primates

All the Great Apes (orangutans, gorillas, and chimpanzees) engage in same-sex intimate behavior. This includes both female-female and male-male bonds. Many primates including our closest relatives the common chimpanzee (*Pan troglodytes*) and the bonobo (*Pan paniscus*) engage in both heterosexual and same-sex behavior as part of their normal pattern (Vasey & Forrester, 2015). Bruce Bagemihl defines “normal” as “a routine aspect of the social and sexual organization of the species” (1999, p. 211).

Among monkeys, same-sex intimacy has been studied in the field for spider monkeys (Busia, Denice, Aureli, & Schaffner, 2018), Japanese macaques (Vasey, 1998, 2002), and capuchin monkeys (Manson, Perry, & Parish, 1997). Although same-sex intimacy is rare in New World monkeys it is found in 13 out of 20 genera of Old World monkeys (Dixon, 2010).

Gorilla Sex

Gorillas live in fairly small clusters consisting of a dominant silverback male and anywhere from three to six female adults with five to seven youngsters as well as a few juvenile males. Gorillas are polygynous with all heterosexual mating limited to the silverback male and the adult females. It is common for adult males to form all-male groups. Within these groups considerable homosexual activity takes place on a regular basis. “Each male has preferred partners whom he courts and has sex with; some interact with only one other male in the group, while others have multiple partners (Up to five have been recorded for one individual).” (Bagemihl, 1999, p. 281).

Female mountain gorillas were studied at the Karisoke Research Center (KRC) of the Dian Fossey Gorilla Fund International (DFGFI) in Volcanoes National Park, Rwanda. “Our report demonstrates that same-sex sexual contacts among females are clearly a component of the behavioral repertoire of mountain gorillas, albeit a relatively infrequent one” (Grueter & Stoinski, 2016).

Bonobo society is a matriarchy supported by multiple sexual bonds. Female bonobos engage in same-sex intimacy regularly and over their lifetimes (de Waal, 1995; Parish, 1996).

Female Alliances in Monkeys

Japanese macaques are very social primates and live in mixed-sex groups of 50 to 200. Females outnumber males in a group by about four to one. Females form strong relationships with each other based on same-sex courtship and copulation. They are attracted to those females that they are not genetically related to. Females

will engage in sexual activities despite the availability of males and they will reject males that try to come between them (Vasey, 1998, 2002). Joan Roughgarden (2004) offers an interesting perspective regarding female same-sex bonding in Japanese macaques which she interprets as operating as social inclusionary traits. In terms of the hierarchical dominance system governing their lives it is crucial to make and to keep allies. Female same-sex bonds offer not just pleasure but social inclusion. According to Roughgarden their very lives depend on sexually-based female relationships.

Transgender in Nature

Joan Roughgarden refers to a certain black-hooded warbler found in Maryland as being transgender. “In all aspects of its anatomy, the bird was a male. Contradictory to Y’s status as a male, all his behavior observed during 1988 and 1989 was categorically female; e.g., nest building, incubating and brooding young, but not singing or engaging in territorial defense” (Niven, 1993, p. 192) which are male behaviors in warblers. The eggs in the nest were laid by an unknown female. “Gender identity in this individual hooded warbler evidently crossed over from that typical of the sexed body” (Roughgarden, 2004, p. 104).

Nurturance

The instinct concept is so powerful it rules the thinking of many people, especially where motherhood is concerned. Maternal instinct is one of the most widely believed myths. The culturally-ordained role of caregiver is mistaken for a biologically-ordained behavioral trait or even a God given one. In nature, however, nurturance is not restricted to mothers or even females and learning has a critical role in successful nurturing.

Fundamentalist groups worldwide believe that women’s and men’s roles are pre-ordained and immutable. Feminism is derided as a violation of the stability and order these roles provide. Feminism is also viewed as a threat to social stability and order. A key belief is that women are natural nurturers and that nurturing itself is “mothering”. The mother role is seen as the keystone to family structure and that of the society as a whole. If female nurturance is the natural order of life on earth then the notion of male nurturance presents an imbalance to that natural order. Ethological research has clearly demonstrated that male nurturance is widespread and natural to many species, including our own.

Male Nurturance

How often have we heard the term “mothering” being used to denote “nurturing” behaviors? Many people assume that only females are natural nurturers. This certainly is not the case in the animal world where we have everything from the “pregnant” male seahorse (Jones, 2004) to the long-suffering emperor penguin father, protecting the egg in his pouch from the Antarctic storms (Bryce, 2019), to the gentle gibbon or siamang father, cuddling his youngster (Lappan & Whittaker, 2008).

Francis, Anthony, Brunton, and Kunz (1994) have studied the nurturing behavior of male fruit bats. These flying mammal males are actually capable of lactating. This provides us with the image of a male bat feeding his progeny with milk from his nipples.

The male stickleback fish builds a nest for the young, entices a female to lay her eggs in the nest, covers the eggs with sperm and chases the female away. Then the male cares for the young when they are hatched (Li & Owings, 1978).

The female ostrich is grayish-brown which blends in with the African savannah habitat, providing excellent camouflage during the day when she is on the nest. The black male ostrich takes over the nest at night while it is the female’s turn to forage for food. They are equally caring for the safety of the nest and for the young (Kimwele & Graves, 2003).

Jacanas are small to medium size shorebirds found in the tropics and subtropics worldwide. Widely splayed toes allow them to walk on top of water plants on lakes allowing them to spend most of their lives on floating vegetation. The female is polyandrous and territorial. She mates with several males in her territory and then leaves the care of the young to each male while she defends the territory (Sibley, 2001). Evolution is the process of successful adaptation to specific environments. Whatever behaviors work to bring about successful reproduction of the species are selected by the evolutionary process. Apparently, the female territorial defender and male nurturer works just fine for Jacanas.

Paternal Care in Primates

Paternal care of the young in our primate relatives sheds much needed light on the naturalness of male nurturance in *Homo sapiens*, the human primate. Monkeys exhibit a few examples of paternal care. Some lemurs, “the New World marmosets, tamarins, titi monkeys, and owl monkeys show direct care of their offspring” (Storey & Zeigler, 2016, p. 260). In titi monkeys it is the fathers who carry the infants and it is the fathers who are the primary parent that the infant attaches to (Hoffman, Mendoza, Hennessy, & Mason, 1995). In the lesser apes it is the siamangs not the gibbons who demonstrate paternal care. Fathers carry their offspring after the first year of life until they are fully independent (Fernandez-Duque, Valeggia, & Mendoza, 2009).

Jane Goodall (1986) tells of her observations of an orphaned chimpanzee raised by its brother and sister. Goodall describes how inept both brother and sister were in their clumsy efforts to care for their orphaned sibling. She indicates that the female was no more knowledgeable than the male, but they were both equally motivated to try meeting the youngster's needs and ultimately they both succeeded. The notion of maternal instinct in anthropoid apes, including humans, is not borne out by the research data.

Dian Fossey spent 17 years studying the mountain gorilla in Rwanda's Volcanoes National Park. Her early work on gorilla vocalizations and home range (Fossey, 1972, 1974) were achieved in close proximity to the gorillas, an unimagined feat for a novice researcher. Gorillas live in groups with a dominant silver backed male, females and young, and sometimes subordinate males as well. Fossey noted that the silver backed male in one group raised a young orphaned gorilla. The motherless gorilla was a hell-raiser since any transgressions were covered by the indulgent father. Fossey named the youngster Tiger. Everyone at Fossey's Karisoke Research Center in the Virunga Mountains considered the rambunctious Tiger to be a male. Many years later a researcher at the center was following a trail of gorilla scat and came across Tiger, now an adult and nursing her infant (personal communication, Wayne McGuire, National Geographic memorial for Dian Fossey, Washington, DC, 1985). This remarkable story illustrates three critical points. The dominant silver back male was both nurturing and indulgent toward his daughter. Because Tiger was rambunctious everyone assumed she was male. Tiger was a good nurturer to her infant because her father had taught her how to nurture.

Love Is Learned and Hormonal But Not Instinctive

Another of Goodall's revealing observations indicates that care of the young is a learned skill in chimpanzees and that female nurturance is by no means biologically assured. Goodall (1986) tells of a young mother who came as a stranger into the chimpanzee group under study. She was dragging a newborn infant by its umbilical cord and appeared terrified of the infant. The older females in the group came toward the stranger. One took the baby away, bit off the umbilical cord and cleaned up the bloody, debris-covered infant. Another comforted the frightened stranger. The young mother watched alertly as the infant was soothed and comforted by an older female, many times a mother. Eventually, the young mother reached for the infant and the older female placed the infant gently in the mother's arms and showed the mother how to nurse the infant. This sequence illustrates what Harry Harlow points out in the title of his 1971 book on rhesus monkeys: *Learning to love*. We nurture because we were nurtured not because of some genetic encoding spuriously called maternal instinct. "The maternal instinct, as a behavior that arises absolute and pre-determined from its primordial genetic roots, is a myth" (Zuk, 2003, p. 51).

Sarah Hrdy (1999) notes that primates in general (and most certainly the human primate) have plenty of time to connect with each other. Unlike precocial species who must imprint on the mother shortly after birth or hatching, primates can learn the key features of mutual identification, bonding slowly and most often with help from members of their highly social species. We now have considerable evidence of the relationship between biology and social experience in male primate nurturance. Hormonal influences and social experience interact to produce nurturing fathers and mothers.

Social Touch

Nurturing behavior is centered around touch. The “good mothering” so vital in diminishing aggression depends upon touch. The role of touch and physical comfort in infants on later cognitive, exploratory, and social behaviors (Simpson, Sclafani, Paukner, Kaburu, Suomi, & Ferrari, 2019) is critical in both monkeys and humans. These findings on rhesus monkeys were consistent with those found in human adults “suggesting that social touch can have wide-ranging positive effects on social behavior” (2019, p. 17). How wonderful to find that Harry Harlow’s (1971) *Learning to love* was so on target with the concept of contact comfort.

Work with human children has shown that social attention is increased by experiencing more touching by their mothers (Reece, Ebstein, Cheng, Ng, & Schirmer, 2016). Touching also affects resting activity in the brain and forging connections in regions of the brain involved with mental activity (Brauer, Xiao, Poulain, Friederici, & Schirmer, 2016). Gently touching the skin in a sweeping motion activates oxytocin release producing physiological arousal of a pleasant nature and increasing the likelihood of prosocial interactions (Cascio, Moore, & McGlone, 2019).

“The marginalization of women and the destruction of biodiversity go hand in hand. Loss of diversity is the price paid in the patriarchal model of progress that pushes inexorably toward monocultures, uniformity and homogeneity” (Mies & Shiva, 1993, p. 6). The political consequences of this trend may not seem obvious but Fritsche and Hoppe (2019) have written extensively on the relationship between people, nature and terror management. The view of conservatives toward nature is far more exploitative than engaging whereas the view of liberals involves direct connection in terms of enhancing personal identity (Fritsche & Hafner, 2012). For liberals, nature needs to be protected and cared for. A recent example comes from the attitude of conservatives and liberals to the return of the wolf in an area of Germany bordering on Poland (where the wolves came from). A right-wing Alternative for Germany lawmaker describes wolves and immigrants with similar hostility. Supporters of the wolves are viewed “as urban elites by rural left-behinds” (Bennhold, 2019, p. A8). Whether the wolf is viewed as a dangerous invasive predator or an endangered species requiring protection and respect depends on the conservative vs. liberal worldview of the beholder.

Human Politics: Differing Views of Evolution

Politics and Evolution

Conservatives tend to operate on the principle that evolutionarily-based competition for limited resources underlies human motivation. Altruism is possible if the recipient of the good deed is a relative. Altruism toward non-relatives is considered to be a losing strategy in the competition for survival. “If as conservatives tend to believe, human nature is fundamentally competitive and self-interest prevails, then people live in a dangerous world” (Tuschman, 2013, p. 308). The dangerous world concept has now been transmogrified into what Avi Tuschman refers to as “folk-Darwinism” derived from the extreme Social Darwinist view that survival of the fittest requires a ruthless approach to what is imagined as a life-or-death struggle for existence. Extreme right-wing political groups exemplify this worldview.

Liberals tend to operate on the principle that evolutionarily-based cooperation in attaining survival resources underlies human motivation. Altruism toward non-relatives is considered to be important in the creation of the social networks necessary for success (Tuschman, 2013). In both cases, humans display their heritage as a social species. The difference is in whether resources are shared with kin or more widely shared. This also translates to sharing only within the identity group or extending beyond the identity group to other humans.

Politics and Gender

Politics is power. Masculinity is defined as power in many cultures including American and European culture. In Western culture women have traditionally held power in the private sphere whereas men held all the public power. The origins of sexual inequality have been attributed to women’s biological limitations (Wilson, 1975). Peggy Sanday (1981) examined the origins of sexual inequality from an anthropological perspective and discovered that definitions of masculinity and femininity vary greatly among cultures as do expectations for power sharing. “Sex role plans are cultural and not biological... they do not derive from human genetics but from the historical and political circumstances in which people find themselves when they are forced to come to terms with the environment and themselves as a social unit” (Sanday, 1981, p. 15–16). The key element is who has the power to make decisions.

Creation Stories, Environment, and Gender Equality

The environmental surround is a vital element influencing both origin stories and sex roles (Sanday, 1981). Gentle environments with steady food supplies, readily acquired, produce origin stories with either gender neutral creation figures or female creation figures. There is less likelihood of masculinity being defined as power and a greater likelihood of shared power. In harsh environments with seasonal famines creation figures are universally male and sex roles empower men not women. Three major world religions (Judaism, Islam, and Christianity) have come out of the harsh environment of the desert and are profoundly patriarchal. The point here is please don't blame our power differentials on biology. There is nothing natural about male dominance and female subjugation as many societies studied by anthropologists can attest to (Sanday, 1981; Benedict 1934/2003; Mead, 1935/2003; Brown, 1970; Dyble, Salali, Chaudhary, Page, Smith, Thompson, . . .Migliano, 2015).

We Started Out Egalitarian

Our heritage from the forager-hunter period of human history is that of an egalitarian society (Dyble et al., 2015). Sexual equality with shared childcare was likely an evolutionary advantage for early human societies. Gatherer-hunter societies in which women are equal have many more non-related members than do less egalitarian groups. Women's choices of mates and companions create larger social networks and foster closer cooperation between people who are not kin, diversifying the gene pool. An added benefit to an enlarged social network is the opportunity to share information, especially innovations. Gender equality is likely to be a survival advantage in this regard. "Sex equality and the resulting low within-camp relatedness had many important consequences. Co-residence with unrelated individuals set the selective environment for the evolution of hyper-cooperation and prosociality" (Dyble et al., 2015, p. 797).

Reconceptualize Masculinity

It's time to get back to our egalitarian roots and recognize that power needs to be shared and no longer used as a definer of masculinity. The difficulty in electing a woman as president of the United States reflects this discomfort with women and power and the sense of threat to masculinity that female power represents. Gender equality will never happen unless the definition of masculinity is dramatically changed in a humanistic direction to allow men to enjoy their masculinity without

having to constantly prove it to other men (Pleck, 1995). “Male dominance in myth and everyday life is associated with fear, conflict, and strife” (Sanday, 1981, p. 35). Shared power can make life better for everyone. We can all do with less fear, conflict, and strife.

References

- Alperson-Afil, N., Sharon, G., Kislev, M., Melamed, Y., Zohar, I., Ashkenazi, S., ... Goren-Inbar, N. (2009). Spatial organization of hominin activities at Gesher Benot Ya'aqov, Israel. *Science*, 326(5960), 1677–1680.
- Altmann, J. (1980). *Baboon mothers and infants*. Cambridge, MA: Harvard University Press.
- Angier, N. (2019, May 28). Frances Arnold turns microbes into living factories. *The New York Times*. <https://www.nytimes.com/2019/05/28/science/frances-arnold-caltech-evolution.html>
- Arnold, F. H. (2018). Directed evolution: Bringing new chemistry to life. *Angewandte Chemie International Edition*, 57(16), 4143–4148.
- Avise, J. C., & Mank, J. E. (2009). Evolutionary perspectives on hermaphroditism in fishes. *Sexual Development*, 3(2–3), 152–163. <https://doi.org/10.1159/000223079>. Epub 2009 Aug 10.
- Bagemihl, B. (1999). *Biological exuberance: Animal homosexuality and natural diversity*. New York: St. Martin's Press.
- Bailey, N. W., & Zuk, M. (2009). Same-sex sexual behavior and evolution. *Trends in Ecology & Evolution*, 24(8), 439–446. <https://doi.org/10.1016/j.tree.2009.03.014>
- Belyaev, D. K., Ruvinsky, A. O., & Trut, L. N. (1981). Inherited activation-inactivation of the star gene in foxes. *Journal of Heredity*, 72, 267–274.
- Bender, R., Tobias, P., & Bender, N. (2012). The savannah hypotheses: Origin, reception and impact on paleoanthropology. *History and Philosophy of the Life Sciences*, 34(1/2), 147–184. Retrieved from <http://www.jstor.org/stable/43831771>
- Benedict, R. (1934/2003). *Patterns of culture*. New York, NY: Houghton Mifflin.
- Bennhold, K. (2019, April 24). Another unwelcome migrant: The big bad wolf. *The New York Times*, p. A8.
- Bienkov, A. (2017, July 27). 61% of Conservative voters believe gay sex is ‘unnatural’. *Business Insider*. <https://www.businessinsider.com/61-of-conservative-voters-believe-gay-sex-is-unnatural-2017-7>
- Bleier, R. (1984). *Science and gender: A critique of biology and its theories on women*. New York, NY: Teachers College Press.
- Bleier, R. E. (1986). *Feminist approaches to science*. Oxford, UK: Pergamon Press.
- Boyd, R., & Richerson, P. J. (2009). Culture and the evolution of human cooperation. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 364(1533), 3281–3288. <https://doi.org/10.1098/rstb.2009.0134>
- Brauer, J., Xiao, Y., Poulain, T., Friederici, A. D., & Schirmer, A. (2016). Frequency of maternal touch predicts resting activity and connectivity of the developing social brain. *Cerebral Cortex*, 26(8), 3544–3552. <https://doi.org/10.1093/cercor/bhw137>
- Brosnan, S. F., & de Waal, F. B. M. (2003). Monkeys reject unequal pay. *Nature*, 425, 297–299. <https://www.nature.com>
- Brown, J. K. (1970). A note on the division of labor by sex. *American Anthropologist*, 72, 1073–1078. <https://doi.org/10.1525/aa.1970.72.5.02a00070>
- Brown, J. L. (1975). *Evolution and animal behavior*. New York: Norton.
- Bryce, E. (2019, February 14). How do Emperor penguin dads stop their eggs from freezing? *Live Science*. <https://www.livescience.com/64765-how-penguins-keep-eggs-warm.html>

- Burmeister, S. S., Jarvis, E. D., & Fernald, R. D. (2005). Rapid behavioral and genomic responses to social opportunity. *PLoS Biology*, 3(11), e390.
- Busia, L., Denice, A. R., Aureli, F., & Schaffner, C. M. (2018). Homosexual behavior between male spider monkeys (*Ateles geoffroyi*). *Archives of Sexual Behavior*, 47(4), 857–861.
- Butler, C. A. (May, 2017). Gynandromorphism: Sexual forms are not necessarily either male or female. *Natural History*. <http://www.naturalhistorymag.com/features/243168/gynandromorphism>
- Cascio, C. J., Moore, D., & McGlone, F. (2019). Social touch and human development. *Developmental Cognitive Neuroscience*, 35, 5–11.
- Cavalli-Sforza, L., & Feldman, M. (1981). *Cultural transmission and evolution: A quantitative approach*. Princeton, NJ: Princeton University Press.
- Chimpanzees | WWF. (n.d.). https://wwf.panda.org/knowledge_hub/angered_species/great_apes/chimpanzees/
- Christakis, N. (2019). *Blueprint: The evolutionary origins of a good society*. New York: Little, Brown Spark.
- Clark, E., Pohle, M., & Rabin, J. S. (1991). Spotted sandperch dynamics. *National Geographic Research and Exploration*, 7, 138–155.
- Clark, E., Rabin, J. S., Bunyan, E., Jr., Murdock, I., Shen, D., & Petzold, R. (1989). Social behavior in the Caribbean tilefish. *Underwater Naturalist*, 18(2), 20–23.
- Clark, E., Rabin, J. S., & Holderman, S. (1988). Reproductive behavior and social organization in the sand tilefish, *Malacanthus plumieri*. *Environmental Biology of Fishes*, 22, 273–286.
- Clay, Z., & de Waal, F. B. M. (2013). Bonobo socio-emotional competence. *Proceedings of the National Academy of Sciences*, 110(45), 18121–18126. <https://doi.org/10.1073/pnas.1316449110>
- Clay, Z., Palagi, E., & de Waal, F. B. M. (2018). Ethological approaches to empathy in primates. In K. Meyza & E. Knapska (Eds.), *Neuronal correlates of empathy* (pp. 53–66). London: Academic. <https://doi.org/10.1016/B978-0-12-805397-3.00005-X>
- Cliquet, R. L. (1984). The relevance of sociobiological theory for emancipatory feminism. *Journal of Human Evolution*, 13(1), 117–127.
- Cohen-Brown, B. (2018, July 10). Chimpanzee social hierarchy is amazing. *Jane Goodall's good for all news*. The Jane Goodall Institute. <http://news.janegoodall.org/2018/07/10/top-bottom-chimpanzee-social-hierarchy-amazing/>
- Corbett, S. (December 21, 2016). Ruth Hubbard challenged the male model of science. *The New York Times Magazine*. <https://www.nytimes.com/interactive/2016/12/.../the-lives-they-lived-ruth-hubbard.ht>
- Crews, D. (1987). Diversity and evolution of behavioral controlling mechanisms. In D. Crews (Ed.), *Psychobiology of reproductive behavior: An evolutionary perspective*. Englewood Cliffs, NJ: Prentice Hall.
- de Waal, F. B. M. (1982, 2007). *Chimpanzee politics: Power and sex among apes* (25th anniversary edition). Baltimore, MD: Johns Hopkins University Press.
- de Waal, F. B. M. (1995). Bonobo sex and society: The behavior of a close relative challenges assumptions about male supremacy in human evolution. *Scientific American*, 272(3), 82–88.
- de Waal, F. B. M. (2000). Primates – A natural heritage of conflict resolution. *Science*, 289, 586–590.
- de Waal, F. B. M. (2019a). Fish, mirrors, and a gradualist perspective on self-awareness. *PLoS Biology*, 17(2), e3000112. <https://doi.org/10.1371/journal.pbio.3000112>
- de Waal, F. (2019b). *Mama's last hug: Animal emotions and what they tell us about ourselves*. New York: W. W. Norton.
- DeVore, I., & Washburn, S. L. (1964). Baboon ecology and human evolution. In F. C. Howell & F. Bouliere (Eds.), *African ecology and human evolution* (pp. 335–367). London: Methuen & Company.

- Diogo, R., Molnar, J. L., & Wood, B. (2017). Bonobo anatomy reveals stasis and mosaicism in chimpanzee evolution and supports bonobos as the most appropriate extant model for the common ancestor of chimpanzees and humans. *Scientific Reports*, 7(608). Published online 2017 Apr 4. <https://doi.org/10.1038/s41598-017-00548-3>
- Dixon, A. (2010). Homosexual behavior in primates. In A. Poliani (Ed.), *Animal homosexuality: A biosocial perspective*. Cambridge: Cambridge University Press.
- Dobzhansky, T. (1962). *Mankind evolving*. New Haven, CT: Yale University Press.
- Domingos, J. A., Budd, A. M., Banh, Q. Q., Goldsbury, J. A., Zenger, K. R., & Jerry, D. R. (2018). Sex-specific dmrt1 and cyp19a1 methylation and alternative splicing in gonads of the protandrous hermaphrodite barramundi. *PLoS One*, 13(9), e0204182. <https://doi.org/10.1371/journal.pone.0204182>
- Dyble, M., Salali, G. D., Chaudhary, N., Page, A., Smith, D., Thompson, J., ... Migliano, A. B. (2015). Sex equality can explain the unique social structure of hunter-gatherer bands. *Science*, 348(6236), 796–798. <https://doi.org/10.1126/science.aaa5139>
- Fehr, C. (2008). Feminist perspectives on philosophy of biology. In M. Ruse (Ed.), *Oxford handbook on the philosophy of biology*. Oxford, UK: Oxford University Press.
- Fehr, C. (2011). Feminist philosophy of biology. In E. N. Zalta (Ed.), *The stanford encyclopedia of philosophy (Fall 2018 Edition)*. <https://plato.stanford.edu/archives/fall2018/entries/feminist-philosophy-biology/>
- Ferguson, M. W. J., & Joanen, T. (1982). Temperature of egg incubation determines sex in *Alligator mississippiensis*. *Nature*, 296, 850–853.
- Fernandez-Duque, E., Valeggia, C. R., & Mendoza, S. P. (2009). The biology of paternal care in human and nonhuman primates. *Annual Review of Anthropology*, 38, 115–130. <https://www.annualreviews.org/doi/abs/10.1146/annurev-anthro-091908-164334>
- Fossey, D. (1972). Vocalizations of the mountain gorilla (*Gorilla gorilla beringei*). *Animal Behaviour*, 20, 36–53.
- Fossey, D. (1974). Observations on the home range of one group of mountain gorilla (*Gorilla gorilla beringei*). *Animal Behaviour*, 22, 568–581.
- Francis, C., Anthony, E. L. P., Brunton, J., & Kunz, T. H. (1994). Lactation in male fruit bats. *Nature*, 367, 691–692.
- Fricke, H. W. (1979). Mating system, resource defense, and sex change in the anemonefish *Amphiprion akallopiso*. *Zeitschrift für Tierpsychologie*, 50, 313–326.
- Fritsche, I., & Hafner, K. (2012). The malicious effects of existential threat on motivation to protect the natural environment and the role of environmental identity as a moderator. *Environment and Behavior*, 44(4), 570–590. <https://doi.org/10.1177/0013916510397759>
- Fritsche, I., & Hoppe, A. (2019). We supernaturals: Terror management and people's ambivalent relationship with nature. In C. Routledge & M. Vess (Eds.), *Handbook of terror management theory* (pp. 157–178). Cambridge, MA: Academic.
- Fruith, B., & Hohmann, G. (2018). Food sharing across borders: First observation of intercommunity meat sharing by bonobos at LuiKotale, DRC. *Human Nature*, 29(2), 91–103. <https://doi.org/10.1007/s12110-018-9311-9>
- Funk, C. L., Smith, K. B., Alford, J. R., Hibbing, M. V., Eaton, N. R., Krueger, R. F., ... Hibbing, J. R. (2013). Genetic and environmental transmission of political orientations. *Political Psychology*, 34(6), 805–819. <https://doi.org/10.1111/j.1467-9221.2012.00915.x>
- Furuichi, T. (2011). Female contributions to the peaceful nature of bonobo society. *Evolutionary Anthropology*, 20(4), 131–142. <https://doi.org/10.1002/evan.20308>
- Gibbons, A. (2012). Bonobos join chimps as closest human relatives. *Science | AAAS*. <https://www.sciencemag.org/news/2012/.../bonobos-join-chimps-closest-human-relativ...>
- Goodall, J. (1986). *The chimpanzees of Gombe: Patterns of behavior*. Cambridge, MA: Belknap Press of Harvard University Press.
- Goodall, J. (1990). *Through a window: My thirty years with the chimpanzees of Gombe*. Boston: Houghton Mifflin.

- Gould, S. J. (1979). Biological potentiality vs. biological determinism. In *Ever since Darwin* (pp. 251–259). New York, NY: W. W. Norton & Company.
- Gould, S. J. (1983). The guano ring. In S. J. Gould (Ed.), *Hen's teeth and horse's toes* (pp. 46–55). New York: W. W. Norton.
- Gould, S. J. (2002). *The structure of evolutionary theory*. Cambridge, MA: Harvard University Press.
- Gowaty, P. A. (Ed.). (1997). *Feminism and evolutionary biology: Boundaries, intersections and frontiers*. New York: Chapman and Hall.
- Grueter, C. C., & Stoinski, T. S. (2016). Homosexual behavior in female mountain gorillas: Reflection of dominance, affiliation, reconciliation or arousal? *PLoS One*, *11*(5), e0154185. <https://doi.org/10.1371/journal.pone.0154185>
- Hammerstein, P. (2003). *Genetic and cultural evolution of cooperation*. Cambridge, MA: MIT Press.
- Hare, B., Wobber, V., & Wrangham, R. (2012). The self-domestication hypothesis: Evolution of bonobo psychology is due to selection against aggression. *Animal Behaviour*, *83*(3), 573–585. <https://doi.org/10.1016/j.anbehav.2011.12.00>
- Hare, B. (2013, March 3). We didn't domesticate dogs. They domesticated us. *National Geographic News*. <https://news.nationalgeographic.com/.../130302-dog-domestic-evolution-science-wolf>.
- Handwerk, B. (2018, August 15). When and how did wolves become dogs? | *Science | Smithsonian*. <https://www.smithsonianmag.com/science.../how-wolves-really-became-dogs-180970>
- Harlow, H. F. (1971). *Learning to love*. New York: Jason Aronson.
- Hetherington, M., & Weiler, J. D. (2018). *Prius or pickup? How the answers to four simple questions explain America's great divide*. New York, NY: Houghton Mifflin Harcourt.
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014). *Predisposed: Liberals, conservatives, and the biology of political differences*. New York: Routledge.
- Hoffman, K. A., Mendoza, S. P., Hennessy, M. B., & Mason, W. A. (1995). Responses of infant titi monkeys, *Callicebus moloch*, to removal of one or both parents: evidence for paternal attachment. *Developmental Psychobiology*, *28*, 399–407.
- Hohmann, G., & Fruth, B. (2003). Intra-and inter-sexual aggression by bonobos in the context of mating. *Behaviour*, *140*(11), 1389–1414.
- Hrdy, S. B. (1981, 1999). *The woman who never evolved* (p. 1999). Cambridge, MA: Harvard University Press.
- Hrdy, S. B. (2009). *Mothers and others: The evolutionary origins of mutual understanding*. Cambridge, MA: Harvard University Press.
- Hubbard, R. (1990). *The politics of women's biology*. New Brunswick, NJ: Rutgers University Press.
- Jensen, M. P., Allen, C. D., Eguchi, T., Bell, I. P., LaCasella, E. L., Hilton, W. A., ... Dutton, P. H. (2018). Environmental warming and feminization of one of the largest sea turtle populations in the world. *Current Biology*, *28*(1), 154–159.e4. <https://doi.org/10.1016/j.cub.2017.11.057>
- Jones, A. G. (2004). Male pregnancy and the formation of seahorse species. *Biologist*, *51*(4), 1–6.
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology*, *60*(1), 307–337. <https://doi.org/10.1146/annurev.psych.60.110707.163600>
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, *129*(3), 339–375.
- Kanai, R., Feilden, T., Firth, C., & Rees, G. (2011). Political orientations are correlated with brain structure in young adults. *Current Biology*, *21*(8), 677–680.
- Kano, T. (1992). *The last ape: Pygmy chimpanzee behavior and ecology*. Stanford, CA: Stanford University Press.

- Kaplan, H. S., Hooper, P. L., & Gurven, M. (2009). The evolutionary and ecological roots of human social organization. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 364(1533), 3289–3299. <https://doi.org/10.1098/rstb.2009.0115>
- Kaplan, G., & Rogers, L. J. (2003). *Gene worship: Moving beyond the nature/nurture debate over genes, brain, and gender*. New York: Other Press.
- Keller, E. (1982). Feminism and science. *Signs*, 7(3), 589–602. Retrieved from <http://www.jstor.org/stable/3173856>
- Keller, E. F. (2000). *The century of the gene*. Cambridge, MA: Harvard University Press.
- Keller, E. F. (2010). Goodbye nature vs nurture debate. *New Scientist*, 207(2778), 28–29. [https://doi.org/10.1016/S0262-4079\(10\)62277-4](https://doi.org/10.1016/S0262-4079(10)62277-4)
- Keller, E. F. (2016). Thinking about biology and culture: Can the natural and human sciences be integrated? *The Sociological Review*, 64(1), 26–41. <https://doi.org/10.1111/2059-7932.12011>
- Kimwele, C. N., & Graves, J. A. (2003). A molecular genetic analysis of the communal nesting of the ostrich (*Struthio camelus*). *Molecular Ecology*, 12(1), 229–236. <https://www.ncbi.nlm.nih.gov/pubmed/12492891>
- King, B. J. (2012, October 26). Chimpanzee politics: Election-year lessons on power and reconciliation. NPR 13.7 *Cosmos & Culture: Commentary on Science and Society*. <https://www.npr.org/.../chimpanzee-politics-election-year-lessons-on-power-and-reconcil...>
- Krämer, K. (2018). What is directed evolution and why did it win the chemistry Nobel prize? *Chemistry World*. <https://www.chemistryworld.com/.../directed-evolution...chemistry.../3009584>
- Kulahci, I. G., Ghazanfar, A. A., & Rubenstein, D. I. (2018). Knowledgeable lemurs become more central in social networks. *Current Biology*, 28(8), 1306–1310.e2. <https://doi.org/10.1016/j.cub.2018.02.079>. Epub 2018 Apr 5.
- Kuwamura, T., Nakshima, Y., & Yogo, Y. (1994). Sex change in either direction by growth-rate advantage in the monogamous coral goby, *Paragobiodon echinocephalus*. *Behavioral Ecology*, 5, 434–438.
- Laland, K. N., Odling-Smee, J., & Myles, S. (2010). How culture shaped the human genome: Bringing genetics and the human sciences together. *Nature Reviews Genetics*, 11, 137–148.
- Lane, S. M., Haughan, A. E., Evans, D., Tregenza, T., & House, C. M. (2016). Same-sex sexual behaviour as a dominance display. *Animal Behaviour*, 114, 113–118. <https://doi.org/10.1016/j.anbehav.2016.01.005>. Epub 2019 Mar 21.
- Lappan, S., & Whittaker, D. J. (2008). *The gibbons: New perspectives on small ape socioecology and population biology*. New York, NY: Springer. <https://doi.org/10.1007/978-0-387-88604-6>
- Legrain, L., Stevens, J., Alegria Iscoa, J., & Destrebecqz, A. (2011). A case study of conflict management in bonobos: How does a bonobo (*Pan paniscus*) mother manage conflicts between her sons and her female coalition partner? *Folia Primatologia*, 82(4–5), 236–243. <https://doi.org/10.1159/000334818>
- Lehmann, J., Korstjens, A. H., & Dunbar, R. (2006). Fission-fusion social systems as a strategy for coping with ecological constraints: A primate case. *Evolutionary Ecology*, 21(5), 613–634. <https://doi.org/10.1007/s10682-006-9141-9>
- Levitin, D. J. (2014). *The organized mind: Thinking straight in the age of information overload*. New York: Penguin Random House.
- Levitin, D. J. (2016). *Weaponized lies: How to think critically in the post-truth era*. New York: Penguin Random House.
- Li, S. K., & Owings, D. H. (1978). Sexual selection in the three-spined stickleback. *Zeitschrift für Tierpsychologie*, 46, 359–371.
- Lips, H. (2019). *Gender: The basics*. New York, NY: Routledge.
- Lowe, M., & Hubbard, R. (1979). Conclusions. In R. Hubbard & M. Lowe (Eds.), *Genes and gender II: Pitfalls in research on sex and gender* (pp. 143–151). New York: Gordian Press.
- MacFarlane, G. R., Bloomberg, S. P., Kaplan, G., & Rogers, L. J. (2007). Same-sex sexual behavior in birds: Expression is related to social mating system and state of development at hatching. *Behavioral Ecology*, 18(1), 21–33.

- Mann, J. (2005). Establishing trust: Socio-sexual behaviour and the development of male-male bonds among Indian Ocean bottlenose dolphins. In V. Sommer & P. L. Vasey (Eds.), *Homosexual behaviour in animals: An evolutionary perspective* (pp. 107–130). Cambridge, UK: Cambridge University Press.
- Manson, J. H., Perry, S., & Parish, A. R. (1997). Nonconceptive sexual behavior in bonobos and capuchins. *International Journal of Primatology*, 18(5), 767–786.
- Mead, M. (1935/2003). *Sex and temperament in three primitive societies*. New York: HarperCollins.
- McGrew, W. C. (1998). Culture in nonhuman primates? *Annual Review of Anthropology*, 27(1), 301–328. <https://doi.org/10.1146/annurev.anthro.27.1.301>
- Mendez, M. F. (2017). A neurology of the conservative-liberal dimensions of political ideology. *Journal of Clinical Neuropsychiatry and Clinical Neurosciences*, 29, 86–94.
- Merchant, C. (1980). *The death of nature: Women, ecology and the scientific revolution*. San Francisco, CA: Harper & Row.
- Mies, M., & Shiva, V. (1993). *Ecofeminism*. London: Zed Press.
- Moffitt, E., Caspi, A., & Rutter, M. (2006). Measured gene-environment interactions in psychopathology: Concepts, research strategies, and implications for research, intervention, and public understanding of genetics. *Perspectives on Psychological Science*, 1(1), 5–27.
- Nakshima, Y., Kuwamura, T., & Yogo, Y. (1995). Why be a both ways sex changer? *Ethology*, 101, 301–307.
- Niven, D. (1993). Male-male nesting behavior in hooded warblers. *Wilson Bulletin*, 105, 190–193.
- Palagi, E. (2006). Social play in bonobos (*Pan paniscus*) and chimpanzees (*Pan troglodytes*): Implications for natural social systems and interindividual relationships. *American Journal of Physical Anthropology*, 129(3), 418–426.
- Parish, A. (1996). Female relationships in bonobos (*Pan paniscus*) – Evidence for bonding, cooperation, and female dominance in a male-philopatric species. *Human Nature*, 7(1), 61–96. <https://doi.org/10.1007/BF02733490>
- Peer, B. D., & Motz, R. W. (2014). Observations of a bilateral gynandromorph northern cardinal (*Cardinalis cardinalis*). *The Wilson Journal of Ornithology*, 126(4), 778–781. <https://doi.org/10.1676/14-025.1>
- Peterson, D., & Wrangham, R. (1997). *Demonic males: Apes and the origins of human violence*. New York: Houghton Mifflin Harcourt.
- Pleck, J. H. (1995). The gender role strain paradigm: An update. In R. F. Levant & W. S. Pollack (Eds.), *A new psychology of men* (pp. 11–32). New York: Basic Books.
- Potts, R. (1996). Evolution and climate variability. *Science*, 273(5277), 922–923. <https://doi.org/10.1126/science.273.5277.922>
- Potts, R. (2013). Hominin evolution in settings of strong environmental variability. *Quaternary Science Reviews*, 73, 1–13. <https://doi.org/10.1016/j.quascirev.2013.04.003>
- Potts, R., Behrensmeier, A. K., Faith, J. T., Tryon, C. A., Brooks, A. S., Yellen, J. E., ... Renaut, R. W. (2018). Environmental dynamics during the onset of the middle stone age in eastern Africa. *Science*, 360(6384), 86–90. <https://doi.org/10.1126/science.aao2200>
- Potts, R., & Sloan, C. (2010). *What does it mean to be human ?* Washington, DC: National Geographic.
- Potts, R., & Faith, J. T. (2015). Alternating high and low climate variability: The context of natural selection and speciation in Plio-Pleistocene hominin evolution. *Journal of Human Evolution*, 87, 5–20.
- Prüfer, K., Munch, K., Hellmann, I., Akagi, K., Miller, J. R., Walenz, B., ... Pääbo, S. (2012). The bonobo genome compared with the chimpanzee and human genomes. *Nature*, 486(7404), 527–531. <https://doi.org/10.1038/nature11128>
- Prum, R. O. (2012). Aesthetic evolution by mate choice: Darwin's really dangerous idea. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 367(1600), 2253–2265. <https://doi.org/10.1098/rstb.2011.0285>
- Prum, R. O. (2017). *The evolution of beauty: How Darwin's forgotten theory of mate choice shapes the animal world – and us*. New York: Penguin Random House.

- Rabin, J. S. (1986). Adaptation across the lifespan: Evolution, future shock, and sex roles. In J. D. Sinnott (Ed.), *Sex roles and aging: Theory and research from a systems perspective* (pp. 25–34). Basel: Karger.
- Rabin, J. S. (2006, October). *Are we doomed by our genetic differences?* Paper presented at the 4th annual university of Maryland faculty conference rethinking and relearning diversity, University of Maryland, College Park, MD.
- Rabin, J. S. (2007, March). *Beyond dualities: Stem cells help us understand the new genetics without setting feminism back 30 years.* Paper presented at the 32nd national conference of the association of women in psychology, San Francisco, CA.
- Rabin, J. S., Benveniste, L. M., & Clark, E. (1988). Flexibility of burrow building by the sand tilefish, *Malacanthus plumieri*: An adaptation to survival in changing habitats. *Proceedings abstracts, 59th annual meeting eastern psychological association*, 9.
- Rabin, J. S., & Clark, E. (1989). Burrow-building strategies in the sand tilefish. *21st International ethology conference, Utrecht: 139* (abstract).
- Radhakrishnan, S., Litterman, R., Neuwald, J. L., & Valenzuela, N. (2018). Thermal response of epigenetic genes informs turtle sex determination with and without sex chromosomes. *Sexual Development*, 12, 308–319. <https://doi.org/10.1159/000492188>
- Raia, P., Carotenuto, F., Mondanaro, A., Castiglione, S., Passaro, F., Saggese, F., ... Fortelius, M. (2016). Progress to extinction: Increased specialisation causes the demise of animal clades. *Scientific Reports*, 6, 30965. <https://doi.org/10.1038/srep30965>
- Reece, C., Ebstein, R., Cheng, X., Ng, T., & Schirmer, A. (2016). Maternal touch predicts social orienting in young children. *Cognitive Development*, 39, 128–140. <https://doi.org/10.1016/j.cogdev.2016.05.001>
- Ressler, K. J. (2010). Amygdala activity, fear, and anxiety: Modulation by stress. *Biological Psychiatry*, 67(12), 1117–1119. <https://doi.org/10.1016/j.biopsych.2010.04.027>
- Rilling, J., Scholz, J., Preuss, T., Glasser, M., Errangi, B., & Behrens, T. (2011). Differences between chimpanzees and bonobos in neural systems supporting social cognition. *Social Cognitive and Affective Neuroscience*. <https://doi.org/10.1093/scan/nsr017>, published online 5 April 2011.
- Robison, S. K. (2016). The political implications of epigenetics. *Politics and the Life Sciences*, 35(2), 30–53.
- Rosser, S. (1986). *Teaching science and health from a feminist perspective*. New York: Pergamon Press.
- Roughgarden, J. (2004). *Evolution's rainbow: Diversity, gender, and sexuality in nature and people*. Berkeley, CA: University of California Press. <https://doi.org/10.1186/s12888-018-1740-9>
- Sachs, J. L., Mueller, U. G., Wilcox, T. P., & Bull, J. J. (2004). The evolution of cooperation. *The Quarterly Review of Biology*, 79(2), 135–160. <https://doi.org/10.1086/383541>
- Sakai, Y., Karino, K., Kuwamura, T., Nakashima, Y., & Maruo, Y. (2003). Sexually dichromatic protogynous angelfish *Centropyge ferrugata* (Pomacanthidae) males can change back to females. *Zoological Science*, 20(5), 627–633. <https://doi.org/10.2108/zsj.20.627>
- Sanday, P. R. (1981). *Female power and male dominance: On the origins of sexual inequality*. Cambridge: Cambridge University Press.
- Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*. New York: Penguin Books.
- Sapolsky, R. M., & Share, L. J. (2004). Emergence of a peaceful culture in wild baboons. *PLoS Biology*, 2(4), e124. <https://doi.org/10.1371/journal.pbio.0020124>
- Scerri, E. M. L., Thomas, M. G., Manica, A., Gunz, P., Stock, J. T., Stringer, C., ... Chikhi, L. (2018). Did our species evolve in subdivided populations across Africa, and why does it matter? *Trends in Ecology and Evolution*, 33(8), 582–594. <https://doi.org/10.1016/j.tree.2018.05.005>. Epub 2018 Jul 11.
- Scott, M. (2016). *Climate and human evolution*. NOAA Climate.gov. <https://www.climate.gov/news-features/climate-and/climate-and-human-evolution>

- Shermer, M. (2011). *The believing brain: From ghosts and gods to politics and conspiracies. How we construct beliefs and reinforce them as truths*. New York: St. Martins Griffin.
- Sibley, D. A. (2001). *The Sibley guide to bird life and behavior*. New York: Knopf.
- Sidanius, J., & Kurzban, R. (2013). Toward an evolutionarily informed political psychology. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 205–236). New York: Oxford University Press.
- Simpson, E. A., Sclafani, V., Paukner, A., Kaburu, S. S. K., Suomi, S. J., & Ferrari, P. F. (2019). Handling newborn monkeys alters later exploratory, cognitive, and social behaviors. *Developmental Cognitive Neuroscience*, 35, 12–19.
- Sinisi, A. A., Pasquali, D., Notaro, A., & Bellastella, A. (2003). Sexual differentiation. *Journal of Endocrinology Investigation*, 26(3), 23–28.
- Sinnott, J. D., & Rabin, J. S. (2012). Sex roles. In V. Ramachandran (Ed.), *Encyclopedia of human behavior* (2nd ed., pp. 411–417). Cambridge, MA: Academic.
- Small, M. F. (1984). *Female primates: Studies by women primatologists*. New York: Alan R. Liss.
- Sommer, V., & Vasey, P. L. (2006). *Homosexual behaviour in animals: An evolutionary perspective*. New York: Cambridge University Press.
- Storey, A. E., & Zeigler, T. E. (2016). Primate paternal care: Interactions between biology and social experience. *Hormones and Behavior*, 77, 260–271.
- Strier, K. B. (2016). *Primate behavioral ecology* (5th ed.). Boston: Allyn and Bacon.
- Suomi, S. J. (2003, March). *How gene-environment interactions can shape biobehavioral development in rhesus monkeys*. Paper presented at the Eastern Psychological Association Meeting, Baltimore, MD.
- Suomi, S. J. (2004). How gene-environment interactions can shape biobehavioral development: Lessons from studies with Rhesus monkeys. *Research in Human Development*, 1(3), 205–222. https://doi.org/10.1207/s15427617rhd0103_5
- Surbeck, M., Mundry, R., & Hohmann, G. (2010). Mothers matter! Maternal support, dominance status and mating success in male bonobos (*Pan paniscus*). *Proceedings of the Royal Society B: Biological Sciences*, 278(1705), 590–598.
- Tan, J., Ariely, D., & Hare, B. (2017). Bonobos respond prosocially toward members of other groups. *Scientific Reports*, 7(1), 14733. <https://doi.org/10.1038/s41598-017-15320-w>
- Tanner, N. M. (1981). *On becoming human*. New York: Cambridge University Press.
- Theofanopoulou, C., Gastaldon, S., O'Rourke, T., Samuels, B. D., Martins, P. T., Delogu, F., ... Boeckx, C. (2017). Self-domestication in *Homo sapiens*: Insights from comparative genomics. *PLoS One*, 12(10), e0185306. <https://doi.org/10.1371/journal.pone.0185306>
- Todd, E. V., Liu, H., Muncaster, S., & Gemmill, N. J. (2016). Bending genders: The biology of natural sex change in fish. *Sexual Development*, 10, 223–241. <https://doi.org/10.1159/000449297>
- Tomasello, M., Melis, A. P., Tennie, C., Wyman, E., & Herrmann, E. (2012). Two key steps in the evolution of human cooperation: The interdependence hypothesis. *Current Anthropology*, 53(6), 673–692.
- Tonn, J. (2018). Radical science, feminism, and the biology of determinism. *The New Inquiry*. <https://thenewinquiry.com/.../radical-science-feminism-and-the-biology-of-determinis...>
- Trut, L., Oskina, I., & Kharlamova, A. (2009). Animal evolution during domestication: The domesticated fox as a model. *BioEssays*, 31(3), 349–360. <https://doi.org/10.1002/bies.200800070>
- Tuschman, A. (2013). *Our political nature: The evolutionary origins of what divides us*. Amherst: Prometheus. <https://doi.org/10.1093/icb/icx071>
- Vasey, P. L. (1998). Female choice and inter-sexual competition for female sexual partners in Japanese macaques. *Behaviour*, 135(5), 579–597. <https://doi.org/10.1163/156853998792897897>
- Vasey, P. L. (2002). Sexual preference in female Japanese macaques. *Archives of Sexual Behavior*, 31(1), 51–62.
- Vasey, P. L., & Forrester, D. L. (2015). Homosexuality in nonhuman primates and in humans. In A. Bolin & P. Whelehan (Eds.), *The international encyclopedia of human sexuality* (pp. 553–556). New York: Wiley-Blackwell. <https://doi.org/10.1002/9781118896877.wbiehs218>

- Wallauer, B. (2019, April 19). *Changing of the chimp matriarchal guard in Gombe*. <http://news.janegoodall.org/2019/04/19/changing-of-the-chimp-matriarchal-guard-in-gombe/>
- Warner, R. R. (1984). Mating behavior and hermaphroditism in coral reef fishes. *American Scientist*, 72, 128–136.
- Weintraub, K. (2019, February 9). A rare bird indeed: A cardinal that's half male, half female. *New York Times*, <https://www.nytimes.com/2019/02/09/science/cardinal-sex-gender.html>.
- Westergaard, G. C., Suomi, S. J., Higley, J. D., & Mehlman, P. T. (1999). CSF5-HIAA and aggression in female macaque monkeys: Species and interindividual differences. *Psychopharmacology*, 146, 440–446.
- Whitehead, A. L. (2014). Politics, religion, attribution theory, and attitudes toward same-sex unions. *Social Science Quarterly*, 95(3), 701–718. <https://doi.org/10.1111/ssqu.12085>
- Wilson, E. O. (1975). *Sociobiology: The new synthesis*. Cambridge, MA: Harvard University Press.
- Wilson, M. L., Boesch, C., Gilby, I. C., Hohmann, G., Itoh, N., Hashimoto, C., et al. (2014). Rates of lethal aggression in chimpanzees depend on the number of adult males rather than measures of human disturbance. *Nature*, 513, 414–417.
- Wood, P., & Bartkowski, J. (2004). Attribution style and public policy attitudes toward gay rights. *Social Science Quarterly*, 85(1), 58–74. Retrieved from <http://www.jstor.org/stable/42955927>
- Wrangham, R. (2019). *The goodness paradox: The strange relationship between virtue and violence in human evolution*. New York: Pantheon Books.
- Zhang, R. (Ed.). (2018). *The epigenetics of autoimmunity*. Cambridge, MA: Elsevier Science.
- Zuk, M. (2003). *Sexual selections: What we can and can't learn about sex from animals*. Oakland, CA: University of California Press. <https://www.ucpress.edu/book/9780520240759/sexual-selections>

Part II
Cognitive Perspectives

Psychology, Politics, and Complex Thought: A Time for Postformal Thought in Politics



Jan D. Sinnott

It may be time to think about the co-dependent relationship between psychology and politics in a fresh way. The literature on the relationship between psychology and politics is very extensive, almost overwhelmingly so. Authors coming from the domains of politics and social psychology dominate the ranks of writers in this field, but others more attuned to fields as diverse as neuropsychology, gender studies, history and geography also add their wisdom. Understanding how we can find ourselves in such turmoil, change, and confusion in the twenty-first century, especially in mature democracies, seems important to moving on in the right direction now, but we feel that this understanding is missing. Many of us feel anxious, overwhelmed and a little afraid of what we see in the current political discourse; many of us see citizens' ideas and behavior shaking up the current political environment. Does this political environment influence us, too, over time? Over time do we partially create this political environment? This last question can be extremely important in the study of politics and psychology.

The editors of this book, like many other citizens at this historical moment, wanted to understand the forces and outcomes in this current political moment. Even more than understanding, we wanted to help ourselves stay grounded during the rapid changes and heated emotions of our times. Talking with others convinced us that we were not alone in attempting to understand and deal with the rapid-fire political change and drama of our times. It also became clearer that this was not the only time in human history characterized by this degree of political upheaval and the need to somehow process it and move beyond it. What might be our individual roles in creating this political upheaval?

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This chapter offers a theoretical model of the components of the interaction between psychology and politics. What are the components of the current political change and drama that we all find so upsetting and confusing? Of course, there are many and this book offers a significant number of ideas. In this chapter I focus on a few, suggesting that the situation today is influenced by elements of *identity* (either personal or group), by the *pace of change* (either fast or slow), by our *ability (or lack of it) to solve these life problems in complex ways*, and by *emotions* (especially related to fear). I examine the interconnection of those factors in the context of our current experience (particularly our American experience) and discuss what we might do as individuals or groups to survive current upheavals by altering these factors using complex postformal problem solving.

The reader will notice that this chapter does not include specific examples related to our current president or current issues roiling the two main US parties, Democrats and Republicans. What this chapter offers is a way to approach four main psychological factors that *commonly* intersect with politics and do so now.

First a Summary

When I was a college student taking Speech 101 we had a rule: first say what you're going to say; then say it in detail; finally summarize what you said. So that is what I'll do here in this chapter: first summarize what I am going to say.

These are times of rapid change for us as individuals and as groups. This change affects, namely threatens, identity, either fragmenting it or making it more rigid, whether it is the identity of an individual or of a group.

When identity is threatened, an emotion, fear, increases, suggesting survival is threatened. In a time of an ordinary pace of change, this results in a challenge, an evolution of understanding, flexibility, and a gradual identity transformation. In a time like the present one characterized by a rapid pace of change, there is fear, the sense that we can't keep up with events, that we have no identity, and we question "who am I?" (or "who are *we*?). Today, in American and world politics we psychologically experience rapid change, fear, challenge to group/individual identity, and fear of being "alone" without an identified "tribe."

In times of rapid change it helps psychologically if we can develop a complex concept of identity and of the change, tone down the emotional fear response, and find a larger community ("tribe") to belong to. To understand these dynamics we can make use of chaos theory, of the theory of self-constructing systems, and of the theory of problem solving using complex postformal thought. Understanding these things will shed light on the dynamics of the influence of psychology on politics and the influence of politics on psychology. Current issues help elucidate the nature of the circular relations between psychology and politics.

In the first sections we will explore part of the nature of identity, pace of change and fear, and complex problem solving ability. Then we will more directly relate these forces to politics/psychology interactions in the world today.

Identity

An essential component of the functioning adult or of the functioning group is identity. This term is defined by [Dictionary.com](https://www.dictionary.com) as: the state or fact of remaining the same one or ones, as under varying aspects or conditions; the condition of being oneself and not another; the condition or character as to who a person or what a thing is; the qualities, beliefs, etc., that distinguish or identify a person or thing.

An element that is somewhat problematic in the typical definition of identity is that theme of permanence noticed in the definition above. In many ways we do perceive ourselves as remaining the same, but we also, at the same time, see ourselves as developing over time. Is it possible that identity and development can co-exist? Can we perceive ourselves as a sort of center around which events and our behaviors change and move, staying the same center but moving and developing nonetheless? Is this true for social identity and the identity of a political group?

As I discussed in my book *Identity Flexibility During Adulthood* (Sinnott, 2017) the flexible yet centered adult self is created from understanding three different areas of experience and identity all of which are woven into our political and social experiences too. As we know our flexible adult self we see that complex cognition is necessarily related to several emotionally salient or *felt* connections—connection among aspects of the identity or self of special interest to us in this chapter. When we speak of identity we need to honor both the cognitive and the emotional parts of that concept (Miller, 2011). These types of emotionally salient connections include: connections among the sides of the self, between self and another (an ongoing source of evolution of self), and between self and a Transcendent (an additional source of evolution of self.) Felt connection can be defined as conscious awareness of relatedness with an emotional attachment component. Adult cognitive development and the development of complex *felt* connection motivate *each other* and ultimately influence each other. That inter-relationship is summarized in Fig. 1 (Sinnott, 2005, 2006, 2008, 2014; Sinnott & Berlanstein, 2006). Several aspects of ideas in the Figure are outlined below.

The first part of the Figure to notice is that there are *three types of feeling connected*. These three elements are labeled “connect the sides of the self”, “connect with others”, and “connect with the Transcendent”. *Connecting the sides of the self* involves being in touch with and relating to the various aspects of our personalities, including disowned parts like the Shadow (Jung, 1931/1971). How we connect the sides of ourselves (and the *existence* of “sides” of the self) partly depends on early relationships in the family of origin. *Connecting with others* involves *interactions* between or among persons, with *social groups (including political groups and political ideas)*, and the conscious or unconscious interpersonal/intergroup relationship pattern we exhibit today. *Connecting with the Transcendent* involves having an ongoing relationship with something or someone that is larger than the individual self, for example, a political party, Destiny, The Great Spirit, the Will of the People, the Universe, or God/God’s Will.

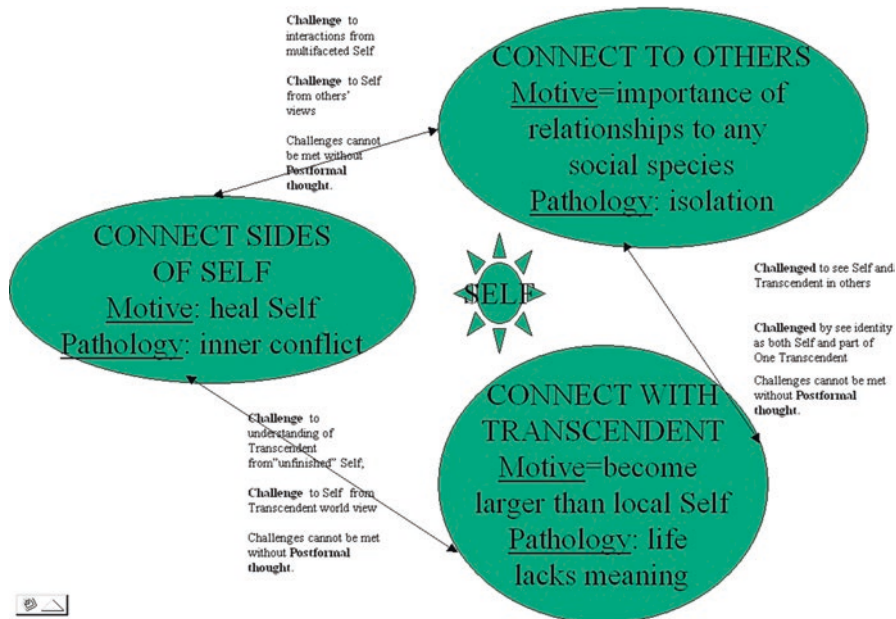


Fig. 1 Theory of construction of the concept of self

In the Figure each of these three types of feeling connected is united with the other two by lines and arrows going in both directions, indicating that each of the three elements influences and is influenced by the others in a circular fashion. So there are *three dynamic processes*, the dynamics of which we can discuss and study. The first process is the dynamic interplay between “connecting the sides of the self” and “connecting with others (including other social/political systems)”. The second process is the dynamic interplay between “connecting with others (including other social/political systems)” and “connecting with the Transcendent”. The third process is the dynamic interplay between “connecting with the Transcendent” and “connecting the sides of the self”. Applications related to our experience of social and political systems may make use of one or more of these three dynamic processes.

As humans we paradoxically desire both continuity and change. The dynamic interaction processes (those two arrows uniting any two elements in Fig. 1) also are described in terms of the *challenges to the self*, challenges posed by the simultaneous experience of any two types of connected feelings. The two types of connected feelings and sub-selves may not agree with each other.

Remember, when I speak of self here, I refer to a dynamic, changing center of events with which a person identifies at a human, ego level, even as it may be constantly transforming. An adaptive characteristic of the human cognitive process is to form concepts and label them as distinct from other concepts. At the same time the same human thinker might also understand that on the level of physics or mysticism this seemingly-concrete thing, the self, is an illusion. (Self as an illusion is discussed in other chapters in Sinnott, 2017.)

In the dynamic interaction between “connecting the sides of the self” and “connecting with others” two challenges occur. The self that exists at any one time is called into question by experiencing the reality of others; and the manner in which we perceive and relate to others is transformed as more sides of the self are accepted.

In the dynamic interaction between “connecting with others” and “connecting with the Transcendent” two challenges occur. The manner in which we perceive and relate to other people or groups, and then interact with them on a political level, may be changed by our growing awareness of the Transcendent which might be switching from “the God of traditional religion” to “The Will of the People”. The self-connection with the Transcendent might change when challenged by the behavior of others close to us, either individuals or groups or ideologies, including political ideologies.

The three sets of processes are also labeled with a *motivation factor* in Fig. 1. That factor suggests *why* a person might want to do the difficult work of rising to the challenge of constructing and maintaining the self when new contradictory information emerges during the dynamic interactions. When the dynamic interaction process involves “connecting the sides of the self” (coupled with some other element) motivation comes from the desire to be more complete, coherent, or whole, to heal. When the dynamic interaction process involves the element of “connecting with others” (coupled with some other element) motivation comes from our desires to maintain and improve ties with people or groups important to us. When the dynamic interaction process involves “connecting with the Transcendent” (coupled with some other element), motivation comes from the desire to increase our participation in something spiritual, something larger than our local self. Motivations, therefore, can be both practical and existential. They can involve living systems of individuals or societies/political groups.

There can be a failure to feel connected *within* any single one of the three types of felt connections mentioned above: within the self; between the self and other persons; and with the Transcendent. These particular failures are labeled *pathology* in Fig. 1. They have implications for Identity and emotional well-being and for the confused or unresolved state a person may experience in unsettled political times.

- First, if there are failures in the development of the felt connections within the self, the person might experience inner conflicts, surprisingly conflicted or self-sabotaging decisions, and a feeling of fragility. The person tends to lose the self upon interacting with others. The person rigidly judges to be “bad” those persons who seem to represent the sides of the self that have not been accepted and integrated. The person is stuck at “either A or non-A, but not both”. It is easy to see that if a person cannot accept some aspect of self they would be expected to reject social and political groups who represent that *unaccepted* feature of self. The person can feel “pulled apart”, uncertain, or moving wildly from one extreme to another in social or political behavior.
- Failure to establish felt connections with others might lead to different problems. For example, the person might feel isolated or abandoned, as if no one can understand him or her. Intimacy and generativity (Erikson, 1982) might not be possible, then, for that person. The person is stuck in “A” with no “non-A” possible.

These are not contradictions within the self, but a lonely outcome for the individual who, as a human, is a social creature in need of connections. Hungry for connections with others, the person may connect with a political group as if it is a tribal family and follow its thinking without question. Deviation from the political group with its subsequent displeasure can then feel like being abandoned, at risk, and alone.

- Failure to establish connections with something or someone larger than the self, i.e., with some Transcendent meaning for life, may carry yet another set of problems. There may be an existential crisis. The person may be driven by anxiety about death, or may find life tragic and meaningless. With no meaning there is nothing that gives a larger platform from which to view current personal problems or setbacks. A lack of meaning might result in depression or in the almost frantic joining of a cult or political group.

These failures to feel connected, and the resulting difficulties, leave the person with sadness and a yearning to re-weave the web of life, to take part in the dance of life and construct the self in some more coherent way. Metaphorically speaking, for the circle folk dance of construction of self to go well we need three things. We need to feel mastery of many steps (connections within the contradictions in the self), to feel connected to other dancers in the circle (interpersonal connection with the personal self), and to be in connection with the overall pattern the dance represents (connection with the Transpersonal or Transcendent, the larger view that rises above the lower-level contradictions experienced by the self). We need to feel the three types of connection or relationship.

Political experiences, then, are one of the environmental factors that can influence the ongoing construction of the self. Remember that development can only happen in an environment and is greatly affected by that environment. The political atmosphere in which we find ourselves helps shape the parts of self in the identity we develop. That political atmosphere and the political groups within it, and the individuals within those groups are who we get along with and try to relate to as we go through life. The “gods” or Transcendent values they honor are likely to be seen by us as our gods and values. Yes we can resist or try to see alternatives, but this is hard to do.

On the other side of the circle in this circular interaction, we individuals create politics. Each of us may feel too weak to make this happen, but as chaos theory suggests, a small action may, in union with others influencing an entire system, ultimately lead to surprisingly large change. So we, and politics, co-create each other. This is a burden and a blessing.

Models of Quantum Weirdness, Chaos, and Self-constructing Systems Speak to Politics/Psychology Interrelations and Postformal Problem Solving

New physics quantum weirdness leads to three major paradoxes that have a strong relevance to knowing relationships between politics and psychology. With the advent of quantum mechanics physicists had to give up their preconceived ideas

about the physical world. As Wolf (1981) described it so well in lay language, the quantum world holds surprises. For example, every observation of an atom made by physicists disrupts the atom. So how do we know the “real” atom? We can’t get the atom to not be disturbed by our observation. We cannot ignore the fact that the origins of scientific ideas lie in the *human* imagination (Jones, 1992). Even Einstein acknowledged the fundamental role played by the imagination, in addition to the data, in the development of scientific theory, a creation of the human mind that more or less fits our observations of the natural world. In the new physics world everything is interwoven with everything else. Knowing this “weirdness” is a complex cognitive act, partially an act of our creation.

So, new physics quantum weirdness leads to three major paradoxes that have a strong relevance to knowing relationships between politics and psychology. First, things do not move in a continuous motion but jump or change in unpredictable, discontinuous ways. Second, what one observes depends upon what one chooses to observe. Third, quantum mechanics describes an order in the world that includes us, such that the order in the universe may reflect order in our own minds. Atoms may not exist without observers of atoms.

How does this thinking relate to thinking about, and knowing, politics and psychology interactions? First, during adult development the sense of self does not consistently move in a predictable path to a completion point, but seems to “jump around” in what looks like unpredictable ways. Second, how an adult decides to examine the events of life in relation to the self determines the Identity, or the self that seems to “be there”. Third, the order (or disorder) we see in our Identity over time seems to reflect the order (or disorder) and ongoing alteration in our own conceptualization of self or Identity. The identity and behavior related to politics would follow the same trajectory.

The purpose of this next part of our discussion is to review some important original ideas basic to the new physics as it was first articulated in relativity theory and quantum physics. Of course physics has evolved immensely since the origins of the new physics. But my purpose is to show how useful even the basic new physics ideas are as meta-theories for politics/psychology interrelations.

Far from being frightening or difficult, new physics ideas are extremely practical when they are applied. These advanced models are being considered in realms as different as spirituality and organization management, and some forms of many of the ideas are apparent in Native American and other indigenous traditions. After all, those concepts must be understandable to us at some level if they can, metaphorically speaking, keep us cognitively dancing in balance on the moving, rotating planet of our reality! These ideas are integral to the universe that is our home. Historically we have been accustomed to thinking that our home consists of one room, the layout of which is defined by “old” Newtonian physics that describes local small-scale reality. New physics simply opens the door to the rest of the rooms of the house and provides us with the larger floor plan of our home in non-local universal reality. Like so many moving adventures, once we get accustomed to the new living space, we can’t imagine living without it. We move into the larger reality home and think of it as our natural habitat. We become like the child who reaches teen years and can no longer think within the limits of a 6 year old mind.

Since they are more inclusive, probabilistic, and complex, new physics ideas are difficult to articulate in a verbal system dominated by more rigid functional relations (Davies' *The New Physics*, 1989). In Newtonian pre-Einsteinian physics, classical mechanics developed as an outgrowth of everyday physical experience with the environment. This experience was first summarized in intuitive and anthropomorphic generalizations, and then in abstract laws. New physics has been developed over a period of years in response to contradictions found while working with the theories of classical mechanics (Russell, 1969). The space of classical mechanics is Euclidian; all transformations in space are describable by Cartesian fixed coordinates and consist of either rotations or translations. Time is an absolute concept, and calculus, presuming continuity of matter and space, is an adequate mathematical tool.

The new physics realizes that measuring standards which appeared to be rigid and absolute were not. To use Einstein's famous example, it was as if the observer were on a speeding train but unaware of its movement. After carefully measuring and describing the environment and relations of objects found while sitting on the train and looking outside the window, the observer would have a certain amount of data. Some of the data would prove shockingly incorrect if the train came to a full stop and the observer were suddenly able to take into account the consequences of motion biases. None of the observer's measures had been wrong for the observer's specific time and place conditions; they simply were not the entire picture of reality. What the observer saw was real data carefully controlled by scientific methodology, but colored by the fact that measurement was not done with a fixed measure but with a changing one (Einstein, 1961).

The scientific or cognitive world of the pre-Einsteinian is like that of the traveler who is still unaware of his or her motion on the train. Developing minds can be brought to awareness of their own "motion bias" by interpersonal interactions. The event that brought the awareness of motion bias to the scientist was work in electromagnetism. As a result of discoveries in that field, phenomena which are at variance with Newtonian physics were discovered. Newton, for example, held that only the distance between two objects determined the strength of forces they exerted upon one another. This was contradicted by Oersted's work, demonstrating that relative motion is also important in determining object interaction, and by Maxwell, who demonstrated field effects' importance in the strength of forces between bodies. Attempts to deal with these contradictions led to the new mathematical tools of vector analysis and tensor analysis, to Einstein's elaborations on relativity theory and to quantum mechanics. Contradictions led to a new physics.

The postulates of relativity theory in new physics are simple to express but difficult to conceptualize. Observers fail to recognize that their standards of measurement of events are *not* truly rigid (i.e., consistent or absolute) ones *unless* they deal with small-scale, isolated limiting case events. The *first postulate of relativity* is valid only for such limiting cases: If, relative to K , K' is a uniformly moving system of coordinates devoid of rotations, K and K' share the same natural laws (Einstein, 1961). In other words when two persons are both on the train, their scientific, objective findings agree with one another. The problem, as might be expected, comes when K and K' are not uniformly moving systems of coordinates devoid of rotation,

that is, when both observers are not on the same train. When one goes beyond the somewhat reductionist small-scale descriptions of nature, not every observer can be on the train.

The *second postulate, or the special theory of relativity*, was formulated in response to this type of problem and contradiction in data. In the second postulate, certain formerly rigid concepts such as time and space are made dependent on the motion (or non-motion) of the reference body. The Lorentz transform (Einstein, 1961) was developed as a mathematical tool for moving from one system of positional coordinates to another, to allow for the effect of shifting vantage points. According to this postulate, general laws of nature may still be deduced from such idiosyncratic experiences, *if* their coordinate systems are related by the Lorentz transform. In other words, if the space/time position on the train can be related to the space/time on the road, a general law which applies to both locations can be determined.

The *general theory of relativity or the third postulate* was formulated to replace Newton's theory of gravity, which would be impossible under this new set of assumptions, with an explanation consistent with the new set of assumptions. The inseparable space/time dimension of one body was coordinated with the dimension of nearness-to-another-body. The result was that a graphic description of space/time took on a curvature. In other words, when two bodies approach one another, the closer they get, the more their paths in space/time deviate from a straight line. The closer a moving train approaches the top of a mountain, the slower and more circular its path. The mathematics of moving a vector like the train from place to place without changing its size or orientation (i.e., the mathematics of "parallel transport") was developed to deal with movement in space/time across a curved surface. Assuming that objects travel the most efficient route from point to point, this new tool allows one to describe space/time movement in spite of the gravitational field. It therefore allows transformation of coordinate systems even when such transforms are multidimensional and continuous. The general theory of relativity demands that a natural law be applicable to multidimensional, continuous transforms of coordinate systems, if it is to be a *general law* (Einstein, 1961).

Pre-Einsteinian theories include laws of nature which appear general, but which are general only under certain specific reductionist space/time conditions. Einstein's laws of nature include Newton's as special cases. Many assumptions characterize old physics and differ from those in new physics. We will consider just one of these. Notice that both sets of assumptions have been verified with experimental evidence, so *both contradictory sets of assumptions are true*. Newtonian physics assumptions have been found to be true in small-scale, everyday systems, except for minor inconsistencies; new physics assumptions are true for the general case and include the others as special limiting conditions.

The nature of space differs between the two sets of assumptions (Kaufman, 1973). Space can be described as Euclidean when the measuring standard is at rest, the limiting case. Space must be described as non-Euclidean in the general case. In the former situation, the shortest distance between two points is a straight line, while in the latter, it is a geodesic (i.e., a curved path describing the shortest distance between two points located on a curved surface). Aristotelian logic appears challenged by the

destabilization of concepts such as space and time, and by the allowance of logical contradiction in terms of limiting case postulates vs. general case postulates.

The conceptualization of the uniformity of space also changes (Russell, 1969). In the former metatheory, space is uniform throughout; in the latter, space appears filled with hills and valleys which offer greater and lesser resistances to moving bodies. These gravitational fields, i.e., the hills encountered, slow the moving body and make its path more circular, allowing it to approach but never attain the center of the field.

Two observers can never reach valid conclusions about the same event if they fail to take their own movement into account (Brillouin, 1970). What the two observers see at a given time would be determined by their motion relative to one another and to the event. Using the train example, if one person on the road and a second on the moving train see a star, the reality of their physical relation to the star can only be ascertained after the effect of the motion of the earth, the motion of the train, and the motion of the star are taken into account. The formulation of a scientific hypothesis, i.e., an epistemology or a knowing of the relations between oneself and the star, is incomplete if it does not develop beyond pre-Einsteinian notions. In other words, if one attempts to know the star in terms of physical experience in Newtonian physics terms, one will lack a complete understanding of the star in a larger sense. The lesser knowledge may be sufficient for some situations, but not for all situations. An additional abstraction from abstractions must be made, one which permits egocentrism in a sophisticated sense in which one always takes one's biases into account. Both the small-scale principles of physical relations, which are useful every day, and the general-scale multiple vantage points principles of physical relations, which are the more inclusive assessment, must coexist in thinking, contradictory as they seem to be, to know reality in all its forms and to adapt to different situations.

Conceptions of causality are broadened in new physics thought (Toulmin, 1970). The deterministic causality of Newtonian physics is enlarged by the deterministic probabilistic causality of quantum mechanics (Heisenberg, 1958; Schlick, 1970). Simple Newtonian deterministic physical causality would pertain in limited situations and would assume contiguity (i.e., cause and effect necessarily in contact). A new physics definition of causality, in contrast, could be "a timeless relation of dependency between two events" or "a center around which events (i.e., effects) are grouped". The relatedness of two specific events in a limited fixed space/time can be predicted on a simple, deterministic basis, but the general relatedness of two events only can be predicted on a complex, probabilistic basis. The implications of this for the scientific method have been vast. While the new student of science may still look for simple experimental "cause and effect relations", the advanced investigator is now more likely to focus on chaos and complexity theory, self-organizing systems, and the implicate order as he or she thinks about causes.

Causality is determinable within a relativistic system, but the limits bounding those determinants are much wider than they are in simpler systems. Ideas of non-local causation and the paradox of Shroedinger's cat certainly intrigue us. Relativistic thinking seems more ecologically valid for explaining effects and causes in a naturalistic setting where many variables are in constant interplay.

Looking at the Newtonian micro-universe of the developing fetus, for example, one chemical change does determine a specific limiting case reaction. More important, though, is the overall general new physics reaction of the fetus that is determined not only by the chemical, but probabilistically also by the prevailing fetal milieu and history. The chemical, in the general case, is simply the center of a complex but predictable response. Later writers examine such concepts as “non-local causality” in physics in general (e.g., Bohm, 1980), as well as in biology (e.g., Sheldrake, 1981, 1989, 1990), and medicine (e.g., Dossey, 1982, 1989). The concept of ego-centrism comes full circle through transition from the pre-scientific ego-boundedness of the child, through supposed objectivity of the young adult, to the new physics notion that the data and the observer are in an ongoing necessary interaction. In the third stage, the person who attempts to be decentered and objective learns that subjectivity must be made part of the measure of the phenomenon itself, and that objective reality is better defined as the sum of observational invariants, even though each of those invariants is known to be necessarily partly subjective (Born, 1962, 1964).

But there is a catch. The logic and laws of nature have been formulated within verbal conventions which make it difficult to understand this new physics objectivity in a non-polarized way. For example, present tense declarative verbal statements fit Aristotelian logic but would not fit new physics general-case ideas well (Freedle, 1977). The “either A or non-A” forms in language usage are also basically old physics, making expressions of new physics ideas (e.g., “both A and non-A”) seem contradictory. No wonder mathematicians or lovers sometimes avoid words.

How might developing individuals and developing social groups mutually affect one another in terms of analogs of the third postulate? In relativistic terms, they might change the shape and the dimensions of each other’s developmental space/time and affect the direction of each other’s movement. Development may fairly be visualized as a straight-line function in a small scale event. But, over the life course, it is not fair to do so. We notice that the direction and speed of lifespan development is often changed by encounters with persons and events that the individual later perceives as important. The first others encountered have stronger deflecting action than later ones, just as planets caught in each other’s gravitational fields remain influenced by that first encounter, unless changes within the planet itself or the passing of a stronger third body are the occasion for changing relationships. The interaction with developing others encountered during one’s own development probably, in natural science terms, describes a geodesic. One continually approaches, circles, and is repelled by the other, but one has been permanently deflected and is constantly affected by the other’s nearness. The impact is also mutual. Interpersonal space during development can then be described as a hilly surface with each individual as the top of a hill, and all the hills in motion through space/time. As each gets nearer to knowing or influencing the other, resistance increases, so that a slowing circular motion carries the approaching ones around each other. If one were to step close to the surface of one of those hills, one body actually making giant circles around another would seem to move straight ahead; local small scale events appear non-relativistic and separable into individual developments and social developments.

The ideas of chaos theory, complexity theory, and self-regulating systems are another way to describe complex interactions that relate to the complex interactions of politics and psychology. These also arise from physics to some extent, but are grounded even more strongly in computer science and biology. Chaos theory is a newer mathematical model that has been used in the last two decades to describe phenomena as different as leadership and management styles, weather, the structure of coastlines, brain wave patterns, adult learning, normal or abnormal heartbeat patterns, family transitions, the behavior of the mentally ill, intractable conflicts, and much, much more (Alper, 1989; Cavanaugh, 1989; Cavanaugh & McGuire, 1994; Crutchfield, Farmer, Packard, & Shaw, 1986; Gleick, 1987; Gottman, 1991; Vallacher, Coleman, Nowack, & Bui-Wrzosinska, 2010; Wheatley, 2006). General and more lengthy descriptions of chaos theory are available in Abraham (1985), Barton (1994), Devaney (1989), Gleick (1987), Goerner (1994), Levine and Fitzgerald (1992), and Smith and Thelan (1993). Chaos theory describes the orderly and flexible nature of apparent disorder. It mathematically describes complex systems with nonlinear equations. It describes commonalities of *processes* over time which would otherwise appear *disorderly* if viewed at one time point.

Chaos theory works with dynamical systems which are systems where the contents of the system and the processes of the system mutually influence each other. In such systems the current state of the system is fed back to it before it makes another iteration or goes through another round of changes. The system then repeats its process, each time with updated information. Such systems tend to begin to appear stable over time, although they are in a constant state of change.

But such systems are deterministic, as well as unpredictable with only the *appearance* of stability. The behavior at each iteration is not predictable, but the limits built into the system confine it in predictable ways. So there is a “hidden” order that also gradually emerges from beneath the disorder.

Chaotic systems somewhat resemble the rambling pattern of footprints made by a curious dog on a very long leash; at first there seems to be no pattern, but soon, after enough walking, a pattern emerges. Part of that emergent pattern is centered on the leash and on what or whoever is holding it; that part is truly deterministic. Part of what emerges is specific to the next part of the dog’s rambling walk; that part is unpredictable.

One striking feature of chaotic systems is the way in which they explain why a tiny disturbance or “perturbation” can lead to complete rescaling of the entire pattern of the system due to structural instability. This has been termed the butterfly effect (Lorenz, 1963, 1979) because weather forecasters using computer models have seen the “breeze” from a butterfly moving its wings (some idiosyncratic perturbation) eventually lead to a whole new direction of wind movement, even though the overall pattern of the actual wind was not changed by the creators of the computer model. Dynamical systems are generally structurally unstable, demonstrating these large impacts from small changes. However it is possible for them to be stable. We humans certainly prefer to think of things as structurally stable, especially identity, and therefore “find” stability even where little exists.

Another feature of chaotic systems is the way a seemingly random set of events, after many repetitive interactions, can coalesce around a point in an apparently orderly way. The impression is of a dominant feature of some sort, analogous to a dominant personality trait or a hurricane eye. This phenomenon is termed a *strange attractor* because the point looks like it pulls in the events around it.

It sometimes helps to think of chaos as organized disorder, as opposed to sheer randomness, or *disorganized* disorder. In orderly disorder a flexible structure is hidden in events that only seem to be driven by change when examined in linear or one-time slices. The hidden order unfolds gradually to make itself known when the longer term nonlinear pattern is observed. In true randomness, or *disorderly* disorder, there is no hidden underlying structure. Without some chaotic flexibility, some orderly readiness to fluctuate built into the system, a system (especially one like the heart or brain) is too rigid to adapt and live. For example, a rigid heartbeat pattern (no chaos) cannot effectively and efficiently correct for a small perturbing error like a skipped beat, so a heart attack occurs. A rigid brain wave pattern cannot respond effectively to an intellectual challenge, so poor performance results.

Chaotic disorder is non-random and has a kind of potential to correct for errors by the use of the underlying, hidden corrective mechanism of the basic, deeper pattern. Chaos is an order enfolded into apparent disorder; it is the pattern in the hologram, akin to the “implicate order” described by Prigogine and Stengers (1984). Implicate order means that an orderly message is encoded within the surface and the apparent disorder, so that the implied message can be unfolded and read. Genetic material is another example of this implied message which is unpacked, decoded, and read by the organism as the organism develops from its first cells to its full hereditary potential. But the unfolding makes even a very minor element powerful enough to create major effects.

Chaos theory gives a rationale for synchronous effects, those apparently unrelated events that seem to mysteriously occur together. The synchronous systems demonstrate entrainment in which one system locks on to the mode and pattern of another nearby system. The minor event in one system (individual system, social system, political system) then can move the other system with it.

Chaos models have interesting ways of describing the mechanisms of abrupt or qualitative change. For example, a thinker can move from seeing the world with Piagetian concrete logic as a child to somewhat suddenly (an “aha!” reaction) seeing the world with Scientific, formal logic as an adolescent. When a thinker suddenly begins to see the world in Piagetian formal operational terms (whereas before the world was framed in concrete operational terms) many kinds of behavior are affected. Bifurcation models within chaos theory seem to describe this kind of sudden shift event. In a bifurcation model, at first possibilities (actually possible equation solutions) emerge from one point, like branches on a young sapling tree. But later in the tree’s progression through time, the newest branches seem to cluster around several source points, not just one, with young branches coming off two or three more major limbs, going in different directions. This shift from one group of possibilities to several groups of possibilities is analogous to bifurcation. Before the

new branching becomes clear there seems to be considerable chaos; after it becomes clear, there seems to be more complex order.

Another way to think about transition and bifurcation is to think about before-having-a-first-baby to postpartum family development. In this example, in the "before" state life seems to have a stable set of family relations configurations. Then, fairly quickly something happens, and after a period of greater disorder, several new configurations within the new three-person family branch off on their own tracks. Earlier we had variations on a parent-parent relational theme; later we have three possible centers of relations (the original one and Parent #1 to child and Parent #2 to child). In the example of the birth of a first child, we know what the proximate cause was that got the system to transform. In some bifurcating systems the push to transformation is not so well known. Abrupt changes in some political systems can occur due to the same mechanisms. What might such a theory as chaos imply about reality and knowing the interrelations of politics and psychology? First, it suggests that there is more than one sort of disorder. Useful, chaotic disorder provides fresh options and room to correct for past errors; useless disorder provides nothing that seems meaningful, now or later. Second, chaos theory suggests and implies the immense importance of each element in the system for the final outcome of the system as well as for the individual. Remember, a perturbation caused by one butterfly's wing can alter the weather pattern, besides allowing the butterfly to fly. And in our own personal histories, we all remember those small chance remarks or experiences that led to major identity changes. Chaos principles help validate our phenomenological experience. Third, chaos theory suggests the importance of openness to innovation to provide natural corrective devices for ongoing complex events like identity evolution, events where outcomes and goals are not totally clear to us. In that kind of event a good process is our only safeguard against a manipulation that could cause unimaginable damage when it has unforeseen consequences for a dynamical system. For example, we now understand the dangers we face by severely limiting the types of food crops we cultivate. Hundreds of variations on any given food crop species have been lost when we selected for the single species with the high yield. But in the event that a disease attacks that one species (as in the famous Irish potato famine of the last century) we would have lost the chance to recover because our process of dealing with multiple types of plant species was flawed. Retaining a non-evolving identity deprives us of growing in some newer useful way. We might begin to conceptualize lifespan identity evolution as a potentially chaotic system. If we do so, we would not expect to find many simple deterministic relationships. We would expect that some deterministic basic elements might be found, but that they will likely be the underlying, hidden order beneath the apparent disorder.

The system of lifespan identity development may be a structurally unstable system, subject to the large effects of tiny perturbations. As Cavanaugh and McGuire (1994) note, though, the whole idea in developmental research is to show how states change over time in a variety of individualized ways. Predicting factors that lead to bifurcations of systems, for example, predictions about the events that trigger a bifurcation between aspects of knowing the self, can be made and tested empirically. The new center of identity events might then appear to be a strange attractor in chaos terminology.

Self-organizing systems theory carries the ideas of chaotic nonlinear systems one step further by examining what happens when such systems reach conditions that are very far from their state of equilibrium. At that point systems reorganize themselves in unpredictable ways that are sometimes so dramatic (even if they *are* just computer models) that the term “Artificial Life” has been used to describe them (Waldrop, 1992).

The Santa Fe Institute was created to explore phenomena related to self-organizing systems, and has become a kind of Mecca for complexity theorists. Interested readers may wish to explore this field in several books including those by Goldstein (1994) (on organizational change), Kelly (1994), Maturana and Varela (1988) (on adaptive cognition), Nicholis and Prigogine (1989), and Waldrop (1992).

We tend to think of collective behavior as simply the accumulation of individual behavior, but it is much more than that. Collective behavior tends to be nonlinear and tends toward self-organization. One molecule or one person (ignoring for the moment that persons are systems) may respond in a particular way to being pushed past its limits, while a collection of those molecules or persons will respond very differently and somewhat unpredictably. Self-organizing systems studies work with the unique properties of such collectives. Self-organization has the following features when it occurs, according to Goldstein (1994): system structure is radically reorganized; novel patterns emerge; random events are amplified and utilized; and a new coordination of parts is attained. These changes are not imposed on the system but emerge from it. Collective systems do not simply resist change or face destruction, but have the potential to ride the change to create a different organization within. The changes are self-orchestrated as this system reconfigures its own resources in the face of a far-from-equilibrium challenge.

Goldstein (1994) describes some characteristics of self-organization: a spontaneous and radical reorganizing occurs; equilibrium-seeking tendencies are interrupted; the system utilizes the disorganization as a chance for change within some limits; and unpredictable outcomes occur which leave the system more optimally organized. Self-organization can be used for systems of self and Identity as well as for political and social systems.

Complexity theory goes beyond qualitative descriptions of the kind of systems it deals with, namely, complex *adaptive* systems, by making complexity a quantity that is measurable. Complex systems also have similar qualities in whatever context they occur. The implications of this theory are simply too vast to be outlined yet. Imagine a unified theory of adaptive system change being applied to political systems and this will give the scope of possibilities. Few topics are off limits! Possibilities include, for example, prediction of trends in evolving political identity during adulthood and aging, and trends in political systems as multiple adaptive systems interact over time. Quantum theory is joined with other new theoretical models that help us understand the process of political and individual psychological interaction and stability: general systems theory, chaos theory, and the theory of self-organizing systems. These new models provide us with more useful ways to address questions of stability and change in personal and political system identity.

They provide us with ways to understand the mutual interactions and causations of personal and political identity.

So far we have been considering models of *identity* development (personal identity and group/political identity) mentioned in the introduction to this chapter. Identity is one of the elements to consider in analyzing politics and psychology interfaces and change. So can politics and identity influence each other? Yes, if we examine their interactions using the models of the “new” physics, chaos theory, and self-constructing systems described above.

Next let’s examine factors in the *pace of change*, the second element affecting the interface of politics and psychology. Pace of change was mentioned as an important factor in the introduction to the chapter.

Pace of Change

In a time of an ordinary pace of change, changes around us result in some challenge, perhaps an evolution of understanding, maybe a push for some flexibility, and perhaps a gradual identity transformation. In a time like the present one characterized once again by a rapid pace of change, effects are a little different. There is fear, the sense that we can’t keep up with events, a concern that we no longer have an identity, and the question of “who am I?” (or, “who are *we*?”).

Today, in American and world politics we psychologically experience rapid change, fear, challenge to group/individual identity, and dread of being “alone” without an identified “tribe” to belong to. Obviously the elements of identity and pace of change act together when politics influences the psychological functioning of the person, and the person’s psychological functioning influences politics (when those “persons” are acting in the aggregate.)

Perhaps it is useful to use the analogy of biological evolution when we think about the potential influence of the pace of change. (The chapter in this book by Joan Rabin is a deeper study of biological factors related to political behavior.) Evolution takes place in an environmental context that might offer sudden catastrophic changes or slower day-to-day ones. The large meteor might strike the earth, the earth might be getting just a little warmer gradually, or nothing special might happen to the environment today. The effects of each of these environmental event types would be different, and we have archeological records to prove this. When that large meteor hit, it ended the age of the dinosaurs and transformed life on planet earth. Human activities might more gradually (this is relative) end our Anthropocene era through climate change. On a more ordinary day a particular biological feature might be selected for as two animals mate.

Are we living in rapidly transforming political times? Many of us would answer “yes”. Nowhere in the world is the human or non-human political/social environment remaining largely constant. Whether we are the ones making and welcoming the changes, or the ones being influenced by the changes against our will, the social/political environment around us is transforming at a brisk pace. Of course some of

us welcome the social/political change. But even among those who do welcome the change there is a little wistful nostalgia for the way things were back in our “old days”. “Make America Great Again” caught on as a political slogan because of this nostalgia for the things that were *familiar* to us from the “old days”, even when those days were not so “great” for everyone then.

We might classify the pace of change now as “rapid”. Periods like this have happened in history before, affecting some or most people, and “we” survived, but not all of us. Life on earth remained when the meteor hit, but those large animals and dinosaurs were gone. Rapid change raises the fear in us that we may be psychologically, socially, physically destroyed, that we (or our group) might lose our identity and purpose.

Even in the case of gradual change anxiety rises since it is unclear who we are becoming. Even gradual change forces us to feel like adolescents again. We can step back, but these are social forces that cannot be totally contained by any one of us. Stepping back from the social/political change we find ourselves somewhat alone, without a “tribe”. Only accepting a gradual change to who we are, when faced with rapidly changing social/political times, can allow us to feel better and be more creative, but this acceptance requires cognitive flexibility.

So, can politics transform us psychologically? Yes, especially if it brings about rapid change with its concomitant anxiety and disturbance of settled identities. Can our anxieties and push for comfortable change transform political systems? Yes, especially if we have shared anxieties and action. Can politics transform our social/political identities and institutions? Yes, especially if there is rapid change and concomitant shifts in our shared and personal attitudes and beliefs.

Complex Problem Solving

In the introduction to this chapter, *postformal complex problem solving* was noted as a cognitive means to develop a more flexible personal and political identity in response to identity challenges in a time of rapid change. Complex postformal problem solving provides a path out of the jungle of rapid change, emotions, and seeming contradictions between the personal and the political, a way out of the dilemma of rapid change. Let’s see what complex postformal thought and problem solving is.

In struggling to understand how adult identity could be *known* to be and felt to be both *evolving* and *stable*, we are looking for a model for identity that can comfortably be both (in abstract terms) “A” and “non-A”. At a *concrete* logical level this is a logical impossibility. In terms of *formal scientific logic*, this is impossible in the everyday scientific world of Newtonian physics. But in the world of *postformal* problem solving logic and the world of quantum physics this is indeed possible. Together they describe the thinking of *mature adult* thinkers and take the step beyond “formal operational (scientific) logic” developed in adolescence according to Inhelder and Piaget (1958). The field of quantum cognition is now being explored

to utilize new models to provide coherent explanations for many divergent and puzzling phenomena in psychology (Busemeyer & Wang, 2015).

Postformal complex thought and the research underlying it are described in my 1998 book, entitled “The Development of Logic in Adulthood: Postformal Thought and Its Applications”. The book outlines the theory and applications of postformal thought in an overview. Some references that explain this work further and speak to reliability and validity of the scale are as follows: Cartwright, Galupo, Tyree, and Jennings (2009), Galupo, Cartwright, and Savage (2010), Gavin, Galupo, and Cartwright (2009), Jennings, Galupo, and Cartwright (2009), Johnson (1991, 1994, 2004), Riegel (1973, 1975, 1976), Rogers (1989), Rogers, Sinnott, and Van Dusen (1991), Sinnott, 1981, 1984, 1989a, 1989b, 1989c, 1989d, 1991a, 1991b, 1993a, 1993b, 1993c, 1994a, 1994b, 1996, 1997, 1998a, 1998b, 2000, 2002, 2003, 2004a, 2004b, 2005, 2006, 2008, 2009, 2010, 2011, 2013, 2014, Sinnott and Berlanstein (2006), Sinnott and Cavanaugh (1991), Sinnott and Johnson (1996), Sinnott, Tobin, Chrzanowska, and Hilton (2017), Yan (1995), Yan and Arlin (1995). These references describe the nature and applications of the individual thinking operations that together make up postformal thought.

Much of this work originally was based on the years of research I performed with the support of the National Institute on Aging (NIA) of the National Institutes of Health (NIH), beginning with my postdoctoral training there. I am grateful to the Gerontology Research Center (GRC) there, and the volunteers of the Baltimore Longitudinal Study of Aging (BLSA) and others who were my research respondents.

Postformal thought is a type of complex logical thinking that develops in adulthood when we interact in complex and important emotion-laden domains with other people whose views about some aspect of reality are different from ours. It allows a person to deal with everyday logical contradictions by letting that person understand that “reality” and the “meaning” of events are *co-created* in an ongoing way. Both objectivity and a necessary subjectivity are useful in our epistemological understanding of the world. Postformal thought lets adults bridge two contradictory “scientifically” logical positions and reach an adaptive synthesis of them through a higher-order logic. The adult then goes on to live the larger reality. So the larger reality eventually *becomes* “true” and non-contradictory with the passage of time. Postformal thought includes a *necessary subjectivity*, which means that the knower understands that “truth” is partially a creation of the one who makes those choices. Postformal operations presume somewhat necessarily subjective selection among logically contradictory formal operational systems each of which is internally consistent and absolute. So it allows us to *organize multiple mutually contradictory systems of (scientifically) logical thought*. These are the two main principles of this complex logical problem solving.

Postformal thought as a system of thinking uses all the mechanisms identified by cognitive psychology, mechanisms such as memory and attention. It develops after a certain amount of intellectual and interpersonal experience, according to my earlier research work. For example, only after experiencing intimate relationships, with their shared, mutually constructed logics about the reality of intimate life together,

can a person be experienced enough to know (at a complex logical level) that the following is true. “If I think of you as an untrustworthy partner OR as a trustworthy partner, then treat you that way, you are likely to truly become that kind of partner.” In other words, to know that both “A” and “non-A” are simultaneously true in this particular sense.

Here is another example of postformal thought. When I begin teaching a college class, the class and I begin to structure the reality or truth of our relationship. Who are we? We decide on the nature of our relationship, act on our view of it, and mutually continue to create it in the days that follow. These various views, held by class members and by me, form several contradictory logical systems about the reality of our identities and therefore the reality of our social and political relationships in the class. One student may see me as a surrogate parent and act within the formal logic inherent in that vision, to which I might respond by becoming more and more parental. Another student may logically construct me as a buddy or a fascist and act within that logical system, to which I might respond by being a buddy or an authoritarian too, or by being even more parental to compensate. I might view the class as stimulating or not, and teach in such a way as to make them either! The result over the time of a semester will be an organized “truth” about my Identity and my relationship with this class that is co-created by the class and me. When I finally come to *understand* that this is how truth works, that it is both “A” and “non-A”, I am consciously thinking in a postformal way.

While postformal complex thought is *stimulated* by interpersonal interactions, once it becomes a thinking tool for a person it may be *applied* to any kind of knowing situation, not just interpersonal ones. I may learn to use the tool of complex postformal thought through interactions with my spouse, and go on to use it to think about Newtonian vs quantum physics which are also contradictory but simultaneously both true. Just as the tool of scientific logic can be used in any context, so the tool of complex postformal thought can be used in any context. This includes the context of thoughts about the nature of the self and Identity and politics.

Nine thinking operations make up postformal thought. Rationale for inclusion of these operations is given in my summary book about the theory (Sinnott, 1998b). The operations include: metatheory shift, problem definition, process/product shift, parameter setting, multiple solutions, pragmatism, multiple causality, multiple methods, and paradox. You can go to the references above to read more about the meaning of each operation term, the ways these operations have been tested, and the research that provides an underpinning for these assertions. I will briefly describe each operation here, giving a simple example of each. Notice that the operations will relate to one another, but will describe different aspects of the complex thinking process. Notice too that all the operations relate to problem solving, in the broadest sense, and the “problem” of evolving identity of a person or group.

Metatheory shift is the ability to view reality from more than one overarching logical perspective (for example, from both an abstract and a practical perspective, or from a phenomenological and an experimental perspective) when thinking about it. For example, do I think of my identity at work or as a political citizen as one

who is open to new areas of knowledge, or as one who is just showing up, or as both? Do I think of my political party as one that is always open or changing, or as one whose principles are “cast in stone”, left in the same form they have been in for years?

Problem definition is the realization that there is always more than one way to define a problem, and that one *must* define a problem, for example, the problem of political identity, to solve it, since we all see things like problems through our own unique current lenses. For example, I decide as a federal employee that my “problem” is to choose one or more identities: “how to be someone who does what my supervisor wants”, or “how to be someone who serves the public”, or is “how to exercise my creativity”. Defining the problem of my political identity in different ways usually leads to different ways to create my next nuanced version of it.

Process/product shift is realizing that I can reach a “content-related” solution to a given problem, as opposed to a solution that gives me a heuristic or a process that solves *many* such problems. For example, do I live out one identity and then “flip” to another, *only*, or do I learn a set of *general* skills for working with my several aspects of identity as a complicated political whole? Can I use both approaches as desired? What about the political identity my political party uses. Is it complex or concrete?

Parameter setting is the realization that one must *choose* aspects of the problem in this case, personal or political identity, which must be considered or ignored for this particular solution. For example, I ask the question “How am I deciding which political identity face to put forward among the several I know I have available? Is there a better way?” All these decisions and questions set limits for my activity (that is, for my “solution to the problem of how to present myself/my political party in this case”).

Multiple solutions means that I can generate several solutions, in this case, ways to present myself/my political party, based on several ways to view the problem. For example, I can solve the “problem” of how to present myself as a political person in three ways: identify as a member of a church; identify as a member of a political party; or identify as an apolitical someone who does good deeds in the world.

Pragmatism in this case means that I am able to evaluate the solutions that I create for this problem of party identity, then select on that is “best” by some definition. For example, knowing there are several ways to solve the problem of how to have the identity of a political person, I can look at the appropriateness and practical utility of each. *Then* I am able, by some criterion, to pick the one that is “best”.

Multiple causality is the realization that an event can be the result of several causes. For example, if a friendship fails, and my identity includes being a political person I can be aware that it might be due to bad timing, *and* lack of common interests, *and* my inability to think of what my friend’s politics are.

Multiple methods is the realization that there are several ways to get to the same solution of a problem, in this case, how to see myself as a political person at a given time. For example, the solution to my emerging problem of strong political beliefs, may be reached by multiple methods of action. I can *accept* that I am a conservative person as well as a liberal person. Or I can *try to modify* my conservative or liberal traits. Or I can simply see my self as conservative and the other person as unworthy of my attention since that person is a liberal (*polarized position*).

Paradox is realizing that contradictions are inherent in reality, including political reality, and realizing that the broader view of an event can eliminate contradictions. For example, I see that, paradoxically, starting a war to achieve world peace (recall “the war to end all wars”, namely World War I) may leave the world situation worse off than before. In this paradoxical situation I can only resolve my dilemma by reasoning about it at a more complex level. Only I can decide (Self-referential thought) to “jump” to a new cognitive level, or not, to address the question and resolve the paradox. At that new postformal level I can become aware of the paradox and propose a new, overarching solution to problems underlying the conflict (for example, remedy the problem of scarce resources).

The way out of the dilemma. These postformal cognitive operations can be applied as a whole, consciously or unconsciously, to solving the dilemma of stability and change over time for individuals and political groups.

In the introduction to this chapter, *postformal complex problem solving* was noted as a cognitive means to develop a more flexible personal and political identity in response to identity challenges in a time of rapid change. Using complex cognition involving postformal thought is the key, useful, way to bridge the cognitive realities and emotional fears of rapid changes. Complex cognition using postformal thought can bridge between, but keep separate, the reality of the psychological self and the political self. Postformal politics can bridge the realities of rapid change to let the knower rise above the current conflicts to a higher-level analysis that lets both the personal and the political be true, even if at a lower level they appear to contradict each other. This chapter is called, in part, “a time for postformal politics” because only with complex postformal problem solving can we understand and rise above the many conflicts and fears in day-to-day political/personal psychological experience.

To sum up. Four factors involved in today’s politics, factors discussed in the chapter above, appear graphically in Fig. 2. Figure 3 outlines the effects of political activity and experience on the four elements of concepts of self, pace of change, emotional responsiveness, and group identity flexibility, the four key factors discussed above. These circular interactions between psychology and politics continue co-creating each other over time.

ELEMENTS OF PSYCHOLOGY-POLITICS RESPONSES

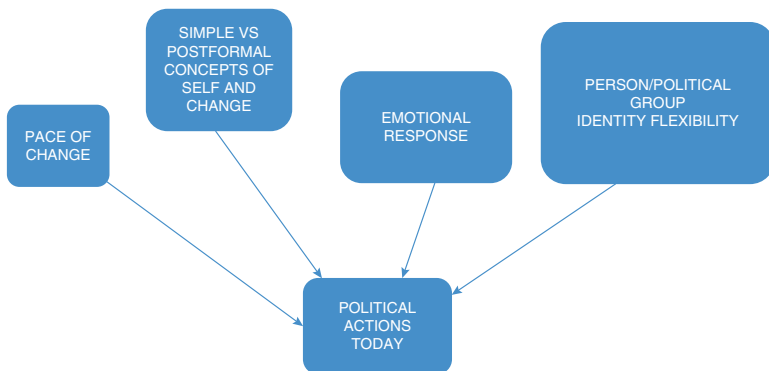


Fig. 2 Relations between psychology and politics created by four key domains of behavior

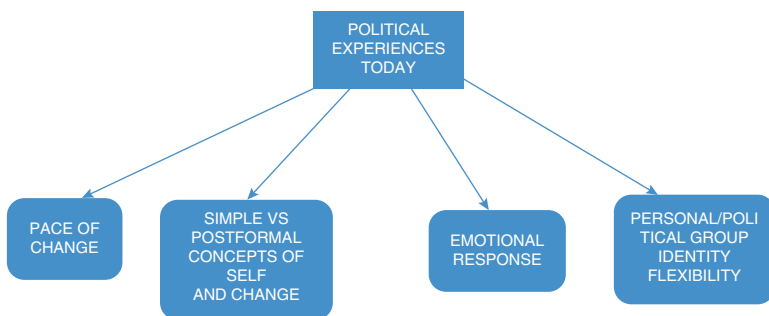


Fig. 3 Effects of political actions and experience on four key domains of behavior

Tying These Ideas Together in Today’s Political World: Interaction of Personal and Political Systems

As argued earlier, these are times of rapid change for us as individuals and as groups. This is true all over the world. Even if we are not living in uniquely rapid times of change, the change is still happening so fast that it is hard to know which “wisdom” from the earlier history of humans can help us get through the next turmoil. This change affects, namely threatens, identity, either fragmenting it or making it more rigid, whether it is the identity of an individual or the political identity of a group. When identity is threatened, an emotion, fear, increases, suggesting survival is threatened. In a time of an ordinary pace of change, this results in a challenge, an evolution of understanding, perhaps flexibility, and a gradual identity transformation. In a time like the present one characterized by a rapid pace of change, there is fear, and the sense that we cannot keep up with events, that we have no identity. We

question “who am I?” (or “who are *we as a group*?). Today, in American and world politics we psychologically experience rapid change, confusion over the direction things are going, challenge to group/individual identity, and fear of being “alone” without an identified “tribe.”

I argue in this chapter that in times of rapid change it helps psychologically if we can develop a complex concept of identity and of the change, tone down the emotional fear response, and find a larger community (“tribe”) to belong to, one that is not diminished by the change. To understand these dynamics we can make use of chaos theory, of the theory of self-constructing systems, and of the theory of problem solving using complex postformal thought, all described above. Understanding these things will shed light on the dynamics of the influence of psychology on politics and the influence of politics on individual psychology. (We cannot analyze *every* application of these major theories in this chapter; that will be a task for a future time.)

In a mutually co-creative atmosphere of individual psychology and politics we individuals and our political systems can almost unconsciously co-create each other to form an escalating cycle of change. If the cycle moves in (in my opinion) a virtuous direction we would see, for example: more democratic institutions or governments; leading to a greater sense of individual agency and freedom and hope for the future; leading to individuals exerting their power within governments. If the cycle moves in (in my opinion) a less virtuous direction we would see, for example: more totalitarian institutions or governments; leading to a greater sense of individual fear and disempowerment; leading to greater power being given to the state which will “save” individuals. [Former Secretary of State Madeline Albright, in her excellent book “Fascism” (2018), using some of her personal experiences, shows the process and result of this need for the more and more powerful State to “save” individuals.] The process would continue (as chaos theory describes) in a given direction until the extreme position attained becomes *so* extreme that the system is fragmented and pushed into a different “basin of attraction”. While all this is happening, what the individual perceives is biased (as new physics theory describes) when the individual sees the “reality” of political life like Einstein’s observers see reality from the moving train, but without realizing their motion bias. We see the political reality we inhabit without (usually) being aware that we are moving in a certain psychology/politics trajectory and so our “reality” is distorted.

In a mutually co-creative atmosphere of psychology and politics we individuals and our political systems experience a co-created mutual escalation or de-escalation of fear. The *rapid* pace of political change creates an existential fear in the individual who sees the disintegration of identity. This can be true whether the rapid change is moving in a direction that the person considers “good” or “bad”. The change itself is fragmenting and destabilizing. The experience is like that of low-self-esteem persons who get that great job but remain sure that they are really “imposters and unworthy”. The fear of losing identity during political change is essentially the same as the fear of “losing self” even at a time of personal “good news” or “development” like the birth of a child or a marriage.

The co-creation over time of political and personal systems affects the political system that experiences rapid change on the part of, for example, voters. The political system worked from the assumption that the people wanted (or would tol-

erate) certain things, and is whipsawed when the voters' demands quickly change. This can be seen in both democratic and totalitarian political systems; if *suddenly* demands of the situation change, the political system finds it hard to recalibrate. In a democracy there is fear on the part of the politicians of seats being lost and confusion over what the voters really want. On the part of the individual voters there is confusion and fear over "where this country is going", followed by rapid swings in positions and actions. In a totalitarian state the response of the governing group is fear and confusion and a perception that what is needed is to "double down" on repressive tactics to regain control. The fallback position for the political system is oversimplification of issues. The resulting greater existential fear among citizens of totalitarian political systems leads to greater feeling of powerlessness than before, and more need for the all-sheltering state to resolve the problem. The personal and the political co-create each other.

Whether we examine the nature of the creation of the self, or consider the reality of the world as known by quantum physics, or think of reality as operating on chaos principles (see above in the chapter for descriptions of all of these), it seems that all these systems make use of the thinking described by postformal complex problem solving. (Postformal problem solving is described in the chapter, above, also.) And this kind of thinking can potentially make sense of, and partly free us from, one part of the mindless cyclic politics-and-psychology mutual co-creation. I do not want to argue that individuals are the ones to blame for upheavals and changes in national or world politics. Other powerful forces are in play. But since we individuals are a part of the political drama, we can use strategies drawn from the theories described above to help ourselves. Let me explain.

Often we are tossed around and confused and fearful when we are not aware of the underlying order of political events and the power we have to play our part in them. We focus on politics, but not on the psychology/politics mutual co-creation. We conceptualize the political world as being set in stone, not mutually co-created. We are like someone knowing only one side of the self, unaware of the other dynamics. We forget we are judging reality of politics *from the moving train* without knowing it. We see the chaos of the political world without remembering that there is an order beneath any apparent chaotic disorder.

This simple way of viewing reality may work on a "local" level of small-scale simple events. But when we want to understand the "big picture" of political/personal reality and change we need to upgrade to the logic that describes all these variables, using the somewhat necessarily subjective reality logic of the new physics. We need to make use of postformal logic in our problem solving about politics. We need to focus on the part our own co-creation of reality plays in this.

How would postformal complex problem solving help us deal with the co-created psychology/politics we experience? First, thinking postformally will allow us to reduce the fear of being in the helpless situation where rapid political upheaval is simply *happening to* us. No, we have agency to take part in this situation as good or bad as it may be. The perceived meaning of "what" is happening is not simply "out there" but is also decided on by the knowers, us. We can choose which of the many sides of this political reality "live" for us and act accordingly. Second, using postformal logic and thought about problem solving in the political realm automatically

reminds us that there are several interpretation of any reality. Perhaps we choose to focus on some different interpretation of the political “problem” that we see. Perhaps we want to solve the political problem for the *general* answer that will work in many contexts rather than for the single solution to the immediate dilemma at hand. Perhaps we notice that the way we conceptualize our political opponents influences the nature of the negotiation and outcomes, so we want to broaden our view of those others. Current political decisions are sometimes swinging back and forth illogically in a confusing way, but can be used as explorations in the mind before a final decision is made. We would know there is no absolutely “right” answer, but that explorations of political decisions still can be made logically.

A Case

Here is a case offered to give an example of a few ways to apply postformal thought to analysis of a life situation where it might be useful in the solution of a dilemma and lead to alternative ways of moving forward in a situation. This is an example of understanding the intersection of politics and psychology and their influence on each other.

An adult woman is involved in her society, her family and her friend group. She sees herself as an activist and a feminist, and that part of herself has long been important to her. Now she has been asked to take a leading role in lobbying for a women’s issue she sees as very important. This is key to her self-image. But she feels she can’t really afford the energy to take part in this way right now, since other life roles have also become demanding. She can stop active participation and conserve her energy, but then the women’s issue might go down in defeat. She feels she is betraying her friends who have also struggled so hard and made sacrifices. If she takes a political break she thinks she will be feeding her fearfulness and giving up, two traits she does not value. If she goes into the fight for the issue, she fears she might do poorly politically, speaking out of exhaustion, and failure is not a trait she values either. Whether she acts or does not, succeeds or fails, she feels the choice will change her, a dangerous proposition for what she sees as her steady self-image.

Let’s see how a postformal thinker using postformal operation might conceptualize our friend’s dilemma.

If she is postformal she can comfortably see herself as both a feminist fighter and one of the very human women the fight is meant to help. She can see the political milieu as both changeable and static, and both a rigid problem and a current culture with some good and useful elements. She can say to herself:

- I see the political system as both a given with some useful elements and changeable with some useful “fixes”.
- I see myself as both a fighter and a human with limited energy, and worthwhile in both cases.
- I can define the problem of my political activities as both loyalty to my group and “going with the flow” when exhaustion sets in.
- I can attempt a gradual, long-lasting ongoing solution to these issues or a complete immediate solution.

- I can see that my decision about what to do today does not have to solve everything at once.
- I can admit that many answers might be “right” in some way.
- I can realize there is no single person or thing to blame.
- I can realize there are several ways to get to our goal, not just one.
- I realize that if I impose MY way of conceptualizing this problem I am being as authoritarian as the rigid system I am trying to improve.

Seeing this bigger postformal picture of the dilemma offers our friend more ways to live out this political dilemma in real life. She may no longer be confined to the choices of giving up or “dying for the cause”. By enlarging her concept of her dilemma she opens multiple possibilities of solving it with less damage to her self-image.

How Do We Survive This Current Political Experience?

Using the concepts outlined earlier in this chapter I offer several suggestions, based on the theories described above, for orchestrating the psychology/politics interactions we are faced with. Political outcomes are not inevitable; we have power as individuals if we learn how to use it from history (both personal and political). After all, as Snyder (2017, p. 119) says, “The politics of inevitability is a self-induced intellectual coma.” Be consciously aware of the psychology/politics interaction.

- *Remember that the group we belong to is humanity, larger than any party or tribe.* We can never be alone or in exile from the human family, so we need not be so frightened that we give away our power to the State.
- *Remember that the concept of politics we have, or the concept of what is possible politically, is only one of many ways to think about any current situation.* Use all the elements of complex postformal thought to enlarge your problem-solving space when thinking about political problems.
- *Consider the benefits of political chaos.* Major chaos may force the situation to a new dimension and allow some different series of political solutions to present themselves.
- *Consider that chaos rests on an underlying order.* Recognize that order and grow with it. Find that commonality in seemingly disparate political challenges.
- *Think on a larger scale when faced with seemingly intractable political situations.* Remember physics: in a local space parallel lines never intersect, but in universal space they always do!
- *Remember that your identity is flexible and evolving and has many elements.* Will politics be serving all aspects of your identity? Can it serve more?
- *Mentally slow down the pace of change if rapid change negatively influences your political experience.* Perception of change is a psychological phenomenon. Be realistic, but be realistic at the most comfortable pace for you.
- *Remember politics can influence our psychology, but only if we let it.* Take the reins of the political horse you are riding!
- *Take a vacation from incessant news and commentary.* Use nature to restore peace with the “long view” of our human experience.

- *Don't expect political progress to follow a straight line.* In non-local space movement forward is a geodesic, circling round and round in ever tighter circles until the goal is reached. Political progress is metaphorically more like a geodesic.
- *Remember two people (or groups or parties) may hold two different positions in good faith if they are not looking from the same vantage points.* Invite others to ride your “train”. If they won't, pity them rather than hating them.
- *Finally, remember that nothing a human does or attends to is free of the influence of human psychology and bias. “Objective” reality takes the many elements of “subjective” reality into account.* Without awareness of your psychology and its distortions you can't really “know” anything.

References

- Abraham, R. (1985). Is there chaos without noise? In P. Fisher & W. Smith (Eds.), *Chaos, fractals, and dynamics* (pp. 117–121). New York: Marcel Dekker.
- Albright, M. (2018). *Fascism: A warning*. New York: HarperCollins Publishers.
- Alper, J. (1989). The chaotic brain: New models of behavior. *Psychology Today*, 23, 21.
- Barton, S. (1994). Chaos, self organization, and psychology. *American Psychologist*, 49, 5–14.
- Bohm, D. (1980). *Wholeness and the implicate order*. London: Routledge and Kegan Paul.
- Born, M. (1962). *Einstein's theory of relativity*. New York: Dover.
- Born, M. (1964). *Natural philosophy of cause and chance*. New York: Dover.
- Brillouin, L. (1970). *Relativity reexamined*. New York: Academic.
- Busemeyer, J. R., & Wang, Z. (2015). What is quantum cognition and how is it applied to psychology? *Psychological Science*, 24, 165–169.
- Cartwright, K. B., Galupo, M. P., Tyree, S. D., & Jennings, J. (2009). Reliability and validity of the complex postformal thought questionnaire. *Journal of Adult Development*, 16, 183–189.
- Cavanaugh, J. C. (1989). *The utility of concepts in chaos theory for psychological theory and research*. Paper presented at the Fourth Adult Development Conference at Harvard University, Cambridge MA.
- Cavanaugh, J. C., & McGuire, L. (1994). The chaos of lifespan learning. In J. Sinnott (Ed.), *Interdisciplinary handbook of adult lifespan learning* (pp. 3–21). Westport, CT: Greenwood.
- Crutchfield, J. P., Farmer, J. D., Packard, N. H., & Shaw, R. S. (1986). Chaos. *Scientific American*, 255, 46–57.
- Davies, (1989). *The new physics*. London: Cambridge University Press.
- Devaney, R. (1989). *An introduction to chaotic dynamical systems*. Redwood City, CA: Addison-Wesley.
- Dossey, L. (1982). *Space, time and medicine*. Boston: Shambhala.
- Dossey, L. (1989). *Recovering the soul: A scientific and spiritual search*. New York: Bantam.
- Einstein, A. (1961). *Relativity: The special and general theory*. New York: Crown.
- Erikson, E. (1982). *The lifecycle completed*. New York: Norton.
- Freedle, R. (1977). Psychology, Thomian topologies, deviant logics, and human development. In N. Datan & H. Reese (Eds.), *Lifespan developmental psychology: Postformal perspectives on experimental research* (pp. 317–342). New York: Academic.
- Galupo, M. P., Cartwright, K. B., & Savage, L. S. (2010). Cross-social category friendships as a context for postformal cognitive development. *Journal of Adult Development*, 17, 208–214.
- Gavin, J. L., Galupo, M. P., & Cartwright, K. B. (2009). The role of postformal cognitive development in death acceptance. *Journal of Adult Development*, 16, 166–172.
- Gleick, J. (1987). *Chaos: Making a new science*. New York: Penguin Books.
- Goerner, S. (1994). *Chaos and the evolving psychological universe*. Langhorne, PA: Gordon & Breach Scientific Publishers.
- Goldstein, J. (1994). *The unshackled organization*. Portland, OR: Productivity Press.

- Gottman, J. (1991). Chaos and regulated change in families: A metaphor for the study of transitions. In P. A. Cohen & M. Hetherington (Eds.), *Family transitions* (pp. 247–272). Hillsdale, NJ: Erlbaum.
- Heisenberg, W. (1958). *Physics and philosophy*. New York: Harper and Row.
- Inhelder, B., & Piaget, J. (1958). *The growth of logical thinking from childhood to adolescence*. New York: Basic Books.
- Jennings, J., Galupo, M., & Cartwright, K. (2009). The role of postformal cognitive development in death acceptance. *Journal of Adult Development*, *16*, 166–172.
- Johnson, L. (1991). Briding paradigms: The role of a change agent in an international technical transfer project. In J. Sinnott & J. Cavanaugh (Eds.), *Bridging paradigms: Positive development in adulthood and cognitive aging* (pp. 59–72). New York: Praeger.
- Johnson, L. (1994). Nonformal adult learning in international development projects. In J. D. Sinnott (Ed.), *Interdisciplinary handbook of adult lifespan learning* (pp. 203–217). Westport, CT: Greenwood.
- Johnson, L. (2004). *Postformal thinking in the workplace*. Stockholm: University of Stockholm Press.
- Jones, R. S. (1992). *Physics for the rest of us: Ten basic ideas of 20th century physics*. New York: Fall River Press.
- Jung, C. (1930/1971). The stages of life. In J. Campbell (Ed.), *The portable Jung*. New York: Viking Library.
- Kaufman, W. (1973). *Relativity and cosmology*. New York: Harper and Row.
- Kelly, K. (1994). *Out of control: The new biology of machines, social systems and the economic world*. Reading, MA: Addison-Wesley.
- Levine, R. L., & Fitzgerald, H. E. (Eds.). (1992). *Analysis of dynamic psychological systems* (Vol. 1 & 2). New York: Plenum.
- Lorenz, E. (1963). Deterministic non-periodic flow. *Journal of Atmospheric Sciences*, *20*, 130–141.
- Lorenz, E. (1979). *Predictability: Does the flap of a butterfly's wings in Brazil set off a tornado in Texas?* Paper presented at the annual meeting of the American Association for the Advancement of Science, Washington, DC.
- Maturana, H., & Varela, F. (1988). *The tree of knowledge*. Boston: New Science Library.
- Miller, M. E. (2011). Mature transformations in adulthood facilitated by psychotherapy and spiritual practice. In C. Hoare (Ed.), *The Oxford handbook of reciprocal adult development and learning* (2nd ed., pp. 265–283). New York: Oxford University Press.
- Nicholis, G., & Prigogine, I. (1989). *Exploring complexity*. New York: Freeman.
- Prigogine, I., & Stengers, I. (1984). *Order out of chaos: Man's new dialogue with nature*. New York: Bantam.
- Riegel, K. F. (1973). Postformal operations: The final period of cognitive development. *Human Development*, *16*, 346–370.
- Riegel, K. (1975). Adult life crises: A postformal interpretation of development. In N. Datan & L. Ginsberg (Eds.), *Lifespan developmental psychology: Normative life crises* (pp. 99–129). New York: Academic.
- Riegel, K. F. (1976). Toward a postformal theory of development. *American Psychologist*, *31*, 679–700.
- Rogers, D. R. B. (1989). *The effect of dyad interaction and marital adjustment on cognitive performance in everyday logical problem solving*. Doctoral dissertation, Utah State University, Logan, Utah.
- Rogers, D., Sinnott, J., & Van Dusen, L. (1991, July). *Marital adjustment and social cognitive performance in everyday logical problem solving*. Paper presented at the 6th Adult Development Conference, Boston, MA.
- Russell, B. (1969). *The A B C of relativity*. New York: Mentor Books.
- Schlick, M. (1970). Causality in contemporary physics. In J. Toulmin (Ed.), *Physical reality: Philosophical essays on 20th century physics* (pp. 83–121). New York: Harper and Row.
- Sheldrake, R. (1981). *A new science of life*. Los Angeles: Tarcher.
- Sheldrake, R. (1989). *The presence of the past: Morphic resonance and the habits of nature*. New York: Viking.

- Sheldrake, R. (1990). *The rebirth of nature*. London: Century.
- Sinnott, J. D. (1981). The theory of relativity: A metatheory for development? *Human Development*, 24, 293–311.
- Sinnott, J. D. (1984). Postformal reasoning: The relativistic stage. In M. Commons, F. Richards, & C. Armon (Eds.), *Beyond formal operations* (pp. 298–325). New York: Praeger.
- Sinnott, J. D. (1989a). Changing the known, knowing the changing. In D. Kramer & M. Bopp (Eds.), *Transformation in clinical and developmental psychology* (pp. 51–69). New York: Springer.
- Sinnott, J. D. (Ed.). (1989b). *Everyday problem solving: Theory and applications*. New York: Praeger.
- Sinnott, J. D. (1989c). General systems theory: A rationale for the study of everyday memory. In L. Poon, D. Rubin, & B. Wilson (Eds.), *Everyday cognition in adulthood and old age* (pp. 59–70). New Rochelle, NY: Cambridge University Press.
- Sinnott, J. D. (1989d). Lifespan relativistic postformal thought. In M. Commons, J. Sinnott, F. Richards, & C. Armon (Eds.), *Beyond formal operations I* (pp. 239–278). New York: Praeger.
- Sinnott, J. D. (1991a). Limits to problem solving: Emotion, intention, goal clarity, health, and other factors in postformal thought. In J. D. Sinnott & J. Cavanaugh (Eds.), *Bridging paradigms: Positive development in adulthood and cognitive aging*. New York: Praeger.
- Sinnott, J. D. (1991b). What do we do to help John? A case study of everyday problem solving in a family making decisions about an acutely psychotic member. In J. D. Sinnott & J. Cavanaugh (Eds.), *Bridging paradigms: Positive development in adulthood and cognitive aging* (pp. 203–220). New York: Praeger.
- Sinnott, J. D. (1993a). Teaching in a chaotic new physics world: Teaching as a dialogue with reality. In P. Kahaney, J. Janangelo, & L. Perry (Eds.), *Theoretical and critical perspectives on teacher change* (pp. 91–108). Norwood, NJ: Ablex.
- Sinnott, J. D. (1993b). Yes, it's worth the trouble! Unique contributions from everyday cognition studies. In H. Reese & J. Puckett (Eds.), *Lifespan developmental psychology: Mechanisms of everyday cognition* (pp. 73–94). Hillsdale, NJ: Erlbaum.
- Sinnott, J. D. (1993c). Use of complex thought and resolving intragroup conflicts: A means to conscious adult development in the workplace. In J. Demick & P. M. Miller (Eds.), *Development in the workplace* (pp. 155–175). Hillsdale, NJ: Erlbaum.
- Sinnott, J. D. (1994a). *Interdisciplinary handbook of adult lifespan learning*. Westport, CT: Greenwood.
- Sinnott, J. D. (1994b). New science models for teaching adults: Teaching as a dialogue with reality. In J. D. Sinnott (Ed.), *Interdisciplinary handbook of adult lifespan learning* (pp. 90–104). Westport, CT: Greenwood.
- Sinnott, J. D. (1996). The developmental approach: Postformal thought as adaptive intelligence. In F. Blanchard-Fields & T. Hess (Eds.), *Perspectives on cognitive change in adulthood and aging* (pp. 358–383). New York: McGraw-Hill.
- Sinnott, J. D. (1997). Brief report: Complex Postformal thought in skilled research administrators. *Journal of Adult Development*, 4(1), 45–53.
- Sinnott, J. D. (1998a). Creativity and Postformal thought. In C. Adams-Price (Ed.), *Creativity and aging: Theoretical and empirical approaches*. New York: Springer.
- Sinnott, J. D. (1998b). *The development of logic in adulthood: Postformal Thought and its applications*. Plenum Series on Adult Development, Jack Demick, Editor. New York: Plenum.
- Sinnott, J. D. (2000). Cognitive aspects of unitive states: Spiritual self-realization, intimacy, and knowing the unknowable. In M. E. Miller & A. N. West (Eds.), *Spirituality, ethics, and relationship in adulthood: Clinical and theoretical explorations* (pp. 177–198). Madison, CN: Psychosocial Press.
- Sinnott, J. D. (2002). Postformal thought and adult development: Living in balance. In J. Demick & C. Andreoletti (Eds.), *Handbook of adult development*. New York: Plenum.
- Sinnott, J. D. (2003). Teaching as nourishment for complex thought. In Nancy L. Diekelmann (Ed.), *Teaching the practitioners of care: New pedagogies for the health professions* (pp. 232–271). Interpretive studies in healthcare and the human services Series. Madison, WI: University of Wisconsin Press.
- Sinnott, J. D. (2004a). Learning as a humanistic dialogue with reality; new theories that help us teach the whole person: Context of learning and complex thought: Implications for modern life.

- In T. Hagestrom (Ed.), *Stockholm lectures: Adult development and working life* (pp. 78–108). Stockholm: University of Stockholm Press.
- Sinnott, J. D. (2004b). Learning as a humanistic dialogue with reality; new theories that help us teach the whole person: Complex Postformal thought and its relation to adult learning, life span development, and the new sciences. In T. Hagestrom (Ed.), *Stockholm lectures: Adult development and working life* (pp. 109–152). Stockholm: University of Stockholm Press.
- Sinnott, J. D. (2005). The dance of the transforming self: Both feelings of connection and complex thought are needed for learning. In M. A. Wolf (Ed.), *Adulthood, new terrain, new directions* (pp. 27–38). San Francisco: Jossey Bass.
- Sinnott, J. D. (2006). Spirituality as “feeling connected with the transcendent”: Outline of a transpersonal psychology of adult development of self. *Religion, Spirituality, and the Scientific Study of Religion*, 16, 287–308.
- Sinnott, J. D. (2008). Neo-Piagetian concepts of cognitive development in adults. In M. Cecil Smith & N. DeFratis-Densch (Eds.), *Handbook of research on adult learning and development*. New York: Erlbaum.
- Sinnott, J. D. (2009). Complex thought and construction of the self in the face of aging and death. *Journal of Adult Development*, 16(3), 155–165.
- Sinnott, J. D. (2010). Coherent themes: Individuals’ relationships with God, and their early childhood experiences, bonds with significant others, and relational delusions during psychotic episodes have common existential and relational themes. *Journal of Adult Development*, 17(4), 230–244.
- Sinnott, J. D. (2011). Constructing the self in the face of aging and death: Complex thought and learning. In C. Hoare (Ed.), *Oxford handbook of adult development and learning* (2nd ed., pp. 248–264). Oxford: Oxford University Press.
- Sinnott, J. D. (Ed.). (2013). *Positive psychology: Advances in understanding adult motivation*. New York: Springer.
- Sinnott, J. D. (2014). *Adult development: Cognitive aspects of thriving close relationships*. New York: Oxford University Press.
- Sinnott, J. D. (2017). *Identity flexibility during adulthood*. New York: Springer.
- Sinnott, J. D., & Berlanstein, D. (2006). The importance of feeling whole: Learning to “feel connected”, community, and adult development. In C. H. Hoare (Ed.), *Oxford handbook of adult development and learning* (pp. 381–406). New York: Oxford University Press.
- Sinnott, J. D., & Cavanaugh, J. (Eds.). (1991). *Bridging paradigms: Positive development in adulthood and cognitive aging*. New York: Praeger.
- Sinnott, J. D., & Johnson, L. (1996). *Reinventing the university: A radical proposal for a problem focused university*. Norwood, NJ: Ablex.
- Sinnott, J., Tobin, E., Chrzanowska, E., & Hilton, S. (2017). The relationship between attachment style and postformal thought. *Journal of Adult Development*, 20(3). <https://doi.org/10.1007/s10804-017-9262-0>
- Smith, L. B., & Thelan, E. (Eds.). (1993). *A dynamic systems approach to development*. Cambridge, MA: MIT Press.
- Snyder, T. (2017). *On tyranny: Twenty lessons from the twentieth century*. New York: Tim Duggan Books.
- Toulmin, J. (1970). *Physical reality: Philosophical essays on 20th century physics*. New York: Harper and Row.
- Vallacher, R. R., Coleman, P. T., Nowack, A., & Bui-Wrzosinska, L. (2010). Rethinking intractable conflict. *American Psychologist*, 65, 262–278.
- Waldrop, M. (1992). *Complexity: The emerging science at the edge of order and chaos*. New York: Simon and Schuster.
- Wheatley, M. J. (2006). *Leadership and the new science: Discovering order in a chaotic world*. San Francisco, CA: Barrett-Koehler.
- Wolf, F. A. (1981). *Taking the quantum leap*. New York: Harper & Row.
- Yan, B. (1995). *Nonabsolute/relativistic (N/R) thinking: A possible unifying commonality underlying models of postformal reasoning*. Unpublished Ph.D. dissertation, University of British Columbia, Vancouver.
- Yan, B., & Arlin, P. K. (1995). Non-absolute/relativistic thinking: A common factor underlying models of postformal reasoning? *Journal of Adult Development*, 2, 223–240.

How Do Cognitive Styles Influence Political Attitudes? A Joint Consideration of Dual-Process Model and Construal Level Theory



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What Is Ideology?

The word “ideology” is of French origin consisting of the combination of “idee” (idea) and “-ologie” (science) and refers to moral, cultural, and philosophical views or attitudes toward a political issue (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Jost, 2006). Although the term has been popularized by Marx and Engels (1846/1970), their usage focused on false consciousness or an inversion of reality whereas the modern use of this term is something different. Today, even by social scientists in fields other than psychology, ideology is defined in psychological terms. For example, Converse (1964), a political scientist, defines ideology as a stable attitude and belief system (see also Jost, Glaser, Kruglanski, & Sulloway, 2003). Political ideology is one of the most important concepts used in order to understand why people do what they do in the political domain (see Jost, 2006).

The most important distinction used to describe ideological differences is the left-right distinction. These terms apply to the European political system (Feldman & Johnston, 2014; Gerber, Huber, Doherty, Dowling, & Ha, 2010) and correspond largely to the liberal–conservative distinction in the U.S.A. (Jost, 2006). In the area of inquiry that concerns this review, researchers generally do not differentiate the actual meanings of liberal-conservative versus left-right spectrums. Instead, they use these concepts interchangeably (Jost, Federico, & Napier, 2009; Saribay, Olcaysoy, & Yilmaz, 2017) and we follow suit.

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Indeed, political ideology has been defined in terms of this kind of a binary distinction since the very beginnings of the usage of this term in the social psychology literature. For example, Eysenck (1954) characterized the political left by radicalism and the political right by conservatism. Other researchers have also adopted a binary distinction as Eysenck did. For instance, left-wing ideologies were matched with defending international peace favoring universalist values whereas right-wing ideologies were characterized as defending international conflict and favoring nationalism (Scott, 1960). Likewise, Jost et al. (2003) argue that opposition to equality and resistance to change are the two culture-free dimensions of conservative political ideology. According to this conceptualization, conservative political ideology is characterized by a tendency to preserve the status quo and hierarchical structure whereas liberal political ideology is characterized by desire for progress and endorsement of an equal society.

Political Ideology and Psychological Differences

There are well-established psychological differences characterizing individuals who subscribe to different ideologies. Personality differences, for example, are often found amongst various political groups in different samples. A study which consisted of 5 different samples with a total of 19,248 participants found that conscientiousness and agreeableness are positively (albeit weakly) correlated with conservatism whereas openness to experience is correlated with liberalism (Carney, Jost, Gosling, & Potter, 2008). These differences are not only observed in different samples (e.g., Alper & Yilmaz, 2019; Gerber et al., 2010) but also have predictive power for voting behavior (e.g., Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006). According to conservatism as motivated social cognition approach (Jost et al., 2003), these differences are related to certain psychological needs. Most importantly, psychological needs based on improvement, novelty, creativity, and stimulation characterize people endorsing liberal political ideology whereas stability, harmony, cohesiveness, and security needs characterize people endorsing conservative political ideology (Jost et al., 2003).

The last decade of research has increasingly focused on biological factors as potential causes of these differences underlying political ideology (Hibbing, Smith, Peterson, & Feher, 2014). Identical twins have more similar social and political attitudes than fraternal twins (e.g., Bouchard et al., 2003), suggesting the involvement of genes in determining those attitudes. Besides, there are also some neurophysiological differences between the two ideological groups. For example, an MRI study controlling the potential confounding effects of age and gender found that self-reported conservatism is correlated with increased gray matter activation in right amygdala which is indicative of increased sensitivity to fear processing, whereas self-reported liberalism is associated with increased gray matter activation in anterior cingulate cortex signifying higher tolerance of uncertainty and ability to resolve conflicts (Kanai, Feilden, Firth, & Rees, 2011). Such biological differences

do not necessarily imply a specific gene causing specific political preferences; instead, some psychological characteristics such as resistance to change and aversion to uncertainty may have some genetic components which in return may promote attraction to a specific ideology.

There are also differences between liberals and conservatives in basic values and moral judgments. Conservatives give more emphasis on security, conformity, and obedience to authority whereas liberals give more emphasis on self-enhancement and universalism, and these differential values are also good predictors of voting behavior (Schwartz, Caprara, & Vecchione, 2010), and core components of conservatism (Yilmaz & Saribay, 2018a). Similarly, moral foundations theory (Haidt, 2012) demonstrated that liberals define morality with reference mostly to the care/harm and fairness/cheating dimensions whereas conservatives give relatively equal emphasis to all five dimensions: care/harm, fairness/justice, loyalty/betrayal, authority/subversion, sanctity/degradation.

In sum, the literature demonstrates some important and reliable differences between liberals and conservatives in terms of psychological variables. However, all of these differences can be intertwined with cognitive style differences. In other words, the differences between liberals and conservatives as we summarize above can also be conceptualized as being rooted in cognitive styles. In the next section, we first define what we mean by cognitive style, and then summarize some findings suggesting that cognitive style is responsible for some of the psychological differences between liberals and conservatives.

Dual Process Model of the Mind

More than a century ago, William James (1890) proposed the distinction between associative and true reasoning. With the accumulation of empirical research in modern cognitive and social psychology and with the help of early models that organized those findings (e.g., Evans, Barston, & Pollard, 1983), the modern dual process perspective was born. There are now various mature theoretical accounts and accompanying research built around this theme in various areas of research ranging from social cognition to child development (e.g., Chaiken & Trope, 1999).

The dual process model of the mind (DPM) argues that most fundamentally, our minds function with the help of two sets of processes. Type 1 processes are automatic, low-effort, and intuitive processes whereas Type 2 processes, which are unique to the human species, are analytical, high-effort, and controlled (Evans & Stanovich, 2013). For example, at a crowded dinner party, we may orient attention automatically (Type 1) when someone calls our name and we would need more mental effort (Type 2) to focus on a specific conversation amongst all the noise and to decide what to say next to keep it flowing smoothly (Kahneman, 2011). There is by now a massive amount of behavioral and neuroscientific research in support of this basic tenet of DPM (i.e., the distinction between Type 1 and Type 2 processes; Evans, 2003; Goel, Buchel, Frith, & Dolan, 2000).

In the next section, we aim to rely on DPM to define systematic differences in cognitive style that describe people of distinct political ideologies.

Dual Process Model and Ideology

Although there are many differences between liberals and conservatives in addition to those mentioned in section “Political Ideology and Psychological Differences”, the current chapter focuses on differences in cognitive style. It is important to determine the relevant variables underlying the differences in cognitive style between liberals and conservatives. Therefore, the literature on cognitive style and its potential relation to political ideology will be examined in the following section, keeping in line with the theme of DPM. Overall, this section argues that thinking in an intuitive mindset causes a conservative shift in political opinions.

Historically, a variety of concepts studied in social and political psychology can be seen as tapping cognitive style differences between liberals and conservatives. For instance, integrative complexity is a concept that highlights the complexity of thought by drawing attention to two processes: cognitive *differentiation* and *integration* of the relevant information (Suedfeld & Tetlock, 2014). Differentiation implies a realization of the availability of different perspectives on a topic whereas integration refers to linking up among previously differentiated dimensions. Therefore, people with high integrative complexity entertain multiple perspectives on a given issue whereas people with low complexity give emphasis to only one perspective or viewpoint. In other words, people with low integrative complexity interpret social and political issues in a narrower manner and try to reduce uncertainty by seizing on a simple answer when thinking about an issue. People with high integrative complexity, on the other hand, examine the issue in more detail and deliberately by elaborating the issue in several dimensions, thereby behaving in a less intuitive manner (Suedfeld & Tetlock, 1977). Thus, greater integrative complexity requires Type 2 processes. As we will cover in detail below, individuals with a greater propensity to use Type 2 processes are more likely to adopt a leftist orientation in politics. For example, according to a survey on political elites, people who are affiliated with center-left party demonstrate higher levels of integrative complexity than center-right party members (Tetlock, 1983).

Preference for the status quo is among the core elements of political conservatism (Eidelman & Crandall, 2009). Preferring to stick with the existing state of affairs is based on low-effort thinking compared to seeking change (Eidelman & Crandall, 2009). For example, the classic mere exposure effect suggests that familiar stimuli are seen as more favorable (Zajonc, 1968); and not only existing but also long-standing states are seen as good and admirable (Eidelman, Crandall, & Pattershall, 2009). The effect is enhanced when the stimuli are shown out of awareness (Bomstein & D’Agostino, 1992), suggesting the automatic nature of this tendency.

Another core element underlying conservative ideology is the acceptance of hierarchy /opposition to equality (Jost et al., 2003; Saribay & Yilmaz, 2018). This ideological orientation, like the status quo bias, bears on relatively simple, quick, and effortless processing. For example, Zitek and Tiedens (2011) demonstrated that processing social hierarchies is cognitively less effortful. Moors and De Houwer (2005) also showed that the hierarchical distinctions are easily and quickly recognized, and disadvantaged groups accept status differences implicitly (Jost, Pelham, & Carvallo, 2002) thereby showing the intuitive and effortless nature of acceptance of hierarchy.

According to terror management theory, the evolution of the status of self-consciousness led to a (sometimes) maladaptive consequence: Awareness of one's own death. Reminding people of their own mortality makes them more conservative (Landau et al., 2004) as well as cognitively impaired (e.g., Tremoliere, Neys, & Bonnefon, 2012; Yilmaz & Bahçekapili, 2018). Moreover, when people are reminded of their own mortality, liberals start thinking more like conservatives on some political issues such as capital punishment, abortion, and support for homosexuals (Nail, McGregor, Drinkwater, Steele, & Thompson, 2009). Thus, mortality salience seems to deplete some cognitive resources thereby creating a low-effort and intuitive mode of thought which in return elicits a conservative shift.

Analytic Cognitive Style and Ideology

Recently, there has been a tremendous increase in the number of studies directly investigating the relationship between analytic thinking and ideology (Brandt, Evans, & Crawford, 2015; Deppe et al., 2015; Eidelman, Crandall, Goodman, & Blanchar, 2012; Iyer, Koleva, Graham, Ditto, & Haidt, 2012; Jost, Sterling, & Stern, 2017; Kahan, 2013; Landy, 2016; Pennycook, Cheyne, Seli, Koehler, & Fugelsang, 2012; Piazza & Sousa, 2014; Saribay & Yilmaz, 2017; Sterling, Jost, & Pennycook, 2016; Talhelm et al., 2015; Van Berkel, Crandall, Eidelman, & Blanchar, 2015; Yilmaz & Alper, 2019; Yilmaz & Saribay, 2016, 2017a, 2017b, 2017c, 2018b). The initial attempts were correlational studies and many of them found a significant negative relationship between conservative (right-wing) ideology and propensity for analytical thinking (Deppe et al., 2015; Iyer et al., 2012; Pennycook et al., 2012; Talhelm et al., 2015; Yilmaz & Saribay, 2016). But others could not replicate this relationship (Baron, 2017; Kahan, 2013; Piazza & Sousa, 2014; Yilmaz & Saribay, 2017a). Jost et al. (2017) conducted a meta-analysis of these findings and found a negative relationship between social conservatism and analytical thinking (unweighted average $r = -.15$), but a very small relationship with economic conservatism (unweighted average $r = -.08$). Therefore, the first boundary condition seems the type of conservatism (social vs. economic): analytical thinking has a negative relationship with social conservatism, but it is generally not related to economic conservatism.

Yilmaz and Saribay (2017a) tested the argument that another moderator variable might be the tool used to measure analytic thinking tendency. In the literature, the

most frequently used tool is the Cognitive Reflection Test (CRT), consisting of three questions (Frederick, 2005). For example, “If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?” CRT questions are designed to elicit an intuitive but wrong answer in respondents, in this case “100 minutes.”

Analytical thinkers reach the correct answer (“5 minutes” for the above question) using cognitive effort by suppressing the intuitive answer that comes to mind automatically. Yilmaz and Saribay (2017a) used measures in addition to CRT in order to test whether the relationship between analytic thinking and conservatism varies as a function of the tool used to measure analytic thinking tendency. It was observed that CRT did not correlate with any measure of conservatism, whereas other analytical thinking measures consistently showed a negative correlation with social conservatism. This in part explains why some of the earlier studies found a non-significant relationship between analytic thinking and general conservatism since the vast majority of these studies use the CRT as an analytical thinking measure.

Yilmaz and Saribay (2018b) also probed another possible moderator of the relationship between analytic cognitive style and ideology, and tested the argument that only one aspect of conservatism (the resistance to change) defined by Jost and his colleagues (2003) is related to lower levels of analytic cognitive style, but another aspect (the opposition to equality) is not. They found some support in three Turkish samples that only one dimension of conservatism is associated with analytic cognitive style in line with their initial expectation. They also showed that these two correlation coefficients significantly differed from each other. When they use another analytic thinking measure in addition to CRT, the results remained constant. Therefore, the results suggest that the relationship between resistance to change and analytic thinking is robust to different measures of analytic thinking.

An additional point worth taking into account to better understand the analytic thought-ideology relationship might be that many studies of this relationship do not take into account self-reported libertarians. Iyer et al. (2012) previously showed that libertarians attach importance to socially liberal values as a discrete group and also endorse economically conservative values. Interestingly, libertarians have significantly higher scores than both liberals and conservatives on analytic thinking tendency. However, when one-item political ideology question from 1 (liberal) to 7 (conservative) is used as a measure of ideology as most of the previous studies have done, libertarians place themselves toward the conservative end on this scale (Feldman & Johnston, 2014). Therefore, they bring about a potential problem for such studies investigating the relationship between economic conservatism and analytic cognitive style. As we outlined above, there are mixed findings about this relationship since some of the findings reported a significant negative relationship (e.g., Sterling et al., 2016), whilst some of them reported a non-significant relation (e.g., Yilmaz & Saribay, 2017a), and some of them reported a positive relation (Deppe et al., 2015). One reason for these discrepancies among different studies might be the varying proportion of libertarians in the samples. Because libertarians are analytic thinkers and tend to report conservative orientation, they may be pushing the relationship in the positive direction in the samples where they are present in higher proportions. Yilmaz, Saribay, and Iyer (2018) tested this argument in a

high-powered study ($N = 8648$) and found a positive relationship between analytical thinking and economic conservatism when self-reported libertarians were included in the sample, but the correlation reduced in magnitude and became virtually zero when they were excluded. This finding supports the initial argument and suggests that the presence of undetected libertarians pose a threat to understanding the relationship between conservatism and analytic cognitive style (see also Yilmaz & Alper, 2019).

The findings summarized above provide some evidence to suggest that there is a relationship between analytic cognitive style and (at least one type of) conservatism. In the next section, we will summarize experimental studies investigating the causal influence of analytic (vs. intuitive) thinking styles on ideology.

The Causal Effect of Analytic Cognitive Style on Ideology

Compared to the correlational studies mentioned above, a smaller number of studies have investigated the causal relationship between analytic thought and ideology. As far as we know, the first direct study testing the causal effect of cognitive style on ideology was conducted by Eidelman et al. (2012) and found some support for the argument that low-effort thinking leads to political conservatism. In three different experiments, using different manipulation techniques, they found that participants induced to use low-effort (vs. high-effort) thinking reported higher levels of political conservatism. However, this set of studies had some serious limitations. First, the sample sizes used are very low (total N for each study ranges from 34 to 38). It is not possible to claim a reliable effect with 15–19 people in each between-subjects group. Second, the baseline political orientations of individuals were not controlled and this is an even more serious problem in such low sample sizes (because random distribution of participants with differing political orientations into experimental groups would not work well in such small samples). Third, social and economic political attitudes were not distinguished and an effect was found on the overall political orientation measure. Fourth, conservatism and liberalism were calculated as two separate scores instead of a single dimension and the effect was found only in one of them. These limitations raise questions regarding the reliability of their findings. Indeed, Yilmaz and Saribay (2016, Study 4) performed a replication of Study 2 of Eidelman et al. (2012) in the lab and could not replicate the effect even though their sample was 2.5 times the original sample size. In addition, Yilmaz and Saribay (unpublished raw data) conducted a preregistered conceptual replication of Eidelman et al.'s (2012) Study 4 with over 1000 participants, but the results again failed to replicate those of Eidelman et al. (2012).

To explain this failure to causally influence ideology, Talhelm et al. (2015) claimed that the effect of mindset manipulations should influence only contextualized opinions where the participants are actively processing (such as supporting or opposing multiple-sided arguments on a current topic that is encountered in a newspaper), but should not influence stable opinions where the participants have certain crystallized attitudes (such as “I am a liberal person”) that they can simply recall

from memory. They investigated the effect of holistic and analytical cultural orientations on political attitudes and found that these cultural orientations have a causal influence on only contextualized, but not stable, opinions. The same might be the case for the causal effect of analytic cognitive style on political opinions (see Yilmaz & Saribay, 2017b footnote 2 for the difference between holistic/analytic and analytic/intuitive thinking style distinctions). In fact, Yilmaz and Saribay (2017b) directing participants to think analytically led them to endorse more liberal attitudes on only contextualized opinions (see also Yilmaz & Saribay, 2017c). Deppe et al. (2015) also tested the same argument but failed to activate analytical thinking by using different methods previously used in the literature. But this failure to manipulate analytic thinking seems not unique to Deppe et al. (2015) since there are some mixed findings of the effectiveness of the manipulation techniques used to prod analytic cognitive style.

In general, there is a difficulty in activating analytical thinking in the literature. For example, Gervais and Norenzayan's (2012) visual priming technique used to manipulate analytic thinking was not replicated by Deppe et al. (2015) and Sanchez, Sundermeier, Gray, and Calin-Jageman (2017). Scrambled sentence task used by Gervais and Norenzayan (2012) to manipulate analytic thinking worked as intended in one study with Turkish participants (Yilmaz, Karadoller, & Sofuoglu, 2016), but did not work in another study using a similar sample (Yilmaz & Bahçekapili, 2015). The thought priming technique used by Shenav, Rand, and Greene (2012) was also not replicated by Yilmaz and Saribay (2016, Study 3A) on Turkish participants. Likewise, Meyer et al. (2015) could not replicate cognitive disfluency method used by Gervais and Norenzayan (2012) to prime analytic thinking in a high-powered study (see also Yilmaz & Saribay, 2016, Study 3B for a failure to replicate in a small Turkish sample). Hence, experimentally activating analytic thinking is more difficult than initially assumed. This undoubtedly makes it difficult to conclude whether analytical thinking has a causal effect on the outcome measure (i.e. political ideology). However, when we consider all these findings together, they indicate the presence of an effect with some boundary conditions. In other words, there is some empirical evidence indicating that some components (i.e., resistance to change, social conservatism) of conservatism might in part stem from a tendency for low-effort thinking. Further high-powered experimental tests on the causal relationship between analytic cognitive style and conservatism are needed.

So far, in terms of DPM, we examined the relationship between political ideology and analytic versus intuitive thinking. In the next section, we will examine political attitudes from another theoretical approach (construal level theory).

Abstract and Concrete Mindsets

Imagine that you are considering moving abroad. When you mention this to your friends, some of them ask about how exactly you will carry out your plan. Which country are you moving to? How are you going to get a residence permit? How are

you going to cover the moving expenses? Some other friends, on the other hand, question the motive behind your plan: Why are you leaving this country? Are you unhappy with your living conditions here? Do you have better employment opportunities in other countries? Or are you marrying someone from a different country? You realize that the two groups of friends have taken different approaches to understand the very same action of moving abroad. The former group is interested in *how* you are going to move abroad whereas the latter is questioning *why* you are going to do it.

According to Construal Level Theory (CLT; (Liberman & Trope, 2008, 2014; Soderberg, Callahan, Kochersberger, Amit, & Ledgerwood, 2015; Trope & Liberman, 2010), the first group has a *concrete mindset*. Accordingly, people with a concrete mindset focus on the process behind an action and reflect on the concrete, specific steps of performing an action. The latter group of friends, on the other hand, has an *abstract mindset*. People with an abstract mindset emphasize the reasoning behind actions and focus on why one would perform that action.

According to CLT, abstract and concrete mindsets also differ with respect to their emphasis on superordinate or subordinate constructs. Imagine that there is a man called Ali. There are some very specific details about Ali that make him unique. These characteristics that separate him from the rest of the people are more subordinate and concrete characteristics (e.g., his temper when teased about his short height, sense of humor, etc.). At the same time, there are more superordinate categories that Ali is a member of: For example, he is a conservative; so the category of conservative includes Ali as well as many other people. Such superordinate constructs are more abstract. So, a concrete construal of Ali would emphasize the unique attributes of Ali that makes him different from anyone else whereas an abstract construal focuses on superordinate categories that Ali and other similar people belong to. Then, in short, concrete mindset is concerned with differences and specific details whereas abstract mindset is more interested in commonalities and superordinate categories.

Mindset and Psychological Distance

When do we adopt an abstract or a concrete mindset? The literature suggests that there exists trait-level differences with regard to mindset (Burgoon, Henderson, & Markman, 2013): Some people are more inclined to question the motive behind actions (a sign of an abstract mindset) whereas some others are more concerned with how an action is performed (a sign of a concrete mindset; Vallacher & Wegner, 1987, 1989). People also differ with respect to how much they emphasize concrete details (a sign of a concrete mindset) as compared to higher-level categories (a sign of an abstract mindset; e.g., Burgoon et al., 2013; Kimchi & Palmer, 1982).

Apart from trait-level differences, certain situational factors also alter the level of construal. According to CLT, psychological distance elevates the level of abstraction (Trope & Liberman, 2010). Psychological distance might be in the form of

time, space, familiarity, and hypotheticality. The distant future, faraway places, unfamiliar things, and low-probability events are psychologically distant. The near future, nearby places, familiar things, and high-probability events are psychologically close. CLT suggests that people adopt an abstract mindset when there is high psychological distance whereas they adopt a concrete mindset when it is low. The reason for this is that we are unable and uninterested in fathoming specific details of psychologically distant objects, thus we adopt a more abstract construal of that object.

Imagine that you are watching a science-fiction movie in which the story takes places in the distant future. When a character has a drink, you would probably have no idea about its distinct characteristics (e.g., its exact name, taste, smell). So you would not construe that object in a more concrete sense by focusing on subordinate characteristics. Instead, you highlight the more abstract, superordinate characteristics, like calling it a “beverage.” The same would apply to political incidents as well: When reflecting on the potential political atmosphere in the future, you would probably focus on the abstract values (e.g., human rights, freedom) instead of more concrete, contextual circumstances that might or might not exist in the future. Consistently, CLT literature has accumulated a vast amount of evidence that abstract/concrete mindset, triggered by either psychological distance or other factors, have important effects on political attitudes.

Mindset and Politics

As an abstract mindset emphasizes higher-order and superordinate constructs, it would be expected that it would also highlight higher-order political values that transcend over time and place and is less sensitive to contextual circumstances. In one of the earlier studies in the CLT literature, that is exactly what Ledgerwood, Trope, and Chaiken (2010) showed: They found that participants’ political attitudes and values as well as voting intentions were less affected by interaction partners, when they were led to adopt an abstract mindset, as opposed to a concrete one. Instead, their evaluations were more likely to be determined by their higher-order ideological values. For example, if someone is extremely liberal, then, when they are in an abstract mindset, that person would have very abstract and superordinate political principles (e.g., strong beliefs about equality) that would apply to any context, regardless of concrete differences between situations.

Similarly, Alper has (2018) recently found that, regardless of political orientation, participants’ responses to different statements which all tap into the same underlying political attitude (e.g., different items all measuring right-wing authoritarianism) become more consistent with each other when they have an abstract (vs. concrete) mindset. In other words, people respond very similarly to different political statements and this similarity is a result of the salience of higher-order political values driven by an abstract construal. Alper (2018) showed that the abstract mindset has the same effect of making responses consistent regarding obedience to

authority figures (right-wing authoritarianism; Altemeyer, 1998), legitimization of status quo (system justification; Jost, Banaji, & Nosek, 2004), and justifying social inequalities (social dominance orientation; Sidanius, Pratto, & Bobo, 1994).

As abstractness makes specific political attitudes more consistent with higher-order political values, this could have a profound effect on political polarization. If I am a liberal with an abstract mindset, then my reactions to all different incidents in life would be largely determined by my liberal ideals as abstractness highlights them as the overarching values and diminishes the influence of concrete contextual details. This would make me less likely to compromise and adopt moderate political attitudes, because all my attitudes would be uniformly determined by my strong core beliefs that transcend over different situations. In line with this reasoning, Luguri and Napier (2013) found that, when political identity was salient, abstract mindset increased the polarization between liberals and conservatives with regard to various political issues, like lowering taxes, increasing military expenditure, gay marriage, and abortion rights. Such political polarization induced by abstractness could even lead to support for torture and disregard for civilian casualties: Two studies conducted on Jewish Israelis illustrated that, for people who highly value loyalty, abstractness bolsters the importance of loyalty even further, as it serves as a core, abstract belief. As a result, when people who regard loyalty as an important value had an abstract mindset, they were more likely to justify torturing of suspected terrorists and civilian casualties in the war against terrorists (Kahn & Bjorklund, 2017).

However, other studies had opposing results. From a different perspective, abstractness would decrease, not increase, political polarization. In American context, for example, “liberty and justice for all” would be an abstract value that is supposed to apply to, as the name suggests, *all* people. In addition, there are more concrete details that lead to prejudice and discrimination against certain groups in the society (Luguri, Napier, & Dovidio, 2012). For example, you might generally, on a more abstract level, defend that everyone should have equal rights. But, at the same time, you might believe that immigrants are stealing jobs and support a restriction on immigration. So, when you think more concretely, contextual factors in very specific situations might decrease the weight of the abstract values. Following this logic, an abstract mindset would decrease political polarization. Because superordinate values would decrease discrimination based on contextual circumstances. As expected, in several studies, abstract mindset was found to increase conservatives’ tolerance toward gay men, lesbians, Muslims, atheists (Luguri et al., 2012), and ethnic minorities (Yogeeswaran & Dasgupta, 2014). In another study, Napier and Luguri (2013) demonstrated that abstractness increased the endorsement of individualizing moral foundations (concern for avoiding harm and inequality which are characteristics of liberalism, as opposed to conservatism; Graham, Haidt, & Nosek, 2009). This effect was equally valid for those identified as liberal and conservative and this has the implication that an abstract mindset decreases polarization by rendering liberals and conservatives more alike.

The effect of mindset on political polarization has also important implications for applied settings. Take the “Ground Zero Mosque” as an example. The plan to

build an Islamic facility a few blocks away from the World Trade Center, which was destroyed in the 9/11 attack perpetrated by an Islamic terrorist organization, sparked heated debates between liberals and conservatives. Conservatives largely perceived this as disrespectful of the memory of the 9/11 whereas liberals considered it as a symbol of religious freedom and interfaith dialogue (Yang, Preston, & Hernandez, 2013). Yang and his colleagues (2013) showed that abstractness reduced such polarization between liberals and conservatives: When participants were led to adopt an abstract mindset, the difference in their attitude toward the Ground Zero Mosque diminished. In other words, both liberals and conservatives adopted more moderate attitudes.

Chan (2016), however, found that the effect of abstractness on political polarization was not straightforward: Abstract mindset was found to polarize liberals and conservatives' attitudes toward social inequalities; but at the same time, it increased traditionalism for both sides which would decrease polarization with regard to traditionalism. So, mindset increased and decreased political polarization for different domains which further complicated the implications of CLT for political psychology.

CLT literature strongly suggests that construal levels and mindsets have important effects on political attitudes. However, the direction of this effect, as summarized above, is not always clear-cut. One potential reason could be that there might be individual differences, even within seemingly homogenous political groups, with regard to which values are more focal, as previously argued (Eyal & Liberman, 2012). As abstractness highlights the most central values one holds, this difference (i.e., what those central values are for different individuals) would explain why an abstract or a concrete mindset sometimes have diverging effects for different individuals.

Conclusion

There is a growing literature on cognitive differences associated with differences in political orientation with important practical implications. Understandably, these relatively recent series of findings occasionally spark debates, as it is sometimes considered as impolite or offensive to discuss cognitive differences between people with different ideologies (e.g., Hodson, 2014). However, empirical studies suggest that there is a well-established connection between the two, although the direction of the effect of thinking styles could be more complicated than anticipated. Past findings showed that analytical (vs. intuitive) thinking is largely related to liberalism, as opposed to conservatism; and abstract (vs. concrete) mindset has important effects on political attitudes and polarization. Yet, further research on the boundary conditions and potential moderators of these effects are needed to present a more complete picture of the relationship between thinking styles and political attitudes. Further development in this area of research would be highly valuable for understanding why people substantially differ on certain political issues and what can be done to reduce polarization within societies.

References

- Adorno, T. W., Frenkel-Brunswick, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York: Harper & Row.
- Alper, S. (2018). An abstract mind is a principled one: Abstract mindset increases consistency in responses to political attitude scales. *Journal of Experimental Social Psychology, 77*, 89–101. <https://doi.org/10.1016/j.jesp.2018.04.008>
- Alper, S., & Yilmaz, O. (2019). How is the Big Five related to moral and political convictions: The moderating role of the WEIRDness of the culture. *Personality and Individual Differences, 145*, 32–38. <https://doi.org/10.1016/j.paid.2019.03.018>
- Altemeyer, B. (1998). The other “authoritarian personality”. In M. Zanna (Ed.), *Advances in experimental social psychology* (pp. 47–92). San Diego: Academic.
- Baron, J. (2017). Comment on Kahan and Corbin: Can polarization increase with actively open-minded thinking? *Research & Politics, 4*(1), 1–4. <https://doi.org/10.1177/2053168016688122>
- Bomstein, R. F., & D’Agostino, P. R. (1992). Stimulus recognition and the mere exposure effect. *Journal of Personality and Social Psychology, 63*, 545–552.
- Bouchard, T. J., Segal, N. L., Tellegen, A., McGue, M., Keyes, M., & Krueger, R. (2003). Evidence for the construct validity and heritability of the WilsonPatterson Conservatism Scale: A reared-apart twins study of social attitudes. *Personality and Individual Differences, 34*(6), 959–969.
- Brandt, M. J., Evans, A. M., & Cawtbrd, J. T. (2015). The unthinking or confident extremist? Political extremists are more likely than moderates to reject experimenter-generated anchors. *Psychological Science, 26*(2), 189–202.
- Burgoon, E. M., Henderson, M. D., & Markman, A. B. (2013). There are many ways to see the forest for the trees: A tour guide for abstraction. *Perspectives on Psychological Science, 8*, 501–520. <https://doi.org/10.1177/1745691613497964>
- Caprara, G. V., Schwartz, S. H., Capanna, C., Vecchione, M., & Barbaranelli, C. (2006). Personality and politics: Values, traits, and political choice. *Political Psychology, 27*, 1–28.
- Carney, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology, 29*(6), 807–840.
- Chaiken, S., & Trope, Y. (1999). *Dual-process theories in social psychology*. New York: Guilford.
- Chan, E. Y. (2016). Reconstructing politics: The dual impacts of abstraction on political ideology. *European Journal of Social Psychology, 46*, 649–656. <https://doi.org/10.1002/ejsp.2188>
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and discontent* (pp. 206–261). New York: Free Press.
- Deppe, K. D., Gonzalez, F. J., Neiman, J. L., Jacobs, C., Pahlke, J., Smith, K. B., & Hibbing, J. R. (2015). Reflective liberals and intuitive conservatives: A look at the Cognitive Reflection Test and ideology. *Judgment and Decision Making, 10*(4), 314–331.
- Eidelman, S., & Crandall, C. S. (2009). On the automaticity of the status quo. In J. T. Jost, A. C. Kay, & H. Thorisdottir (Eds.), *Social and psychological bases of ideology and system justification* (pp. 85–105). New York: Oxford University Press.
- Eidelman, S., Crandall, C. S., Goodman, J. A., & Blanchar, J. C. (2012). Low-effort thought promotes political conservatism. *Personality and Social Psychology Bulletin, 38*(6), 808–820.
- Eidelman, S., Crandall, C. S., & Pattershall, J. (2009). The existence bias. *Journal of Personality and Social Psychology, 97*, 765–775.
- Evans, J. S. B. (2003). In two minds: Dual-process accounts of reasoning. *Trends in Cognitive Sciences, 7*(10), 454–459.
- Evans, J. S. B. T., Barston, J. L., & Pollard, P. (1983). On the conflict between logic and in syllogistic reasoning. *Memory & Cognition, 11*, 295–306.
- Evans, J. S. B., & Stanovich, K. E. (2013). Dual-process theories of higher cognition advancing the debate. *Perspectives on Psychological Science, 8*(3), 223–241.
- Eyal, T., & Liberman, N. (2012). Morality and psychological distance: A construal level theory perspective. In M. Mikulincer & P. R. Shaver (Eds.), *The social psychology of morality*:

- Exploring the causes of good and evil. Herzliya series on personality and social psychology* (pp. 185–202). Washington, DC: American Psychological Association.
- Eysenck, H. J. (1954). *The psychology of politics*. New York: Frederick A. Praeger.
- Feldman, S., & Johnston, C. (2014). Understanding the determinants of political ideology: Implications of structural complexity. *Political Psychology, 35*(3), 337–358.
- Frederick, S. (2005). Cognitive reflection and decision making. *The Journal of Economic Perspectives, 19*(4), 25–42.
- Gerber, A. S., Huber, G. A., Doherty, D., Dowling, C. M., & Ha, S. E. (2010). Personality and political attitudes: Relationships across issue domains and political contexts. *American Political Science Review, 104*(01), 111–133.
- Gervais, W. M., & Norenzayan, A. (2012). Analytic thinking promotes religious disbelief. *Science, 336*(6080), 493–496.
- Goel, V., Buchel, C., Frith, C., & Dolan, R. J. (2000). Dissociation of mechanisms underlying syllogistic reasoning. *NeuroImage, 12*(5), 504–514.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology, 96*, 1029–1046. <https://doi.org/10.1037/a0015141>
- Haidt, J. (2012). *The righteous mind: Why good people are divided by politics and religion*. New York: Pantheon.
- Hibbing, J. R., Smith, K. B., Peterson, J. C., & Feher, B. (2014). The deeper sources of political conflict: Evidence from the psychological, cognitive, and neuro-sciences. *Trends in Cognitive Sciences, 18*(3), 111–113.
- Hodson, G. (2014). Is it impolite to discuss cognitive differences between liberals and conservatives? *Behavioral and Brain Sciences, 37*, 313–314. <https://doi.org/10.1017/S0140525X13002574>
- Iyer, R., Koleva, S., Graham, J., Ditto, P., & Haidt, J. (2012). Understanding libertarian morality: The psychological dispositions of self-identified libertarians. *PLoS One, 7*(8), e42366.
- James, W. (1890). *The principles of psychology*. New York: Dover.
- Jost, J. T. (2006). The end of the end of ideology. *American Psychologist, 61*(7), 651–670.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology, 25*, 881–919. <https://doi.org/10.1111/j.1467-9221.2004.00402.x>
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology, 60*, 307–337.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*(3), 339–375.
- Jost, J. T., Pelham, B. W., & Carvallo, M. (2002). Non-conscious forms of system justification: Cognitive, affective, and behavioral preferences for higher status groups. *Journal of Experimental Social Psychology, 38*, 586–602.
- Jost, J. T., Sterling, J., & Stern, C. (2017). Getting closure on conservatism, or the politics of epistemic and existential motivation. In C. Kopetz & A. Fishbach (Eds.), *The motivation-cognition interface; From the lab to the real world: A Festschrift in honor of Arie W. Kruglanski*. New York: Psychology Press.
- Kahan, D. M. (2013). Ideology, motivated reasoning, and cognitive reflection. *Judgment and Decision Making, 8*(4), 407–424.
- Kahn, D. T., & Bjorklund, F. (2017). Judging those closest from afar: The effect of psychological distance and abstraction on value-judgment correspondence in responses to ingroup moral transgressions. *Peace and Conflict: Journal of Peace Psychology, 23*, 153–161. <https://doi.org/10.1037/pac0000248>
- Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus & Giroux.
- Kanai, R., Firden, T., Firth, C., & Rees, G. (2011). Political orientations are correlated with brain structure in young adults. *Current Biology, 21*(8), 677–680.

- Kimchi, R., & Palmer, S. E. (1982). Form and texture in hierarchically constructed patterns. *Journal of Experimental Psychology: Human Perception and Performance*, 8, 521–535. <https://doi.org/10.1037/0096-1523.8.4.521>
- Landau, M. J., Solomon, S., Greenberg, J., Cohen, F., Pyszczynski, T., Arndt, J., ... Cook, A. (2004). Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for President George W. Bush. *Personality and Social Psychology Bulletin*, 30(9), 1136–1150.
- Landy, J. F. (2016). Representations of moral violations: Category members and associated features. *Judgment and Decision making*, 11(5), 496–508.
- Ledgerwood, A., Trope, Y., & Chaiken, S. (2010). Flexibility now, consistency later: Psychological distance and construal shape evaluative responding. *Journal of Personality and Social Psychology*, 99, 32–51. <https://doi.org/10.1037/a0019843>
- Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. *Science*, 322, 1201–1205. <https://doi.org/10.1126/science.1161958>
- Liberman, N., & Trope, Y. (2014). Traversing psychological distance. *Trends in Cognitive Sciences*, 18, 364–369. <https://doi.org/10.1016/j.tics.2014.03.001>
- Luguri, J. B., & Napier, J. (2013). Of two minds: The interactive effect of construal level and identity on political polarization. *Journal of Experimental Social Psychology*, 49, 972–977. <https://doi.org/10.1016/j.jesp.2013.06.002>
- Luguri, J. B., Napier, J. L., & Dovidio, J. F. (2012). Reconstructing intolerance: Abstract thinking reduces conservatives' prejudice against nonnormative groups. *Psychological Science*, 23, 756–763. <https://doi.org/10.1177/0956797611433877>
- Marx, K., & Engels, F. (1970). *The German Ideology*. (C. J. Arthur, Ed.). New York: International Publishers. (Original work published 1846).
- Meyer, A., Frederick, S., Burnham, T. C., Guevara Pinto, J. D., Boyer, T. W., Ball, L. J., ... Schuldt, J. P. (2015). Disfluent fonts don't help people solve math problems. *Journal of Experimental Psychology: General*, 144(2), e16. <https://doi.org/10.1037/xge0000049>
- Moors, A., & De Houwer, J. (2005). Automatic processing of dominance and submissiveness. *Experimental Psychology*, 52, 296–302.
- Nail, P. R., McGregor, I., Drinkwater, A. E., Steele, G. M., & Thompson, A. W. (2009). Threat causes liberals to think like conservatives. *Journal of Experimental Social Psychology*, 45(4), 901–907.
- Napier, J. L., & Luguri, J. (2013). Moral mind-sets: Abstract thinking increases a preference for “individualizing” over “binding” moral foundations. *Social Psychological and Personality Science*, 4, 754–759. <https://dx.doi.org/10.1177/1948550612473783>.
- Pennycook, G., Cheyne, J. A., Seli, P., Koehler, D. J., & Fugelsang, J. A. (2012). Analytic cognitive style predicts religious and paranormal belief. *Cognition*, 123(3), 335–346.
- Piazza, J., & Sousa, P. (2014). Religiosity, political orientation, and consequentialist moral thinking. *Social Psychological and Personality Science*, 5, 334–342.
- Sanchez, C., Sundermeier, B., Gray, K., & Calin-Jageman, R. J. (2017). Direct replication of Gervais & Norenzayan (2012): No evidence that analytic thinking decreases religious belief. *PLoS One*, 12(2), e0172636.
- Sarıbay, S. A., Olcaısoy, I., & Yılmaz, O. (2017). Ki isel ve toplumsal dUzeylerde e itlige kar tthk ve degi ime direnmenin muhafazakarhkla ili kisi [The relationship between conservatism and opposition to equality and resistance to change at the personal and societal levels]. *Turk Psikoloji Yazları [Turkish Psychological Articles]*, 20, 24–41.
- Sarıbay, S. A., & Yılmaz, O. (2017). Analytic cognitive style and cognitive ability differentially predict religiosity and social conservatism. *Personality and Individual Differences*, 114, 24–29.
- Sarıbay, S. A., & Yılmaz, O. (2018). Relationships between core ideological motives, social and economic conservatism, and religiosity: Evidence from a Turkish sample. *Asian Journal of Social Psychology*, 21(3), 205–211.
- Schwartz, S. H., Caprara, G. V., & Vecchione, M. (2010). Basic personal values, core political values, and voting: A longitudinal analysis. *Political Psychology*, 31(3), 421–452.

- Scott, W. A. (1960). International ideology and interpersonal ideology. *Public Opinion Quarterly*, 24, 419–435.
- Shenhav, A., Rand, D. G., & Greene, J. D. (2012). Divine intuition: Cognitive style influences belief in God. *Journal of Experimental Psychology: General*, 141(3), 423–428.
- Sidanius, J., Pratto, F., & Bobo, L. (1994). Social dominance orientation and the political psychology of gender: A case of invariance? *Journal of Personality and Social Psychology*, 67, 998–1011. <https://doi.org/10.1037/0022-3514.67.6.998>
- Soderberg, C. K., Callahan, S. P., Kochersberger, A. O., Amit, E., & Ledgerwood, A. (2015). The effects of psychological distance on abstraction: Two meta-analyses. *Psychological Bulletin*, 141, 525–548. <https://doi.org/10.1037/bul0000005>
- Sterling, J., Jost, J. T., & Pennycook, G. (2016). Are neoliberals more susceptible to bullshit? *Judgment and Decision Making*, 11(4), 352–360.
- Suedfeld, P., & Tetlock, P. (1977). Integrative complexity of communications in international crises. *Journal of Conflict Resolution*, 21(1), 169–184.
- Suedfeld, P., & Tetlock, P. E. (2014). Integrative complexity at forty: Steps toward resolving the scoring dilemma. *Political Psychology*, 35(5), 597–601.
- Talhelm, T., Haidt, J., Oishi, S., Zhang, X., Miao, F. F., & Chen, S. (2015). Liberals think more analytically (more “WEIRD”) than conservatives. *Personality and Social Psychology Bulletin*, 41(2), 250–267.
- Tetlock, P. E. (1983). Accountability and complexity of thought. *Journal of Personality and Social Psychology*, 45(1), 74.
- Tremoliere, B., Neys, W. D., & Bonnefon, J. F. (2012). Mortality salience and morality: Thinking about death makes people less utilitarian. *Cognition*, 124(3), 379–384.
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, 117, 440–463. <https://doi.org/10.1037/a0018963>
- Vallacher, R. R., & Wegner, D. M. (1987). What do people think they’re doing? Action identification and human behavior. *Psychological Review*, 94, 3–15. <https://doi.org/10.1037/0033-295X.94.1.3>
- Vallacher, R. R., & Wegner, D. M. (1989). Levels of personal agency: Individual variation in action identification. *Journal of Personality and Social Psychology*, 57, 660–671. <https://doi.org/10.1037/0022-3514.57.4.660>
- Van Berkel, L., Crandall, C. S., Eidelman, S., & Blanchard, J. C. (2015). Hierarchy, dominance, and deliberation egalitarian values require mental effort. *Personality and Social Psychology Bulletin*, 41(9), 1207–1222.
- Yang, D. Y. J., Preston, J. L., & Hernandez, I. (2013). Polarized attitudes toward the ground zero mosque are reduced by high-level construal. *Social Psychological and Personality Science*, 4, 244–250. <https://doi.org/10.1177/1948550612446973>
- Yilmaz, O., & Alper, S. (2019). The link between intuitive thinking and social conservatism is stronger in WEIRD societies. *Judgment and Decision Making*, 14(2), 156–169.
- Yilmaz, O., & Bahçekapili, H. G. (2015). When science replaces religion: Science as a secular authority bolsters moral sensitivity. *PLoS One*, 10(9), e0137499.
- Yilmaz, O., & Bahçekapili, H. G. (2018). Meta-ethics and the mortality: Mortality salience leads people to adopt a less subjectivist morality. *Cognition*, 179, 171–177.
- Yilmaz, O., Karadoller, D. Z., & Sofuoğlu, G. (2016). Analytic thinking, religion, and prejudice: An experimental test of the dual-process model of mind. *The International Journal for the Psychology of Religion*, 26(4), 360–369.
- Yilmaz, O., & Saribay, S. A. (2016). An attempt to clarify the link between cognitive style and political ideology: A non-Western replication and extension. *Judgment and Decision making*, 11(3), 287–300.
- Yilmaz, O., & Saribay, S. A. (2017a). The relationship between cognitive style and political orientation depends on the measures used. *Judgment and Decision Making*, 12(2), 140–147.
- Yilmaz, O., & Saribay, S. A. (2017b). Analytic thought training promotes liberalism on contextualized (but not stable) political opinions. *Social Psychological and Personality Science*, 8(7), 789–795.

- Yilmaz, O., & Saribay, S. A. (2017c). Activating analytic thinking enhances the value given to individualizing moral foundations. *Cognition*, *165*, 88–96.
- Yilmaz, O., & Saribay, S. A. (2018a). Moral foundations explain unique variance in political ideology beyond resistance to change and opposition to equality. *Group Processes & Intergroup Relations*, *22*, 1124–1138. <https://doi.org/10.1177/1368430218781012>
- Yilmaz, O., & Saribay, S. A. (2018b). Lower levels of resistance to change (but not opposition to equality) is related to analytic cognitive style. *Social Psychology*, *49*, 65–75.
- Yilmaz, O., & Saribay, S. A. (unpublished raw data). A preregistered conceptual replication attempt of Eidelman, Crandall, Goodman, & Blanchar (2012). <https://osf.io/eyu8g/>
- Yilmaz, O., Saribay, S. A., & Iyer, R. (2018). Are neo-liberals more intuitive? Undetected libertarians confound the relation between analytic cognitive style and economic conservatism.
- Yogeeswaran, K., & Dasgupta, N. (2014). The devil is in the details: Abstract versus concrete construals of multiculturalism differentially impact intergroup relations. *Journal of Personality and Social Psychology*, *106*, 772–789. <https://doi.org/10.1037/a0035830>
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monograph*, *9*(2, Pt. 2), 1–27.
- Zitek, E. M., & Tiedens, L. Z. (2011). The fluency of social hierarchy: The ease with which hierarchical relations are seen, remembered, learned, and liked. *Journal of Personality and Social Psychology*, *102*, 98–115.

Understanding Polarization Through a Cognitive-Developmental Lens



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To many, this appeared to be the worst of times. Congress was deeply split into factions that almost never collaborated or compromised. “Fake news” made it difficult to detect truth, and media outlets were created that overtly supported certain political agendas and derided others. Criticisms of elected officials had become deeply personal. A presidential election had a surprising, and, to some, questionable outcome. Many began asking whether democracy, and the country itself, would or could survive. Political partisanship across the citizenry was at an all-time high, to such an extent that passions often erupted into vocal, and occasionally violent, protest.

If this sounds familiar to those of us navigating the late 2010s and early 2020s, it should. The hand-wringing and angst shown daily by well-compensated and otherwise smart pundits would lead one to believe that the polarization widely experienced currently is unprecedented and shocking. It isn’t. Indeed, rather than freak out, we should take heart and take a breath. The opening paragraph could easily be used to describe several points in U.S. history.

Deeply bitter partisanship and polarization was familiar to multiple generations of our ancestors. In the U.S. alone, Americans who lived through the 1750s to 1770s (through the split with Great Britain and the bitter partisan rivalries, often within families, between the Patriots and the Tories), the 1790s (culminating in the bitterly contested and controversial election of 1800), the 1850s, the Civil War, and Reconstruction (the end of which some say was part of the “deal” to settle the controversial election of 1876) could all share personal accounts of truly nasty polarization. Indeed, political partisanship, as measured by party line votes in the U.S. Congress, has arguably been at least as bad at points in the past (McCarty, Poole, & Rosenthal, 2006). World history is riddled with similar situations.

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Still, the fact that Thomas Jefferson created and helped finance media outlets to espouse a particular political view (Burstein & Isenberg, 2010; Ferling, 2005; Meacham, 2012) long before Fox News or MSNBC came on the scene does not in any way diminish the effects that political polarization has on contemporary society writ large. Rather, precisely because historical evidence points out that political polarization is a recurring divisive issue that seems difficult to eliminate should steer us toward asking what it is about human nature (or, more precisely, human thought) that makes us so susceptible to polarization in the first place. We argue that the more interesting question is why polarization transcends time and is so intractable. In contrast to the many authors who have analyzed this question from the perspective of underlying components of democracy, or from the lenses of various social demographic factors, or from societal critiques, we approach the conundrum from a cognitive-developmental perspective grounded in basic principles underlying how people think and how that changes over time. By understanding why and how people's underlying cognitive processes are wired to default to outcomes that create polarized positions, we believe better approaches to creating alternatives ways of thinking are possible.

Our analysis will begin with a brief summary of commentaries on the connection between polarization and higher education, which we view as a proxy for developing more complex ways of thinking. From there, we provide an overview of two sets of psychological processes. First, we will consider a set of eight general cognitive process principles by which people acquire and manage information to build and buttress the positions they take on any given issue. Second, we discuss the usual pattern of cognitive development across adulthood that describes the changes in the ways in which people think. From there, we provide an overview of the work by Hannah Arendt, whose insights into political philosophy provide a framework for understanding how to understand and move beyond polarization. Fourth, we provide a brief synopsis of current efforts at addressing polarization. We conclude with a consideration of how a cognitive-developmental interpretive frame provides an explanation for how political polarization occurs and what might reasonably be done to ameliorate its effects.

Linking Polarization and Higher Education

A great deal has been written regarding political polarization and higher education. For decades (e.g., see Bloom, 1987), much of this discussion has focused on the claim of a lack of real critical thinking, especially in the humanities, that usually plays out in debates about intellectual diversity, the existence of truth and evidence, and freedom of expression. Certainly since Allan Bloom's (1987) highly influential and harsh critique, debate has raged about whether higher education systematically instills an emphasis on self-interest to the detriment of democracy and the overall social good, along with closing off debate from those who disagree with this philosophy. According to Bloom and his supporters, what resulted was an academic

approach not dedicated to the pursuit of truth (based on evidence or facts), but rather an “anything goes” alternative that accepts any position, whether evidence- or experience-based, as no better or worse than any other, and that eschews the notion of an absolute truth or moral order. Bloom and others lay the cause of all this at the feet of university faculty and administrators, for abandoning the well-examined life in favor of a pseudo-enlightened self-interest that warps meritocracy into a me-first world view.

Numerous contemporary commentators agree with and expand Bloom’s and his supporters’ views. (Others, of course, do not agree.) For example, Bennett (2018) argues that humanities faculty are the problem in his analysis of why polarization is the order of the day. Bennett states that, “In the second decade of the twenty-first century, the longstanding professional disinclination to distinguish better from worse does not inspire confidence. The danger of being too exclusive, which the canon once was, pales before the danger of refusing to judge.”

According to these analyses, one result of a self-interest basis for meritocracy and “refusing to judge” is a disconnected educated elite. Robert Putnam (2000) captured one aspect of this disconnection in his widely cited (and critiqued) work about the broad consequences of the demise of traditional social bonds. Putnam claimed that the emphasis on individual achievement has replaced the notion that there is a broader social connectivity obligation.

Other contemporary political commentators pick up this theme. For instance, Brooks (e.g., 2018) argues that the current warped view of meritocracy “unwittingly encourages several ruinous beliefs” that include: an exaggerated faith in intelligence, misplaced faith in autonomy, misplaced notion of self as the “vessel of human capital” and not of character, inability to think institutionally, and misplaced idolization of diversity as an end in itself. These characteristics stunt the development of what Brooks terms “a civic consciousness, a sense that we live life embedded in community and nation, that we owe a debt to community and nation and that the essence of the admirable life is community before self.” In short, these new beliefs create the polarized world we inhabit.

In all of these discussions about polarization, to whom are we referring? Brooks (2018) and others (e.g., Edsall, 2018; Henry & Napier, 2017; Pew Research Center, 2016) point out that the so-called educated elite increasingly represent the groups that best exemplify what happens when a focus on self-interest and the warped view of meritocracy is combined with a de-emphasis on having experience ascertaining objective truth. In fact, the Pew Research Center (2016) found that “[m]uch of the growth in ideological consistency has come among better educated adults.” Henry and Napier (2017) showed clearly that the most polarized groups were those with the most education.

That higher levels of education are associated with greater polarization is shocking to those who believe that education is the best path to greater enlightenment through critical thinking. It is not shocking at all, though, to those who are convinced that education in general, and higher education in particular, has not only failed in instilling critical thinking, but is responsible for nurturing an environment in which polarization flourishes. For many, including those who work diligently to

be apolitical, such an environment threatens not only our community social bond, but our very democracy and nation. For example, former Central Intelligence Agency and National Security Agency director Michael Hayden (2018) makes this case. He argues that the demise of rational analysis based on objective evidence that forms the basis for a shared truth is a bellwether for the eventual demise of the country because without it, there can be no systematic way to gather the intelligence we need for basic aspects of national security.

Without question, these critiques over the past several decades paint a grim picture. Polarization is increasingly common even in realms well outside partisan politics. Most devastating, advanced education is associated with greater polarization.

The challenge we face is making sense out of the evidence underlying the commentary (Cavanaugh, 2018). How is it that polarization increases with education? How is it that, despite nearly every higher education institution vowing that they instill critical thinking, few graduates appear to demonstrate it? How is it that people seem not to emerge from higher education being able to think flexibly in order to adopt multiple viewpoints but still arrive at the conclusion that some answers or positions on issues are better than others?

To answer these questions, we must consider first how people think by understanding the default ways our brains handle information. We must also then consider how complex thought develops across the adult lifespan (Kail & Cavanaugh, 2019). Combining those pieces enables both a better understanding of the processes by which people end up thinking as they do, that is, polarized, and some ways we might intervene to break the default processes so people arrive at better analytic outcomes.

Judgment and Decision-Making Processing Biases

At its root, political polarization occurs when groups of people who, having arrived at different conclusions regarding controversial issues, take positions on these issues that reflect a strong personal commitment and that tend to be difficult to change. Moreover, once a committed position has been taken, people tend to view any alternative position as wrong, at the least, and a threat, at worst. Polarized outcomes occur even when groups start with the same set of problems, data, and goals.

The current consternation about polarization has resulted in considerable comment from various political, civic, sociodemographic, moral, ethical, religious, and societal perspectives, as noted earlier. What is largely missing, though, is a consideration of the underlying cognitive psychological processes concerning people's default ways of processing information when making judgments and decisions. The lack of broad discussion of these psychological processes is perplexing, given that there is a well-established research base spanning many decades (Ceci & Williams, 2018; Kail & Cavanaugh, 2019).

As Ceci and Williams (2018, p. 300) note in their thorough summary, there exist nine characteristics that describe the processing biases adults show in judgment and decision-making. Adults (a) show *selective perception*, in which they perceive the

same event differently; (b) consider the quality of argument made by people with whom they agree more positively and adopt more extreme positions as a result; (c) overestimate the depth of their understanding of controversial issues, termed the *illusion of understanding bias*; (d) consider the other side as more biased than their own side, termed the *blind-spot bias*; (e) tend to collect more evidence confirming their position and evaluating it positively, termed the *myside bias*; (f) consider their position on an issue as the basis for greater enlightenment, but view the opposite position of their opponents as a source of bias; (g) view their own position and arguments as based on what is “really out there” whereas their opponents’ views are not, termed *naïve realism*; (h) consider arguments that are congruent with their position as more valid than alternative arguments, even when the validity of the arguments is controlled, resulting in increased polarization, termed *motivated skepticism*; and (i) are largely unaware of their own knowledge gaps and lack of competence. What this means overall is that people, even as young as preschoolers, prefer to get information from like-minded people and agree with them more on moral and political matters. For adolescents and adults, this plays out clearly in patterns on social media, such as “likes” on Facebook and “follow” on Twitter.

Decades of research point to a clear picture: People are wired to take in information in ways that minimize the cognitive workload and that provide reasonable results most of the time. In our normal daily routines, what we personally experience provides good enough information on which to base most of our decisions. We typically do not need to worry whether this or that abstract concept will determine a better or worse outcome when we are cooking mac and cheese for our children. We have evolved in a way that takes base rates into account. The trouble is, our democracy and complex society do not provide the optimal setting for these default processing modes when the issues are complicated. In such circumstances, we need to flip to modes of thinking that demand more cognitive work and resources. Our aversion to doing that over extended periods, plus the inertia of well-used processes (we have always done it this way ...) mitigate against engaging in this type of hard work.

None of this bodes well for a dispassionate, rational analysis of “just the facts” that leads to a socially just and fair judgment or decision. The evidence is quite clear: When people are left to their default cognitive processing repertoire, normative biases take over. From a cognitive processing perspective, the deck seems stacked in favor of judgment and decision-making approaches that make polarized outcomes likely.

If this conclusion were not disheartening enough, Ceci and Williams (2018) highlight one detail that has especially grim implications for educators. Prominent among the skills colleges and universities claim they inculcate in students as part of the postsecondary learning experience is critical thinking. One key aspect of critical thinking is the ability to understand an issue from multiple perspectives and have the cognitive flexibility to defend or dismantle any of those perspectives equally well. Failure to master this skill leaves one especially vulnerable to groupthink and the myside bias (Janis, 1971); achieving the skill results in less extreme views (Fernbach, Rogers, Fox, & Sloman, 2013). John Stuart Mill (1859, p. 67) summed up this point from his rationalist perspective,

He who knows only his own side of the case knows little of that. His reasons may be good, and no one may have been able to refute them. But if he is equally unable to refute the reasons on the opposite side, if he does not so much as know what they are, he has no ground for preferring either opinion.

Higher education does a poor job at instilling that flexible, rational-analytic skill (Cavanaugh, 2018). Not only that, but what seems to have trumped a rational analysis approach based on verifiable facts is a lived experience approach, which its proponents tout as having greater validity. In response to the events following a disrupted speech at Middlebury College, Brockelman et al. (2017, second heading) asserted that, “Only through the context of clashing viewpoints do we have any hope of replacing mere opinion with knowledge” (heading 2). But how that play of clashing viewpoints occurs, they argue, should be grounded in lived experience: “We contend that experiences and emotions are valid ways to see the world, and that the hegemony of [the] rational thought-perspective often found in a university setting limit our collective creativity, health, and potential” (para. 8). The difficulty is not that emotion and personal experience are illegitimate bases for analysis (in fact, we examine how these play an important role in cognitive development across adulthood later in this chapter). The difficulty is that neither can be refuted, making a person who relies heavily on this approach much more susceptible to myside bias, because no one holding an alternative view can prove that the emotions or experience are wrong. Isaiah Berlin (2002) warned that the results of this approach, driven by myside bias, is dangerous:

Few things have done more harm than the belief on the part of individuals or groups (or tribes or states or nations or churches) that he or she or they are in *sole* possession of the truth: especially about how to live, what to be & do, & that those who differ from them are not merely mistaken, but wicked or mad: & need restraining or suppressing. It is a terrible and dangerous arrogance to believe that you alone are right: have a magical eye which sees the truth: & that others cannot be right if they disagree. This makes one certain that there is *one* goal and only one for one's nation or church or the whole of humanity, & that it is worth any amount of suffering (particularly on the part of other people) if only the goal is attained (p. 345; italics and punctuation in original).

We will return to the issue of cognitive processing biases in judgment and decision-making later in this chapter. In that context, we will then explore specific steps that we will offer to help people guard against people's natural processing tendencies.

Cognitive Development Across Adulthood

The development of thought and reasoning across adulthood has received a great deal of attention over the past few decades (Sinnott, 1998, 2009, 2010, 2014). The general approach to cognitive development across adulthood consists of merging Piaget's theory with subsequent extensions by several other theorists that document continued refinements in modes of thinking across the adult lifespan.

Piaget's Theory

Piaget's theory described the growth in thought through childhood and adolescence, with the presumption that there was no further qualitative change in adulthood. He based his theory on two fundamental principles. *Assimilation* refers to taking incoming information and making it conform to the knowledge structures that already exist. In other words, incoming information is force-fit into what we already know and how we already think, regardless of the mental gymnastics required to do so. *Accommodation* involves modifying the underlying knowledge structures or the way in which we think in order to deal most effectively and efficiently with incoming information. In essence, this means that we revise what we know and how we think based on new information. Piaget argued that the push-pull of assimilation and accommodation was the engine that drove cognitive development both occur all the time, but in any given situation one (or the other) will exert more influence.

Piaget proposed that cognitive development proceeds through four stages. The *sensorimotor* stage encompasses infancy and toddlerhood. In early childhood through roughly age 7 or so, the individual progresses through *preoperational* thinking, which enables children to begin engaging in symbolic (imaginative) play, but from an egocentric perspective in which they believe that everyone experiences the world and thinks just as they do. Middle childhood through early adolescence is marked by the transition to *concrete operations*, a mode of thinking characterized by its total rootedness in personal everyday experience—"I know this is the case because I personally have experienced it" Individuals in this stage cannot deal in hypotheticals or abstract concepts. They are able to reason inductively (are able to figure out a rule or general category based on experiencing several exemplars), but cannot reason deductively (are unable to use a general principle to predict a specific outcome). In adolescence, these constraints of concrete operations are transcended when individuals move to *formal operations*. Since formal operations is one of the main adult modes of thought, we now consider this mode in more detail.

In Piaget's view, formal operations is the style of thinking first achieved by most people in adolescence and which continues through adulthood (Inhelder & Piaget, 1958; Siegler & Aiiabali, 2004). Formal operational thinkers arrive at outcomes based on logic grounded in their own experience, are quite confident that their reasoning is absolutely correct, and believe that their solution (and thinking process that resulted in that solution) is the only possible and correct one. Formal operational thinkers also show the ability to make appropriate conclusions from facts, which is known as deductive reasoning.

We illustrate the advance in thinking that is the hallmark of formal operations in the following example. Suppose we tell a person the following: If you hit a glass with a hammer, the glass will break. If you then tell the person "You hit the glass with a hammer," he or she would conclude, of course, that "the glass will break," a conclusion that formal-operational adolescents do reach. Although people who think at the previous level, concrete-operations, sometimes reach this conclusion too, they base their response on their experience, not because of logical analysis.

To see the difference, imagine that the statement now is: If you hit a glass with a feather, the glass will break. Told “You hit the glass with a feather,” the conclusion “the glass will break” follows just as logically as it did in the first example. In this instance, however, the conclusion is contrary to fact: It goes against what experience tells us is true. Concrete-operational 10-year-olds resist reaching conclusions that are contrary to known facts, whereas formal-operational thinkers often reach such conclusions (De Neys & Everaerts, 2008). Formal-operational thinkers understand that these problems are about abstractions that need not correspond to real-world relations or facts. In other words, formal operational thinkers are capable of suspending (or transcending) belief in “facts” derived from personal experience and rely instead on a logical deductive process based on “facts” provided by a trusted source that become incorporated into the person’s internal logic system even when the “facts” contradict lived experience. In short, “truth” is the outcome of a logical process using facts that are themselves deemed true because the person has labeled them as true. The facts, or data, used in the logical analysis to determine truth have no necessary connection to lived experience (i.e., what others might term reality). Truth derived in this way has the aura of unassailability because the person has constructed it through what seems to be an unassailably logical process. As a result, people are deeply committed to positions, political and otherwise, that are the result of formal operational thinking.

Postformal Thought

There is an important caveat, though. Adults are generally reluctant to draw conclusions in a situation in which limited information is explicitly provided in a problem or specific situation, especially when the problem can be interpreted in different ways (Sinnott, 1998). Rather, adults often point out that there is much about the problem or issue we don’t know, making it much more ambiguous. In other words, if there is an information gap, adults may eventually decide on a particular outcome or conclusion, but they do so reluctantly and only after considering aspects of the situation that go well beyond the information given or that is obvious. Such thinking shows a recognition that other people’s experiences may be quite different from one’s own, and that other points of view are equally valid to their own, at least at the conceptual thought level. It also means that in order to avoid people filling in information gaps and reaching different and potentially contradictory conclusions, for example, make sure that no such gaps are apparent.

Clearly, the modes of thought adults use when information is incomplete or fuzzy are different from formal operations (e.g., Kitchener, King, & DeLuca, 2006; Sinnott, 2014). Unlike formal-operational thinking, in which emotions and logic are distinct and logic is unconstrained by reality, this new level of thought involves incorporating situational constraints and circumstances, and emotions, with the logic framework in order to fully understand the issue at hand. We will consider how this integration occurs later in this section.

Based on numerous investigations, researchers concluded that this different type of thinking represents qualitative changes beyond formal operations that happens in identifiable steps across adulthood (King & Kitchener, 2004; Kitchener et al., 2006;

Kitchener & King, 1989; Merriam & Bierema, 2014; Sinnott, 1998, 2009, 2010, 2014). Such thought, called *postformal thought*, is characterized by a recognition that “truth” (e.g., the correct answer) may vary from situation to situation, that solutions must be realistic to be reasonable, that ambiguity, paradox, and contradiction are the rule rather than the exception, and that emotion and subjective factors usually play a role in thinking.

Several research-based descriptions of the development of thinking in adulthood have been offered. Two are most relevant for the present discussion.

One view concerns the development of reflective judgment, a way in which adults reason through dilemmas involving current affairs, religion, science, personal relationships, and the like. Based on decades of longitudinal and cross-sectional research, Kitchener and King (1989; King & Kitchener, 2004; Kitchener et al., 2006) refined descriptions and identified a systematic progression of reflective judgment. The first three stages in the model represent prereflective thought, levels at which people do not acknowledge and may not even perceive that knowledge is uncertain. Consequently, people do not understand that some problems exist for which there are not clear and absolutely correct answers. About halfway through the developmental progression, people think very differently. In Stages 4 and 5, they are likely to say that nothing can be known for certain and to change their conclusions based on the situation and the evidence, representing an understanding of the subjective nature of knowledge. This ability to change one’s mind based on new evidence or a changed situation means different things in different contexts. To many, it reflects mature thought, in that a person takes new evidence into account. In politics, though, it is usually considered flip-flopping. As adults continue their development into Stages 6 and 7, they begin to show true reflective judgment, understanding that people construct knowledge (and hold firm convictions) using evidence and argument that is situational and carefully analyzed from multiple perspectives. At this point, people hold deeply committed positions, but the commitment derives not from an egocentric, omnipotent view of their logical prowess (characteristic of formal operations), but as the result of deep, contemplative discernment. At the observed behavioral level, formal operational thinkers and Stage 6/7 thinkers are sometimes hard to differentiate; only when you ask them to describe how they arrived at their committed positions do the differences emerge.

A second approach to understanding postformal thinking is Sinnott’s Complex Theory of Adult Cognitive Development (Sinnott, 1998, 2009, 2010, 2014). It is grounded in the premise that a key aspect of adult development is increased ability to be self-reflective, or mindful, about one’s own thought process, a fundamental aspect of many spirituality traditions and approaches (e.g., Buddhism, mysticism). For Sinnott, the key developmental pathway is one of deeper understanding of alternative “logics” or ways of viewing and experiencing reality. The main characteristics of postformal thought in Sinnott’s approach are as follows:

- *Meta theory shift* is the ability to view reality from more than one overarching logical perspective. Put simply, it is the ability to take another person’s frame of reference and understand reality from their vantage point.
- *Problem definition* is the realization that there is always more than one way to define a problem, so each person may have a unique definition of the same problem.

- *Process/product shift* is the realization that one can reach both a “content-related” solution to one specific problem, and a solution that gives a heuristic or a process that solves many such problems.
- *Parameter setting* is the realization that each person must choose those aspects of the problem context that must be considered or ignored in order to reach a solution.
- *Multiple solutions* means that each person can generate several solutions to the same problem, based on several different ways of viewing the problem.
- *Pragmatism* means that each person is able to evaluate the solutions created for the problem, then select one that is “best” by some criterion (criteria).
- *Multiple causality* is the realization that a situation can be the result of several causes.
- *Multiple methods* is the realization that there are several ways to get to the same solution of a problem.
- *Paradox* is the realization that contradictions are inherent in reality, and that a broader view of a situation can resolve contradictions.

The main point in Sinnott’s approach is that as people traverse adulthood, they become increasingly able to hold and bridge contradictory concepts or multiple points of view and create adaptive syntheses of them at a higher level of understanding. Sinnott argues that this developmental progression is most likely to be facilitated through interpersonal relationships, that is, by engaging with others during the analysis process and listening to and incorporating alternative perspectives.

In addition to an increased understanding that there is more than one “right” answer, adult thinking is characterized by the integration of logic and emotion (Diehl et al., 2014; Jain & Labouvie-Vief, 2010; Labouvie-Vief, 2006; Labouvie-Vief, Gruhn, & Studer, 2010). As they mature, adults tend to make decisions and analyze problems not so much on logical grounds alone, but also on pragmatic and emotional grounds. When people move beyond formal operations, externally prescribed rules and norms are viewed as relative, not absolute. Mature thinkers realize that thinking is an inherently social enterprise that demands making compromises with other people and tolerating contradiction and ambiguity. Such shifts mean that one’s sense of self also undergoes a fundamental change.

Polarization Through a Cognitive Developmental Lens

Taken together, what do the developmental transitions in thinking across adulthood imply about polarization? As noted earlier, the initial and final levels can look a great deal alike as assessed through the lens of commitment to a particular position and a low likelihood of changing one’s mind, coupled with a reliance on one’s internal analysis to arrive at that position. Such commitment is one reason why younger and older adults tend to be most passionate about the positions they hold on various social issues.

However, as noted earlier, the similarities stem from very different analyses of the information presented. In the case of formal operational thinkers, their (over) confidence in their personal ability to analyze information from their individual perspective and their surety that this analysis is superior provides both the strength and the ultimate flaw inherent in this mode. Formal operational thinkers know that their view is correct because they have created the logical framework, and because they incorporate (force-fitting if necessary) all incoming information into their tightly defined framework. Precisely because the internal logic system incorporates and assimilates all incoming information regardless of its basis in reality as long as it fits (one way or another) into the logic frame being applied, it becomes extraordinarily difficult for the formal operational thinker to accept a flaw in the analysis, or for an external other to convince them that they are “wrong.” In short, counterarguments based on a different logical structure and analysis are invariably ineffective.

In contrast, the committed thinker at the most advanced level has arrived at that committed position only after considering alternatives by using different logical frames from their own and from others’ perspectives, and by incorporating not only the evidence as presented but also bringing to bear key missing information, personal experience, personal emotions, and reality checks. Unlike formal operational thinkers, postformal thinkers may change their position, not readily, but after being confronted with new or additional evidence that points out a flaw in the existing analysis or provides a critical new insight, and that gets incorporated into their ongoing analytic processing. Despite being deeply committed, they are potentially persuadable under the right circumstances (e.g., getting them to “think” about the impact of a decision in terms of unintended consequences).

What about the people in the middle? As noted, they have moved beyond a one-size-fits-all approach to a many-sizes-fit-equally-well approach. The difficulty here, as noted earlier, is that these thinkers accept many outcomes as created equal, and do not then prioritize the outcomes as “better” or “worse.” This live-and-let-live approach results in lower commitment to any one position in the long run because one can build good cases for alternatives at any point in time. Their beliefs could be viewed as inconsistent from moment to moment, driven by situational factors. As a result, it is possible that they opt out of engaging in heated debates between the committed groups.

The trajectory of cognitive development across adulthood could be seen as providing the infrastructure, so to speak, on which polarized outcomes can be built regarding political issues. While not claiming that polarized outcomes are the only possible ones, we are arguing that they are, by default, likely given the underlying processes that come into play, certainly at the entry and highest levels of thought in adulthood.

In the next section, we combine our discussions of basic underlying cognitive processing biases with the well-established trajectory of cognitive development across adulthood. This combination provides additional insights into what is going on in a typical person’s head regarding political or other issues on which a person takes a position.

Combining Cognitive Processing Biases and Adult Cognitive Development In an earlier section, we examined several well-documented cognitive processing biases that people use routinely in making judgments and decisions. There are a few common themes in these biases: (a) only some of the available information is processed; (b) overconfidence in one's own prowess is rampant; and (c) there is comfort in the familiar, unease in the different. All of this creates highly filtered input that essentially mirrors content previously absorbed that in turn reinforces a self-deceiving confidence in the thoroughness of one's analysis of an issue. This latter self-deception then drives the complete rejection of others' positions that disagree with one's own as lacking on all counts.

When overlaid with the cognitive developmental progression discussed subsequently, it becomes even clearer how polarization becomes the default outcome. Consider that formal operational thinkers, for instance, are overconfident in their ability to dissect and analyze an issue, supposedly dispassionately, by applying a logical structure that both has no necessary connection to reality and is especially good at assimilating disparate pieces of information into the main logic train irrespective of the mental gymnastics necessary to do so. These (often impressive) feats of cognition would provide strong support for the overconfidence biases (illusion of understanding and blind-spot biases), and the ability to force fit just about anything into the logic train would reflect myside bias. The tendency of formal operational thinkers to be strongly convinced that theirs is the only possible correct analysis connects directly with the processing biases reflecting the denigration of others' views and opinions.

This picture becomes more complicated, though, with advanced levels of cognitive development. As thinkers move from one and only one "right" position to a multiple, simultaneous, equally good outcomes, it would seem that the processing biases and the characteristics of higher levels of cognition clash. Perhaps. Or not. Maybe what is going on is not overly complicated. It could be that the combined processes just described continue unabated, except that now the thinker is continually confronted in everyday life with the reality that the outcome that emerged from the logical analysis simply does not work, at least in a personally important dimension. In essence, the thinker is confronted with the truth in the old saying, "There's more than one way to skin a cat." Because reaching this conclusion involves a great deal of cognitive effort, the realization and acceptance of multiple, equally valid outcomes occurs only when necessary. Otherwise, it's business as usual (cognitively speaking). Dissonance is avoided because the thinker either compartmentalizes the incongruent aspects and sees them as not relevant to the main issue, or simply applies the internal doctrine of "You will be assimilated" and figures out the "logic" that unifies everything.

At the most advanced levels of cognitive development, what seems to occur is the apparent re-emergence of the processing biases. In this case, though, appearances are deceiving. As discussed earlier, the surface similarity between the commitment to positions resulting from highly developed thinkers and their formal operational counterparts ends with this surface similarity. Unlike formal operational thinkers described earlier, the most advanced thinkers apply an executive-like oversight on the underlying processing mechanisms, thereby ensuring that multiple

sources and types of information are input and put through systematic analyses. In a way, this could be viewed as running parallel sets of biased processing, with each set operating on its own particular bias. What leads to the committed position in this case is a comparative analysis of sorts of the various (biased) outputs. Clearly, running multiple analyses simultaneously is not only cognitively taxing, but reflects a great deal of prior work in ensuring that the thinker actually knows that there are alternative sources of information, what that information consists of, and how to acquire it. Thus, it is unlikely that most thinkers will have the cognitive resources to maintain this intense mode of thinking over very many issues or for an extended period. Simply put, this is very hard work.

It is very hard work, indeed, when one considers the particularly daunting task of getting a formal operational thinker to “think differently.” As pointed out earlier, formal operational thinkers are especially adept at assimilating even extremely disparate and conflicting information into the existing logical framework, so that arguments based on alternative logical analyses are nearly always doomed to fail. Arguably, the best way to disrupt a formal operational logic structure is to introduce an inherent, internal contradiction into the logic structure itself. This generally requires a deep understanding of the formal logical structure being used, such that the information being presented cannot be assimilated without creating an illogical outcome. For example, by forcing a person to repeatedly confront incontrovertible evidence that blindly applying the existing logical framework to a situation will only result in significant harm to the individual, it may be possible to sufficiently disrupt the logical frame just enough that the person becomes open to a new approach. An example of this involves how family members whose logical frame supports racism, but who, through repeated experience with people different from them who are in a relationship with a member of the family ultimately results in a change in attitude, if only initially within the confines of the family.

What the confluence of cognitive processing biases and adult cognitive development points out is that (a) people are, essentially, hard wired to filter and analyze information in ways that easily result in polarized outcomes, and (b) changing this inherent processing approach is extremely difficult. Making sense out of the world depends critically on having consistent outcomes and the ability to ferret out information that could prove to be critically important. This stacks the processing deck in favor of cognitive processing that errs (is biased in favor of) making incoming information be congruent with what is already known, even when another observer could (and often does) argue that the information is at best irrelevant and at worst actually harmful. It just takes a great deal to convince us that we are wrong.

Changing Default Thinking Patterns

There is one topic on which there is little surface level polarization: The need to provide people with a wide variety of viewpoints in a context that supports and encourages discussion and debate. Agreement about this quickly unravels and positions become polarized, though, once the conversation moves from concept to

implementation. Still, even with disagreement on the specifics of *how* a wide variety of viewpoints is introduced and supported, certain principles can be examined as fundamental to any successful effort.

Since the main flash points regarding intellectual diversity of views involve colleges and universities and the issue of free expression, we will use examples introduced earlier as well as others as context along the way. However, first we need to review two fundamental conclusions from decades of psychological research on cognitive change:

- *In general, it is hard work to change the ways in which people think.* Roughly a century of research in cognitive, social, and clinical psychology supports the view that getting people to hit the brakes regarding well-developed processing heuristics and biases, regardless of content, is very difficult. If it were easily accomplished, then people would need minimal training at worst in order to, for example, adopt new transferable processing strategies, change their self-statements to lift their depression, and rewrite various attribution scripts to eliminate racism. Clearly, that's not the way it works.
- *Choosing the right outcome(s) to assess is sometimes harder than it appears.* Mapping cognitive interventions to outcomes, the desired behaviors, is fraught with hidden logic errors. For instance, training people how to use new cognitive strategies can be done fairly easily, with people demonstrating mastery of the newly acquired skills. However, people often fail to apply those new skills to a different, but appropriate, situation, even when they know they should. Why? It turns out that people may simply decide it's not worth the effort (Cavanaugh & Perlmutter, 1982). Thus, failure to transfer newly learned skills is not necessarily a reflection of failed learning—people also have to want to use them.

As noted, most of the current work aimed at addressing polarization focuses on colleges and universities as part of programs focused specifically on freedom of expression and related issues. These programs originate from many sources. Some begin in response to a specific incident (e.g., a police shooting, free speech debates on campus, a presidential election), some from the values of the institution (e.g., as part of a core liberal arts curriculum), some from a desire to instill a sense of civic engagement, and so forth. Additionally, certain nonprofit organizations (e.g., Center for Contemplative Mind in Society (CMind); Interactivity Foundation) are dedicated to facilitating “safe” conversations on various policy matters, and many higher education associations (e.g., American Association of Colleges and Universities-AAC&U) have as part of their mission the fostering of more critical thinking based discussions and civic learning. For example, CMind (2018) offers a toolkit for the higher education community on how to build different types of contemplative communities. The Interactivity Foundation (2018) provides guidance for creating discussions on various public policy issues. AAC&U (2018) provides multiple campus resources to support their Civic Learning effort. Common aspects among these efforts is considerable focus and emphasis on faculty and preceptor training, and at least an attempt at sustained engagement. However, clear evidence of learning outcomes is elusive as indexed by a search for long-term behavioral change.

The lack of strong evidence for sustained behavior change in thinking (e.g., evidence of increased critical thinking, increased ability to adopt multiple perspectives and hold them in mind simultaneously, evaluate multiple perspectives through the lens of ethics, morals, and values to arrive at a committed position) across so wide a range of arenas (e.g., basic memory strategies to complex social problems) and types of people is not coincidental.

What it does indicate is that the secret to true change in underlying thought processes must be rooted in the basic rules of cognitive processing and cognitive development summarized earlier. The question for educators and others is how to align the training and intervention efforts with these underlying mechanisms and processes.

There are indications of how this might be done. Cognitive developmental theorists have long argued that growth occurs when the current mode of thinking becomes incapable of handling the disconfirming information that is coming in, so re-organizes at a more sophisticated level to make processing easier and more effective. That sounds all well and good, at a theoretical level. Practically, however, this argument is a bit vague.

Hannah Arendt, a prominent twentieth century German-born American philosopher and political theorist, offered what we think is a far clearer explanation, one that applies directly to the understanding of the current polarization that defines contemporary society (e.g., Arendt, 1951, 1963, 1972, 1978). Arendt focused much of her work on understanding the roots of evil and how people conceptualized its manifestations in various political forms, the distinction between thinking and knowing, and the difference between truth and meaning. Her view hinges on her contention that “thinking” is grounded in sensory experience and is the underpinning of the search for “truth,” whereas “knowing” transcends all that and is the underpinning of the search for “meaning.”

For our purposes here, Arendt’s key insight, based on her incorporation of ideas from Socrates and Heidegger especially, was that in order for people to be capable of critical public discourse, they must first be capable of having a two-in-one dialogue in one’s head (Arendt, 1978; Stonebridge, 2018). For Arendt, the “two-in-one dialogue” is the foundation for a moral life. What Arendt (1963) called the “banality of evil” (see also Popova, 2017) is the inability to hear another voice, either in one’s own head or from another, and the essentially mindless adoption of information that is disconnected from reality in what she termed “holes of oblivion,” or in current parlance “alternative facts.”

From a cognitive processing and cognitive developmental perspective, Arendt is simply saying that once a person adopts a mental script, and creates well-developed heuristics and biases, that individual is highly susceptible to accepting as “fact” whatever a personally trusted source puts out as “truth,” as long as it fits with the person’s lived experience.

Unless and until, as Arendt says, the “two-in-one dialogue” occurs, the person’s position will not change, and, worse yet, the person becomes more capable of unthinkingly acting in unthinkable ways. It is also the case that getting stuck in the search for “truth,” grounded as it is in thinking and its connection to sensory experience, serves only to harden one’s position in Arendt’s view because, for one thing, there can only

be one “truth,” and, for another, it matters not whether the perceived “truth” makes any sense (that is, has meaning). Note how Arendt’s view is quite similar to what one sees in formal operational thinkers, as noted earlier, through the formal operational thinker’s strong ability to assimilate incoming “facts” and be unperturbed by logical process outcomes being disconnected from experienced reality.

Mapped onto the cognitive developmental framework we discussed earlier, then, a formal operational thinker will never be capable of seeing another point of view because the thought process is a closed logical system that does not need to have meaning (in Arendt’s sense of the term). To break out of the chains of formal operations, a person must shift from a pursuit of disembodied, abstract “truth” to a pursuit of “meaning,” and be able to debate their own “meaning” with the “meaning” derived by others by putting themselves in the other person’s position.

Given Arendt’s analyses, how could interventions be designed that could overcome the inertia that has so consistently disrupted previous attempts? One possibility is to refine the various models based on sustained interaction we mentioned earlier (e.g., AAC&U, Center for Contemplative Mind in Society, Interactivity Foundation). The refinement would consist of two parts: (a) a specific focus on supporting the necessary first step of internal dialogue as Arendt described followed by structured dialogues with others, and (b) embedding authentic assessment of these dialogues through a multimethod approach.

The two-step process we suggest addresses a gap we perceive in current approaches to training. Current programs, even those using sustained interaction, start from the premise that different, diverse interpersonal interaction is what is needed. Although that is, in the long run, correct, immediately initiating interpersonal dialogue skips the step that Arendt argued was essential—the “twoMinMone dialogue” that one has internally. This internal dialogue provides practice in conceiving at least two different positions on an issue, and taking different, at times opposite, sides effectively. Such practice gives people the opportunity to build and fine tune the cognitive skills and modes of thinking necessary for similar public debate and discussion. Arguably, by ensuring that the cognitive infrastructure is built well, the likelihood of maintaining the training, and even generalizing it to other arenas, is higher.

This reasoning underlies many approaches in and out of psychology that aim to change the way people think about things. For example, techniques such as role play, formal debate, contemplative listening, coaching, and structured dialogue have all been used in various settings in attempts to get people to “think differently” (e.g., Cavanaugh, 2017; Cavanaugh & Cavanaugh, 2016, 2017). The internal discipline discussed above certainly underlies the Zen concept of *shoshin* or “the beginner’s mind” (Suzuki, 1970). *Shoshin* means being as open, eager, and lacking preconceived notions when learning about an issue, even at the most advanced levels, as a beginner would be. *Shoshin* is difficult to achieve, and requires considerable practice.

Better scaffolded training is necessary but not sufficient. Also key would be the addition of authentic assessment of the to-be-acquired skills. For example, based on Arendt’s conception, clear demonstration of a person’s ability to engage in “twoMinMone dialogue” would be a prerequisite to public demonstration of those skills.

This authentic assessment must be multimodal, and could include such approaches as diaries, written or talk aloud descriptions of thought processes, and the like. For public dialogue, a wide array of techniques similar to those used in qualitative research (recordings, pre- and post-dialogue interviews, personal reflections) could be employed.

In addition, we would submit that the training and assessment components must not rely solely on cognitive skills and measures. The emotional impact of taking another position on an issue can be powerful, as clearly evidenced in Arendt's writings as well as in work related to apology, forgiveness, reconciliation, and restorative justice (e.g., Daase, Engert, Horelt, Renner, & Strassner, 2017; Tavuchis, 1991). It is also emotionally difficult to conceive oneself as taking membership in a different "tribe," as our various socio-political groups are labeled (Junger, 2016).

We argue that it is the combination of the need to acquire the ability to overcome powerful cognitive heuristics and biases, the development of new modes of thinking, and dealing with strong emotional reactions that typically mitigates against the long-term change of behavior (let alone change of heart) needed to undo polarization. Although laudable, the many efforts currently underway to de-polarize various groups are not likely to make much difference unless they pay close attention to these three components. From Arendt's perspective, such programs must also avoid the trap of arguing over which "truth" is "true;" instead, they must shift to focus on what "meaning" can be derived.

Conclusions and the Path Ahead

We have built the case that the polarization currently experienced in so many aspects of daily life is neither new nor surprising given the way our cognitive systems work and cognitive development progresses. We summarized our belief that the cognitive heuristics and biases that drive much of our processing of incoming information drive polarized outcomes, as do certain modes of thought developmentally (especially up to and including formal operational thinking). We also described attempts at countering the use of heuristics and biases, and how postformal thought may facilitate the ability to adopt alternative perspectives. We then considered the insightful work by political philosopher Hannah Arendt, whose analyses of totalitarianism, evil, and the nuances of thought and meaning provide a useful framework for integration of the various elements.

The challenge we face, then, is not one of understanding how polarization occurs. That part is clear and based on well understood processes. Rather, the challenge is to devise a way to counter the very strong, innate processes that are the essence of cognition and cognitive development in the usual sense. Glimpses of those ways are evident, but, as we pointed out, currently tend to lack sufficient attention to critical prerequisite steps and to authentic assessment.

What is clear to us is that we cannot simply think our way through and grit it out. Building arguments based solely on logical analysis that my "facts" and more valid

than your “facts,” a surrogate argument that is really about my “truth” being truer than your “truth,” is pointless. We also cannot simply demand that people be required to show up at organized sessions that are based on lots of repetitive practice that is disconnected from lived experience, as might be done in programs using hypothetical, disembodied situations as the input/catalyst for discussion. We remain optimistic that concerted efforts as demonstrated by organizations and associations such as the Interactivity Foundation and AAC&U, with additional attention to the “two-in-one dialogue,” authentic assessment, and emotional aspects, may prove fruitful.

We noted at the outset that polarization is historically ubiquitous for a reason. Polarization can be eliminated (or at least lessened), but it will take very hard, prolonged work. We are both optimistic and realistic about the chances for that to occur. On one hand, even the Civil War, still the bloodiest war Americans have ever fought, was insufficient to eliminate polarization regarding race (among other things). On the other hand, we see optimistic signs in the global work on apology, forgiveness, reconciliation, and restorative justice. In these areas, people who were strongly polarized came together, and, by taking a different view, found common ground and created shared meaning.

During another (hyper)polarized time, Abraham Lincoln (1861) also seized on this optimism and concluded his first inaugural address with a sentiment quoted many times, and one that should set the goal for our own contemporary efforts:

We are not enemies, but friends. We must not be enemies. Though passion may have strained, it must not break our bonds of affection. The mystic chords of memory will swell when again touched, as surely they will be, by the better angels of our nature.

References

- American Association of Colleges and Universities. (2018). *Civic learning*. Available from <https://www.aacu.org/resources/civic-learning>
- Arendt, H. (1951/2004). *The origins of totalitarianism* (rev. ed.). New York: Schocken.
- Arendt, H. (1963). *Eichmann in Jerusalem: A report on the banality of evil*. New York: Viking.
- Arendt, H. (1972). *Crises of the republic: Lying in politics; Civil disobedience; On violence; Thoughts on politics and revolution*. New York: Harcourt Brace. Available online at https://monoskop.org/images/7/70/Arendt_Hannah_Crises_of_the_Republic.pdf.
- Arendt, H. (1978). *Life of the mind* (unfinished; Ed. Mary McCarthy, two vols.). New York: Harcourt.
- Bennett, E. (2018, April 13). Dear humanities profs: We are the problem. *Chronicle of Higher Education*. Available from <https://www.chronicle.com/article/Dear-Humanities-Prof-We-Are/243100>
- Berlin, I. (2002). *Liberty* (2nd ed., edited by H. Hardy). Oxford: Oxford University Press.
- Bloom, A. (1987). *The closing of the American mind*. New York: Simon & Schuster.
- Brockelman, A., Bliska, E., Carlson, A., Pandya, J., Hiaght, O., Ramachandran, Y., ... Bazemore, M. (2017, March 12). *Broken inquiry on campus: A response by a collection of Middlebury students [Blog post]*. Available from <https://brokeninquiryblog.wordpress.com/>
- Brooks, D. (2018, May 28). The strange failure of the educated elite. *New York Times*, A23. Available from <https://www.nytimes.com/2018/05/28/opinion/failure-educated-elite.html>

- Burstein, A., & Isenberg, N. (2010). *Madison and Jefferson*. New York: Random House.
- Cavanaugh, J. C. (2017, January 13). You talkin' to me? *Chronicle of Higher Education*. Available from <http://www.chronicle.com/article/You-Talkin-to-Me-/238902>
- Cavanaugh, J. C. (2018). Higher education in the postdegree era. *Inside Higher Education*. Available from https://www.insidehighered.com/views/2018/06/04/how-higher-ed-has-change-remain-relevant-future-opinion?utm_source=Inside+Higher+Ed&utm_campaign=baf18c481c-DNU COPY 01&utm_medium=email&utm_term=O1fcb04421-baf18c481c-198418793&mc_cid=baf18c481c&mc_eid=122b453f6b
- Cavanaugh, J. C., & Cavanaugh, C. K. (2016, November 9). Election 2016: A teachable moment for higher education. *Education Dive*. Available from <http://www.educationdive.com/news/election-2016-a-teachable-moment-for-postsecondary-education/430139/>
- Cavanaugh, J. C., & Cavanaugh, C. K. (2017, May 11). Not coddling but learning. *Inside Higher Education*. Available online at <https://www.insidehighered.com/views/2017/05/11/colleges-arent-coddling-students-teaching-them-how-handle-disagreeable-situations>
- Cavanaugh, J. C., & Perlmutter, M. (1982). Metamemory: A critical analysis. *Child Development*, 53, 11–28.
- Ceci, S. J., & Williams, W. M. (2018). Who decides what is acceptable speech on campus? Why restricting free speech is not the answer. *Perspectives on Psychological Science*, 13, 299–323. <https://doi.org/10.1177/1745691618767324>
- Center for Contemplative Mind in Society. (2018). *Contemplative community in higher education: A toolkit*. Available online at <http://www.contemplativemind.org/communitytoolkit>
- Daase, C., Engert, S., Horelt, M.-A., Renner, J., & Strassner, R. (Eds.). (2017). *Apology and reconciliation in international relations: The importance of being sorry*. New York: Routledge.
- De Neys, W., & Everaerts, D. (2008). Developmental trends in everyday conditional reasoning: The retrieval and inhibition interplay. *Journal of Experimental Child Psychology*, 100, 252–263. <https://doi.org/10.1016/j.jecp.2008.03.003>
- Diehl, M., Chui, H., Hay, E. L., Lumley, M. A., Gruhn, D., & Labouvie-Vief, G. (2014). Change in coping and defense mechanisms across adulthood: Longitudinal findings in a European American sample. *Developmental Psychology*, 50, 634–648. <https://doi.org/10.1037/a0033619>
- Edsall, T. B. (2018, May 10). Which side are you on? *New York Times*. Available from <https://www.nytimes.com/2018/05/10/opinion/democrats-partisanship-identity-politics.html>
- Ferling, J. (2005). *Adams vs. Jefferson: The tumultuous election of 1800*. New York: Oxford University Press.
- Fernbach, P. M., Rogers, T., Fox, C. R., & Sloman, S. A. (2013). Political extremism is supported by an illusion of understanding. *Psychological Science*, 24, 939–946. <https://doi.org/10.1177/0956797612464058>
- Hayden, M. V. (2018, April 28). The end of intelligence. *New York Times*, SR1. Available from <https://www.nytimes.com/2018/04/28/opinion/sunday/the-end-of-intelligence.html>
- Henry, P. J., & Napier, J. L. (2017). Education is related to greater ideological prejudice. *Public Opinion Quarterly*, 81, 930–942. <https://doi.org/10.1093/pog/nfx038>
- Inhelder, B., & Piaget, J. (1958). *The growth of logical thinking from childhood to adolescence*. New York, NY: Basic Books.
- Interactivity Foundation. (2018). *If-discussions*. Available from <https://www.interactivityfoundation.org/if-discussions/>
- Jain, E., & Labouvie-Vief, G. (2010). Compensatory effects of emotional avoidance in adult development. *Biological Psychology*, 84, 497–513. <https://doi.org/10.1016/j.biopsycho.2010.03.008>
- Janis, I. L. (1971). *Groupthink: A psychological study of policy decisions and fiascoes*. Boston, MA: Houghton Mifflin.
- Junger, S. (2016). *Tribe: On homecoming and belonging*. New York: Twelve Books.
- Kail, R. V., & Cavanaugh, J. C. (2019). *Human development: A life-span view* (8th ed.). Boston, MA: Cengage.
- King, P. M., & Kitchener, K. S. (2004). Reflective judgment: Theory and research on the development of epistemic assumptions through adulthood. *Educational Psychologist*, 39, 5–18. https://doi.org/10.1207/s15326985sep3901_2

- Kitchener, K. S., & King, P. M. (1989). The reflective judgment model: Ten years of research. In M. L. Commons, C. Armon, L. Kohlberg, F. A. Richards, T. A. Gratzner, & J. D. Sinnott (Eds.), *Adult development: Vol. 2. Models and methods in the study of adolescent and adult thought* (pp. 63–78). New York, NY: Praeger.
- Kitchener, K. S., King, P. M., & DeLuca, S. (2006). Development of reflective judgment in adulthood. In C. Hoare (Ed.), *Handbook of adult development and learning* (pp. 73–98). New York, NY: Oxford University Press.
- Labouvie-Vief, G. (2006). Emerging structures of adult thought. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 59–84). Washington, DC: American Psychological Association.
- Labouvie-Vief, G., Gruhn, D., & Studer, J. (2010). Dynamic integration of emotion and cognition: Equilibrium regulation in development and aging. In M. E. Lamb & A. M. Freund (Eds.), *The handbook of life-span development: Vol. 2. Social and emotional development* (pp. 79–115). Hoboken, NJ: Wiley.
- Lincoln, A. (1861). *First inaugural address*. Available from https://www.gilderlehrman.org/sites/default/files/inline-pdfs/01264_O.pdf
- McCarty, N., Poole, K. T., & Rosenthal, H. (2006). *Polarized America: The dance of ideology and unequal riches*. Cambridge, MA: MIT Press.
- Meacham, J. (2012). *Thomas Jefferson: The art of power*. New York: Random House.
- Merriam, S. B., & Bierema, L. L. (2014). *Adult learning: Linking theory and practice*. San Francisco, CA: Jossey-Bass.
- Mill, J. S. (1859). *On liberty* (2nd ed.). London: John W. Parker & Son. Available from https://books.google.com/books/about/On_Liberty.html?id=AjpGAAAACAAJ&printsec=frontcover&source=kp_read_button#v=onepage&g&f=false
- Pew Research Center. (2016). *A wider ideological gap between more and less educated adults*. Available from <http://www.people-press.org/2016/04/26/a-wider-ideological-gap-between-more-and-less-educated-adults/>
- Popova, M. (2017, February 7). The banality of evil: Hannah Arendt on the normalization of human wickedness and our only effective antidote to it. *Brain Pickings*. Available from <https://www.brainpickings.org/2017/02/07/hannah-arendt-the-banality-of-evil/>
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Siegler, R. S., & Aibali, M. W. (2004). *Children's thinking* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- Sinnott, J. D. (1998). *The development of logic in adulthood: Postformal thought and its applications*. New York, NY: Plenum Press.
- Sinnott, J. D. (2009). Complex thought and construction of the self in the face of aging and death. *Journal of Adult Development*, *16*, 155–165. <https://doi.org/10.1007/s10804-009-9057-z>
- Sinnott, J. D. (2010). Coherent themes: Individuals' relationships with God, their early childhood experiences, their bonds with significant others, and their relational delusions during psychotic episodes all have the similar holistic, existential, and relational themes. *Journal of Adult Development*, *17*, 230–244. <https://doi.org/10.1007/s.10804-009-9090-y>
- Sinnott, J. D. (2014). *Adult development: Cognitive aspects of thriving close relationships*. New York, NY: Oxford University Press.
- Stonebridge, L. (2018). *The moral world in dark times: Hannah Arendt for now*. Interview by K. Tippett for the broadcast, *On Being* (June 21, 2018). Available from https://onbeing.org/programs/lyndsey-stonebridge-the-moral-world-in-dark-times-hannah-arendt-for-now-jun2018/?utm_source=On+Being+Newsletter&utm_campaign=1a201a39a9-EMAIL_CAMPAIGN_2018_06_OS_02_09_COPY_OI&utm_medium=email&utm_term=O_1c_66543c2f-1a201a39a9-69805177&mc_cid=1a201a39a9&mc_eid=4baacf6eb
- Suzuki, S. (1970). *Zen mind, beginner's mind*. New York: Weatherhill. Available from <http://www.arvindguptatoys.com/arvindgupta/zenmind.pdf>
- Tavuchis, N. (1991). *Mea culpa: A sociology and apology and reconciliation*. Stanford, CA: Stanford University Press.

Postformal Psychology: The New “Normal” in Times of Exponential Change



Jennifer M. Gidley

Living in a ‘VUCA’ World

We are living in times of great transition, uncertainty and exponential change, and the challenges we face as global citizens are complex, intractable, and planetary. The impact of climate crisis alone is pointing to frightening futures of rising seas, drowning cities, mass migration of climate refugees, drastic food shortages due to loss of arable land to drought, floods, and salination, and the mass extinction of species. The recent Special Report on Global Warming from the Intergovernmental Panel on Climate Change (IPCC)¹ informs us that we have at most 12 years to turn around global warming to keep the planet from heating beyond 1.5 °C, thus becoming far less habitable.

But the trends pointing to future as time bomb are only one side of the picture.

In spite of the potential for catastrophe that current trends suggest, we are also in the best position ever to initiate positive change. Humans have never been more conscious, more globally connected, or more capable of radical positive change than we are today. With instantaneous communications at our fingertips millions of people can be mobilized in an instant to act for good causes, if they have the will.

Regardless of the choices we make, the futures we create through our actions today will impact the lives of the entire future of humanity for thousands, if not millions of years to come. Humans have always influenced the future. For thousands of years we have struggled to predict, control, manage, and understand the future. In the modern scientific era, we have tried to predict the future by accumulating and interpreting patterns from the past to extrapolate models of the future. But the

¹<https://www.ipcc.ch/sr15/>

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single, predictable, fixed future that the trend modelling proposes does not actually exist.

Instead, there is a multitude of possible futures across a spectrum of desirability. What lies at the heart of this changed perception is an evolution of human consciousness. Since Einstein discovered the theory of special relativity, our concept of linear time: past, present and future, began to lose its pre-eminence. Quantum physics opened up worlds of possibility never before imagined. If we take on board the shifting concepts that emerged with the new sciences we realise we have the power to imagine and create the futures that we choose. Notwithstanding that social, political, and economic structures limit some individuals and societies more than others.

Until recently, social and cultural systems were built around our belief that life is fairly predictable. Yet in the twenty-first century many of our socio-cultural and ecological systems are unravelling. Today's world is complex and unreliable. Tomorrow is expected to be more so. In the 1990s the US Defense Department coined a new term to describe this period: VUCA, which stands for "Volatile, Uncertain, Complex and Ambiguous." VUCA is even more relevant today than it was when coined 20 years ago. It characterizes not only society and economics but also politics. More recently VUCA has entered the business and organizational change conversations. The business world has enthusiastically adopted VUCA in its leadership narrative. In this chapter I investigate the psychological and cultural factors operating in a VUCA world through an evolution of consciousness narrative.

What Is Evolution of Consciousness?

Without renewing our culture and consciousness we will be unable to transform today's dominant civilization and overcome the problems generated by its shortsighted mechanistic and manipulative thinking... The shift to a new civilization—depends on the evolution of our consciousness ... a precondition of our collective survival. (László, 2006, pp. 39, 77)

Like many researchers from psychology, philosophy, physics and cultural history, systems scientist, Ervin László, claims that the challenges of our times require that we *consciously* evolve. The idea of the *evolution of consciousness* is not new, however.

It was a core topic of interest among late eighteenth Century German Idealist and Romantic philosophers. A century before Charles Darwin published his *Origin of Species* (Darwin, 1859/1998), Johann Gottfried von Herder wrote that "there exist radical mental differences between historical periods, that people's concepts, beliefs, sensations, etc. differ in important ways from one period to another" (Forster, 2001; Herder, 1774/2002).

Herder's seminal ideas on the evolution of consciousness were extended in many ways by Johann Wolfgang von Goethe, Georg Wilhelm Friedrich Hegel, Friedrich Wilhelm Joseph Schelling, the Schlegel brothers, and Novalis. These philosopher-poets were attempting to re-unite philosophy, art, science and Spirit and were also influenced by the push to democracy and individual freedom of the French

Revolution. Schelling was a central figure in the conscious re-integration of knowledge in that he foreshadowed current notions of conscious evolution (Teichmann, 2005). Although inspired by *earlier* unitive worldviews reflecting pre-modern (pre-Enlightenment) mythic consciousness, these integral philosophers also pointed *forward*, beyond the limitations of formal, modernist (Enlightenment) rationality, towards a more conscious postformal, integral culture and consciousness.

Yet the world was not ready for these r/evolutionary ideas. It would take two hundred years for the integrative philosophical ideas pioneered by the German Idealists and Romantics to make their mark on the world through the contemporary integral movement. Following close on the heels of the European Enlightenment, and in parallel with the dawning of integral evolutionary thinking in the German States, the Industrial Revolution was brewing in Britain. This key marker of early modernity was advancing its technological powers with tremendous socio-cultural force: both progressive and disruptive. Supported by the positivist worldview of scientific materialism and analytic philosophy, mechanistic notions of human nature cast a shadow on idealist and spiritual notions of human consciousness and culture, including education. Furthermore, since Darwin—and in spite of his underappreciated writings on love and moral evolution (Loye, 1998, 2004)—the dominant evolution discourse has emphasised materialistic bio-mechanical views of humanity, at the expense of more philosophical, psycho-social, and spiritual views.

By the end of the nineteenth century, the evolution discourse had become dominated by classical biology-based Darwinian evolution theory. Notwithstanding that biological concepts of human nature are an advance on mechanistic notions, the complexity of the evolution of human consciousness needs to be tackled in a richly transdisciplinary manner. Classical biology alone is not adequate for researching the richness and complexity of the evolution of culture and consciousness. A range of human sciences is required to develop authentically *human* epistemologies. A new transdisciplinary approach was seeded in the twentieth century.

Swiss cultural philosopher Jean Gebser wrote extensively about the shifts occurring in many disciplines in the first half of the twentieth century, describing it as an indication of what he called a “mutation” to a new structure of consciousness (Gebser, 1949/1985). Gebser’s overview of the features of the new consciousness echoed the extensive research on the evolution of consciousness undertaken by Rudolf Steiner in Europe and Sri Aurobindo in India some decades earlier (Aurobindo, 1914/2000; Steiner, 1904/1959, 1926/1966). Steiner’s philosophical research combined the history of ideas (across diverse cultures) with the evolutionary concepts of the German Idealists and Romantics, which he then applied in education, agriculture, architecture and medicine (Gidley, 2012).

Several contemporary theorists have written on the evolution of consciousness (Combs, 2002; Gidley, 2007b; László, 2006; Thompson, 1998; Wilber, 1981/1996). Many of them supported Schelling’s idea that we are now reaching a stage of development where we can consciously participate in evolution (Gidley, 2006; Lachman, 2003; Russell, 2000; Tarnas, 1991; Thompson, 1998). In my research on megatrends of the mind I cohere a number of these disparate threads, many of which

operate in isolation from each other, in contradiction to each other, and even in competition with each other (Gidley, 2010a, 2016).

Tensions remain today within the evolution of consciousness discourse between the dominance of biology and this growing counter-thread of integrative approaches. The notion that human consciousness *has* evolved is a largely undisputed claim. However, the idea that human culture and consciousness *are currently evolving* in such a way that we can *consciously participate* in this process, is still novel in academic circles.

Within the broad evolution of consciousness theme there are two dominant strands: cultural evolution and psychological development. Although they are intimately interconnected, I first focus on cultural evolution and then on individual psychological development, before attempting a synthesis.

Evolution of Consciousness Found in Cultural Evolution

To put it simply, cultural evolution is the idea that human cultures develop and evolve in much the same way that species evolve. By *culture* I mean all that constitutes societies including the myths, mores, rules and laws that develop over time across the whole of humanity and yet can be quite diverse geographically at any given point in time. My use of the term *evolution* not only refers to Darwinian biological evolution, but also includes psycho-socio-cultural, philosophical and spiritual perspectives.

In very broad terms most of the cultures around the planet today are much more complex and multi-faceted than the cultures of early hunters and gatherers or agriculturalists. Some may argue that the dominant culture of today is not an improvement on early cultures, in light of the environmental damage committed in the name of development. On the other hand, we cannot deny that human creativity and ingenuity has led to some remarkable cultural advances in language, art, music, architecture, science and technology.

Transdisciplinary Perspectives on Cultural Evolution

Cultural evolutionary work involves deep philosophical questions of far-reaching existential import. To deal with this requires a transdisciplinary approach drawing on a range of contemporary discourses including: consciousness studies, cultural history, education, futures studies, philosophy, politics, psychology, and spiritual studies.

The twentieth century heralded remarkable developments in our understanding of the nature of the universe. As Newtonian physics became overshadowed by the “new sciences” pioneering thinkers took up the challenge to reconceptualise human nature and culture in light of these radical paradigmatic shifts. They struggled to

find suitable concepts to express what they saw as emergent socio-cultural changes, while minimizing association with nineteenth century social Darwinism. New concepts emerged such as evolution of consciousness (Steiner, 1926/1966); creative evolution (Bergson, 1907/1944); integral consciousness (Aurobindo, 1914/2000); structures and mutations of consciousness (Gebser, 1949/1985, 1970/2005); noosphere (Teilhard de Chardin, 1959/2004), and more recently German philosopher Jürgen Habermas’ theory of social evolution (Habermas, 1972). Ironically, social scientists overall seem trapped in outmoded imitations of ‘old sciences’, and slow to reframe human nature and its relationship to such a radically complex and mobile universe.

In my view three of the most important twentieth century theorists of cultural evolution were Rudolf Steiner, Jean Gebser and Ken Wilber. At first glance their integral approaches may give an impression that they are simply modernist, unilinear, socio-evolution models packaged as something more. This is not the case (Gidley, 2007b, p. 31). The three approaches provide comprehensive and complementary perspectives, each stronger in one or another aspect. While Wilber’s content is comprehensive—and his theory elegant—his areas of weakness are the areas of strength of Steiner and Gebser: participatory engagement and aesthetic sensibility. By contrast, Wilber’s embrace of contemporary research and accessible text complement the more historical nature of Steiner’s and Gebser’s contributions.

Steiner’s major contributions were that he was the first to write about an emergent new consciousness (Steiner, 1904/1959), writing and lecturing extensively on cultural evolution from the early twentieth century. Secondly, he developed and published a comprehensive series of practices designed to awaken the new consciousness in humanity—particularly through education, contemplative practices and the arts (Steiner, 1909/1965, 1926/1966, 1964, 1971). Although Steiner’s approach is inherently integrative he rarely used the word ‘integral’ explicitly in his work. A strength is the education system he founded, which prepares children to develop new ways of thinking in adulthood (Gidley, 2016).

Wilber’s major contributions so far have been to synthesize, contemporize and popularize much of the earlier research, and to develop a model designed to assist with the application of his integral theory to a range of disciplinary fields (Wilber, 1980/1996, 1981/1996, 2000). The most recent form of Wilber’s model is called AQAL—which refers to all quadrants, all levels, all lines, all states and all types, these being the five major dimensions of his theory (Wilber, 2018). Wilber’s AQAL system is a comprehensive integral conceptual framework that may be used for analysis and design.

Gebser’s major contributions were to begin to academically formalize the emergent integral structure of consciousness, and to observe and note its emergence in the world across disciplines and discourses in the first half of the twentieth century (Gebser, 1949/1985, 1956/1996). Gebser was a cultural historian who provided rich and detailed descriptions of all the major structures including integral.

Gebser’s view of cultural evolution is that the human species has undergone a number of transformations of our structures or modes of consciousness over many

millennia. For Gebser, the five structures of consciousness that he identified are differentiated by “differing degrees or intensity of awareness” (Gebser, 1949/1985).

Gebser described these five mutations of consciousness as follows: (1) archaic consciousness, which would have been experienced by very early humans in the hunter-gatherer pre-history era, when, he claims, humans were spiritually embedded in nature; (2) magic consciousness, which he described as corresponding to deep sleep, being instinctual and vitalistic, and being related to the Ice Age period, when cave paintings reflected a shamanistic, magical quality; (3) mythical consciousness, which emerged after the Ice Age, in the agricultural era, when human language became more advanced, picture writing began, and we transmitted our cultures through stories and myths; (4) mental/rational consciousness, which emerged in Ancient Greece, demonstrating big leaps of consciousness as evident in Greek philosophy, mathematics, alphabetic writing and forms of civic and political organization, and indeed the birth of formal Aristotelian logic; and (5) integral-aperspectival consciousness, which is conscious of, and at the same time able to integrate, all the earlier modes of consciousness. Gebser and others claim that this latest emergence began to appear in the Renaissance period, and is increasingly arising today. I show in this paper that it is synchronous with the emergence of postformal reasoning in individual psychological development.

The Cultural Transition to Integral Consciousness

Integrality must by its nature be complex, many-sided and intricate; only some main lines can be laid down in writing, for an excess of detail would confuse the picture. (Aurobindo, 1997, 152, p. 359)

Table 1 summarises the features of integral consciousness as reflected in the emerging integral culture (left-hand column). The extended interpretations in the right-

Table 1 Key features of integral culture and consciousness

Integral consciousness	Extended interpretation of integral culture
Reintegration of the Whole Person	Originary spiritual presence, magic vitality, mytho-poetic imagination, mental directedness—embodied/enacted through integral transparency
Integration of Dualisms	Complex integration of such binaries as spirituality and science, imagination and logic, heart and mind, female and male
Transcending of Egotism	Shift from: <i>small ego</i> to <i>pure Self</i> (Wilber); <i>egoism/egotism</i> to <i>higher ego</i> (Steiner); <i>egotism/egocentricity</i> to <i>ego-freedom</i> (Gebser)
Transcending Linear Time	Transcending linear, mechanical, clock-time which is a construction of intellectual-mental-rational consciousness (Steiner, Wilber, Gebser)
Planetisation of Culture	Planetisation of culture and consciousness. Teilhard de Chardin coined the term planetisation; Importance of global and planetary awareness
Linguistic Self-Reflection	Linguistic self-reflection and the enlivening of language enables new consciousness to arise, beyond abstract rationality (Steiner, Gebser)

Source: (Gidley, 2007b, pp. 111–119)

hand column are from a much larger study (Gidley, 2007b, pp. 111–119). This new consciousness is highly complex—with *complexity* itself being one of its most significant features. Several early twentieth century thinkers pointed to the increasing complexity of consciousness as an evolutionary quality (Aurobindo, 1914/2000; Bergson, 1907/1944; Gebser, 1949/1985; Neumann, 1954/1995; Steiner, 1926/1966; Teilhard de Chardin, 1959/2004).

The term *integral* is used in various ways in diverse literature, but here, primarily according to Gebser’s usage. Gebser describes ‘integral consciousness’ as becoming conscious in oneself (individually and culturally) and being able to integrate all four previous structures of consciousness: archaic, magic, mythical and mental. All the major theorists of the integral culture propose that the first glimmerings were expressed in the Renaissance and that it will continue to grow in critical mass, from the present into extended futures.

By exploring one strand of the evolution of consciousness literature, cultural evolution, I have been able to indicate the features of emergent integral culture and consciousness (Table 1). I will now explore the other strand, psychological development, to indicate how the evolution of consciousness is manifesting in higher-level, mature adult reasoning as postformal reasoning qualities (Table 3). This will enable me to synthesise the features emerging from the two strands, as I will demonstrate in Table 4.

Table 3 Distillation of postformal reasoning qualities

Postformal qualities (Gidley)	Extended postformal reasoning (adult developmental psychology research)
Complexity	Incorporating paradox and contradiction
Creativity	Incorporating problem-finding
Dialogical Reasoning	Incorporating dialectics, relationality
Ecological Reasoning	Incorporating context, process, organicism
Futures Reasoning	Incorporating foresight, future mindedness
Higher Purpose	Incorporating spirituality, values awareness
Imagination	Incorporating imaginative thinking, mythopoesis
Integration	Incorporating holism, unitary thinking
Intuitive Wisdom	Incorporating wisdom, intuition
Language Reflexivity	Incorporating construct aware, voice, language sense
Pluralism	Incorporating non-absolutism, relativism
Reflexivity	Incorporating self-reflection, self-referential thought

Source: (Gidley, 2007b, 2008, 2010a, 2010b)

Table 4 Synthesising integral culture and postformal psychology

Integral culture & consciousness	Postformal reasoning qualities
Reintegration of the Whole Person	Creativity, Integration, Imagination
Integration of Dualisms	Complexity, Paradox, Dialogue
Transcending of Egotism	Wisdom, Higher Purpose, Intuition
Transcending Linear Time	Futures Reasoning, Foresight
Planetisation of Culture	Ecological Reasoning, Pluralism
Linguistic Self-Reflection	Reflexivity, Language Reflexivity

Source: (Gidley, 2007a, 2008)

Evolution of Consciousness Found in Psychological Development

In simple terms psychological development is the idea that all individuals develop over time from birth to adulthood through various stages of cognitive development. This theory underlay the early twentieth century work of Swiss psychologist Jean Piaget (1896–1980) in developing his theory of stages of cognitive development in childhood and adolescence (Piaget, 1955). Piaget’s stages can be briefly summarized as follows:

- *Sensori-Motor Stage (up to 2 years old)*—It is pre-language and thus the learning that takes place in this early stage of life is affective, rather than cognitive as such. Any “constructions are made with the sole support of perceptions and movements and by means of sensori-motor coordination of actions, without the intervention of representations or thought” (Piaget & Inhelder, 1966/2000, pp. 3–4).
- *Pre-operational stage (from 2 to 7 years of age)*—The key features are “egocentrism”, “precausality” and “animism”, akin to magic thinking. Language first appears and the child normally develops symbolic and preconceptual thought. Later in this stage there is “a growing conceptualization, which leads the child from the symbolic or pre-conceptual phase to the beginnings of the operation” (Piaget, 1950b, p. 123–129).
- *Concrete Operations (from 7/8 to 11/12 years of age)*—The child reasons in terms of objects “classes, relations, numbers, etc.” Concrete reasoning can only sort and combine by relating to neighbouring elements. There is no higher-level category or classification that allows for very different objects to be connected. They have a very limited capacity for reversal operations (Piaget, 1972, p. 4).
- *Formal Operations*—In contrast [to concrete operations] hypothetical reasoning [formal operations] implies the subordination of the real to the realm of the possible (Piaget, 1972, p. 4). From the perspective of classical Piagetian theory the ability to distinguish binary categories is a necessary part of formal operations, and even part of the process of identify-formation in adolescence: being able to distinguish between “us” (peers) and “them” (parents).

Formal Operations and the Dominance of Binary Logic

Formal operations presume logical consistency within a single logical system. Within that single system, the implications of the system are absolute. Postformal operations resume somewhat necessarily subjective selection among logically contradictory formal operational systems, each of which is internally consistent and absolute. (Sinnott, 1998, p. 25)

Formal reasoning, which finds some of its highest expressions in Newtonian classical physics and British analytical philosophy, provided the epistemological foundation for the dominant worldview of the twentieth century. Formal reasoning is also fundamental to behaviourist psychology and the technological achievements of industrial society. The attainment of formal reasoning has been the highest goal of formal schooling to date.

At the core of formal operations is binary logic, first conceptualized and codified in Ancient Greece by Aristotle. Yet it took two millennia for much of humanity to adopt this way of thinking. The modernist worldview, which has contributed to both the advances and challenges of our times, is underpinned by the binary proposition that “every statement is either true or false and not both” (Klement, 2005). Aristotle’s binary logic, later to form a fundamental tenet of Piaget’s formal operations, has underpinned the dominant mode of Western thinking for centuries and is central to philosophical dualism.

Western dualism was intensified in the seventeenth century by the French rationalist philosophy of René Descartes. Cartesian dualism—the mind/body split—permeates modern scientific positivism, analytic philosophy, formal education and politics. The formal academic argument or thesis involves establishing the correctness of a particular concept or theory—and the incorrectness of contradictory theories. Formal, binary or dualistic logic underpins all abstract, intellectual-rational thinking. Notably binary code underlies all computer technology, which is why AI will never be able to integrate postformal reasoning qualities (Gidley, 2017). The growing dominance of binary-code-based technology in the form of AI represents a stagnation of human development at the formal operations stage. The hubristic claim of the Silicon Valley tribe that machines will soon out-think humans is a distraction from the richness of humanity, with its heart and soul as well as intellect. Such dehumanisation can subvert the evolution of human reasoning that is trying to emerge.

Political Implications and Limits of Binary Logic

If our dominant mode of thinking is formal operations, based on binary logic, we will have a lot of trouble dealing with the tensions created by a multiperspectival world—we may feel overwhelmed by chaos, complexity and contradiction. In the complex, globalizing, mobilizing world of today, it no longer makes sense to categorise our fellow humans in such simple binary terms as “white or coloured”, “local

or foreign”, “Western or Eastern” or even “male or female.” The intermingling and interconnectedness of all types of identities and subjectivities—as well as the underlying power relations among them—have been exposed in the second half of the twentieth century by theorists from critical, feminist, queer, postcolonial, postmodern and poststructural persuasions, to name a few. Furthermore, the human genome project has revealed that even the most diverse variation from one human to another represents 99.5% similarity. This gradual but relentless exposé of the underbelly of modernist ideologies—with their right/wrong, black/white, developed/undeveloped categories—has intensified in the chaos and complexity of the last few decades of a VUCA world.

The dangerous limitations of applying binary logic to complex human situations is highlighted in the now famous response of former US President Bush to the violence and destruction of the Twin Towers’ implosion: “you’re either with us or you’re with the enemy.” Many people in the so-called “free world” that the USA claims to lead, did not agree with the fundamentalism in Bush’s simplistic binaries of “us and them” and “good vs evil” any more than they agreed with this same binary when applied by “fundamentalist others.” Most of the predicaments of the current US political situation are also linked to the binary logic of ‘us’ and ‘them’ and in some cases even lower cognitive stages are dominant. Indeed, some of the worst cultural atrocities of the last three centuries have resulted from the Faustian combination of hegemonic political power with the binary logic of dualistic thinking—“if I am right and we disagree, then you must be wrong.”

In the vast literature on conflict, there is an under-appreciation of the central role of binary logic, in creating and maintaining conflict. There is even less appreciation of postformal reasoning in moving humanity beyond conflictual binary deadlocks towards postformal logics such as dialogue, creativity, reflexivity and paradoxical reasoning.

A Preliminary Comparison of Gebser’s and Piaget’s Approaches

What I find useful about Gebser’s model is its isomorphic alignment with cognitive levels of development within a developmental psychology approach, as discussed below.

There are interesting parallels between the first four of Gebser’s five layers of cultural evolution and Piaget’s theory of cognitive development, which stops at formal operations. However, while Gebser’s model includes the emergent integral consciousness in the current era, Piaget’s cognitive development theory stops short of full adult potential—awaiting the involvement of other researchers to take his theories further (see Table 2). Ironically, Piaget himself hints at what is missing in his model, in his quote that opens the next section.

Table 2 Parallels and Gaps between Gebser’s and Piaget’s theories

Cultural evolution Jean Gebser (1905–1973)	Psychological development Jean Piaget (1896–1980)
Archaic (Pre-history)	Sensori-Motor (Infant) Movement and sensory experience
Magic Consciousness (Ice Age)	Pre-operational (2–6 years) Animist, magic thinking predominates
Mythical Consciousness (Agrarian to Philosophic 500 BCE)	Concrete Operations (7–12 years) Logic is practical and concrete
Mental/Rational Mode (500 BCE–1500 CE)	Formal Operations (12–18 years) Logic becomes abstract
Integral Consciousness (1500 CE > the future)	<i>Piaget’s Gap (18 and beyond)</i> Postformal Reasoning (Mature adult)

The Psychological Transition to Postformal Reasoning

Piaget did suggest that beyond formal operations, there are postformal operations, or “operations to the *n*th power”... An early example of “operations to the *n*th power” is Piaget’s statement that constructing axiomatic systems in geometry requires a level of thinking that is a stage beyond formal operations: “one could say that axiomatic schemas are to formal schemas what the latter are to concrete operations” (*Introduction à l’épistémologie génétique, Vol. 1: La pensée mathématique*). (Campbell, 2006)

This quote from Piaget’s writings, cited by Robert Campbell, suggests that Piaget did conceive of a higher stage of operations beyond formal operations (Piaget, 1950a, b). In another context Piaget hints at the potential for extension beyond formal operations. In a discussion of structuralism, in particular the “limits of formalization” in mathematical and logical structures, Piaget makes the following provocative statement—given his own work had been finalised at formal operations: “the number of operations open to human thought is not fixed and may, for all we know, grow” (Piaget, 1971, p. 35). Piaget did not develop this line of thinking in his lifetime. The notion of *postformal* reasoning was left to others to develop.

Piaget’s theory, which he called genetic epistemology, provided important theoretical and epistemological foundations for the research undertaken since the 1970s by developmental psychologists focusing on mature adult thinking (Commons, Richards, & Kuhn, 1982; Labouvie-Vief, 1990; Sinnott, 1998). These research psychologists demonstrate that Piaget’s developmental psychology has serious limitations with respect to mature adult reasoning. From this research the concept of postformal reasoning has developed.

Einstein gave us a clue to the emergence of postformal reasoning over one hundred years ago with his statement “*The significant problems we have cannot be solved at the same level of thinking that created them.*” But what was Einstein hinting at? Did he have insight into higher stages of reasoning? Arguably the answer is yes. Perhaps best known for his theory of relativity, Einstein was definitely a postformal thinker who used more cognitive capacity than formal logic alone. Einstein, like a great many leading thinkers, enacted creativity, complexity, paradox,

imagination, and intuition, all of which find their way into the psychology literature on postformal reasoning. As Ervin László states:

Bruno, Galileo, Copernicus, Kepler, and Newton himself had deep intuitive, even mystical streaks. Nor did intuition lack in the giants of twentieth-century science. As their writings testify, it was a leading element in the thinking of Einstein, Erwin Schrödinger, and Neils Bohr, as well as Wolfgang Pauli and Carl Jung, to mention a few. (László, 2006, pp. 59–60)

Postformal Reasoning in Adult Developmental Psychology

Postformal thought... is a kind of complex cognitive representational ability and logic developed during adulthood... To integrate the types of connections and their sometimes disparate or conflicting ideas successfully, yet preserve a concept of Self that is whole and a coherent strong center of events, postformal complex cognitive operations must be used. (Sinnott, 2005, p. 30)

Postformal is the most widely used term to denote higher developmental stages beyond Piaget's formal operations. Most of the research in reference to the term postformal is the adult developmental psychology research (Commons et al., 1990; Commons & Richards, 2002; Kohlberg, 1990; Kramer, 1983; Labouvie-Vief, 1990, 1992; Sinnott, 1994, 1998, 2005; Yan & Arlin, 1995), and more recently education research (Gidley, 2016; Kincheloe, 2006).

The term postformal was first used in 1978 to explicitly represent a stage beyond Piaget's formal operations in a paper by Michael Commons and Francis Richards: "The structural analytic stage of development: A Piagetian postformal operational stage." In 1981 Harvard University held the first of a series of Symposia on *Post-Formal Operations: Reasoning in Late Adolescence and Adulthood* at which Jan Sinnott presented a paper "Post-formal reasoning in interpersonal situations" (Sinnott, 1981). Lawrence Kohlberg's work on stages of moral development influenced these early pioneers, as did his contribution to postformal stage theory (Kohlberg, 1981, 1990; Kohlberg & Gilligan, 1971).

Sinnott, Commons and Richards, are pioneers of research into postformal reasoning. Over 40 years they, and others, have published numerous edited volumes. Sinnott has also developed and articulated her theory of "postformal thought" in a comprehensive authored book (Sinnott, 1998). This book is now 20 years old, yet it is a seminal text in the field—with insights that are not outdated. Sinnott's empirical research is integrated with philosophical, epistemological and socio-cultural observations to ground her theory in the "real world." By illuminating her psychological research with new physics, systems theory, and chaos and complexity theories, she built a convincing case for postformal thought. She also applies postformal thought in professional practice, including education. The features Sinnott (1998) highlights in her book are: *complexity*; *creativity* (pp. 270–271); *paradox* (p. 39); *self-referential thought (reflexivity)* (pp. 33–39); *spirituality* (pp. 260–265); and *wisdom* (p. 33). Elsewhere she identified *relativism* as postformal (Sinnott, 1984).

Another pioneer, Deirdre Kramer, attempted to synthesise the adult development literature that took either a Piagetian or neo-Piagetian line. She identified three major characteristics of “post-formal operations”: “(1) an understanding of the *relativistic, non-absolute* nature of knowledge; (2) an acceptance of *contradiction* as part of reality; and (3) an *integrative* approach to thinking” (Kramer, 1983, pp. 91–92). Kramer also includes *contextualism* and *organicism*—which she links back to *integration* (Kramer, 1983, p. 93). I use the term *ecological reasoning* to include Kramer’s organicism.

Since the 1990s postformal reasoning research has proliferated. *Wisdom* stands out as a key quality of mature adult thought (Bassett, 2005; Labouvie-Vief, 1992; Pascual-Leone, 2000; Sinnott, 1998; Sternberg, 1990, 1998, 2005). Suzanne Cook-Greuter (2000) uniquely identified *construct-awareness*, which I see as a feature of reflexivity: *language reflexivity*.

Postformal Reasoning Qualities

Postformal thought can be defined as the ability to think abstractly in recognizing paradoxical issues and dilemmas. This high level of cognition is theoretically above Piaget’s last cognitive developmental stage, formal operations. Sinnott (Sinnott, 1998) suggested that the important aspect of postformal thought is that an individual is able to realize that there can be multiple truths. (Griffin et al., 2009)

Building on the research of adult development theorists, I take a broader view in that I incorporate cultural evolution research and socio-cultural scanning of megatrends of the mind to contribute some additional features (see Table 3).

Some of my contributions use more contemporary language or research, e.g. *ecological reasoning* (includes *organicism*) (Gidley, 2007b); *language reflexivity* (includes *construct aware*) (Gidley, 2009). I add the term *higher purpose* for its importance in the postformal leadership research (de Blonville, 2013) as a neutral, secular quality—similar to *spirituality*. I add *dialogical reasoning* to cover interpersonal and relational maturity (Gangadean, 1998). Finally, I add two qualities from the evolution of consciousness research: *pluralism*, linked with relativism and used in research on epistemological paradigm shift (Gidley, 2010a); and *futures reasoning* from the megatrends of the mind research (Gidley, 2010a), noting Seligman also uses *future mindedness* (Seligman & Csikszentmihalyi, 2000).

In a process of sense-making among the diverse postformal and integral features I looked for *family resemblances* among them (Wittgenstein, 1968). I theorise twelve core postformal qualities, some of which represent “clusters of qualities.” In Table 3 the twelve synthesised qualities (left column) are arranged alphabetically and incorporate some of the additional features found in my extended research (right column) (Gidley, 2016).

Synthesising Integral Culture and Postformal Psychology

Based on the cultural evolution research it is evident we are entering a new stage of cultural evolution that many refer to as *integral*. Because of this it is now possible for many individuals to not only develop formal operational thinking, but to progress beyond this to incorporate many of the faculties associated with postformal reasoning.

Only very rare individuals can progress beyond the cognitive level of their own culture. These are the true and great leaders of world culture—and they may exist in any age. Cook-Greuter explained it like this: “At present, mental growth to the post-conventional tier and beyond is rare in part because it is not supported by society’s prevailing mindset, practices and institutions” (Cook-Greuter, 2000, p. 229). It should be noted that in this context Cook-Greuter is using the term ‘postconventional’, in a similar way to what other researchers call ‘postformal.’

Table 4 explores the relationships between the qualities associated with integral culture (Table 1) and the postformal reasoning qualities (Table 3). By summarising them (Table 4) we can see the relationships between them. The parallels draw out the new culture and consciousness arising in our times.

Why We Need Postformal Psychology in a “VUCA” World

Of my twelve central postformal reasoning qualities (Table 3), I want to highlight those that stand out in helping to deal with VUCA conditions. I briefly introduce them before discussing how they can help us to deal with the challenges of exponential change.

Reflexivity: Volatility, uncertainty, complexity and ambiguity have not just suddenly appeared on the scene. In some form they have been around since the beginning of time. What is new is that we are beginning as a species to self-reflect on the realisation that life does not fit our neat modernistic categories and that change appears to be accelerating.

Creativity: Creativity is the ability to see things from novel perspectives. Process philosopher Alfred North Whitehead saw creativity as the ultimate category for understanding all other processes. Creativity supports wisdom and is widely recognised as a core postformal reasoning quality. Cultural historians see creativity as evolutionary.

Complexity & paradox: Complex thinking is the ability to hold multiple perspectives in mind while at the same time meta-reflecting on those perspectives and the potential relationships among them. It is a significant indicator of postformal reasoning. Paradoxical reasoning is the ability to hold in mind the apparently illogical possibility that two contradictory statements can both be true—or indeed both false.

Futures reasoning: It is commonly thought that ‘futures thinking’ is about predicting the future based on extrapolation from present day trends. This is only one of at least five approaches to futures research (Gidley, 2017). Futures reasoning begins where consciousness grows to embrace multiple future possibilities, and we become free to create a world of our choice. This means letting go of certainty.

Ecological reasoning: As Duane Elgin and Coleen LeDrew noted in their research on ‘Global Consciousness Change’: “[The ecological perspective] is a more spacious perspective, [through which] the Earth (and even the cosmos) are seen as interconnected, living systems” (Elgin & LeDrew, 1997). The imperative to develop ecological reasoning is global climate crisis, the alarming impacts of which I noted in the introduction.

Wisdom & higher purpose: The notion of wisdom is a complex, elusive dimension. Adult developmental psychologists claim that wisdom embraces complexity, multi-perspectivity, creativity and spirituality. As the over-riding meta-postformal quality wisdom requires higher purpose, and grows as each of the other qualities grow in our consciousness.

Reframing VUCA Through Postformal Psychology

Postformal thought ... is linked to creative production by virtue of its ... multiple views of reality and its multiple solutions, definitions, parameters, and methods during problem solving... [also combining] subjective and objective understanding... the same sorts of processes [can be observed] under the rubrics of wisdom. (Sinnott, 1998, p. 271)

My primary interest in this paper is to reframe the implications of VUCA from an evolution of consciousness perspective, drawing on integral cultural theorists, positive-adult-developmental psychologists, and my megatrends of the mind research.

Volatile: To live in a world which we recognize is volatile is a stimulus to be creative. Noting in the discussion above, that our sense of volatility has as much to do with our growing self-reflection as it has to do with outer circumstances, volatility becomes a call to action on creativity and innovation. However, the volatility arising from global warming and climate crisis does require us to develop and hone the quality of ecological reasoning.

Uncertain: As scientific methods improved and computer technology developed we became ever more confident of our capacity to predict the future by accumulating and interpreting patterns from the past, yet the truth is there is still no certainty. Futures reasoning shows us that uncertainty is not new, but a new realization that ‘the future’ can never be predicted and that there are multiple quantum possibilities. This means letting go of certainty.

Complex challenges are more approachable when you embrace the postformal quality of complexity. By understanding that complex thinking is about using our

imagination and creativity to hold multiple perspectives in mind, we can begin to look at complex challenges from a variety of perspectives. In this way new solutions can arise. Complex thinking and paradoxical reasoning go hand-in-hand in helping to deal with ambiguity.

Ambiguity is nothing more than the paradox of life beyond binary logic. For most of us accustomed to using formal logic, being faced with the paradox of contradictory ‘truths’ creates mental and emotional discomfort. Yet quantum theorists revealed in the early twentieth century that light can exist simultaneously as a wave and a particle, superseding the old concept of ‘either/or’. Paradox became the new reality, but we are still playing catch-up.

In these ways VUCA can be recast as a momentum for the emergence of new forms of consciousness breaking through the old binary containers of modernist formal thinking.

There is no question that when we find ourselves in a world beset with volatility, uncertainty, complexity and ambiguity it unsettles all our old categories. It also shakes and shifts the old power relations that hold those categories in place. Ironically, when the powerful feel their power bases being eroded what is revealed is that the need for power and dominance actually masks the fear of ego weakness and inadequacy.

Becoming a postformal thinker does not remove the inherent challenges of living in a world of exponential change. However, it can help us to cope with the associated challenges. The ability to hold paradoxical contradictions in mind helps us to deal with ambiguity. When we realise this, we are on an important path to the development of wisdom.

Postformal thinkers who consciously develop and use active imagination, creativity, complexity and paradoxical reasoning will be better equipped to deal with VUCA while retaining psychological and cognitive equilibrium. We may call this capacity *wisdom*.

Concluding Reflections

I often wonder at the rich diversity of appearances, values, worldviews and outlooks we can observe within the “one human nature” of our species. I wonder even more how we can reduce the rich textures of this diversity down to simple binaries like “us” and “them.” If we really bring our full awareness to bear on the complexity of human nature—with its physical, vital, emotional, mental, socio-cultural and moral/ethical/spiritual dimensions—it is clear that simple binary logic as our highest form of reasoning is very limited.

If our dominant mode of thinking is formal operations, based on binary logic, we feel overwhelmed by VUCA conditions of ‘volatility, uncertainty, complexity and ambiguity’. However, from the viewpoint of evolution of consciousness, as we develop the qualities of reflexivity, creativity, complex thinking, foresight, ecological

reasoning, and higher purpose we will be better able to meet the demands (Gidley, 2010b). By embracing postformal logics, we can transcend the limitations that trap us into a binary mindset.

This raises the question of how we facilitate the ability of people today to think more complexly, paradoxically, without constantly wanting to resolve the ambiguity by reducing the complexity to a binary? I believe this calls for postformal education as a global priority. Through postformal education we can lay foundations in childhood and adolescence for the unfoldment of postformal logics in adulthood (Gidley, 2016; Kincheloe, 2006).

I propose that knowledge, understanding and attainment of postformal reasoning has the potential to move humanity out of conflict-producing binary mindsets towards a cultural renaissance arising out of the damaging impacts of two-dimensional, binary logic, to give birth to an infinitely creative postformal, integral culture.

References

- Aurobindo, S. (1914/2000). *The life divine. 2nd American edition. (Originally published in the monthly review Arya 1914–1920)*. Twin Lakes, WI: Lotus Press.
- Aurobindo, S. (1997). *Essays divine and human with thoughts and aphorisms: Writings from manuscripts 1910–1950*. Volume 12: The complete works of Sri Aurobindo. Retrieved from <http://www.aurobindo.ru>
- Bassett, C. (2005). Emergent wisdom: Living a life in widening circles. *ReVision: A Journal of Consciousness and Transformation*, 27(4), 6–11.
- Bergson, H. (1907/1944). *Creative evolution* (A. Mitchell, Trans.). New York: Macmillan.
- Campbell, R. L. (2006). *Jean Piaget’s genetic epistemology: Appreciation and critique*. Retrieved from <http://hubcap.clemson.edu/~campber/piaget.html>
- Combs, A. (2002). *The radiance of being: Understanding the grand integral vision: Living the integral life*. St. Paul: Paragon House.
- Commons, M. L., Armon, C., Kohlberg, L., Richards, F. A., Grotzer, T. A., & Sinnott, J. D. (Eds.). (1990). *Adult development, volume 2: Models and methods in the study of adolescent and adult thought*. Westport, CT: Praeger.
- Commons, M. L., & Richards, F. A. (2002). Organizing components into combination: How stage transition works. *Journal of Adult Development*, 9(3), 159–177.
- Commons, M. L., Richards, F. A., & Kuhn, D. (1982). Systematic and metasystematic reasoning: A case for levels of reasoning beyond Piaget’s stage of formal operations. *Child Development*, 53(4), 1058–1069.
- Cook-Greuter, S. R. (2000). Mature ego development: A gateway to ego transcendence. *Journal of Adult Development*, 7(4), 227–240.
- Darwin, C. (1859/1998). *On the origin of species by means of natural selection or the preservation of favoured races in the struggle for life (Original work published 1859)*. Hertfordshire: Wordsworth Editions.
- de Blonville, E. (2013). *Is this the dawn of postformal leadership? Adult development’s theoretical contribution to a paradigm shift in the state of global leadership*. Paper presented at the European society for research in adult development 3rd annual symposium, Freiburg University, Germany. https://www.academia.edu/4099141/The_Dawn_of_Postformal_Leadership

- Elgin, D., & LeDrew, C. (1997). *Global consciousness change: Indicators of an emerging paradigm*. Retrieved from <http://education.jhu.edu/PD/newhorizons/future/articles/global-consciousness/index.html>
- Forster, M. (2001). Johann Gottfried von Herder. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. Stanford: Stanford University.
- Gangadean, A. (1998). *Between worlds: The emergence of global reason* (Vol. 17). New York: Peter Lang.
- Gebser, J. (1949/1985). *The ever-present origin*. Athens, OH: Ohio University Press.
- Gebser, J. (1956/1996). Cultural philosophy as method and venture (G. Feurstein, Trans.). (Original work published 1956). *Integrative Explorations Journal*, 3, 77–84. Retrieved from <http://www.gebser.org/publications/IntegrativeExplorationFiles/Gebser.Cultural.pdf>
- Gebser, J. (1970/2005). *The invisible origin: Evolution as a supplementary process* (Translated from “Der unsichtbare Ursprung”, 1970). Retrieved from <http://www.cejournal.org/GRD/JeanGebser.htm#edn64>
- Gidley, J. (2006). Spiritual epistemologies and integral cosmologies: Transforming thinking and culture. In S. Awbrey, D. Dana, V. Miller, P. Robinson, M. M. Ryan, & D. K. Scott (Eds.), *Integrative learning and action: A call to wholeness* (Vol. 3, pp. 29–55). New York: Peter Lang.
- Gidley, J. (2007a). Educational imperatives of the evolution of consciousness: The integral visions of Rudolf Steiner and Ken Wilber. *International Journal of Children's Spirituality*, 12(2), 117–135.
- Gidley, J. (2007b). The evolution of consciousness as a planetary imperative: An integration of integral views. *Integral Review: A Transdisciplinary and Transcultural Journal for New Thought, Research and Praxis*, 5, 4–226.
- Gidley, J. (2008). *Evolving education: A postformal-integral-planetary Gaze at the evolution of consciousness and the educational imperatives*. PhD Dissertation, Southern Cross University, Lismore.
- Gidley, J. (2009). Educating for evolving consciousness: Voicing the emergency for love, life and wisdom. In *The International handbook of education for spirituality, care and wellbeing*. New York: Springer.
- Gidley, J. (2010a). Globally scanning for megatrends of the mind: Potential futures of “futures thinking”. *Futures: The Journal of Policy, Planning and Futures Studies*, 42(10), 1040–1048.
- Gidley, J. (2010b). Postformal priorities for postnormal times: A rejoinder to Ziauddin Sardar. *Futures: The Journal of Policy, Planning and Futures Studies*, 42(6), 625–632.
- Gidley, J. (2012). Rudolf Steiner: Biography. In N. M. Seel (Ed.), *Encyclopedia of the sciences of learning* (pp. 3188–3191). New York, NY: Springer International.
- Gidley, J. (2016). *Postformal education: A philosophy for complex futures*. Dordrecht: Springer International.
- Gidley, J. (2017). *The future: A very short introduction*. Oxford: Oxford University Press.
- Griffin, J., Gooding, S., Semesky, M., Farmer, B., Mannchen, G., & Sinnott, J. (2009). Four brief studies of relations between postformal thought and non-cognitive factors: Personality, concepts of god, political opinions, and social attitudes. *Journal of Adult Development*, 16(3), 173–182.
- Habermas, J. (1972). *Knowledge and human interests* (2nd ed.). London: Heinemann.
- Kincheloe, J. (2006). *Reading, writing and cognition: The postformal basics*. Rotterdam: Sense Publishers.
- Klement, K. C. (2005). Propositional logic. *Internet Encyclopedia of philosophy*. Retrieved from <http://www.iep.utm.edu/prop-log/>
- Kohlberg, L. (1981). *Essays on moral development, vol. I: The philosophy of moral development*. San Francisco, CA: Harper & Row.
- Kohlberg, L. (1990). Which postformal levels are stages? In M. Commons, C. Armon, L. Kohlberg, F. Richards, T. A. Grotzer, & J. D. Sinnott (Eds.), *Adult development, volume 2: Models and methods in the study of adolescent and adult thought* (pp. 263–268). Westport, CT: Praeger.

- Kohlberg, L., & Gilligan, C. (1971). The adolescent as a philosopher: The discovery of the self in a postconventional world. *Daedalus*, 100(4), 1051–1086.
- Kramer, D., & A. (1983). Post-formal operations? A need for further conceptualization. *Human Development*, 26, 91–105.
- Labouvie-Vief, G. (1990). Modes of knowledge and the organization of development. In M. Commons, C. Armon, L. Kohlberg, F. Richards, T. A. Grotzer, & J. D. Sinnott (Eds.), *Adult development, volume 2: Models and methods in the study of adolescent and adult thought* (pp. 43–62). Westport, CT: Praeger.
- Labouvie-Vief, G. (1992). Wisdom as integrated thought: Historical and developmental perspectives. In R. J. Sternberg & C. A. Berg (Eds.), *Wisdom: Its nature, origins, and development*. Cambridge: Cambridge University Press.
- Lachman, G. (2003). *A secret history of consciousness*. Great Barrington, MA: Lindesfarne Books.
- László, E. (2006). *The chaos point: The world at the crossroads*. Charlottesville, VA: Hampton Roads Publishing Company.
- Loye, D. (1998). *Darwin's lost theory of love: A healing vision for the new century*. Lincoln, NE: iUniverse.
- Loye, D. (Ed.). (2004). *The great adventure: Toward a fully human theory of evolution*. Albany: SUNY Press.
- Neumann, E. (1954/1995). *The origins and history of consciousness* (Translated from the German by R. F. C. Hull). Princeton, NJ: Bollingen Series XLVII, Princeton University Press.
- Pascual-Leone, J. (2000). Mental attention, consciousness, and the progressive emergence of wisdom. *Journal of Adult Development*, 7(4), 241–254.
- Piaget, J. (1950a). *Introduction à l'épistémologie génétique. Vol. 1: la pensée mathématique*. Paris: Presses Univ. de France.
- Piaget, J. (1950b). *The psychology of intelligence*. London: Routledge and Kegan Paul.
- Piaget, J. (1955). *The Child's construction of reality*. London: Routledge.
- Piaget, J. (1971). *Structuralism* (C. Maschler, Trans.). London: Routledge and Kegan Paul.
- Piaget, J. (1972). Intellectual evolution from adolescence to adulthood. *Human Development*, 15(1), 1–12.
- Piaget, J., & Inhelder, B. (1966/2000). *The psychology of the child*. New York: Basic Books.
- Russell, P. (2000). *The global brain awakens: our next evolutionary step*. Melbourne: Element Books.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology. *American Psychologist*, 55(1), 5–14.
- Sinnott, J. D. (1981). *Post-formal reasoning in interpersonal situations*. Paper presented at the symposium on post-formal operations, Harvard University.
- Sinnott, J. D. (1984). Postformal reasoning: The relativistic stage. In M. L. Commons, F. A. Richards, & C. Armon (Eds.), *Beyond formal operations. Vol. 1. Late adolescent and adult cognitive development* (Vol. 1, pp. 298–325). Westport, CT: Praeger.
- Sinnott, J. D. (1994). Development and yearning: Cognitive aspects of spiritual development. *Journal of Adult Development*, 1(2), 91–99.
- Sinnott, J. D. (1998). *The development of logic in adulthood: Postformal thought and its applications*. New York: Springer.
- Sinnott, J. D. (2005). The dance of the transforming self: both feelings of connection and complex thought are needed for learning. *New Directions for Adult and Continuing Education*, 108(Winter), 27–37.
- Steiner, R. (1904/1959). *Cosmic memory: Prehistory of earth and man (GA 11)* (1st English ed.) (K. E. Zimmer, Trans.) (Original work published 1904) San Francisco, CA: Harper & Row.
- Steiner, R. (1909/1965). *The education of the child in the light of anthroposophy (GA 34)* (2nd ed.) (G. & M. Adams, Trans.) (Original work published 1909). London: Rudolf Steiner Press.
- Steiner, R. (1926/1966). *The evolution of consciousness as revealed through initiation knowledge (GA 227)* (2nd ed.) (V. E. Watkin and C. Davy, Trans.). [13 Lectures, Penmaenmawr, N. Wales, August 19–31, 1923] (Original published work 1926). London: Rudolf Steiner Press.

- Steiner, R. (1964). *The arts and their mission (GA 276)* (L. D. Monges & V. Moore, Trans.) [8 Lectures, Dornach, Switzerland and Oslo, Norway, May 18 to June 9, 1923]. Spring Valley, NY: The Anthroposophic Press.
- Steiner, R. (1971). *Ancient myths: Their meaning and connection with evolution (GA 180)* (1st English ed.) (M. Cotterell, Trans.) [7 Lectures, Dornach, Switzerland, Jan 4 to 13, 1918]. Toronto, Canada: Steiner Book Centre.
- Sternberg, R. J. (1990). *Wisdom: Its nature, origins and development*. New York: Cambridge University Press.
- Sternberg, R. J. (1998). A balance theory of wisdom. *Review of General Psychology*, 2(4), 347–365.
- Sternberg, R. J. (2005). Older but not Wiser? The relationship between age and wisdom. *Ageing International*, 30(1, Winter), 5–26.
- Tarnas, R. (1991). *The passions of the western mind*. New York: Random House.
- Teichmann, F. (2005). The emergence of the idea of evolution in the time of Goethe. *Research Bulletin*, 11(1), 1–9.
- Teilhard de Chardin, P. (1959/2004). *The future of man*. New York: Image Books, Doubleday.
- Thompson, W. I. (1998). *Coming into being: Artifacts and texts in the evolution of consciousness*. London: MacMillan.
- von Herder, J. G. (1774/2002). This too a philosophy of history for the formation of humanity (M. N. Forster, Trans.) (Original work published 1774). In M. N. Forster (Ed.), *Herder: Philosophical writings*. Cambridge: Cambridge University Press.
- Wilber, K. (1980/1996). *The Atman project: A transpersonal view of human development* (2nd ed.). Wheaton, IL: Quest Books.
- Wilber, K. (1981/1996). *Up from Eden: A transpersonal view of human evolution* (2nd ed.). Wheaton, IL: Quest Books.
- Wilber, K. (2000). *Integral psychology: Consciousness, spirit, psychology, therapy*. Boston: Shambhala.
- Wilber, K. (2018). *The integral vision: A very short introduction*. Boulder, CO: Shambhala.
- Wittgenstein, L. (1968). *Philosophical investigations*. Oxford: Basil Blackwell's.
- Yan, B., & Arlin, P. K. (1995). Nonabsolute/relativistic thinking: A common factor underlying models of postformal reasoning? *Journal of Adult Development*, 2(4), 223–240.

Political Cognition: The Unconscious Mechanisms Underlying Political Beliefs and Action



Nidhi Sinha

In politics, nothing happens by accident. If it happens, you can bet it was planned that way.
Franklin D. Roosevelt¹

The existence of the field of psychological science finds its core assumptions in investigating the cognitive and social underpinnings of human behaviour. As Aristotle rightly puts it: “*It is evident that the state is a creation of nature, and that man is by nature a political animal,*” it has long been established that humans are driven by power and authority, and the extremities in their behaviour are well tested in situations where their power or authority is provoked or challenged (Haney, Banks, & Zimbardo, 1973). Provided that the domain of politics is itself precisely complex, power dynamics/struggle in the political system offers no less than an exceptional ground to test some hypotheses concerning human behaviour. In fact, various early psychological studies such as Asch’s conformity experiment, Zimbardo’s prison experiment, or Allport’s studies on racial prejudice (Allport, 1954) were hugely inspired by the contemporary political environment of that time. The political scene in Nazi Germany inspired and intrigued other psychologists to unravel psychological motivations behind how authority figures could actually influence masses into committing heinous crimes.

Research on power, control and conformity, therefore, clearly suggests that our political behaviour is, to an extent, influenced by some hidden forces that operate beyond our conscious awareness. Why do we form rigid, favourable thoughts and beliefs about particular political phenomena (say, a selecting a political candidate or preferring party’s agendas, etc.) despite viewing evidence that recommends otherwise? Or, how and to what extent, are we influenced by internal and external primes that are media-specific? A scientific addressal of these questions, and many others, seem pertinent in order to decipher our political thoughts and actions. The subsequent

¹The earliest use of this quote can be found in the second page of Chap. 1 of the book “None dare call it conspiracy” by Garry Allen and Larry Abraham (1971). However, there is no clear source cited in this book as well as there are no records of FDR having made such a quotation (Collins, 2009).

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paragraphs, therefore, aim to examine these fascinating questions, among many others, that are equally intriguing and something that sums up the psychological essence of a political system. With an overview of a subset of the existing literature in political psychology, it is hoped to illuminate readers on many interesting aspects of conscious and unconscious mechanisms that drive our political perception, reasoning, choices, attitudes, decisions, judgment and, ultimately, our actions.

Introduction to Political Psychology

Gaining insights into the cognitive, social and behavioural underpinnings of any political phenomena has been the central motive behind the advent of political psychology, as a distinct discipline. In practice, two varying kinds of political psychology exist: one that explains political phenomena through the lens of observable economic or political forces; and the other that enquires these phenomena by placing an equally strong emphasis on unobservable cognitive mechanisms that are sought to covertly govern our political behaviour and beliefs.

Through refinement and replacement of the existing psychological theories, various real-world elements that mediate and moderate our political beliefs and behaviour have been explored. Political psychology owes this scientific enlightenment to the employment of scientific methods such as experiments, surveys, interviews etc. and more recently introduced neuroscientific methods. Why do people vote, how do individuals develop specific political preferences, or whether these preferences can be modified- these are some of the real questions that are placed under scrutiny. All these questions concern this field of enquiry, and the outcomes of the studies probing these questions, therefore, attempt to encourage transparent communication between the government and its citizens. It is believed that a realistic scientific representation of the needs and wants of one's citizens would further unequivocally aid in policy-making and the welfare of the general public. A guiding focal point of this scientific discipline, therefore, centres around the summation of objectivity and subjectivity of the studies that are conducted using citizens' will and interests in the forefront while the controlled and uncontrolled political phenomena in the background.

Cognitive Neuroscience Behind Unconscious Political Beliefs and Actions

Since any 'good' science thrives on the principles of causality instead of correlationality², political psychology borrows its longevity, as an independent discipline, from the theories, methods and assumptions of neuroscience, and by employing neurosci-

²This is not to undermine or discredit the power of correlational studies; for in certain cases especially the ones involving humans, causality is difficult to obtain and thus correlations tend to compensate for that lack of achieving causal relations among variables.

entific techniques such as electroencephalography (EEG), magnetic resonance imaging (MRI), functional magnetic resonance imaging (fMRI) among other similar measures of central and peripheral nervous systems (Jost & Amodio, 2012; Theodoridis & Nelson, 2012).

With supporting evidence from political neuroscience research, it has become relatively easier to suggest one's claims about certain political behaviours with precision, which has further resulted in a growing body of empirical political theories. Unlike studies that are based on self-reports inventories and interviews that are heavily clouded by social desirability, the use of neuroscientific methods allows for better precision, objectivity, reliability, and less susceptibility to biases. Nonetheless, it should be acknowledged that not all behaviours can be explained through examining brain anatomical patterns or activities, and some complex questions concerning beliefs or attitudes are better explained with the help of qualitative or mixed-methods approaches.

Through a neuroscientific amalgamation, various political psychologists have endeavoured to study racial prejudice, intergroup relationships, motivated political cognition, and political predispositions. Cooper and Singer (1956), for instance, suggested there is an association between enhanced physiological arousal among highly prejudiced Whites when heard Blacks as favourably described, using skin conductance response (SCR)—a technique measures sweat gland activities. This study, therefore, suggested that prejudice is deeply ingrained in our cognitive systems so much so that any contradictory opinions about the racial outgroups lead to change in the activity of the sympathetic nervous system. Inspired from the alliance of neuroscience and political psychology, various researchers made stride to understand the implicit processes underlying political behaviour, which were not closely related to political domains, nonetheless, heavily influenced our political actions, such as stereotypes, racial prejudice etc. (Dovidio, Hebl, Richeson, & Shelton, 2006). When making judgments about other races, activation in the amygdala was most prominent, suggesting its role in implicit processes (e.g. Hart et al., 2000; Phelps et al., 2000). Likewise, using event-related potential (ERP), Amodio, Kubota, Harmon-Jones, and Devine (2006) discovered that dorsal anterior cingulate cortex (dACC) was involved in the detection of unwanted stereotypes, which operates independently of the implementation of control. Similarly, they also observed that the lateral Prefrontal cortex (PFC) is responsible for the implantation of egalitarian responses.

Multiple pieces of evidence indicate that political knowledge and information processing is highly susceptible to self-serving, group-serving and system-serving biases (Jost, Hennes, & Lavine, 2013). For instance, our motivation and affect associated with specific political ideologies or goals often distort our political judgement (Kunda, 1990). Moreover, why do we hold onto our pre-existing political opinions and views despite contradictory evidence (Morris, Squires, Taber, & Lodge, 2003) or why is there a higher chance of candidates being selected if placed initially on the list of candidates in the ballot (e.g., Kamin, 1958; Taebel, 1975 etc.) are some of the questions that raise issues pertaining to an unconscious presence in our thoughts.

Even though concepts mentioned above (such as racial prejudices, stereotypes etc.) that could broadly affect one's political beliefs and actions were studied in depth, researchers, these days, have started to apply neuroscientific methods to investigate various closely related political beliefs and actions such as political preferences or political content activation etc. In one of the first studies of political neuroscience, which hoped to measure the neural correlates of political preferences, the subjects were asked to classify the faces of the US politicians based on their affiliations to either Democratic or Republican. These faces were either paired with negative or positive stimulus words. The findings revealed activation in the frontal cortex including the ventromedial PFC—a region involved in subjective preferences processing. In another study that explored individuals' responses to excessively embellished political content had asked participants to make judgements about Democratic and Republican candidates during the 2004 U.S. election (Kaplan, Freedman, & Iacoboni, 2007). They found increased activity in the region of lateral and medial orbitofrontal PFC, posterior cingulate cortex, Insula and ACC. The similar effects of distressed partisanship were found various similarly designed studies, in which participants were asked to make judgements about their preferred candidates paired with negative stimuli, i.e. attitude-incongruent information (e.g. Westen, Blagov, Harenski, Kilts, & Hamann, 2006; Kaplan et al., 2007 etc.). However, these findings offer certain speculations as they are not entirely clear whether participants would experience the similar experiences of distress if they are provided with more executive control and emotional self-regulation (Aron et al., 2007; Poldrack, 2008).

Several studies have also found cultural similarities in the way individuals view and evaluate political candidates. For instance, Americans and Japanese displayed stronger bilateral amygdala activation as they viewed faces of political candidates for whom they would vote and would not vote (Rule et al., 2010). These neuroscientific studies suggested that there might be a universal association in the public's voting intentions and political information processing than actually assumed.

The Interplay Between Conscious and Unconscious Processes in Shaping Political Ideologies

The basic premise of cognitive revolution views the mind as a computer, which is capable of perceiving and manipulating symbols on pre-existing set rules. However, recent arguments have challenged this concept of mind as a symbol-processing device and rather advice that brain primarily focuses on feeling and not merely on thinking (Damasio, 2003), suggesting that emotional outcomes are based on rational judgements. However, this argument also appears weak enough to account for how individuals form strong opinions. Even though the majority of behaviours are sought to be determined by our conscious control, some theorists have attributed certain unexplained behaviour onto unconscious forces. For instance, why do we favour one party in an election over other despite having clear evidence that the other party is offering more favourable agendas? The manner in which individuals either engage in or withdraw from certain political actions is driven both consciously and unconsciously.

Without realisation, we often apprehend our thoughts and beliefs through residual interpretations and inherited or transferred interpretations. A great deal of scientific research has explored overt and covert forces that guide our political cognition, attitude, and behaviour. While most of the elements of political outcomes appear reasonably normative, the literature suggests that there happens to be much more underneath the conscious sediment of our mind. The neural and behavioural interpretations of these political phenomena approve these theories of political unconscious.

Taber and Lodge (2006) show a strong prior attitudinal influence on the subsequent evaluation of arguments. Individuals are adept in explaining their unconscious judgements on the basis of conscious reasoning. However, outside of the laboratory setting, it is highly difficult to prove their explanations about conscious reasoning as incorrect or misleading. In a similar vein, various studies have attempted to drill beyond this apparent conscious control to understand what is beneath that simple surface of consciousness that sometimes drive our behaviour. Priming techniques are one of the widely used methods used in social cognition research to measure implicit activation of one's thoughts. Winkielman, Zajonc and Schwarz (1997), in their studies, found that when the subjects were informed about them being affectively primed to evaluate in a certain manner, they were unable to overcome their automatic affective responses. Another interesting study by Rankin and Campbell (1955) found that there happen to be dissociations between verbal and non-verbal responses to racial stimuli. In their study, they recruited two experimenters with different racial ethnicities (Black and White), and the participants were equipped with SCR. These experimenters would randomly touch either the wrist or the hands of the participants, and their skin conductance was recorded every time the experimenter interacted with the participants through touch. Even though the White participants reported that they equally liked Black and White experimenter, high physiological arousal was reported each time the Black experimenter touched the participants. This finding suggested that either the participants were lying or were consciously unaware of their racial prejudices, supporting the successful prediction of the hypothesis of unconscious control over our overt behaviour.

Racial prejudices and stereotypes are not the only factors that are confined to the unconsciously driven territory of our political behaviour. Sometimes, even the positioning of the name of the candidates in the ballot can induce or reduce intended votes (Agresti & Presnell, 2002; Wand et al., 2001). The order of the names of the candidate can influence people into voting without their conscious judgement. For instance, people tend to have confirmatory biases; therefore, when they are considering a list of candidates, they are more likely to get fatigued, even bored, and their working memory might even get clogged up, making people more likely to have supportive judgments about the candidates who are listed initially.

Priming in Politics: Media, Campaign and Affective Priming

Priming, a concept majorly used by cognitive and social psychologists, involves activation of memory contents that influences one's later behaviour. Priming theories in political communication also derive their theoretical orientation from the

assumption that the activation of associated pathways of nodal networks of memory activates consequent behaviour. The basic political priming encompasses two distinct steps. In the first step, the audiences receive information through a channel (e.g. campaigning, media houses, journalism, advertising etc.), which further activates their pre-existing political knowledge or cognitive units. This activation makes these cognitive units more accessible, which implies that the audiences are more likely to use these units as an interpreter or evaluator when making a subsequent political judgement. However, for a media priming to occur in the first place, it is highly required that an audience uses these activated cognitive units or pathways when evaluating any political candidate or party.

Media's role in contemporary society is not disguised, as they serve as conduits that provide information and viewpoints, which undeniably impact our attitudes, cognition and behaviour, in both conscious and unconscious fashion. The way journalism, advertisements and entertainment industries influence individuals' behaviour in their perception, cognition, and actions of a political campaign is quite evident and mostly inevitable. Over the half century, researches interested in political communication and mass opinion have enlightened us with the intellectual knowledge on how individuals perceive and respond to their existing political world. These theories, through their distinctive approaches and assumptions, introduced the omnipresence of media in our political decisions and judgment. The ground premise of agenda—setting theory (McCombs & Shaw, 1972) itself argues that media doesn't have much control over the thoughts of individuals in a straightforward manner. Nonetheless, the way they cover certain issues or particular aspects of some issues intentionally or unintentionally could define, amend, or replace audiences' ideologies and preferences. In short, the media does not necessarily tell its audiences what to think but rather suggests what to think *about*. This “what to think about” then further determines “what is important” and “what is not.”

For instance, during political campaigns, continuous discussions or support of media on a particular aspect of a campaign (say, a party candidate) can be effective in deciding the fluctuation of a person's interest or disinterest towards that candidate. Since emotions are incumbent in shaping our responses, affective priming is one of the means through which media priming is established. Use of pre-election polls to gauge the country's political preferences, interviewing political parties in a favourable light are some of the other ways used by media to influence political beliefs and actions of individuals. The amount of time certain channels invests in a specific political issue makes their audiences more receptive and alert about that particular issue or aspect. Even the tone and prosody used in reporting are enhanced in a way to influence their audiences subliminally. During an election, for instance, audiences are more engaged through aggressive journalism or media reporting that temporarily keep their audiences' attention gauged and invested in that particular aspect of the campaign, which media wants to project upon.

Most of the time audiences evaluate and understand a situation based on the media's focus and environment of that situation. This laid the framework of the framing theory, which was formulated by Erving Goffman (1974), drawing from his works in economics. Political framing works on two levels: (a) selecting an aspect

of a perceived political reality, and (b) making that aspect more salient in one's political communication. For instance, media or political campaign teams may present a frame in the hideout of a rather generic story, such as reporting an issue at first and then suggesting that a particular candidate has more extremist views on an issue or the following policy proposal is not beneficial for a specific group of citizens. Such framing challenges audiences' existing beliefs by either strengthening or weakening those pre-held beliefs.

The failure of our mind to avoid mental shortcuts when making decisions and judgments is why media priming is successfully established. Media, as discussed above through scientific evidence, has a huge impact on which cognitive units are activated. This is suggested by their given selective emphasis on certain aspects—while ignoring others. The frequency and the magnitude with which selective reporting is done tend to enhance our mental automaticity, especially when we are engaged in making political decisions—or any decision for that matter. For instance, while choosing which candidate to vote for, we tend to assume that our decision is a product of evaluation of all the political forces—i.e. on the country's economy, health care facilities, corruption, etc. This, however, is only partly true. Now, let us assume that a candidate is found to be involved in a corruption scandal and the entire media is inundated with that particular scandal reporting. This selective reporting unconsciously further activates our mental concepts related to our pre-existing beliefs about corruption in general, and these beliefs become more salient and accessible when voting.

Political priming effects, however, are not that simplistic in their origin and are determined by various mediating factors such as individuals' personality traits, their pre-existing memory networks, their generalized political beliefs and attitudes, and the frequency and the intensity with which they discuss their political ideologies among their social networks. Priming effects are sought to be more effective and most influential when a given prime resembles more closely with their already pre-existing cognitive units. For instance, an environmental prime will induce a stronger effect on liberals as compared to conservatives (Moy, Tewksbury, & Rinke, 2016).

Often campaigning is done pre-election by parties to pitch their future policies and agendas. Through campaign priming, specific issues, concepts or aspects of political campaigns are made more accessible, which further guide later evaluative judgement of their voters (Iyengar, 1991; Ju, 2005; Krosnick & Kinder, 1990). However, some researchers argue that it is not only the cognitive priming that shapes our political beliefs and actions, for political campaigns are not entirely about arguments and issues. In fact, emotions also play a fundamental element in moulding political communication and appraisal of voters' attitudes toward political campaigns (De Castella, McGarty, & Musgrove, 2009). The priming approach designed by Iyengar and Kinder (1987) proposes that political campaigns can elicit certain emotions through enhancing the attitudinal significance of our cognition.

Turnouts in a political campaign are also hugely affected by canvassing, which includes efforts such as asking or encouraging individuals to vote. Canvassing could have substantial effects on the predictions and outcomes of political campaigns (Gerber & Green, 2000; Michelson, 2003). While knocking doors to remind voters

seems highly effective, mailing or sending written letters are least effective in encouraging individuals to vote (Gerber & Green, 2000). These canvassing strategies actually improve turnouts as they serve as a reminder and enabler in context with voting, election dates and political campaign knowledge. Moreover, these strategies inadvertently play certain psychological influences on individuals, for these individuals have made oral commitments to participate in the voting process and failure to keep their commitments might affect them psychologically and ethically. Likewise, people involved in these pre-election surveys feel entitled to participate and come forward on the election date (Smith, Gerber, & Orlich, 2003).

It should be noted, however, that unconscious influences on our political decisions or judgments are not entirely and always because of intentional priming by external sources such as media or campaigning. More often than not, people selectively and intentionally prime themselves and others with whom they interact (either physically or online) to a specific aspect of the political world (e.g., Carpini & Keeter, 1996; Luskin, 1990), strengthening their already strengthened political thoughts and preferences. For instance, people tune in to news channels or radio shows that report specific kind of political news or interact with people who share the same political beliefs as them.

Political Unconscious in Changing Times

With an ever-increasing digital reach, the complexity associated with such political persuasion has been radically minimized. We live in a time where our behaviour is constantly up for display and monitoring through the web of networks. Media priming, which was earlier only restricted to TV and radio witnessed an upgrade in its approach, owing to increased access of digital media such as social networking sites and blogs etc. Priming theory already assumes that media exposure tends to have short-term effects on individuals' behaviour (Roskos-Ewoldsen, Roskos-Ewoldsen, & Carpentier, 2009). It would not, therefore, be wrong to suggest that the consumption of political news (or news of any sort) through social media has exponentially increased, leading to continuous intentional or unintentional media priming. Given the already explained premise of priming theory, it can be fairly implied that there exist repeated, on-going and uninterrupted exposure to media (through social networking sites, blogs, online video channels etc.), and these "so-called" short-term effects are no longer qualify as short-term.

There are many other tactics that the media, especially the social media, uses to persuade its audience. Speakers generally use red herrings leading to deviate their audiences (readers/listeners) from themselves or any accusations that represent them, leading to logical fallacy among audiences. This means that instead of providing evidence to approve or disapprove accusations against themselves, the speakers (which could be the leader themselves, the representatives of any party or the supporters of that party) tend to attack opposition for something else. People in power, in their tweets, Facebook posts, websites or blogs, tend to project their views and

opinions about a deviated topic over through circular reasoning that sound factual, which distract audiences from the real problem at hand. Since the statements come from someone in authority, audiences often find them unconsciously motivated to chase what they recently heard about someone else.

Moreover, social media constitutes ordinary citizens, which implies that each individual intentionally or unintentionally prime other individuals on various political contexts without the other individual apprehending that they have been primed. This power of personalization is what other researchers have also noted as the power of social media (Lee et al., 2019). Even though their study addressed regular media, Taakens, Kleinnijenhuis, Van Hoof, and Van Atteveldt (2015) also found that individuals can also act as primes owing to this personalized coverage and consumption of political news. This finding could also be extended to individuals using social media as these individuals constantly prime each other through comments, wall posts and tweets. In an eye track studying by Zhou, Piao, and Jin (2012) that explored how people browse websites, it was found that users also spend a great deal of time reading comments below the news articles. If that is the case, then this consequently suggests that he or she might be more inclined to behave aggressively or encounter online aggression while interacting with other internet users (Stallbaumer, 2017).

With social media occupying a big share of social interaction, especially the ones that concern an exchange of political ideologies, there is no denying that unconscious political priming begins the very moment we hold our smartphone in our hand. Therefore, the perceived importance of news of any sort (i.e. political or social) is highly determined by the frequency with which it is posted (Stallbaumer, 2017). Moreover, it has been long assumed that reporting of news represents striking a balance between truth and fairness. However, with the reach of digital media in every hand of every age group population, this assumption seems highly skeptical. The ways in which news are reported, presented and further consumed are all automatically predisposed to biases, which run deep at an unconscious level. Therefore, it's no longer a question of what sort of news is consumed, but it has now become a question of what are the nature and manner of one's news consumption (such as TV/radio media or social media) that further define their political beliefs and behaviour. Studies in political priming have discovered that a recurrent exposure to social media coverage of issues, the duration of primes tend to be very much longer (Stallbaumer, 2017). The social media environment wherein individuals discuss and debate over their political views itself could predispose to aggressive responses. Duggan and Smith (2016) found that more than one-third of the social media users described themselves stressed, fatigued and frustrated by the amount of political content they encounter and their online politics-related interactions with other social media users. An exponential rise of literature that advocates an ever-increasing effect of internet or social media on our overall behaviour openly warns us that there requires a dire need to rethink our approach on how, what, and for how long to use social media for. And one practical way to limit or exit one's duration and frequency of political priming is through limiting their engagement in social media as much as they deem required and healthy.

Summary

Nearly a century ago, it was widely believed that our political thoughts and actions are the products of our conscious processing, and, in no way, can be manipulated without conscious awareness. However, the nature and the extent of the influences on one's political beliefs, attitudes, cognition and behaviour have evolved with the advent of easier and wider digital reach. As was discussed earlier, our understanding about political beliefs and actions, without a trace of skepticism, has been hugely enlightened with the application of neuroscientific theories and methods. Had the researchers interested in understanding political phenomena solely relied on traditional psychometric measures, the predictions and insights about our political behaviour would have been mostly subjected to an undeniable skepticism that heavily clouds correlational and qualitative studies. Findings through cognitive neuroscience of politics and priming research have begun to challenge our existing assumptions that individuals' political ideologies and preferences are mainly (or sometimes even exclusively) top-down driven (Jost et al., 2009) and not something that can be somehow unconsciously absorbed.

The literature presented in this chapter, as is seemingly apparent, persuades us to reflect upon various determinants of our political outcomes, as a citizen. Evidence such as our behaviour being primed through media and that sometimes our own inclination to prime others indicate that some unconscious mechanism does play a fundamental role in shaping our political thoughts and behaviour—more than what past accounts have suggested. The fact that media priming (either in the form of news or internet) tends to be more visibly influential among those who trust the media and, in fact, make their decisions and judgments based on their suggestions and their mere accessibility place a question mark on our confidence regarding how we manifest certain political behaviour.

The existing literature, therefore, encourages political psychologists and neuroscientists to further advance our knowledge on processes and variables that affect our political cognition, but are yet to be explored. Not only will this knowledge illuminate us about human mind-social interaction, but this will also aid in government policies and actions associated with the welfare of its citizens and the longevity of its nation, on the whole.

References

- Agresti, A., & Presnell, B. (2002). Misvotes, undervotes and overvotes: The 2000 presidential election in Florida. *Statistical Science*, 17(4), 436–440.
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Amodio, D. M., Kubota, J. T., Harmon-Jones, E., & Devine, P. G. (2006). Alternative mechanisms for regulating racial responses according to internal vs. external cues. *Social Cognitive and Affective Neuroscience*, 1, 26–36.
- Aron, A., Badre, D., Brett, M., Cacioppo, J., Chambers, C., Cools, R., Engel, S., D'Esposito, M., Frith, C., Harmon-Jones, E., Jonides, J., Knutson, B., Phelps, E. A., Poldrack, R., Wager, T., Wagner, A., & Winkielman, P. (2007, November 14). Letter: Politics and the brain. *New York Times*. Retrieved from <http://query.nytimes.com/gst/fullpage.html?res=9907E1D91E3CF937A25752CIA9619C8B63>

- Carpini, M. X., & Keeter, S. (1996). *What Americans know about politics and why it matters*. New Haven, CT: Yale University Press.
- Collins, L. (2009, September 21). *FOR did not say "In politics, nothing happens by accident."* Retrieved from <http://www.lorencollins.net/blog/?p=39>
- Cooper, J. B., & Singer, D. N. (1956). The role of emotion in prejudice. *Journal of Social Psychology*, *44*, 241–247.
- Damasio, A. (2003). *Looking for Spinoza: Joy, sorrow, and the feeling brain*. Boston, MA: HMH.
- De Castella, K., McGarty, C., & Musgrove, L. (2009). Fear appeals in political rhetoric about terrorism. An analysis of speeches by Australian Prime Minister Howard. *Political Psychology*, *30*(1), 1–26.
- Dovidio, J. F., Hebl, M., Richeson, J. A., & Shelton, J. N. (2006). Nonverbal communication, race, and intergroup interaction. In V. Manusov & M. L. Patterson (Eds.), *The Sage handbook of nonverbal communication* (pp. 481–500). Thousand Oaks, CA: Sage.
- Duggan, M., & Smith, A. (2016). *The Political Environment on Social Media: Some Users Enjoy the Opportunities for Political Debate and Engagement that Social Media Facilitates, But Many More Express Resignation, Frustration Over the Tone and Content of Social Platforms*. Pew Research Center.
- Gerber, A. S., & Green, D. P. (2000). The effect of a nonpartisan get- out- the- vote drive: An experimental study of leafleting. *Journal of Politics*, *62*(3), 846–857.
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. New York, NY: Harper & Row.
- Haney, C., Banks, W., & Zimbardo, P. (1973). Interpersonal dynamics in a simulated prison. *International Journal of Criminology and Penology*, *1*, 69–97.
- Hart, A. J., Whalen, P. J., Shin, L. M., Mcinerney, S. C., Fischer, H., & Rauch, S. L. (2000). Differential response in the human amygdala to racial outgroup vs. ingroup face stimuli. *NeuroReport*, *11*, 2351–2355.
- Iyengar, S. (1991). *Is anyone responsible? How television frames political issues*. Chicago, IL: University of Chicago Press.
- Iyengar, S., & Kinder, D. R. (1987). *News that matters: Television and American opinion*. Chicago, IL: University of Chicago Press.
- Jost, J. T., Federico, C. M., & Napier, J. L., (2009). Political ideology: Its structure functions, and elective affinities. *Annual Review of Psychology*, *60*(1):307–337.
- Jost, J. T., Hennes, E. P., & Lavine, H. (2013). Hot political cognition: Its self-, group, and system-serving purposes. In D. Carlston (Ed.), *Oxford handbook of social cognition* (pp. 851–875). New York, NY: Oxford University Press.
- Jost, J. T., & Amodio, D. M. (2012). Political ideology as motivated social cognition: Behavioral and neuroscientific evidence. *Motivation and Emotion*, *36*, 55–64.
- Ju, Y. (2005). Policy or politics? A study of the priming of media frames of the South Korean President in the public mind. *International Journal of Public Opinion Research*, *18*(1), 49–66.
- Krosnick, J. A., & Kinder, D. R. (1990). Altering the foundations of support for the president through priming. *American Political Science Review*, *84*, 497–512.
- Kamin, L. J. (1958). Ethnic and party affiliations of candidates as determinants of voting. *Canadian Journal of Psychology*, *12*, 205–212.
- Kaplan, J. T., Freedman, J., & Iacoboni, M. (2007). Us versus them: Political attitudes and party affiliation influence neural response to faces of presidential candidates. *Neuropsychologia*, *45*, 55–64.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, *108*, 480–498.
- Lee, F. L., Chan, M. C. M., Chen, H. T., Nielsen, R., & Fletcher, R. (2019). Consumptive News Feed Curation on Social Media as Proactive Personalization: A Study of Six East Asian Markets. *Journalism Studies*, *20*(15), 2277–2292.
- Luskin, R. C. (1990). Explaining political sophistication. *Political Behavior*, *12*(4), 331–361. <https://doi.org/10.1007/bf00992793>
- McCombs, M. E., & Shaw, D. L. (1972). The agenda- setting function of mass media. *Public Opinion Quarterly*, *36*, 176–187.

- Michelson, M. R. (2003). Getting out the Latino vote: How door - to - door canvassing influences voter turnout in rural Central California. *Political Behavior*, 25(3), 247–263.
- Morris, J. P., Squires, N. K., Taber, C. S., & Lodge, M. (2003). Activation of political attitudes: A psychophysiological examination of the hot cognition hypothesis. *Political Psychology*, 24, 727–745.
- Moy, P., Tewksbury, D., & Rinke, E. M. (2016). Agenda-setting, priming, and framing. In K. B. Jenson, R. T. Craig, J. D. Pooley, & E. W. Rothenbuhler (Eds.), *The international encyclopedia of communication theory and philosophy* (pp. 1–13). Hoboken, NJ: Wiley.
- Phelps, E. A., O'Connor, K. J., Cunningham, W. A., Funayama, E. S., Gatenby, J. C., Gore, J. C., & Banaji, M. R. (2000). Performance on indirect measures of race evaluation predicts amygdala activation. *Journal of Cognitive Neuroscience*, 12, 729–738.
- Poldrack, R. A. (2008). The role of fMRI in cognitive neuroscience: Where do we stand? *Current Opinion in Neurobiology*, 18, 223–227.
- Rankin, R. E., & Campbell, D. T. (1955). Galvanic skin response to Negro and White experimenters. *Journal of Abnormal and Social Psychology*, 51, 30–33.
- Roskos-Ewoldsen, D., Roskos-Ewoldsen, B., & Carpentier, F. (2009). *Media priming: An updated synthesis*. In *Media effects: Advances in theory and research* (Vol. 1, 3rd ed.). London: Routledge.
- Rule, N. O., Freeman, J. B., Moran, J. M., Gabrieli, J. D. E., Adams, R. B., Jr., & Ambady, N. (2010). Voting behavior is reflected in amygdala response across cultures. *Social Cognitive and Affective Neuroscience*, 5, 349–355.
- Smith, J. K., Gerber, A. S., & Orlich, A. (2003). Self- prophecy effects and voter turnout: An experimental replication. *Political Psychology*, 24(3), 593–604.
- Stallbaumer, T. (2017). *(Social) media priming: The role of social media in priming biases and aggression in online news readership* (Doctoral dissertation). Retrieved from <https://scholarworks.uark.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=3572&context=etd>
- Taakens, J., Kleinnijenhuis, J., Van Hoof, A., & Van Atteveldt, W. (2015). Party leaders in the media and voting behavior: Priming rather than learning.... *Political Communication*, 32(2), 249–267.
- Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50(3), 755–769. <https://doi.org/10.1111/j.1540-5907.2006.00214.x>
- Taebel, D. (1975). The effect of ballot position and electoral success. *American Journal of Political Science*, 19(3), 519–526.
- Theodoridis, A. G., & Nelson, A. J. (2012). Of BOLD claims and excessive fears: A call for caution and patience regarding political neuroscience. *Political Psychology*, 33, 27–43.
- Wand, J. N., Shotts, K. W., Sekhon, J. S., Mebane, W. R., Herron, M. C., & Brady, H. E. (2001). The butterfly did it: The aberrant vote for Buchanan in Palm Beach County, Florida. *American Political Science Review*, 95, 793–810.
- Westen, D., Blagov, P. S., Harenski, K., Kilts, C., & Hamann, S. (2006). Neural bases of motivated reasoning: An fMRI study of emotional constraints on partisan political judgment in the 2004 U.S. Presidential election. *Journal of Cognitive Neuroscience*, 18, 1947–1958.
- Winkielman, P., Zajonc, R. B., & Schwarz, N. (1997). Subliminal affective priming resists attributional interventions. *Cognition and Emotion*, 11, 433–465.
- Zhou, X., Piao, G., & Jin, Q. (2012). Knowledge organization aided by eye-tracking in a social media enhanced learning environment. In *2012 International Symposium on Information Technologies in Medicine and Education* (Vol. 1, pp. 6–10). <https://doi.org/10.1109/ITiME.2012.6291235>

How Psychological Processes Impact Voter Decision Making



John C. Wade and Bryan Richardson

Mental Shortcuts

It is commonly assumed that the outcome of elections depends upon voters generally relying upon analysis and reason to vote for a candidate who best represents their positions and values. Although this might be the ideal, it appears that a host of psychological factors makes this difficult. Political science researcher Drew Westen (2008) asserts that a dispassionate process by which voters make decisions by “weighing the evidence and reasoning to the most valid conclusions—bears no relations to how the mind and brain actually work” (p. ix). Moreover, when political campaigns operate with the assumption that voters will be guided by reason their candidates typically lose (p. ix). He asserts that the pull of emotion tends to trump reason in voting decision making, and goes so far as to state that “*the political brain is an emotional brain*” (p. xv).

The tendency for emotion to weigh heavily for voters is based on many factors, and this chapter will attempt to highlight some of those which appear to be the most common. One of the greatest challenges that most voters face is that our brains are “cognitive misers,” designed to conserve cognitive resources and only expend as much effort as seems minimally necessary (DiSalvo, 2011). In many ways this is very adaptive. We quickly learn to utilize cognitive shortcuts, commonly known as heuristics, to conserve mental energy for the tasks that truly need more focused attention and effort. For example, once we have mastered the basics of driving we typically drive to work each day with little awareness of the moment to moment details of maneuvering the car or the surroundings we pass. We can imagine the exhaustion we would experience if we were attentive to the details of driving and all

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of the other activities we do. We rely upon these mental shortcuts automatically and usually unconsciously, without the awareness that we are doing so.

Cognitive efficiency seems to be at a premium given that the typical American voter is often busy and has many competing demands for their attention, and also has relatively little information about political issues, e.g., only a third of Americans can name their two senators or their Congressional representative. Lau and Redlawsk (2001) assert that the use of cognitive heuristics can help explain how democracies tend to work reasonably well in spite of the minimal information about the issues held by the typical voter, since utilizing mental shortcuts enables us to be adept at making reasonable decisions with minimal cognitive effort in all realms of life (p. 952). The reliance on heuristics can at least partially compensate for the lack of knowledge about political issues “so that citizens who are largely unaware of events in Washington nonetheless can make reasonably accurate political judgments” (p. 952). This is especially important given the low level of information of political issues of many voters, and not surprisingly, cognitive heuristics are most likely to be used when the issues are complicated and the choices are complex. However, somewhat ironically the research also indicates that voters with the greatest depth of knowledge are those best able to effectively utilize heuristics, resulting in the paradoxical implication that heuristics are the most valuable to the people who need them the least (p. 951).

Although the use of cognitive heuristics reduces mental effort and provides efficiency, the process of making decisions based on only limited information and minimal consideration is prone to bias and distortion. Even though heuristics are utilized in a myriad of ways, a few specific heuristics seem to most typically impact the voting decision making process. Political science literature regards allegiance to party affiliation as far and away the most significant political heuristic in explaining voting choice. Westen states that allegiance to a party appears to be the central determinant of voting behavior today (2008, p. 27), and Schaffner and Streb (2002) posit that party affiliation is perhaps the most reliable and the “cheapest clue” available to voters relying on heuristics, and note that “... nearly every theory of voting in the American politics literature includes party identification as a critical—if not the only—factor explaining voting choice” (p. 559). Few voters are aware of the position candidates hold on various issues or have an in-depth understanding of the important issues, however, party affiliation provides an easy shorthand from which to assume a candidate’s positions and values, which is especially important in lesser publicized races (Schaffner & Streb, p. 559). Not surprisingly, less informed voters are less likely to express a voting preference when they do not know the party affiliation of candidates.

Candidate endorsements are another source of political information that can reduce a voter’s cognitive workload (Lau & Redlawsk, 2001). Simply stated, the endorsement of a candidate by someone we believe shares our values and beliefs can provide a tremendous shortcut—it can save us the time from having to do the research ourselves. It can be inferred that if a reputable source who shares the voter’s values and ideology endorses a candidate that the voter would also support the candidate if they had enough information. Political polls can also provide cognitive

savings, especially in the primaries when they can help the voter eliminate candidates who have little chance of winning from consideration (Lau & Redlawsk, 2001).

Another commonly used heuristic is making inferences from the physical appearance of candidates. We rely on appearance in all aspects of our social lives to help make decisions, ranging from predicting suitable dating partners to determining who we trust to babysit our children, so it is not surprising that we rely on appearance as a means to make quick judgments of politicians as well. Inferences of competence based solely on facial appearance were found to predict the outcomes of U.S. congressional elections in 68.8% of the Senate races in 2004. This suggests that rapid, unreflective trait inferences can contribute to voting choices, which are typically assumed to be based primarily on rational and deliberate considerations (Todorov, Mandisodza, Goren, & Hall, 2005, p. 1623). The study's authors acknowledge that this was based solely on facial appearance of political candidates and with no prior knowledge about the politician or their positions. However, in the study the very quick judgments of competence based solely on the candidate's appearance not only predicted the winner but were also correlated with the margin of victory.

One of the most important determinations that emerges from the wealth of information provided by a candidate's image is an appraisal of the general 'likeableness' of the candidate (Lau & Redlawsk, 2001, p. 954). As would be expected, candidates perceived as being competent on the basis of images are more likely to win political races, whereas candidates perceived as physically threatening lost in 65% of real elections (Mattes et al., 2010). But some psychological findings are not as predictable, (which makes doing research essential). Interestingly, when research participants rated 30 pairs of political candidates drawn from actual House and Senate races in the 2000, 2002, and 2004 elections, candidates rated as being the more attractive of the pair lost in 77% of those races (Mattes et al., 2010). This effect was explained as being driven by a large percentage of the candidates who were rating as looking attractive in this sample also being judged as appearing incompetent.

Most people have schemas or mental images for political leaders and also for political parties (Miller, Wattenberg, & Malanchuk, 1986) and pictures or images of a candidates can very powerfully reinforce positive perceptions that fit with expectations or negatively highlight ways in which the candidate goes against expectations. History is replete with examples. It is widely believed that Nixon's refusal to wear make-up and his five o'clock shadow in the 1960 televised debate affected voter impressions in that very close election (Mattes et al., 2010). Warren G. Harding was famously known for "looking presidential," and was elected president in 1920 in spite of rather limited experience. However, he is rated by historians as being one of our least effective presidents, and judging a politician merely based on "looking the part" has become known as the "Warren G. Harding error." More recently, Michael Dukakis had a commanding lead over George H.W. Bush in the summer of the 1988 presidential election, until he disregarding the advice of his staff and made an infamous commercial in which he rode in a military tank. Although Dukakis had real life military experience serving in the US Army, the commonly held belief was that the images of him riding in a tank with a poorly fitting helmet that seemed to accentuate his large nose made him look uncomfortable and perhaps

silly, and his lead in the polls quickly turned into a deficit after the airing of the commercial and ultimately he lost the election. Growing up in Texas, it seemed like around election time every candidate re-found his or her Texas accent and nearly everyone had worked on a farm, trying to fit the archetypes or stereotypes for holding political office.

Rationalization

We are prone to taking mental shortcuts to conserve cognitive resources, which can have both positive and negative consequences. We are also prone to rationalizing our decisions. As Benjamin Franklin so astutely observed, “So convenient a thing to be a reasonable creature, since it enables one to find or make a reason for every thing one has a mind to do” (Franklin, 2003). It appears that although human beings are exquisitely capable of logic and reason, we tend to often use it to simply justify the beliefs we already hold, and what we assume to be reasoning in politics is often merely rationalizing our existing beliefs. Although we like to think that we make decisions based mainly on reason, the neuroscience research indicates that “rational” appeals are less likely to activate the emotional circuitry that regulates voting behavior (Westen, 2008, p. 16). “Reasoning” is more like to occur in the gut than in the head. However, we want to believe that we are deciding based mainly on the merits of each candidate. We tend to scour our base of knowledge for “evidence” which supports the position we are emotionally inclined to endorse, and then stop the mental inquiry, feeling satisfied that now we have logical reasons that bolster our position (Perkins, Farady, & Bushey, 1991). This is termed the ‘makes sense’ stopping rule. We take a position and then we look for evidence that supports it. Once we have garnered evidence that supports our position and have an explanation that ‘makes sense,’ we generally stop there. For example, if we feel that the government requiring us to wear seat belts is government overreach, we can think back to a recent story we heard on the news of the woman who was trapped in a burning car and died because she couldn’t get her seat belt buckle unclaspd. It now feels like we have evidence that supports our position, however, we rarely take the extra step to look for evidence that might challenge or discredit our position.

The process of updating prior impressions or evaluations seems to be subject to unconscious biases designed to support prior preferences, rather than rationally updating them, and candidate evaluation may be more about reinforcing existing feelings about candidates rather than revising them in the face of new information (Redlawsk, 2002, p. 1022). Motivated reasoners may discount counter-arguments or simply ignore new information that challenges existing evaluations and affect. The lack of sufficient knowledge about relevant issues can exacerbate this tendency. The public’s lack of knowledge about political matters has long been recognized, with the implication that voters typically form opinions and make voting decisions in the absence of important policy-relevant information (Reedy, Wells, & Gastil, 2014, p. 1400). Zaller (1992) framed this as the receive-accept-sample model, in which

people with insufficient political knowledge who receive political news can filter out opponents' messages while accepting those of allies (p. 1401). As with most heuristics, the tendency to conserve cognitive resources seems to be at the heart of this tendency as well. "Information that is congruent with expectations is easily assimilated since it requires no effort to accept what one already knows is true. But incongruent information interrupts normal processing and instead engages a process where some effort must be expended to make sense of the world" (Redlawsk, 2002, p. 1023). When voters encounter incongruent information they are likely to actively counter-argue the information, developing reasons why it is wrong or should otherwise be ignored in an attempt to explain it away, and establish emotional equilibrium again by searching their memory for congruent information to balance the new incongruent information (Taber & Lodge, 2006, p. 755).

Under low pressure situations we can change our mind with relative ease if we happen to stumble across new information that contradicts our position. However, if our position feels important or connected to our identity or values we tend to employ 'motivated reasoning,' meaning that we scour the information universe for evidence that supports our position or discredits opposing perspectives. This process is especially pernicious because it is usually possible to find such 'evidence,' which causes us to feel justified and feel that our positions are the result of an objective examination of the evidence (Haidt, 2006).

But the problem of motivated reasoning goes deeper than merely selectively searching for information that supports our established position, and that threatening information is avoided or discredited. Information that goes against our beliefs causes us to feel uncomfortable and arouses anxiety (even if the information is not acknowledged as threatening) and activates neural circuits associated with negative emotional states (Westen, 2008, p. xi), and as Freud observed (1955) our biological nature is to avoid pain and seek pleasure. More than half a century ago Festinger (1962) noted that cognitive dissonance is an unpleasant state of mind, motivating people to reduce dissonance, often by seeking supportive messages to reinforce their decisions or beliefs.

We are prone to avoid information that feels challenging. Affective biases cause it to take longer to process information that is incongruent with existing beliefs, connecting to the driving principle that the human brain avoids cognitive exertion if not considered necessary. Not only are we prone to biased reasoning, it tends to become a self-reinforcing process. "Once partisans had found a way to reason to false conclusions, not only did neural circuits involved in negative emotions turn off, but circuits involved in positive emotions turned *on*. The partisan *brain* didn't seem satisfied in just feeling *better*. It worked overtime to feel *good*, activating reward circuits that give partisans a jolt of positive reinforcement for their biased reasoning. Those reward circuits overlap substantially with those activated when drug addicts get their "fix," giving new meaning to the term *political junkie*" (Westen, 2008, p. xiv).

Somewhat perversely, research has found that motivated reasoners may actually increase their support of a positively evaluated candidate upon learning new negatively evaluated information (Redlawsk, 2002, p. 1021). If our position feels

challenged, we tend to rise up in defense. This helps to explain the frustration often experienced in political dialogue—a person who doesn't believe in global warming may become even more firmly convinced that it is a hoax when shown pictures of the ice caps melting. But we are usually unaware of our perspective or bias, and to us our position feels like it is grounded in the facts. However, we often possess a systemically distorted sense of the “facts” on a given issue, and those distortions typically align with our personal values. Voters do not just have opposing opinions, rather, each side has come to hold inaccurate *empirical beliefs* that buttress their positions (Reedy et al., 2014, p. 1402). Not surprisingly, the research concludes that politically motivated factual misperceptions on political issues impacts voter decision making. However, perhaps unexpectedly, the research suggests that these misperceptions do not seem to be driven by news media and campaign messages, which suggests that people may be generating their own beliefs based on their underlying political values and ideology (Reedy et al., 2014, p. 1399).

Although anxiety seems to be central to much of cognitive distortion and motivated reasoning, not all emotions are processed similarly, which may significantly impact voting behavior (Parker & Isbell, 2010). Fear may contribute to more informed voting by enhancing detailed processing (Tiedens & Linton, 2001) whereas anxiety motivates learning (Valentino, Banks, Hutchings, & Davis, 2009) which may prompt voters to gather more information and become more informed. Anger, which prompts a more narrow cognitive focus and motivates quick action, may detract from informed voting by promoting less careful cognitive processing and a greater reliance on heuristics (Bodenhausen, Sheppard, & Kramer, 1994). Parker and Isbell found that voting by angry participants was not related to their agreement on the issues. Anger appears to predict greater reliance on general, less issue-focused information and may promote voting for candidates who are more well-recognized, regardless of their beliefs on issues (2010, p. 549).

Psychological factors can present challenges that make it difficult for voters to make informed, well-reasoned decisions at the ballot box. But it should be noted that these same factors can influence politicians as well. At the time, much was written about George W. Bush's decision to invade Iraq after the 9/11 attack, most of it centering on whether there was sufficient evidence to justify an invasion and the repercussions of doing so. However, there was very little discussion about the fact that Saddam Hussein had tried to assassinate George W. Bush's father. One does not have to be a psychologist to surmise that it would likely be difficult to think objectively about someone who had tried to kill your father.

Communication

The communication of messages is the process through which political candidates appeal to voters and inspire them to vote. It has been established that party affiliation is one of the most important predictors of voting decision in congressional elections (Bartels, 2000, p. 44). Since the general public typically lacks political

ideology, values function as a general standard for evaluating candidates, policies, and other variables in the political world (Nelson & Garst, 2005, p. 490). The candidate's social affiliations are powerful identity markers which alert busy voters to the issues to which they need to pay attention. Identity cues, signals that the candidate shares the values of the voter, are very important for receptivity to persuasive speech (Nelson & Garst, 2005, p. 510). Interestingly, during the 2016 presidential election, television viewing preferences were highly correlated with voting choices. Viewers who rated the television show *Duck Dynasty* as their favorite show supported Trump by a wide margin, whereas television viewers who rated *Modern Family* as their favorite overwhelmingly voted for Clinton (Katz, 2016).

It appears that voting preferences are at least partially based on the perception of shared cultural identity between the candidate and voter. The persuasive power of values-based political messages depends upon the recipient of the message sharing values and political party identification with the speaker. Conversely, party mismatching increases the likelihood of message rejection (Nelson & Garst, 2005). We show favoritism for messages from communicators who share our social group designation, such as school affiliation or shared social class. In politics, common party membership and implicit values are important signals that garner audience favor (Nelson & Garst, 2005, p. 494). However, although we tend to value what our social group values, we tend not to realize that we have made an identity based decision (DiSalvo, 2011, p. 154). Voters' values and partisanship have been found to have the strongest associations with distorted beliefs, which then influence voting choices (Reedy et al., 2014, p. 1399).

Perhaps the most prescient social scientist of the twentieth century was Marshall McLuhan, who famously asserted that "the medium is the message" (1967). It is not merely the content of the media's messages that is important, but especially over time, the very nature of the communication medium itself alters how information is both conveyed and processed. For instance, it is widely acknowledged that the advent of television irrevocably altered the nature of political campaigns. Before television, news was mainly consumed via newspapers and radio, and the format of both lent themselves to lengthier coverage of issues. Television ushered in the emphasis on brevity and "sound-bite" news coverage, and the focus on sensationalism and appearance. Common wisdom is that John F. Kennedy was considered the "winner" of the first televised presidential debate in the 1960 presidential campaign, in large part because he appeared poised and comfortable, whereas Richard Nixon appeared uncomfortable and somewhat sweaty, which would not have been apparent to those who listened on the radio or read about it in the newspaper.

Although technological developments have a notable impact on the transmission of information, many issues seem to be prevalent across various mediums. One such issue is that the media increasingly mixes entertainment with information. Westen noted that although war scandals have a much greater impact on life and death and public policy, sex scandals are more entertaining and consequently are much more prevalent in the media (2008, p. 28). The lack of public interest in more substantive issues leads to a less issues oriented programming being offered through the media, creating a vicious circle. Going back to the dictum that we tend to avoid cognitively

taxing activities, this means that politicians trying to communicate complex messages face the uphill battle that our brains are not natively inclined to tackle such messages (DiSalvo, 2011, p. 155). Most significant political issues are not easily condensed to a bumper sticker or even a 30 second sound bite.

Our natural proclivities regarding consuming communication pose challenges to making informed voting decisions in other ways. Familiar messages take less effort to process and the more often a more a message is repeated the more likely we are to believe it. Interestingly, the more carefully we are listening to a message the less likely we are to be influenced by mere repetition, however, for the casual listener "... counter-intuitive as it may sound, the series of glancing blows from oft-repeated messages is what eventually locks us into "the illusion of truth" (DiSalvo, 2011, p. 155). For good or bad, the illusion of truth is often a component of political campaigns.

The manner in which information is communicated can greatly influence how it is received and understood. Framing refers to the way an argument is packaged (i.e., what the argument includes and what it leaves out) so as to make accessible and encourage a particular interpretation of a given issue (Fryberg et al., 2012, p. 98). Examining the immigration debate as an example, national newspapers were more likely than Arizona newspapers to frame arguments supporting an anti-immigration bill in terms of threats (e.g., threats to economic and public safety) and to frame arguments against the bill in terms of civil rights issues (e.g., racial profiling). Conservative newspapers were found to be more likely than Liberal newspapers to frame the bill in terms of economic and public safety threats although they did not differ in mentions of civil rights issues (Fryberg et al., 2012, pp. 96–97).

Metaphors can also greatly influence how communication is received and the conclusions that will likely be drawn. Thibodeau and Boroditsky (2011) conducted a study in which for half of the participants, crime was described using the metaphor of a beast preying on a fictitious city, and for the other half crime was characterized as a virus infecting the city. The results indicated that the different metaphors significantly influenced both the participants' understanding of the problem and also how best to remedy it. When crime was discussed using the term virus, participants focused more on investigating the root causes and enacting social reforms such as reducing poverty and improving education to inoculate the community. When crime was described as a beast, participants focused more heavily on catching criminals and enacting harsher punishments. Interestingly, very few participants were aware how they were affected by the different metaphors.

First impressions can have a significant bearing on how messages are received, and typically are formed quickly and based on limited information. Inferences of competence based solely on the facial appearance of political candidates with no other knowledge of the person or their positions, were found to predict the outcomes of Senatorial elections in 2004 with a surprising 68.8% accuracy rate (Todorov et al., 2005, p. 1623). The study's authors acknowledged that when people are actually voting, that having additional information about candidates may weaken the importance given to facial appearance, but caution that consequential voting decisions may be "more 'shallow' than we would like to believe" (Todorov et al., 2005,

p. 1625). Interestingly, although physical attractiveness generally is associated with favorable outcomes, Mattes et al. (2010) found that the candidate faces rated as most attractive were more likely to lose elections. Perhaps this information can be used to console losing candidates.

Our evolutionary nature gives primary importance to the avoidance of threats and danger, therefore, we are predisposed to be highly attuned to the negative. When forming first impressions, negative information tends to be weighted more heavily than positive (Mattes et al., 2010). Trustworthiness is an especially important focus of first impressions, and for political candidates is highly correlated with gaining or losing votes. Negative, trust destroying events or messages get disproportionate weight in initial impression formation, and tend to solidify further distrust. The attempt to provoke fear is notable in classic television ads such as Lyndon Johnson's famous "Daisy" commercial or George W. Bush's 2004 "Wolves" commercial (Mattes et al., 2010). Negative campaigning is so prevalent because although we complain about it and may curse our TV's, it's effective. A whopping 85 percent of the money spent on presidential ads from December 2011 through May 2012 went to commercials that included at least one deceptive claim (Annenberg Public Policy Center, 2012). Probably as a result of our instinct to avoid threat and potential harm, political impressions based on negative information tend to be more long lasting and resistant to change (Cobb & Kuklinski, 1997), making them a very useful campaign strategy. Unfortunately, although they are effective for individual political campaigns, the net result of constant negative campaigning is an erosion of trust in political institutions and a general disgust for the political process. Many commentators have wondered what would happen if soda competitors or rival fast food chains focused their advertising money mainly on making dubious negative claims about the competition. (On the positive side, fostering disgust might be an effective way to change our nation's unhealthy eating habits.)

Interestingly, Rich and Zaragoza (2016) found that implied misinformation was more resistant to correction than explicit misinformation. This seems to occur in part because successfully discrediting misinformation and generating a response on some other basis is a cognitively taxing process, involving "... noting the discrepancy between the misinformation and the subsequent correction, reasoning that the misinformation can no longer be true given the correction, concluding that the misinformation is not a valid basis for responding, withholding the misinformation as a response, revising one's initial beliefs in light of the correction, and generating a response based on the revised belief. In sum, people fall back on the discredited information when responding to the inference questions because it is easy to do so" (Rich & Zaragoza, 2016, p. 63). Perhaps particularly frustrating is that people continue to rely on discredited information if it provides a causal explanation even when they can remember the correction (Ecker, Lewandowsky, & Apai, 2011). First impressions have a disproportionate impact, even if the information on which they are based is later corrected.

Today, much of the information many people consume is delivered through the internet and social media. It has been argued that the internet is a democratizing medium for its capacity to provide increased access to information and interaction,

but a competing perspectives suggest that the internet is a polarizing medium that allows like-minded individuals to create echo chambers through which they reinforce their preexisting political beliefs (Kushin & Yamamoto, 2010, p. 621). Gearhart and Zhang (2015) explain that this tends to create a self-reinforcing process, in which individuals who perceive that the majority shares their opinions demonstrate a greater tendency to share opinions, while those who feel that they are in the minority conceal opinions. As a result, the perceived dominant view gains momentum and alternative views are shared less frequently, creating a spiraling effect (p. 208). The end result is that we are more likely to interact with like-minded others which is problematic because limiting interaction to those who think like us drives attitude extremity and boosts solidarity among homogenous groups (p. 211). However, even well-meaning individuals who want to avail themselves to a diversity of perspectives may find this more difficult than imagined. Given that internet search engines rely on algorithms based on individuals' previous search histories, the search engines themselves start to suggest sites that reinforce pre-existing perspectives, e.g., a conservative internet searcher will be guided toward more conservative stories for neutral terms whereas someone with a more liberal perspective based on their search history will be given a more liberal menu of sites for the same search term. Little wonder that the public seems to have more and more difficulty finding common ground. In a polarized political climate, research (Gearhart & Zhang, 2015) indicates that people may refrain from participating in publically observable political activities that make them vulnerable to scrutiny and criticism from others who hold differing opinions. Even in 2006, dispositional self-censors were found to have engaged in fewer public political activities over the past 2 years compared to those less willing to censor their own opinion expression (Hayes, Scheufele, & Huges, 2006, p. 259). One can only imagine that these tendencies have increased in today's highly partisan climate.

Conclusion and Recommendations

Politics does not happen in a vacuum. Although the system of government establishes the framework and structure for the process, real world pressures and societal changes can have a profound impact on the operation of the political process and the function of government. The following are a few suggestions for improving the current state of government and the often dysfunctional political process.

Although the media is not a branch of the government, it is the mechanism through which the majority of voters obtain information about the issues and the candidates. It serves as a powerful check on abuses of power. However, some of the media's practices make it more challenging for voters to make well-reasoned decisions. The advent of cable news has brought unprecedented access and coverage to political issues, however, it has also become more blatantly partisan, resulting in decreasing public trust of the press which is corrosive to a well-functioning democracy. Compromise is key to the process of governance in a democracy and certainly

is the mechanism through which effective legislation is created. However, the media generally presents legislative actions in terms of winners and losers, e.g., stating which party “won” the effort and which party “lost.” This only increases partisanship, and the desire for politicians to win at any cost to avoid being portrayed as being on the losing side. It would be much more helpful for the media to simply report on the benefits and costs of legislation to the average citizen.

America is founded on the guiding principle of pragmatism, yet much of news coverage is not presented in terms that are meaningful to the average citizen, resulting in more emphasis being placed on emotional and values laden appeals. It is difficult to meaningfully comprehend the high dollar amounts discussed in most government spending debates. It would be much more helpful to also include the cost of proposals to the average taxpayer. For instance, it means little to most people to report that a new weapons system will cost a trillion dollars. However, if it is also reported that the cost will be approximately \$3000 per citizen or slightly less than \$6000 per taxpayer it is easier to evaluate whether it seems like a good use of money.

Money has always been a part of American politics, but the Supreme Court’s Citizens United decision of 2010 ushered in a new era of unlimited, often untraceable money into political campaigns. Of course, it is difficult to study the impact of money on politics. It is unlikely that we will ever conduct an experiment that compares one group of politicians with access to unlimited campaign contributions with a group of politicians (who got into office) who did not have big donor campaign contributions. In addition to the obvious concerns about the likely inequalities of access to politicians that the high cost of winning elections creates, money seems to pervert the political system in other, perhaps less obvious ways. One example is that the pressure to raise money forces politicians to spend more of their limited time calling donors to ask for contributions and spend less time on the business of governing the country, as well as less time to spend with colleagues across the aisle forming relationships that can facilitate forging compromises and passing legislation.

Although no system is perfect, it seems that certain structural problems have been making it increasingly more difficult for the will of voters to be realized. The Electoral College was established with the laudable goal of insuring that only candidates of good moral character would reach the presidency. However, an unintended consequence has been that two of our past three presidents have reached office in spite of losing the popular vote. Rampant partisan gerrymandering makes it increasingly difficult for the party that is out of power to elect representatives to congress. Structural problems that prevent the will of the people from being realized need to be corrected.

Although the current political system would likely benefit from some tweaks, voters also share responsibility for the current political state. How many times have we heard phrases such as, “this can’t happen in an election year,” meaning that voters will punish elected officials who make difficult choices or compromise for the greater good. One can’t help but think of Jack Nicholson’s famous line in *A Few Good Men*, “You can’t handle the truth!” As voters, we need to be willing to look

honestly at difficult scenarios, even if it is more appealing to think that we can spend less and get more.

In spite of being an imperfect system composed of both voters and politicians prone to flawed reasoning and lapses of logic at times, American democracy has brought unprecedented freedom and opportunity. In part, this is because democracy is based upon the wisdom of the crowd. Countless research studies (e.g., Sadiku, Ampah, Momoh, & Musa, 2017) indicate that the wisdom of the crowd is superior to that of even the smartest individuals in everything from estimating the number of jelly beans in a jar to forecasting market trends or predicting election results. However, this only works with accurate information—if people can't see the jar filled with jelly beans accurate estimation becomes impossible. Daniel Patrick Moynihan famously asserted that, "Everyone is entitled to his own opinion, but not his own facts." However, in the era of partisan news sources and fictitious internet "news" stories parading as fact, this foundational principle is being threatened. As humans we are all prone to missteps because of a multitude of factors impacting our processing of information and decision making that we are largely unaware of. Managing these tendencies effectively depends upon recognizing our blind spots and questioning our assumptions, both personally and as citizens exercising our civic responsibility to vote, and also operating in a system based on truth and honesty.

References

- Annenberg Public Policy Center. (2012). *High percent of ad dollars of top four 501(c)(4) s backed ads containing deception*. Retrieved from <http://flickrcheck.org/wp-content/uploads/Press-Release-2012-06-20.pdf>
- Bartels, L. M. (2000). Partisanship and voting behavior, 1952–1996. *American Journal of Political Science, 44*, 35–50.
- Bodenhausen, G. V., Sheppard, L. A., & Kramer, G. P. (1994). Negative affect and social judgment: The differential impact of anger and sadness. *European Journal of Social Psychology, 24*(1), 45–62.
- Cobb, M. D., & Kuklinski, J. H. (1997). Changing minds: Political arguments and political persuasion. *American Journal of Political Science, 41*, 88–121. <https://doi.org/10.2307/2111710>
- DiSalvo, D. (2011). *What makes your brain happy and why you should do the opposite*. Buffalo, NY: Prometheus Books.
- Ecker, U. K., Lewandowsky, S., & Apai, J. (2011). Terrorists brought down the plane!—No, actually it was a technical fault: Processing corrections of emotive information. *The Quarterly Journal of Experimental Psychology, 64*(2), 283–310.
- Festinger, L. (1962). *A theory of cognitive dissonance* (Vol. 2). Palo Alto, CA: Stanford University Press.
- Franklin, B. (2003). *The autobiography of Benjamin Franklin*. New Haven, Connecticut: Yale University Press.
- Freud, S. (1955). Beyond the pleasure principle. In *The standard edition of the complete psychological works of Sigmund Freud, Volume XVIII (1920–1922): Beyond the pleasure principle, group psychology and other works* (pp. 1–64).

- Fryberg, S. A., Stephens, N. M., Covarrubias, R., Markus, H. R., Carter, E. D., Laiduc, G. A., & Salido, A. J. (2012). How the media frames the immigration debate: The critical role of location and politics. *Analyses of Social Issues and Public Policy*, 12(1), 96–112.
- Gearhart, S., & Zhang, W. (2015). “Was it something I said? No, it was something you posted!” a study of the spiral of silence theory in social media contexts. *Cyberpsychology, Behavior and Social Networking*, 18(4), 208–213.
- Haidt, J. (2006). *The happiness hypothesis: Finding modern truth in ancient wisdom*. New York: Basic Books.
- Hayes, A. F., Scheufele, D. A., & Huges, M. E. (2006). Nonparticipation as self-censorship: Publicly observable political activity in a polarized opinion climate. *Political Behavior*, 28(3), 259–283.
- Katz, J. (2016, December 26). Duck Dynasty vs. ‘Modern Family’: 50 maps of the U.S. cultural divide. *New York Times*. Retrieved from <https://www.nytimes.com/interactive/2016/12/26/upshot/duck-dynasty-vs-modern-family-television-maps.html>
- Kushin, M. J., & Yamamoto, M. (2010). Did social media really matter? College students’ use of online media and political decision making in the 2008 election. *Mass Communication and Society*, 13(5), 608–630.
- Lau, R. R., & Redlawsk, D. P. (2001). Advantages and disadvantages of cognitive heuristics in political decision making. *American Journal of Political Science*, 45, 951–971.
- Mattes, K., Spezio, M., Kim, H., Todorov, A., Adolphs, R., & Alvarez, R. M. (2010). Predicting election outcomes from positive and negative trait assessments of candidate images. *Political Psychology*, 31(1), 41–58. <https://doi.org/10.1111/j.1467-9221.2009.00745.x>
- McLuhan, M., & Fiore, Q. (1967). The medium is the message. *New York*, 123, 126–128.
- Miller, A. H., Wattenberg, M. P., & Malanchuk, O. (1986). Schematic assessments of presidential candidates. *American Political Science Review*, 80(2), 521–540.
- Nelson, T. E., & Garst, J. (2005). Values-based political messages and persuasion: Relationships among speaker, recipient, and evoked values. *Political Psychology*, 26(4), 489–516.
- Parker, M. T., & Isbell, L. M. (2010). How I vote depends on how I feel: The differential impact of anger and fear on political information processing. *Psychological Science*, 21(4), 548–550. <https://doi.org/10.1177/095679761036-4006>
- Perkins, D., Farady, M., & Bushey, B. (1991). Everyday reasoning and the roots of intelligence. In J. F. Voss, D. N. Perkins, & J. W. Segal (Eds.), *Informal reasoning and education* (pp. 83–105). Hillsdale, NJ: Erlbaum.
- Redlawsk, D. P. (2002). Hot cognition or cool consideration? Testing the effects of motivated reasoning on political decision making. *The Journal of Politics*, 64(4), 1021–1044. <https://doi.org/10.1111/1468-2508.00161>
- Reedy, J., Wells, C., & Gastil, J. (2014). How voters become misinformed: An investigation of the emergence and consequences of false factual beliefs. *Social Science Quarterly*, 95(5), 1399–1418.
- Rich, P. R., & Zaragoza, M. S. (2016). The continued influence of implied and explicitly stated misinformation in news reports. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 42(1), 62–74.
- Sadiku, M. N., Ampah, N. K., Momoh, O. D., & Musa, S. M. (2017). Wisdom of the crowd. *International Journal of Scientific Engineering and Technology*, 6(11), 347–348.
- Schaffner, B. F., & Streb, M. J. (2002). The partisan heuristic in low-information elections. *Public Opinion Quarterly*, 66(4), 559–581.
- Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50(3), 755–769.
- Thibodeau, P. H., & Boroditsky, L. (2011). Metaphors we think with: The role of metaphor in reasoning. *PLoS One*, 6(2), e16782.
- Tiedens, L. Z., & Linton, S. (2001). Judgment under emotional certainty and uncertainty: The effects of specific emotions on information processing. *Journal of Personality and Social Psychology*, 81(6), 973–988.

- Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, *308*(5728), 1623–1626.
- Valentino, N. A., Banks, A. J., Hutchings, V. L., & Davis, A. K. (2009). Selective exposure in the internet age: The interaction between anxiety and information utility. *Political Psychology*, *30*(4), 591–613.
- Westen, D. (2008). *The political brain: The role of emotion in deciding the fate of the nation*. New York: Public Affairs.
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. Cambridge: Cambridge University Press.

Part III
Social-Emotional Perspectives

How Belief in Conspiracy Theories Addresses Some Basic Human Needs



Evangeline A. Wheeler

In a time of great technological complexity and magnificent cultural shifts ordinary citizens can face a heightened sense of disorientation and may turn to believe in conspiracies as a way to regain some control and stability. In a famous essay, Hofstadter (1966) started the modern conversation on conspiracy theories by suggesting that they were more likely to emerge within groups of people who felt powerless or somehow disadvantaged. This would especially happen in the face of extreme events like landing on the moon or rapid changes to the earth's climate, the understanding of which could make us reel with confusion and uncertainty. Since then many different attempts at explaining conspiracies share the foundational idea that they are characteristically composed of two components. First is a rational attempt to understand complex phenomena and the second is a way to deal with feelings of both individual and group powerlessness (Abalakina-Paap, Stephan, Craig, & Gregory, 1999; Crocker, Broadnax, Luhtanen, & Blaine, 1999). Looked at this way, conspiracy theories reveal the unconscious psychological pain of groups of people in society and perhaps fill a psychological void to help them restore a sense of power. Feelings of powerlessness can be thought of in several different ways: as relative deprivation (Bilewicz, Winiewski, Kofta, & Wójcik, 2013); as an inability to attain goals; as a lack of personal control (Whitson & Galinsky, 2008); as a means of maintaining self-esteem (Robins & Post, 1997) or coping with persecution (Combs, Penn, & Fenigstein, 2002); as reasserting individualism, expressing negative feelings, or reaffirming imagined positions of exclusive knowledge.

Such theories are more likely to arise, too, under rapidly changing social conditions such as we are witness to now in the United States where by the year 2045, the US will have a minority white population. Previously disadvantaged social groups are gaining political power while those previously in power lose prominence.

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What extreme events and social change have in common is that they both can create a sense of unease and uncertainty about the known world because suddenly, there is so much transformation. One's sense of certainty about their role and place in society is threatened because events can no longer be predicted. In the case of social change for example, one can no longer predict where in the social fabric he and his values fit; there is anxiety over speedy demotion in privileged social standing, and in more extreme cases, a sense that one's heretofore known identity will be erased altogether.

Hofstadter wrote about the "paranoid style," in which he examined politically right-wing conspiracy theories, effectively setting the tone for much of the academic research that was to follow. The paranoid style was a result of genuine anger among people whose judgement was somehow distorted because of community and media controlled misinformation that encouraged strong emotions. Because of this, some scholars came to view belief in conspiracy theories as rooted in mental health issues, particularly in psychopathology, with clinical symptoms such as extreme paranoia (Darwin, Neave, & Holmes, 2011), delusional ideation, and narcissism (Cichocka, Marchlewska, & de Zavala, 2015). But, while it is possible (likely) that some people who believe in conspiracy theories suffer forms of psychopathology, belief is too widespread and too politically tinged to label most believers as suffering some degree of mental illness (see Sunstein & Vermeule, 2009). Instead, the tendency to believe is rooted in nonpathological needs. Of the many needs specifically addressed by beliefs in conspiracy theories, I examine two of them: (1) the need to reduce an uncomfortable uncertainty by having extraordinary social and political events sufficiently explained, and (2) the need to strengthen belongingness to a community. That we are witnessing in the current culture a steep rise in conspiracy thinking is perhaps (among other things) indicative of failure in addressing these needs within particular subgroups in the population.

Conspiracy Theory Definition

A conspiracy theory (CT) is a certain kind of explanation often deployed to explain events of unusual importance, rarity and improbable outcome. The theory consists usually of a series of loosely interconnected happenstances and includes details of dubious authenticity, yet the believer downplays the roles of chance and coincidence as satisfying explanations. Typically a small, clandestine group of very powerful people with nefarious motives is purported to hold responsibility for the event's occurrence. Because of their nature, beliefs in conspiracy theories have proven very difficult to repudiate since believers may segregate themselves informationally (in what is popularly called "echo chambers") and over time become increasingly distrustful of the motives of outsiders and more inculcated in their own beliefs. This resistance to correction is perhaps the most disturbing quality of dangerous conspiracies that can harm people. An example of this danger concerns the 2012 massacre in Connecticut, in which 26 people in an elementary school were gunned

down. Conspiracy theorists claim that the event was a hoax and never happened and have repeatedly threatened the lives of the parents of children who died. What follows is a discussion of the role of conspiratorial thinking.

Need for Certainty

Sometimes, we just feel better if we have some definite answers. When the cognitive system fails to make reasonable predictions about the world because underlying patterns are imperceptible (Are immigrants taking jobs away from Americans, or not taking away jobs?), psychological unease can develop, so the mind attempts to reduce this unease by building a mental representation of the best explanation possible given incomplete data. A conspiracy theory can be the result, if we think of it as an explanation that arises to make sense of occurrences that do not fit a perceived pattern. Our minds evolved to function well in a natural environment and a social milieu that is relatively consistent. The effect of this is that we learn to memorize and to recognize recurring patterns, like a smiling face means friendliness or that a flash of lightening in the sky predicts a roll of thunder. Our ability to learn new concepts is dependent upon our mind's tendency to lump together things that occur together repeatedly. Cognitive scientists, though, make a distinction between mental processes needed to encode the regularities of experience that remain relatively constant over long periods of time versus the encoding of experiences that are one-off or rare or exceptional and are therefore beyond prediction.

Psychological models of political attitudes posit that conservatives need higher cognitive closure; they are less tolerant of uncertainty and of ambiguity than are liberals (De Zavala, Cislak, & Wesolowska, 2010; Jost, Glaser, Kruglanski, & Sulloway, 2003). Need for closure is defined as the motivation to quickly formulate and maintain a clear opinion on an issue, rather than accepting confusion and ambiguity. Psychological distress can be experienced in individuals bereft of answers and certainty when they have a high propensity to need them. The need for certainty is an individual difference variable, so we can differ in how comfortable we each are living with uncertainty. In our early life development as toddlers, those with parents exhibiting unpredictable patterns of behavior often grow into children who are less attached to those parental figures, indicating perhaps that a need for certainty (predictable parental behavior) is a hard-wired feature of human development. On the other hand, it is the parents who are consistently affectionate who develop children attached to them because their behavior can be predicted and relied upon. In a study looking at the role of attachment in CT belief, it was found that those who were insecurely attached to caretakers as toddlers were more likely to believe in conspiracy theories when adults (Green & Douglas, 2018).

People scoring high in conspiracy ideation tended to also jump to conclusions in a lab task (Moulding et al., 2016), perhaps attesting to the need to have a firm answer. If a lack of certainty causes distress by making people feel a loss of control, then a study in which perceived stressful life situations are associated with belief in

CT (Swami et al., 2016) is relevant. Since the measure of stress in that study indicated how unpredictable or uncontrollable such events were, it provides additional evidence of the link between CT thinking, need for certainty, and lack of control. A need for certainty is usually measured in the lab using the Need for Cognition (NFC) construct. NFC is a stable disposition that explains individual differences in the tendency to enjoy effortful thinking. People high in NFC have a strong motivation to understand information, whereas those low in NFC generally wish to avoid effortful thinking. However, a strong need for cognition is not synonymous with possessing a strong need to process that information in an unbiased fashion.

To the extent that conspiracy theories fill a need for certainty (Whitson, Galinsky, & Kay, 2015), people are more likely to believe them when the “official story” from governments government (see Swami, Chamorro-Premuzic, & Furnham, 2019) or outside groups contains discrepant statements (Miller, 2002). A conspiracy theory then helps explain doubts and conflicting information thereby affording relief from an uncomfortable sense of uncertainty (though Moulding et al., 2016), found evidence against the link between uncertainty and conspiracy theory belief). Also, Leman and Cinnirella (2013) examined associations between belief in CT and need for cognitive closure (a preference for order and structure, closed-mindedness, and discomfort with ambiguity), but reported no significant correlation. Also, Conway et al. (2016) question whether the tendency for conservatives to sometimes lack complex thinking extends to any topic they may be thinking about. Related to the need for certainty are three cognitive concepts presented below: pattern detection, big explanations and confirmation.

Pattern Detection

As mentioned earlier, perhaps one of our mind’s greatest, most practiced skills is the ability to detect patterns. We look for patterns in visual data in order to recognize objects and we look for patterns in other people’s behavior in order to predict what they might do next. Pattern detection helps us to solve problems similar to ones we have previously encountered. The brain is so engaged in pattern detection all the time that occasionally we label stimuli as having a pattern, even when the arrangement of stimuli is random. It is called pareidolia when people see a man in the moon or the face of John Lennon in a peanut butter sandwich, for example. People high in religiosity are accustomed to thinking that events are not random or accidental (Oliver & Wood, 2014), so they interpret patterns indicative of a higher power at work, and there is in fact a correlation between high religiosity and CT thinking. Illusory pattern perception, where an individual reports seeing a specific pattern emerge when data are merely random, is at the heart of why we sometimes respond irrationally. For example, social stereotypes often arise from the misidentification of patterns. We might think relationships exist when they do not—people on government assistance cheat, immigrants are criminals—even though statistically, no correlation exists. People with a [heightened need to see illusory patterns](#) (random dots

forming a specific image) are more likely to believe in conspiracy theories (van Prooijen, Douglas, & De Inocencio, 2018). In research related to this because it also examines perceptual bias, it was found that when compared to left-leaning individuals, politically conservative individuals were more perceptually biased in interpretation of ambiguous figures. Caparos, Fortier-St-Pierre, Gosselin, Blanchette, and Brisson (2015) explain this in terms of cognitive rigidity.

From these findings I surmise that people who are uncomfortable with less than firm conclusions are more likely to seek those conclusions in the form of a conspiracy that tie together unconnected elements in service of a more complete explanation. But Douglas, Sutton, and Cichocka (2017) propose that although individuals might find conspiracy theories attractive because they promise to make sense of the world, they actually increase uncertainty. Exposure to conspiracy theories does not salve these needs to feel more in control. People presented with pro-conspiracy theory information about vaccines or climate change in fact felt a reduced sense of control and increased disillusion with politics and distrust of government. Douglas et al. (2017) argue that although individuals might find conspiracy theories attractive because they promise to make sense of the world, they actually increase uncertainty.

Conspiracy theory believers are doing something that we all do in looking for those patterns that can be useful in predicting what is to come. Perception of patterns reduce uncertainty about how to behave and what to think. They allow us to act fast and remove ourselves from danger. If we are members of a group for which societal norms are rapidly changing, and typical patterns of thought and behavior are increasingly unsupported, we feel we cannot any longer predict what might happen, and this induces stress. The heightened tendency to ascribe patterns to coincidental bits of data is what distinguishes a CT believer, someone who is trying to maintain the predictability of his world.

Big Explanations

For some people complex events require complex explanations and some studies suggest that conspiracy theories emerge because of the need to explain big events with big explanations that feel satisfying and certain (Leman & Cinnirella, 2007). This may explain why a large percentage of North Americans believe that John F. Kennedy was killed by a government agency, rather than a lone assassin. And in the wake of 9/11, commentators highlighted the proliferation of conspiracy theories about the event (e.g. Goldberg, 2004), with polls suggesting that more than a quarter of respondents believe the US government knew in advance, participated in, or took no action to stop the attacks. In this case, such explanations feel more satisfying than the one of a terrorist attack on one of the most powerful countries in the world.

Related then, to the need to feel certain by detecting illusory patterns, is the need for big explanations to explain big events. When the president of the United States gets assassinated, a straightforward explanation like a random lone wolf does not

seem to do justice to the gravity of the situation. People feel that events of great gravity deserve equally weighty explanations. To accomplish this, theories stringing together a series of occurrences, primarily coincidental ones that seem to form a pattern, make a more satisfying explanation. For example, the Titanic, a large cruise ship that was supposedly unsinkable, in 1912 hit a large iceberg in the Atlantic Ocean and sank. Coincidentally, years before in 1898 Morgan Robertson wrote *Futility*, a book featuring a ship similar to the Titanic, called the Titan. This ship was also supposedly unsinkable, but in the novel it struck an iceberg and sank. It was the same month that the Titanic sank. Thus, a conspiracy was born, attempting to explain the sinking of the Titanic as pre-planned. Oliver and Wood (2014) found that support of conspiracy theories can be predicted by one's tendency to attribute to unseen, intentional forces, the cause of great events.

Confirmation

The "confirmation bias," describes an important way in which our cognitive system regularly deviates from rationality. It happens when we support our point of view by looking for evidence that is already in agreement with what we think. It is the tendency people have to embrace information that supports their beliefs and to reject information that contradicts them. The issue is not the use of deceptive strategies to fake data, but processes of human information processing that take place more or less unintentionally. To the extent that a confirmation bias could have led our ancestors to dismiss evidence of new or underappreciated environmental threats, it is a cognitive trait that should have been evolutionarily selected against. Yet, the fact of its unyielding existence indicates that it must have some adaptive function related to our social group structure. Sperber et al. (2010) talk about the adaptive function of confirmation bias as evolved as a strategy serving the social function of persuading another person of your point of view in order that they may be convinced to cooperate with you in completing a task to the mutual benefit of you both. They cite research suggesting that people experience genuine pleasure, a rush of dopamine released by the brain, when processing information that supports their beliefs.

If people were completely rational (Pennycook & Rand, 2018) and open-minded, then the straightforward way to correct someone's false beliefs would be to present them with some relevant facts. But many studies, as well as anecdotal experiences, attest to the futility of this approach. This seems to occur in part because we might see opposing facts as undermining our sense of identity (Trevors, Muis, Pekrun, Sinatra, & Winne, 2016). It does not help that many of us are overconfident about how much we understand things and that when we believe our opinions are superior to others, this deters us from seeking out further relevant knowledge. In 2010, Nyhan and Reifler found that correcting facts actually backfired, and instead made people hold more steadfastly to what they already believed. This so-called "backfire effect" happens when correcting misinformation solidifies, rather than corrects, someone's mistaken belief.

Ardent conspiracy theory believers often claim that they possess better, privileged knowledge (Lantian, Muller, Nurra, & Douglas, 2017) than non-believers. This is perhaps a version of the Dunning-Kruger effect (Kruger & Dunning, 1999) whereby people erroneously—and confidently—overestimate their knowledge, while simultaneously being unable to ascertain their error. But, this claim is often objectively disconnected from the amount of factual knowledge they actually have. In fact, the gap between what conspiracy theorists believe they know and what they actually know is greater than the gap for people holding less extreme views. This happens because believers tend to selectively seek out confirmatory data which matches with currently stored ideas. The match then confers a feeling of certainty. Information is often indeed quite limited as conspiracy theorists tend to argue by cherry picking facts, parsing statements from legitimate sources and pasting them back together. Leman and Cinnirella (2007) found that conspiracy believers judged fictitious accounts of an assassination more plausible if it was consistent with their current beliefs. In the case of AIDS denialists, instead of relying upon scores of studies converging on the same conclusion, they insist upon evidence from the sort of single study that cannot be conducted. Sunstein and Vermeule (2009) conjecture that those who believe in conspiracy theories may in fact be responding rationally and logically to what contracted information they receive, even if in relation to wider, publicly available knowledge, that information is wildly implausible.

People trying unsuccessfully to make sense of a world that causes a cognitive dis-ease are more likely to create, believe in and propagate conspiracy theories. Lieberman, Schreiber, and Ochsner (2003) suggest that the understanding of political beliefs can be informed by looking at the cognitive habits that allow this to happen. To do so, they advocate using cognitive neuroscience approaches that can avoid biases inherent in self-reports. Several studies already are beginning to point to neurological differences in the brain activity of people from different political persuasions (Hibbing, Smith, Peterson, & Feher, 2014). Authors van Proojiun and van Vugt (2018) take on the same idea that conspiratorial thinking stems from the structure of the cognitive system, and go on to more fully support a second idea that conspiratorial thinking may have evolved in the social context of interpersonal hostility.

Under the wide umbrella of the human cognitive system's need for certainty, particular ways of thinking—illusory pattern detection, seeking big explanations, confirmation bias—allow us to meet that objective.

Need to Belong

In an increasingly fragmented modern society, ordinary citizens feel less and less tethered to identifiable social groups, potentially leading to feelings of alienation. For example, we have replaced attachments to large established institutions like churches with commitments to looser and more flexible networks, in a sense, transforming from a community focus to an individual identity focus. Humans naturally want and need to be socially connected to the extent that when connections are

lacking a void is created that can be filled rather quickly by others establishing reconnection using emotional appeals. The need to belong is fueled by social alienation and can be healed by emotional attachment to other people.

Social Alienation

Society is increasingly split into slivers, with a broad diversity of unique subcultures rather than one broadly shared culture. People create their identity from a wide range of choices, such as youth subcultures, sexual preferences, food preferences, lifestyle choices, and more. In our daily lives, we step in and out of many different settings, each with its own worldview and system of knowledge. You go to work, hang out with friends from college, join online communities, call family back home in another state and visit the doctor, and these different settings increasingly do not overlap.

The splintered nature of our daily lives has fragmented the communities we live in. In a small town or village a hundred years ago, people would know you across multiple contexts, understanding you as a complex, multifaceted being. By contrast, in modernity, people might only come to know specific sides of you, from within specific contexts. Thus, each small group of friends may be able to recognize only particular parts of your total identity. The result of all this fracturing is the impossibility of making reliable generalizations about how to interact with people we encounter.

For some people the pace of change and the increasing fragmentation create opportunities for greater engagement with society because they are able to locate themselves within groups that afford them more power and visibility than ever before. But, for others who feel displaced by the change, there is a detrimental effect on their well-being and sense of identity. People who feel newly marginalized, with a concomitant loss of social standing and power are more likely to endorse conspiracy theories and to score higher on self-report measures of powerlessness (Swami & Coles, 2010). Groups who feel victimized are more likely to endorse conspiracy theories about more powerful out-groups (Bilewicz et al. 2013). Social exclusion leads to endorsement of conspiracy theories (Graeupner & Coman, 2017). Quite recently, Jolley, Douglas, Leite, and Schrader (2019) reported that exposure to conspiracy theories made people more likely to intend to engage in everyday crime in the future, a tendency linked directly to an individual's feeling of a lack of social cohesion or shared values, known as "anomie." According to Abalakina-Paap et al. (1999) conspiracy theorists living on the boundaries of society might reject mainstream or expert explanations of events because they also reject the people offering the explanations. After all, acceding to explanations from the people responsible for altering your place in society might not bode well for self-preservation. So, one way to look at conspiracy theories is that belief in them increases a sense of group belongingness. A community of like-minded believers can confer a sense of belongingness and cohesion (Darwin et al., 2011) and provide a channel for placing the blame for social exclusion on an entity outside itself.

Emotional Appeals

Research suggests that it is our emotions and beliefs and environmental contexts (and perhaps neurological states) rather than logical arguments appealing to reason that usually determine our belief in conspiracies (Hibbing et al., 2014). A tactic to make people feel a sense of group membership is to strongly manipulate their emotions around a certain topic, particularly negative emotions such as anger and fear. In some of Phoenix's work (e.g. Phoenix & Arora, 2018) it is suggested that anger is a successful political motivator particularly for groups of white conservatives. In turn, manipulation of emotion and affect influences the bend toward conspiratorial thinking (Erisen, Lodge, & Taber, 2014). Sunstein and Vermeule (2009) suggest that the intense emotional content of many conspiracy theories partially explains their dissemination and acceptance, likening the process to the spread of urban legends. Urban legends, these fictional stories rooted in modern popular culture, share characteristics in common with conspiracy theories. They are based on real parts of culture and often real people; however, in most cases the details have been exaggerated, ultimately tinging the stories with falsehood. Most of the time the truthfulness of conspiracy theories is always questionable, but also difficult to disprove. Take the urban legend about alligators breeding in the sewer systems of New York City. Baby alligators brought back as pets from Florida were supposedly flushed down toilets where they grew into adult alligators within the sewer system. Despite the fact that no sewer worker ever saw one, the story spread.

A meme (Heath, Bell, & Sternberg, 2001) is a small package of culture that historically spread via word of mouth as a humorous story, a joke, a fable, or an expression of speech. Today, the spread of visual memes via the internet greatly speeds up the spread of these messages as people send them to each other using social media. It can be a word, a photo, a symbol, a video, an idea, a person, a quote, an animal or a fictional character. When online users watch internet memes, they tend to experience similar emotions as the people in the memes, and by then spreading that meme to other people, they anticipate that the recipient will experience similar feelings. A kind of emotional contagion then leads to convergence of a person's emotional state with that of those with whom one is interacting. When an individual is embedded within a network of like-minded persons, this emotional contagion can lead to like-minded thinking and sense of community. For groups of people who feel they are quickly and unquestionably losing historical privileged status within society, and consequently feel uncertain about their new place in the world, a coping mechanism in response to this ideological turmoil is a retreat into fierce feelings and emotions. Emotional responses feel to us like something real and certain, concrete.

Living in a cultural climate saturated by an over-abundance of all kinds of information coupled with fluidity in social conventions creates cognitive chaos where the ability to tend to and to process multiple streams of never-ending stimuli becomes compromised. When, arguably, we need increasingly intense levels of stimulation to capture our attention and stay engaged, highly emotionally laden messages are often successful at making us respond. Material presented in highly arousing ways gets

our attention by manipulating strong emotions and making us feel certain of a decision or an attitude. Schmalzle, Hacker, Honey, and Hasson (2015) found that rhetorically powerful real-life political speeches synchronized neural responses in a group of listeners. Many of the more strident conspiratorial theories are delivered via the emotions, and feeling these emotions makes people feel connected to the group. Aside from a synchronization of neural activity among people sharing receipt of powerful, emotional messages, one of the hormones secreted by the brain during anger arousal is norepinephrine, experienced as an analgesic. In effect, when people are confronted with psychological pain, the internal activation of the anger response will precipitate the release of a neurotransmitter expressly designed to neuter it. Symptomatic anger covers up the pain of distressful emotions like feeling unimportant, devalued, rejected, or powerless.

When external forces damage and threaten self-esteem in an individual who already harbors a deep-seated negative self-concept, anger can potently serve to invalidate whomever or whatever leveled the criticism. In the case of conspiracy thinking, in adamantly disconfirming the legitimacy of the perceived menacing external force, one can self-righteously proclaim the superiority of one's own viewpoint. Thus, anger can help ward off feelings of powerlessness. Not only does our brain secrete the analgesic-like norepinephrine when under conditions of anger, but it also produces the amphetamine-like hormone epinephrine, which enables us to experience a surge of energy throughout our body, an adrenaline rush that many experience during a sudden burst of angry feelings.

So, one way to feel belongingness to a group is to share in an intense emotion. We have a perfect storm here in the current climate of the United States where significant numbers of citizens feel a dissolution of group identity, and are striving to rectify that sense of loss. Couple this with a strain of anti-intellectualism running through the culture alongside a simultaneous over-abundance of confusing information—and careful, critical thinking can be at a premium. The anti-intellectual strain current in the US has transmuted into contempt for experts, scientists, journalists and educators, among others, nullifying any input they may offer to the establishment of factual information. This partially explains some of the resistance to facts among CT believers since social media drowns out expert perspectives and offers instead abbreviated, unverified facts and emotionally laden viewpoints without the guarantee of accuracy, consistency, or disinterested, non-partisan oversight.

Media sources often publish factual information that utilizes loaded words, attempting to influence an audience by using appeal to emotion. For instance, prominent conservative politicians, in an attempt to cast themselves as one with their constituents, lament the power of the “cultural elite.” For many on the political right, the phrase “take our country back” is code that says the country is “ours,” not yours. It's the language of waging cultural and political war. Contemporary journalism, whether talk radio, cable television, or digital sources, has adopted an open-ended and participatory format that caters to consumer interests, blends news with punditry and entertainment, and perpetuates both ideological segregation and distrust in, media, and other democratic institutions. The expert thus becomes suspicious to those seeking clear culprits and simple, concrete remedies for the ruptures

and predicaments of modernity. What results is the rejection of critical thinking and the concomitant glorification of the emotional and irrational.

But, sometimes, group membership can lead to problems. Erisen and Erisen (2012) using a social network analysis found that cohesive networks result in lower-quality thinking. Conversely, those who have occasional contact with and loose attachment to people with whom they talk about politics have richer and more causal thinking on energy policy. Sunstein and Vermeule (2009) describe what they call a “crippled epistemology” by which they mean that sometimes within closed groups, the knowledge that people have is limited and perhaps even wrong. Lacking the means of empirical testing, people often rely on others to know what they know. The problem arises when inside of CT groups, limited amounts of information may be responded to rationally, but severe limits on this rationality are imposed because additional information from outside of the groups is resisted. They also talk about the effect of group polarization processes within CT enclaves. When a group of people who already entertain certain ideas and proclivities gather for discussion, the effect is of reaching a more extreme view of the ideas they began with. Conspiracy theories can offer to those feeling alienation a degree of existential hope. They give believers a simpler and more satisfying explanation for the negative situation in which they perceive themselves to be.

Conclusion

Among people who have a general tendency to endorse conspiratorial thinking, there is often a sense of individual powerlessness in the midst of sweeping and confusing social change, an anxiety around not being certain that they understand the changing world, and a longing to establish a community to which they belong. There is furthermore an essential need for definite answers to assuage psychological discomfort in the face of uncertainty.

Even though adherence to conspiracy theories has been associated with negative outcomes like unsafe sex, refusal to be vaccinated against viruses, and political violence, some conspiracy theories are not always such a negative since they can reveal actual anomalies in mainstream explanations provided by those in power. Conspiracy theories can provide individuals with a public opportunity, otherwise likely denied to them, of addressing the credibility of governments or other socio-political actors. The fact that some conspiracy theories, such as the United States Department of Defense’s plans to stimulate acts of terrorism and blame them on Cuba, have turned out to be true certainly bears out this point. In this view, conspiracy theories may be regarded as the beginnings of social movements that could create positive change and foster solidarity. Conspiracies could be recognized positively as a cultural practice that attempts to map the trajectories and effects of power. Conspiracy theories have the potential to create constructive socio-political change, but also the ability to sow discord, violence and public mistrust, while diverting attention from political issues of real significance and undermining democratic debate. But, importantly,

conspiracy theories remain limited because their critique of power structures is often highly simplistic and illogical.

People who believe in conspiracies are not always the stereotyped crazed right-wing white males from rural parts of the United States. They could be us. Harkening back to Hofstadter, scholars have argued that believing in conspiracy theories satisfies the epistemic needs for order, certainty, control, and a sense of group membership. Anyone who feels powerless and needs concrete answers to help stave off fear of a perceived demise could be a believer. It could be anyone wrapped in a safety blanket of non-facts, regardless of how they contradict the truth, because that blanket keeps them secure and protected. Continuity and belongingness, increasingly difficult to sustain at the personal level, re-emerge in the theory and practice of conspiracy theories. If we as a society are to approach civil discourse, retreat from racism, respect individual differences, and create a nourishing social climate for everybody, we must acknowledge that the elements of society currently exhibiting the most vile behaviors are the very ones we need to reach to help them reestablish a place in a social group that is not based on anger and hate and conspiratorial thinking.

References

- Abalakina-Paap, M., Stephan, W. G., Craig, T., & Gregory, W. L. (1999). Beliefs in conspiracies. *Political Psychology*, 20(3), 637–647.
- Bilewicz, M., Winiewski, M., Kofta, M., & Wójcik, A. (2013). Harmful ideas. The structure and consequences of anti-semitic beliefs in Poland. *Political Psychology*, 34, 821–839. <https://doi.org/10.1111/pops.12024>
- Caparos, S., Fortier-St-Pierre, S., Gosselin, J., Blanchette, I., & Brisson, B. (2015). The tree to the left, the forest to the right: Political attitude and perceptual bias. *Cognition*, 134, 155–164. <https://doi.org/10.1016/j.cognition.2014.10.006>
- Cichočka, A., Marchlewska, M., & de Zavala, A. G. (2015). Does self-love or self-hate predict conspiracy beliefs? Narcissism, self-esteem, and the endorsement of conspiracy theories. *Social Psychological and Personality Science*, 7(2), 157–166.
- Combs, D. R., Penn, D. L., & Fenigstein, A. (2002). Ethnic differences in subclinical paranoia. *Cultural Diversity and Ethnic Minority Psychology*, 8, 248–256.
- Conway, L. G., Gornick, L. J., Houck, S. C., Anderson, C., Stockert, J., Sessoms, D., & McCue, K. (2016). Are conservatives really more simple-minded than liberals? The domain specificity of complex thinking. *Political Psychology*, 37(6), 777–798. <https://doi.org/10.1111/pops.12304>
- Crocker, J., Broadnax, S., Luhtanen, R., & Blaine, B. E. (1999). Belief in U.S. government conspiracies against blacks among black and white college students: Powerlessness or system blame? *Personality and Social Psychology Bulletin*, 25(8), 941–953. <https://doi.org/10.1177/01461672992511003>
- Darwin, H., Neave, N., & Holmes, J. (2011). Belief in conspiracy theories: The role of paranormal belief, paranoid ideation and schizotypy. *Personality and Individual Differences*, 50(8), 1289–1293. <https://doi.org/10.1016/j.paid.2011.02.027>
- De Zavala, A. G., Cislak, A., & Wesolowska, E. (2010). Political conservatism, need for cognitive closure, and intergroup hostility. *Political Psychology*, 31(4), 521–541. <https://doi.org/10.1111/j.1467-9221.2010.00767.x>
- Douglas, K., Sutton, R. M., & Cichočka, A. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science*, 26(6), 538–542.

- Erisen, E., & Erisen, C. (2012). The effect of social networks on the quality of political thinking. *Political Psychology, 33*(6), 839–865. <https://doi.org/10.1111/j.1467-9221.2012.00906.x>
- Erisen, C., Lodge, M., & Taber, C. S. (2014). Affective contagion in effortful political thinking. *Political Psychology, 35*(2), 187–206. <https://doi.org/10.1111/j.1467-9221.2012.00937.x>
- Goldberg, R. A. (2004). “Who profited from the crime?” Intelligence failure, conspiracy theories and the case of September 11. *Intelligence & National Security, 19*(2), 249–261.
- Graeupner, D., & Coman, A. (2017). The dark side of meaning-making: How social exclusion leads to superstitious thinking. *Journal of Experimental Social Psychology, 69*, 218–222.
- Green, R., & Douglas, K. M. (2018). Anxious attachment and belief in conspiracy theories. *Personality and Individual Differences, 125*, 30–37. <https://doi.org/10.1016/j.paid.2017.12.023>
- Heath, C., Bell, C., & Sternberg, E. (2001). Emotional selection in memes. *Journal of Personality and Social Psychology, 81*, 1028–1041.
- Hibbing, J. R., Smith, K. B., Peterson, J. C., & Feher, B. (2014). The deeper sources of political conflict: Evidence from the psychological, cognitive, and neurosciences. *Trends in Cognitive Sciences, 18*(3), 111–113. <https://doi.org/10.1016/j.tics.2013.12.010>
- Hofstadter, R. (1966). The paranoid style in American politics. In R. Hofstadter (Ed.), *The paranoid style in American politics and other essays* (pp. 3–40). New York: Knopf.
- Jolley, D., Douglas, K., Leite, A., & Schrader, T. (2019). Belief in conspiracy theories and intentions to engage in everyday crime. *British Journal of Social Psychology, 58*, 534–549. <https://doi.org/10.1111/bjso.12311>
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*, 339–375.
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one’s own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology, 77*(6), 1121–1134. <https://doi.org/10.1037/0022-3514.77.6.1121>
- Lantian, A., Muller, D., Nurra, C., & Douglas, K. M. (2017). I know things they don’t know!: The role of need for uniqueness in belief in conspiracy theories. *Social Psychology, 48*(3), 160–173.
- Leman, P. J., & Cinnirella, M. (2007). A major event has a major cause. *Social Psychological Review, 9*, 18–28.
- Leman, P. J., & Cinnirella, M. (2013). Beliefs in conspiracy theories and the need for cognitive closure. *Frontiers in Psychology, 4*, 378. Published online June 27, 2013.
- Lieberman, M. P., Schreiber, P., & Ochsner, K. N. (2003). Is political cognition like riding a bicycle? How cognitive neuroscience can inform research on political thinking. *Political Psychology, 24*(4), 681–704. <https://doi.org/10.1046/j.1467-9221.2003.00347.x>
- Miller, S. (2002). Conspiracy theories: Public arguments as coded social critiques. *Argumentation and Advocacy, 39*, 40–56.
- Moulding, R., Nix-Carnell, S., Schnabel, A., Nedeljkovic, M., Burnside, E. E., Lentini, A. F., & Mehzabin, N. (2016). Better the devil you know than a world you don’t? Intolerance of uncertainty and worldview explanations for belief in conspiracy theories. *Personality and Individual Differences, 98*, 345–354. <https://doi.org/10.1016/j.paid.2016.04.060>
- Nyhan, B., & Reifler, J. (2010). When corrections fail: The persistence of political misperceptions. *Political Behavior, 32*(2), 303–330.
- Oliver, J. E., & Wood, T. J. (2014). Conspiracy theories and the paranoid style(s) of mass opinion. *American Journal of Political Science, 58*(4), 952–966.
- Pennycook, G., & Rand, D. G. (2018). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. *Cognition, 188*, 39–50. <https://doi.org/10.1016/j.cognition.2018.06.011>
- Phoenix, D. L., & Arora, M. (2018). From emotion to action among Asian Americans: Assessing the roles of threat and identity in the age of Trump. *Politics, Groups, and Identities, 6*(3), 357–372.
- Robins, R. S., & Post, J. M. (1997). *Political paranoia*. New Haven, CT: Yale University Press.
- Schmalzle, R., Hacker, F. K., Honey, C. J., & Hasson, U. (2015). Engaged listeners: Shared neural processing of powerful political speeches. *Social Cognitive & Affective Neuroscience, 10*(8), 1137–1143. <https://doi.org/10.1093/scan/nsu168>

- Sperber, D., Clement, F., Heintz, C., Mascaro, O., Mercier, H., Origg, G., & Wilson, D. (2010). Epistemic vigilance. *Mind and Language*, 25(4), 359–393. <https://doi.org/10.1111/j.1468-0017.2010.01394.x>
- Sunstein, C. R., & Vermeule, A. (2009). Conspiracy theories: Causes and cures. *Journal of Political Philosophy*, 17, 202–227.
- Swami, V., Chamorro-Premuzic, T., & Furnham, A. (2019). Unanswered questions: A preliminary investigation of personality and individual difference predictors of 9/11 conspiracist beliefs. *Applied Cognitive Psychology*, 24(6), 749–761. <https://doi.org/10.1002/acp.1583>
- Swami, V., & Coles, R. (2010). The truth is out there: Belief in conspiracy theories. *The Psychologist*, 23, 560–563.
- Swami, V., Furnham, A., Smyth, N., Weis, L., Lay, A., & Clow, A. (2016). Putting the stress on conspiracy theories: Examining associations between psychological stress, anxiety, and belief in conspiracy theories. *Personality and Individual Differences*, 99, 72–76. <https://doi.org/10.1016/j.paid.2016.04.084>
- Trevors, G. J., Muis, K. R., Pekrun, R., Sinatra, G. M., & Winne, P. H. (2016). Identity and epistemic emotions during knowledge revision: A potential account for the backfire effect. *Discourse Processes*, 53(5–6), 339–370. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=mzh&AN=2017710117&site=eds-live&scope=site>
- van Prooijen, J., Douglas, K. M., & De Inocencio, C. (2018). Connecting the dots: Illusory pattern perception predicts belief in conspiracies and the supernatural. *European Journal of Social Psychology*, 48(3), 320–335. <https://doi.org/10.1002/ejsp.2331>
- van Prooijen, J. W., & van Vugt, M. (2018). Conspiracy theories: Evolved functions and psychological mechanisms. *Perspectives on Psychological Science*, 13(6), 770–788. <https://doi.org/10.1177/1745691618774270>
- Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, 322, 115–117. <https://doi.org/10.1126/science.1159845>
- Whitson, J. A., Galinsky, A. D., & Kay, A. (2015). The emotional roots of conspiratorial perceptions, system justification, and belief in the paranormal. *Journal of Experimental Social Psychology*, 56, 89–95. <https://doi.org/10.1016/j.jesp.2014.09.002>

Why Is Populism So Robustly Associated with Conspiratorial Thinking? Collective Narcissism and the Meaning Maintenance Model



Agnieszka Golec de Zavala

The present wave of populism has significantly reorganized the political map of the world. Over the past two decades populist parties have become significant political players in many Western countries: increasing their support, entering national parliaments, and taking over governments (Brubaker, 2017). An overwhelming majority of Western populist parties represents the political right-wing hostile to minorities (Eiermann, Mounk, & Gultchin, 2018). Anti-elitism and anti-pluralism are defining features of populism. Populism is illiberal. It undermines the rule of law and respect towards human rights (Mudde & Rovira Kaltwasser, 2017; Müller, 2017).

One visible feature of the current wave of populism is the increased presence of fake news and conspiratorial ideation in public discourses. Conspiracy theories are explanations for events that—typically without evidence—assume secretive, malevolent plots involving multiple actors: a mysterious ‘them’ who ‘run’ things and work against ‘us’ (Abalakina-Paap, Stephan, Craig, & Gregory, 1999; Goertzel, 1994; van Prooijen & van Lange, 2014). People who hold populist views proclaim limited faith in logic, empirical evidence, and scientific experts. Instead, they believe in conspiracy theories, often contradicted by science. For example, they believe in supposedly harmful effects of vaccines or that the US government knowingly helped the 9/11 terrorist attackers. They believe that manmade global warming is a hoax, or that AIDS has been spread around the world on purpose by a secret group or

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organisation. More generally, they believe that a single group of people secretly controls events, and together, rules the world (Lewis, Boseley, & Duncan, 2019).

Despite their varied content, a propensity to believe in specific conspiracy theories seems to be driven by the same generic tendency to form suspicions about malevolent collective agents intending to harm and undermine ‘us’ (e.g. generic conspiracist beliefs, Brotherton, French, & Pickering, 2013; conspiratory mindset, Imhoff & Bruder, 2014; conspiratorial predispositions, Uscinski, Klofstad, & Atkinson, 2016). Indeed, empirical evidence suggests that a belief in one conspiracy theory is correlated with a belief in other conspiracy theories, even if their contents vary considerably. Supporters of populist political movements tend to believe in various conspiracy theories at the same time,—even contradictory ones—and they are generally gullible (Van Prooijen, 2018).

In this chapter, we introduce the concept of collective narcissism: a belief that one’s own group (the in-group) is exceptional and entitled to privileged treatment, but it is not sufficiently recognized by others (Golec de Zavala, 2011, 2018; Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009; Golec de Zavala, Dyduch-Hazar, & Lantos, 2019). We propose that research on collective narcissism allows for better understanding of the pervasive association between populism and conspiratorial thinking. We propose that populism has collective narcissism at its heart. Given that populism involves endorsing collective narcissism, the link between populism and conspiratorial thinking is fuelled by the need to compensate for aversive experience arising from the violation of the committed belief that characterizes collective narcissism.

Namely, when people endorse collective narcissism, the belief that their national group is exceptional is continually violated by the realization that this exceptionality is not recognized by other groups. This creates an aversive arousal that motivates people to search for an explanation for the lack of recognition for their group that would allow them to maintain its exaggerated image. Conspiracy theories provide external reasons why others undermine the exceptionality of the in-group. Independently, the arousal stemming from endorsing the collective narcissistic belief motivates people to affirm *any* available belief and search for *any* meaningful relations and patterns, even where they do not exist. In other words, when people’s committed belief is violated (their group’s exceptionality is not validated by others) they are motivated to search for new meaning. This makes them likely to seize on conspiracy theories, which offer coherent meaning systems often supported by elaborate arguments. Thus, conspiracy theories and conspiratorial thinking satisfy psychological needs associated with collective narcissism.

The chapter first presents relevant research on collective narcissism and discusses why it defines populism. Next, it discusses how consequences of collective narcissism, including conspiratorial thinking, can be interpreted and predicted from the Meaning Maintenance Model’s perspective (Heine, Proulx, & Vohs, 2006; Proulx & Inzlicht, 2012).

What Is Collective Narcissism?

Collective narcissism is a positive belief about one's own group, but it is not just a belief that the group is great and a reason to be proud. Collective narcissism is a belief that the group is *unique* and *exceptional*, and therefore, *entitled* to privileged treatment. Collective narcissism is not only the belief in the group's supremacy. Any reason, not only power and military might (the main bases of collective narcissism in the U.S., Gusfield, 1963; Hofstadter, 1965; Lipset & Raab, 1970), can be used to claim that the group is exceptional: its incomparable morality, cultural sophistication, God's love, even exceptional loss, suffering and martyrdom (the last three being the main bases of collective narcissism in Hungary, Forgas & Lantos, 2019, and Poland, Skarżyńska, Przybyła, & Wójcik, 2012) or the in-group's benevolence, tolerance, or trustworthiness (Żemojtel-Piotrowska et al., 2018). Thus, the reason for the narcissistic claim to the group's exceptionality and entitlement may vary. Whatever the reason to claim the privileged status, the collective narcissistic belief expresses the desire for one's own group to be noticeably distinguished from other groups and the concern that the fulfillment of this desire is threatened. Therefore, central to collective narcissism is the resentment that the group's exceptionality is not sufficiently visible to others.

Collective narcissism applies to any social group—not only the country or the nation like the concepts of patriotism or nationalism (Koesterman & Feshbach, 1989). Collective narcissism can be contrasted with in-group satisfaction or collective self-esteem, which is the belief that one's own group and one's membership in it are of a high value (Leach et al., 2008). Collective narcissism and in-group satisfaction overlap but differ. While collective narcissism emphasizes uniqueness and entitlement of the group, in-group satisfaction emphasizes that the membership in this group is a reason to be proud. Collective narcissism is preoccupied with the lack of recognition of the group's exceptionality, while in-group satisfaction pertains to feeling happy to be the group's member. Collective narcissism without in-group satisfaction and in-group satisfaction without collective narcissism have opposite relationships with intergroup attitudes and behaviors (Golec de Zavala et al., 2019).

National collective narcissism can be contrasted with nationalism, blind patriotism or national in-group glorification: variables pertaining to assertion of national superiority. Nationalism is a desire for national supremacy and an orientation towards international dominance (Koesterman & Feshbach, 1989). While, nationalism refers to support for a dominant stance in international relations, collective narcissism reflects concerns regarding recognition of the nation's exceptionality. The two concepts tap into discrete mechanisms underlying intergroup hostility. Central to nationalism is the desire for international dominance. People who hold nationalist beliefs demand actions that serve the purpose of achieving a dominant position in the intergroup hierarchy, demonstrate military, economic, and political power to bend others to the nation's will. Nationalists justify intergroup hostility as a means of achieving national supremacy (Blank & Schmidt, 2003; De Figueiredo Jr. & Elkins, 2003; Koesterman & Feshbach, 1989; Mummendey, Klink, & Brown, 2001;

Pehrson, Brown, & Zagefka, 2009). Instead, collective narcissists justify intergroup hostility as a means of achieving (or re-claiming) appropriate *recognition* for their group (Golec de Zavala, 2018; Golec de Zavala et al., 2019). While nationalistic hostility is actively aggressive and openly dominant, collective narcissistic hostility is subjectively defensive (Dyduch-Hazar, Mrozinski, & Golec de Zavala, 2019). To be sure, the same atrocities may be motivated by nationalistic belief in the nation's right to dominate others and the collective narcissistic belief that the nation is not receiving special treatment and appreciation.

Blind patriotism, national in-group glorification, and collective narcissism overlap in uncritical idealization of the nation. Blind patriotism is an inflexible attachment to a country that is intolerant of criticism (Schatz, Straub, & Lavine, 1999). National in-group glorification is a belief in the nation's superiority and reverence towards national symbols (Roccas, Klar, & Liviatan, 2006). While blind patriots and in-group glorifiers emphasize the nation's cohesion and idealize all its aspects, collective narcissists see the nation's greatness as constantly undermined and emphasize its entitlement to, but lack of, appropriate recognition. While blind patriotism is related to insensitivity to and avoidance of criticism, collective narcissism is related to hypersensitivity to criticism of the nation (Golec de Zavala, Peker, Guerra, & Baran, 2016).

Psychological research on collective narcissism may help elucidate why people support populist parties and politicians, and follow the conspiratorial ideation those agents spread. It suggests it is collective narcissism that lies in the heart of all populist discourses around the world (Golec de Zavala et al., 2019). In the next sections, I propose to interpret the current extraordinary increase of populism as a process in which collective narcissism became a hegemonic belief about many national identities (Lustick, 1996, 2002). Next, we focus on explaining how and why national collective narcissism is almost inseparably intertwined with conspiratorial thinking.

Collective Narcissism and Populism

Research links collective narcissism to support for populist parties and politicians in various countries in the world (for meta-analysis of the relationship see Forgas & Lantos, 2019). American collective narcissism was the second, after partisanship, strongest correlate of voting for Donald Trump in the 2016 US Presidential election (Federico & Golec de Zavala, 2018). Its role was compared to other factors, while explaining support for Trump's candidacy: economic dissatisfaction, authoritarianism, sexism, and racial resentment. Collective narcissism was associated with the voters' decision to support Donald Trump over and above those variables (Federico & Golec de Zavala, 2018). In the UK, collective narcissism was associated with the vote to leave the European Union (Golec de Zavala, Guerra, & Simão, 2017). Analyses indicated that the rejection of immigrants, perceived as a threat to British economic superiority and the British way of life, were behind the association between collective narcissism and the Brexit vote (Golec de Zavala et al., 2017).

In addition, collective narcissism was associated with support for the populist government and its particular policies in Poland (Cislak, Wojcik, & Cichocka, 2018; Golec de Zavala, 2017; Marchlewska, Cichocka, Panayiotou, Castellanos, & Batayneh, 2018) and in Hungary (Forgas & Lantos, 2019). Implications of collective narcissism in voting for populist politicians and parties suggests that collective narcissistic belief about the nation lies at the core of populist rhetoric. A closer look at the main characteristics of populist discourse reveals that it is constructed around the resentment that the nation's entitlement to privilege is (no longer) granted by other groups.

Populist distrust in traditional political and societal elites results in a simplistic but moralized antagonism between 'the pure people' and 'the corrupt elites' (Mudde & Rovira Kaltwasser, 2017; Müller, 2017). This essentially content-free dualism at the core of populism becomes further associated with specific ideologies that give it its particular regional manifestations. Nowadays, populism is most often associated with right-wing ideology and a belief that states should be inhabited exclusively by members of a native national group (Mudde, 2017). In its essence, populism represents the collective narcissistic claim for privileged treatment of ethnic nationals and those who represent the 'true' and 'pure' elements of the nation.

Populist rhetoric often follows the logic of a melodramatic jeremiad, lamentation over the lost purity of the nation, recollection of its greatness and a call for its renewal combined with the unshakeable belief that the nation is unique and chosen (Bercovitch, 1978). Jeremiad as a rhetorical tactic demands conversion to the "true" ways indicated by the "chosen" who lead the national reformation. Importantly, populist rhetoric emphasizes the division between the "chosen" or "true" members of the nation and internal opposition that threatens the plan of the national re-birth (Mudde, 2007; Müller, 2017; Sanders, Molina Hurtado, & Zoragastua, 2017). The populist rhetoric emphasizes the privileged status of those within the nation vigilant enough to see that its greatness is no longer recognized by others. It blames everyone who opposes 'the chosen' for the loss of national grandeur (Mols & Jetten, 2016). Thus, the populist message has the collective narcissistic belief about the nation's unrecognized exceptionality at its core.

Simultaneously holding the belief that the nation is exceptional and the belief that this exceptionality is questioned and not granted by others produces a motivational state that increases general gullibility and tendency to see patterns and meaningful relationships even among unrelated events. Thus, we can expect that collective narcissism should be associated with belief in specific conspiracy theories as well as generic conspiratorial thinking. Next, we review findings linking collective narcissism to conspiratorial thinking.

Collective Narcissism and Conspiratorial Thinking

The association between collective narcissism and intergroup hostility is often driven by conspiracy beliefs about other groups. In an initial investigation (Golec de Zavala & Cichocka, 2012), we hypothesized and found that collective narcissism

was linked to anti-Semitism in Poland because it predicted endorsing the conspiracy stereotype of the Jewish minority. Conspiracy stereotype portrays this ethnic group as particularly dangerous and threatening to ethnic Poles. In addition to being perceived as alien to Poles, Jewish people are stereotyped as dangerous, motivated by a common intention to dominate the world. Allegedly, those dominant intentions are executed by means of indirect and deceptive methods, in hidden and non-obvious ways (Bergmann, 2008; Cohen & Golub, 1991). We showed that the association between collective narcissism and anti-Semitism was mediated by the conspiracy stereotype of Jews. Thus, when Poles endorsed the collective narcissistic belief about Poland, they rejected Jews because they believed Jews were conspiring to overtake Poland by secretive means (Golec de Zavala & Cichocka, 2012).

Subsequent studies showed that collective narcissism was a robust predictor of believing in various conspiracy theories also outside of the specific context of the Polish–Jewish relations (Cichocka, Marchlewska, Golec de Zavala, & Olechowski, 2016). We showed that Polish collective narcissism was associated with the belief that Western countries conspired to undermine the significance of Poland as a major contributor to the collapse of the Eastern European communist regimes. Poles believe that the collapse of the Communist block began with the rise of the Solidarity movement in Poland in the 1980s, followed by the Round Table negotiations and the first parliamentary elections won by the Solidarity in June 1989. However, it is the fall of the Berlin Wall (which happened almost 6 months later) that is commonly regarded as a symbol of the end to the Communist era. Polish collective narcissism was associated with the belief that Germany conspired with other countries to deprive Poland of its due recognition for its role in Communism's collapse.

Collective narcissism also predicted the belief in Russian involvement in the 'Smoleńsk tragedy'. The 2010 crash of the Polish presidential plane on the way to Smoleńsk, Russia killed the president and 95 prominent Polish politicians on their way to commemorate Polish officers killed in Russia during World War II. Conspiracy theories of Russian involvement in the crash have been popularized by right-wing politicians and contributed to the rise to power of the ultraconservative, populist Law and Order (*Prawo i Sprawiedliwość*) (Sieradzka, 2018, April 20). Because the presidential plane crashed in Russia, on the sixtieth anniversary of the Russian massacre of Polish officers in Katyń, beliefs in Russian involvement in the Smoleńsk crash spread quickly after the tragedy. Polish collective narcissism predicted support for those theories and for government financing the investigation into the foreign involvement in the crash (Golec de Zavala, 2017).

In a recent investigation, Catholic collective narcissism in Poland was linked to suspicions that gender-equality activists and academics teaching gender studies secretly plot to harm and undermine family values, traditional values, and social arrangements (Marchlewska, Cichocka, Łozowski, Górka, & Winiewski, 2019). Such antagonistic belief in the malicious plotting of other groups against one's own group may fit the general tendency associated with collective narcissism, to adopt a posture of intergroup hostility across multiple intergroup distinctions. Such thinking provides a focused, simple explanation for why others fail to acknowledge the nation's uniqueness. It justifies constant vigilance to threats to the nation's excep-

tionality and provides a reassurance that the nation is important enough to attract secretive plots from others (Golec de Zavala & Federico, 2018).

However, collective narcissism seems to be also associated with other conspiracy beliefs that are not clearly adversarial or assume a division between ‘the true group members’ and ‘the worst sort’. For example, collective narcissism was linked to support for anti-environmental policies in Poland (e.g., subsidy for the coal industry or logging the primeval forest, Cislak et al., 2018). This may be because Polish collective narcissism is associated with the belief that ‘Climate change’ and so called ‘global warming’ are primarily businesses—some groups make huge money, causing people to feel scared and guilty. This association was significant over and above the role of political conservatism or support for the current anti-environmentalist government in Poland (Cyprianska, Bedynska, & Nezelek, 2019). Thus, although some studies indicated that collective narcissism was associated with conspiracy beliefs when those beliefs were applied to the actions of other groups (Cichocka et al., 2016), subsequent studies suggested that intergroup antagonism may not be the crucial feature that links collective narcissism to the tendency to believe in conspiracy theories.

Indeed, research indicates that collective narcissism is associated not only with believing in particular conspiracy theories, but it is also linked to conspiratorial thinking in more general terms, an essentially content-free tendency to believe in secretive plots against ‘us’ (Uscinski et al., 2016). Particular in-groups and out-groups featured in such thinking can be redefined, depending on current need and normative narrative. Conspiracy theories need not have an obvious intergroup dimension, to be attractive when people support the collective narcissistic belief. A recent investigation in the US (Golec de Zavala & Federico, 2018), found that collective narcissism predicted an *increase* in content general conspiratorial thinking over the course of the 2016 U.S. presidential campaign, which exposed the public to many instances of conspiracist ideation.

In this study, we assessed conspiratorial thinking with the following items: ‘Much of our lives are being controlled by plots hatched in secret places’; ‘Even though we live in a democracy, a few people will always run things anyway’; ‘The people who really run the country are not known to the voters’ and ‘Big events like wars, economic recessions, and the outcomes of elections are controlled by small groups of people who are working in secret against the rest of us.’ (Uscinski et al., 2016). We estimated two ‘conditional-change’ models in which conspiracy thinking in November 2016 was regressed on collective narcissism, while controlling for respondents’ lagged value of conspiracy thinking from July 2016. We found that collective narcissism predicted an increase in agreement with those items from July to November 2016 during the presidential campaign, over and above all other predictors and almost as strongly as political partisanship (Golec de Zavala & Federico, 2018).

Thus, contrary to previous findings (Cichocka et al., 2016), the findings of Golec de Zavala and Federico (2018) indicate that collective narcissism is related to belief in conspiracies involving fellow members of the nation or members of only vaguely defined collective agents. Importantly, collective narcissism is associated with the

conspiratorial thinking over and above individual narcissism: a desire for continual external validation of an inflated self-view (Crocker & Park, 2004; Morf & Rhodewalt, 2001). Moreover, collective narcissism is uniquely associated with conspiratorial thinking, whereas the association between individual narcissism and conspiratorial thinking is explained by the association between individual narcissism and paranoid thought that typically revolves around suspicions of malicious actions aimed at an individual (Cichocka, Marchlewska, & Golec de Zavala, 2015). Thus, there is something specific to collective narcissism, not narcissism in general, that explains its association with conspiratorial thinking.

We argued that collective narcissism may be associated with conspiratorial thinking because of its proneness towards intergroup antagonism. A convergent body of findings indicate that collective narcissism predicts hostile intergroup attitudes and behaviors, especially in retaliation to offences to one's own group, both past and present, actual and imagined (Golec de Zavala et al., 2019). The hypersensitivity to the threat to the in-group's exaggerated image associated with collective narcissism (Golec de Zavala et al., 2016) may fuel a general tendency to engage in conspiracy explanations of what collective narcissists otherwise tend to believe—that their group is constantly threatened and under attack (Dyduch-Hazar et al., 2019; Golec de Zavala et al., 2009; Golec de Zavala & Cichocka, 2012). Thus, conspiratorial thinking provides safe, externalizing explanations for a in-group's lack of recognition and provides a sense that the in-group is significant and unique by virtue of being a target of secretive plots and attacks. However, the reasons why collective narcissism is associated with conspiracy thinking may be broader and related to a more general mechanism of compensation of threat to a committed belief.

Collective Narcissism as a Threatened Belief in the Group's Uniqueness

We propose that the robust link between collective narcissism and conspiratorial thinking (and many other consequences of collective narcissism) is driven by a desire to compensate for the adverse arousal that follows violation of a committed belief. Many consequences of collective narcissism can be, thus, explained from the Meaning Maintenance Model's perspective (Heine et al., 2006; Proulx & Inzlicht, 2012). Collective narcissism reflects the recognition that a firmly held belief (one's own group is great and exceptional) is violated by others, who do not admire the group, or do not acknowledge its privileged position. When people hold the collective narcissistic belief, they constantly experience the adverse arousal that follows violation of a firmly held belief. The motivation to reduce this arousal is robust because the collective narcissistic belief has the undermined sense of self-esteem invested in it. Research suggests that collective narcissism is a compensation for an undermined sense of self-worth (Golec de Zavala et al., 2019). Thus, the sense of

self cannot be separated from the group and compensatory behaviors are more likely in face of violations that are relevant to self (Proulx & Heine, 2009).

Thus, collective narcissism reflects a state of relatively stable (as long as this belief is upheld) motivation to compensate violations to the belief in the group's uniqueness. Compensation can be executed in several ways. One way is assimilation or changing the meaning of the disconfirming experience to better fit the existing belief. Another way is accommodation, which comprises changing the committed belief to account for the disconfirming experience (Proulx & Inzlicht, 2012). Assimilation and accommodation often work together: both the incoming information and existing belief are changed to some extent so the meaning remains unchanged. Collective narcissism is related to a tendency to exaggerate threat to the group and its image (Golec de Zavala et al., 2016), to attributing hostile intentions towards the in-group to members of other groups (Dyduch-Hazar et al., 2019), including intentions executed in secretive ways (Golec de Zavala & Cichocka, 2012). Such beliefs attribute the lack of recognition of one's own group's uniqueness to the hostility and jealousy of others. They suggest it is the group's exceptionality that attracts hostile plots. They explain how the group can be at the same time exceptional and not appreciated by others, who envy its greatness. As we have proposed, conspiracy theories provide a simple and coherent, although biased, explanation for the apparent lack of recognition of the group's exceptionality and the sense of the group being significant enough to attract conspiracies from others (Golec de Zavala & Federico, 2018).

Compensation for undermined beliefs can also take a form of affirmation of another, unrelated belief. Affirmed alternative belief needs not share any content with the belief that was violated. However, it should be coherent and abstract enough to dispel uncertainty. Compensation for violation to committed beliefs can also take the form of abstraction: an increased tendency to seek and recognize patterns. When people hold the collective narcissistic belief, their tendency to see patterns, plots, and conspiracies where they do not exist should increase. Affirmation and abstraction as compensation techniques explain why collective narcissism is related to belief in conspiracy theories that do not have an obvious intergroup dimension (e.g. the beliefs that climate change is a hoax) and conspiratorial thinking which is a content-free meaning making activity. Conspiracy theories provide unifying, even if false, frameworks to interpret events that are otherwise difficult to connect and explain. People who hold the collective narcissistic belief are motivated to affirm such interpretations.

Our interpretation of populism as collective narcissism allows us to formulate the hypothesis that support for populist rhetoric, politicians, policies, and parties should be reliably associated with believing in various, even contradictory conspiracy theories. We predict that populism, as well as collective narcissism, should be even more broadly associated with general gullibility (for initial evidence see van Prooijen & Krouwel, 2019). Based on our research on collective narcissism, we can describe conditions that make the collective narcissistic belief about the group popular and thus, conditions that increase support for populism, conspiratorial thinking, and intergroup animosity.

Our research (Golec de Zavala et al., 2019; for review Golec de Zavala et al., 2019), suggests that people are more likely to gravitate towards those who spread the collective narcissistic belief about the group when their certainty regarding self-worth is undermined, when they experience uncertainty regarding their personal significance and value: in times of economic crisis or significant societal change. A historical example of a social context that undermined individual self-esteem and led to a rise in collective narcissism was the spread of fascist ideology after the Great Depression of the 1930s. According to Adorno (1997) and Fromm (1973), the rapid expansion of the capitalist economy and then the Great Depression undercut the stability of the traditional bases to which people assessed their self-esteem. This was followed by widespread support for the fascist narrative about national entitlement.

The recent wave of populism can be linked to analogous economic and societal conditions: the 2008 Global Financial Crisis caused many people to lose the economic status to which they felt entitled. Moreover, broader societal changes towards greater equality between social groups produced a sense of lost group-based privilege. The broader societal changes in Western countries led to the empowerment of many previously disenfranchised groups such as immigrants, ethnic and cultural minorities, women, and the LGBT+ community. Their emancipation produced a sense of lost group-based privilege among members of privileged groups (Inglehart & Norris, 2016). Such conditions are likely to engender uncertainty about self-esteem and produce a motivation, shared by some group members, to use the in-group instrumentally as a means of enhancing self-esteem (Golec de Zavala et al., 2019).

We predict that the collective narcissistic belief about the group would become popular also when the sense of pride in group membership and positive attachment to a community are diminished (e.g., via centralization of power or detachment from local community). Collective narcissism often overlaps with in-group satisfaction, which is related to tolerance towards other groups and which is unrelated to intergroup aggression (Golec de Zavala, 2011, 2018; Golec de Zavala et al., 2019). Due to this overlap, the association between collective narcissism and hostility towards other people because they are members of other groups is weaker (Golec de Zavala, Cichocka, & Bilewicz, 2013), and collective narcissism becomes indirectly related to positive and prosocial emotions. Without the overlap with in-group satisfaction, collective narcissism is uniquely related to negative emotionality, self-reported lack of social connectedness, intergroup hostility, and retaliatory aggressiveness (Golec de Zavala et al., 2019).

This suggests that the positive overlap with in-group satisfaction mitigates the negative consequences of collective narcissism. It also mitigates its association with conspiratorial thinking. Without it, collective narcissism is a pretentious demand for privileged treatment and recognition of one's own group. Thus, in the longer run, capitalizing on the overlap between collective narcissism and in-group satisfaction via emphasizing the positive value of the group membership and commitment to the community may offer a route to improving the negative emotionality that underlies collective narcissism. Emphasizing the value of community, prosocial actions, positive and tolerant attitudes toward members of the same group can lower the negative

intergroup consequences of collective narcissism. Conversely, situations that decrease the overlap between collective narcissism and in-group satisfaction are likely to make the negative consequences of collective narcissism become manifest. When collective narcissism becomes an accepted narration about the national identity and the role of in-group satisfaction is marginalized, people are more likely to turn against other groups like minorities, immigrants, or refugees and spread and believe in conspiracy theories that increase intergroup hostilities.

Conclusions

The concept of collective narcissism helps us to bridge populism and conspiratorial thinking. It offers a comprehensive explanation why these two social phenomena are so closely interlinked. People who endorse the collective narcissistic belief about their groups seek, but are rarely satisfied with, the recognition they receive for their group. As they simultaneously believe their group is exceptional and unappreciated, they experience aversive arousal characteristic for any situations in which a committed belief is violated. Thus, when people endorse the collective narcissistic belief about their group, they are continuously motivated to terminate the unpleasant emotional state arising from the violation of committed beliefs.

Conspiracy beliefs can provide multiple routes to terminate this state. They provide instant external explanations for why others do not recognize the group's uniqueness. Thus, the committed belief in the exceptionality of one's own group can be preserved in face of the disconfirming information. They also provide alternative meaning systems people can seize on, when experiencing the aversive arousal arising from the violation of committed beliefs. This explains why collective narcissism is related to believing in varying conspiracy theories, as well as generic conspiratorial thinking.

By stabilizing the belief in the group's exceptionality, conspiracy beliefs promote a sense of self-worth that is linked to collective narcissism. In times marked by economic upheaval or social struggle in which people experience threats to their personal self-worth, turning to collective narcissistic beliefs about the group and then, in turn, to conspiracy beliefs can be compensatory and serve to enhance personal self-worth. Regrettably, conspiracy beliefs can be formed and utilised in an instrumental manner and have a real potential to elicit resentment among individuals who uphold a collective narcissistic belief about their group—subsequently harming intergroup relations in society.

References

- Abalakina-Paap, M., Stephan, W. G., Craig, T., & Gregory, W. L. (1999). Beliefs in conspiracies. *Political Psychology, 20*, 637–647.
- Adorno, T. (1997). *Gesammelte Schriften in zwanzig Bänden [Collected writings in 20 volumes (Vols. 8–9)]*. Berlin, Germany: Suhrkamp/Insel.
- Bercovitch, S. (1978). *The American jeremiad*. Madison, WI: University of Wisconsin Press.

- Bergmann, W. (2008). Anti-Semitic attitudes in Europe: A comparative perspective. *Journal of Social Issues, 64*, 343–362.
- Blank, T., & Schmidt, P. (2003). National identity in a united Germany: Nationalism or patriotism? An empirical test with representative data. *Political Psychology, 24*, 289–312.
- Brotherton, R., French, C. C., & Pickering, A. D. (2013). Measuring belief in conspiracy theories: The generic conspiracist beliefs scale. *Frontiers in Psychology, 4*(279), 1–15.
- Brubaker, R. (2017). Why populism? *Theory and Society, 46*, 357–385.
- Cichocka, A., Marchlewska, M., & Golec de Zavala, A. (2015). Does self-love or self-hate predict conspiracy beliefs? Narcissism, self-esteem, and the endorsement of conspiracy theories. *Social Psychological and Personality Science, 7*, 157–166.
- Cichocka, A., Marchlewska, M., Golec de Zavala, A., & Olechowski, M. (2016). ‘They will not control us’: Ingroup positivity and belief in intergroup conspiracies. *British Journal of Psychology, 107*, 556–576.
- Cislak, A., Wojcik, A. D., & Cichocka, A. (2018). Cutting the forest down to save your face: Narcissistic national identification predicts support for anti-conservation policies. *Journal of Environmental Psychology, 59*, 65–73.
- Cohen, R., & Golub, J. L. (1991). Attitudes toward Jews in Poland, Hungary, and Czechoslovakia. In *A comparative survey*. New York, NY: American Jewish Committee.
- Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*, 392–414.
- Cypryńska, M., Bedynska, S., & Nezek, J. (2019). *Beliefs in climate change*. Unpublished data.
- De Figueiredo, R. J. P., Jr., & Elkins, Z. (2003). Are patriots bigots? An inquiry into the vices of in-group pride. *American Journal of Political Science, 47*, 171–188.
- Dyduch-Hazar, K., Mrozinski, B., & Golec de Zavala, A. (2019). Collective narcissism and ingroup satisfaction predict opposite attitudes towards refugees via attribution of hostility. *Front Psychol.* <https://doi.org/10.3389/fpsyg.2019.01901>
- Eiermann, M., Mounk, Y., & Gultchin, L. (2018). *European populism: Trends, threats, and future prospects*. Retrieved July 2, 2019, from Tony Blair Institute for Global Change website: <https://institute.global/insight/renewing-centre/europeanpopulism-trends-threats-and-future-prospects>
- Federico, C. M., & Golec de Zavala, A. (2018). Collective narcissism and the 2016 US presidential vote. *Public Opinion Quarterly, 82*, 110–121.
- Forgas, J. P., & Lantos, D. (2019). Understanding populism: Collective Narcissism and the collapse of democracy in Hungary. In J. P. Forgas, K. Fiedler, & W. Crano (Eds.), *Applications of social psychology*. New York, Psychology Press.
- Fromm, E. (1973). *The anatomy of human destructiveness*. New York, NY: Holt, Rinehart & Winston.
- Goertzel, T. (1994). Belief in conspiracy theories. *Political Psychology, 15*, 731–742.
- Golec de Zavala, A. (2011). Collective narcissism and intergroup hostility: The dark side of ‘in-group love’. *Social and Personality Psychology Compass, 5*, 309–320.
- Golec de Zavala, A. (2017, April 27). Wiara w zamach smoleński, a narcyzm grupowy [Belief in Smolensk assassination and collective narcissism]. WP Opinie. Retrieved from <https://opinie.wp.pl/wiara-w-zamach-smolenski-a-narcyzm-grupowy-6116481438288001a>
- Golec de Zavala, A. (2018). Collective narcissism: Antecedents and consequences of exaggeration of the in-group image. In A. D. Hermann, A. B. Brunell, & J. D. Foster (Eds.), *Handbook of trait narcissism: Key advances, research methods, and controversies* (pp. 79–88). Cham, Switzerland: Springer International Publishing AG.
- Golec de Zavala, A., & Cichocka, A. (2012). Collective narcissism and anti-Semitism in Poland. *Group Processes & Intergroup Relations, 15*, 213–229.
- Golec de Zavala, A., Cichocka, A., & Bilewicz, M. (2013). The paradox of in-group love: Differentiating collective narcissism advances understanding of the relationship between in-group love and out-group attitudes. *Journal of Personality, 81*, 16–28.
- Golec de Zavala, A., Cichocka, A., Eidelson, R., & Jayawickreme, N. (2009). Collective narcissism and its social consequences. *Journal of Personality and Social Psychology, 97*, 1074–1096.

- Golec de Zavala, A., Dyduch-Hazar, K., & Lantos, D. (2019). Collective narcissism: Political consequences of investing self-worth in the ingroup's image. *Political Psychology, 40*, 37–74.
- Golec de Zavala, A., & Federico, C. (2018). Collective narcissism and the growth of conspiracy thinking over the course of the 2016 United States presidential election: A longitudinal analysis. *European Journal of Social Psychology, 48*, 1011–1018.
- Golec de Zavala, A., Guerra, R., & Simão, C. (2017). The relationship between the Brexit vote and individual predictors of prejudice: Collective narcissism, right wing authoritarianism, social dominance orientation. *Frontiers in Psychology, 8*(2023), 1–14.
- Golec de Zavala, A., Peker, M., Guerra, R., & Baran, T. (2016). Collective narcissism predicts hypersensitivity to in-group insult and direct and indirect retaliatory intergroup hostility. *European Journal of Personality, 30*, 532–551.
- Gusfield, J. R. (1963). *Symbolic crusade: Status politics and the American temperance movement*. Oxford, UK: University of Illinois Press.
- Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The meaning maintenance model: On the coherence of social motivations. *Personality and Social Psychology Review, 10*, 88–110.
- Hofstadter, R. (1965). *The paranoid style in American politics*. New York, NY: Alfred A. Knopf.
- Imhoff, R., & Bruder, M. (2014). Speaking (un-)truth to power: Conspiracy mentality as a generalised political attitude. *European Journal of Personality, 28*, 25–43.
- Inglehart, R. F., & Norris, P. (2016). *Trump, Brexit, and the rise of populism: Economic have-nots and cultural backlash* (HKS Working Paper No. RWP16-026). Retrieved on July 3, 2019, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2818659
- Koesterman, R., & Feshbach, S. (1989). Towards a measure of patriotic and nationalistic attitudes. *Political Psychology, 10*, 257–274.
- Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L., Pennekamp, S. F., Doosje, B., ... Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology, 95*, 144–165.
- Lewis, P., Boseley, S., & Duncan, P. (2019). *Revealed: Populists far more likely to believe in conspiracy theories*. Retrieved on July 3, 2019, from *The Guardian* website: <https://www.theguardian.com/world/2019/may/01/revealed-populists-more-likely-believe-conspiracy-theories-vaccines>
- Lipset, S. M., & Raab, E. (1970). *The politics of unreason right wing extremism in America, 1790–1970*. New York, NY: Harper & Row.
- Lustick, I. S. (1996). Hegemonic beliefs and territorial rights. *International Journal of Intercultural Relations, 20*, 479–492.
- Lustick, I. S. (2002). PS-I: A user-friendly agent-based modeling platform for testing theories of political identity and political stability. *Journal of Artificial Societies and Social Simulation, 5*. Retrieved from <http://jasss.soc.surrey.ac.uk/5/3/7.html>
- Marchlewska, M., Cichocka, A., Łozowski, F., Górski, P., & Winiewski, M. (2019). In search of an imaginary enemy: Catholic collective narcissism and the endorsement of gender conspiracy beliefs. *The Journal of Social Psychology, 14*, 1–14.
- Marchlewska, M., Cichocka, A., Panayiotou, O., Castellanos, K., & Batayneh, J. (2018). Populism as identity politics: Perceived in-group disadvantage, collective narcissism, and support for populism. *Social Psychological and Personality Science, 9*, 151–162.
- Mols, F., & Jetten, J. (2016). Explaining the appeal of populist right-wing parties in times of economic prosperity. *Political Psychology, 37*, 275–292.
- Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry, 12*, 177–196.
- Mudde, C. (2007). *Populist radical right parties in Europe*. Cambridge: Cambridge University Press.
- Mudde, C. (2017). Populism: An ideational approach. In C. Rovira Kaltwasser, P. Taggart, P. Ochoa Espejo, & P. Ostiguy (Eds.), *The Oxford handbook of populism* (pp. 27–47). Oxford: Oxford University Press.
- Mudde, C., & Rovira Kaltwasser, C. (2017). *Populism: A very short introduction*. New York, NY: Oxford University Press.
- Müller, J. W. (2017). *What is populism?* London: Penguin Books.

- Mummendey, A., Klink, A., & Brown, R. (2001). Nationalism and patriotism: National identification and out-group rejection. *British Journal of Social Psychology, 40*, 159–172.
- Pehrson, S., Brown, R., & Zagefka, H. (2009). When does national identification lead to the rejection of immigrants? Cross-sectional and longitudinal evidence for the role of essentialist in-group definitions. *British Journal of Social Psychology, 48*, 61–76.
- Proulx, T., & Heine, S. J. (2009). Connections From Kafka: Exposure to Meaning Threats Improves Implicit Learning of an Artificial Grammar. *Psychological Science, 20*(9), 1125–1131. <https://doi.org/10.1111/j.1467-9280.2009.02414.x>
- Proulx, T., & Inzlicht, M. (2012). The five “a”s of meaning maintenance: Finding meaning in the theories of sense-making. *Psychological Inquiry, 23*, 317–335.
- Roccas, S., Klar, Y., & Liviatan, I. (2006). The paradox of group-based guilt: Modes of national identification, conflict vehemence, and reactions to the in-group’s moral violations. *Journal of Personality and Social Psychology, 91*, 698–711.
- Sanders, K., Molina Hurtado, M. J., & Zoragastua, J. (2017). Populism and exclusionary narratives: The ‘other’ in Podemos’ 2014 European Union election campaign. *European Journal of Communication, 32*, 552–567.
- Schatz, R. T., Straub, E., & Lavine, H. (1999). On the varieties of national attachment: Blind versus constructive patriotism. *Political Psychology, 20*, 151–174.
- Sieradzka, M. (2018, April 20). Smolensk: The tragedy that defined Polish politics. *DW*. Retrieved from <https://www.dw.com/en/smolensk-the-tragedy-that-defined-polish-politics/a-43328611>
- Skarżyńska, K., Przybyła, K., & Wójcik, A. D. (2012). Grupowa martyrologia: Psychologiczne źródła i konsekwencje [Group martyrdom: Psychological roots and consequences]. *Psychologia społeczna, 4*, 335–352.
- Uscinski, J. E., Klotzstad, C., & Atkinson, M. D. (2016). What drives conspiratorial beliefs? The role of informational cues and predispositions. *Political Research Quarterly, 69*, 57–71.
- van Prooijen, J.-W. (2018). *The psychology of conspiracy theories*. London: Routledge.
- van Prooijen, J.-W., & Krouwel, A. (2019). Overclaiming knowledge predicts anti-establishment voting. *Social Psychological and Personality Science*. <https://doi.org/10.1177/1948550619862260>
- van Prooijen, J.-W., & van Lange, P. A. M. (2014). Power, politics, and paranoia: An introduction. In J.-W. van Prooijen & P. A. M. van Lange (Eds.), *Power, politics, and paranoia* (pp. 1–16). Cambridge: Cambridge University Press.
- Żemojtel-Piotrowska, M., Piotrowski, J. P., Osin, E. N., Ciecuch, J., Adams, B. G., ... Maltby, J. (2018). The mental health continuum-short form: The structure and application for cross-cultural studies—A 38 nation study. *Journal of Clinical Psychology, 74*, 1034–1052.

Pathways to Social Connection and Civility in a Time of Political and Social Polarization



Larry Froman

Introduction

The current dysfunction of our politics in today's society reflects threats to democratic values and to respectful debate of issues and policies. Democracies here in the United States and globally are under threat by growing trends of populist and extremist political movements that in part, reflect frustration, anger, and alienation among those in society who feel disenfranchised by traditional governing processes. Norms of civility have been replaced by personal attacks and appeals to bigotry. People who hold different political beliefs from those held by others are often viewed as enemies who lack legitimacy. In the US, our two main political parties have become increasingly polarized and trapped within their silos of rigid ideologies. So called "facts" are selectively woven together to justify preexisting positions. Compromise and finding common ground are viewed not as legitimate paths to addressing critical problems facing our country, but rather as betrayal and weakness.

A Guided Perspective

As noted by historical scholars such as Jon Meacham (2018), history provides our current times with a "moral utility" and perspective that includes such principles as the "perfect should not be the enemy of the good, that compromise is the oxygen of democracy, that injustices that are being perpetuated in today's society "will one day face the harshest of verdicts by those who come after us..., and that one of the

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points of reflecting on the past is to prepare us for action in the present” (p. 259). Such a perspective offers a glimpse of much-needed optimism that fear can turn into courage, despair into hope, retreat and isolation into social connection, and blind prejudice and hate into respect and inclusion.

Factors Contributing to Social and Political Polarization

Among the causal factors of polarization, divisiveness, and intergroup conflict to be considered are *economic insecurity and uncertainty, retreat into cognitive silos, and delegitimizing one’s opponents—political and others—with different perspectives and viewpoints.*

Economic Insecurity and Uncertainty

Fear of the present and future has profound consequences for people undergoing significant sources of economic stress. As noted by Meacham (2018), “extremism, racism, nativism, and isolationism, driven by fear of the unknown, tend to spike in periods of economic and social stress—a period like our own” (p. 4). There has been an increasing pattern of declining trust in government, as people become increasingly frustrated with household incomes lagging behind middle-class expectations. “The fires of fear in America have long found oxygen when broad, seemingly threatening change is afoot” (p. 5).

As noted by Pfeffer (2018), several key factors fuel economic insecurity and stress. Among them are layoffs, contingent and part-time work, and contractual labor arrangements. Workers have to confront increasingly greater uncertainty as to where and when work with a steady paycheck will come. Addressing the potential and actual health consequences for such workers, Pfeffer states “freelancers, part-timers, and contract workers typically do not receive health or retirement benefits. Consequently, they face the insecurity and stress of providing these safety nets” (p. 66), for themselves and their families. Addressing the growth of this part of the labor force, Pfeffer refers to evidence provided by economic surveys that found the “proportion of people working in alternative work arrangements had increased some 50 percent in the ten years from 2005 to 2015.” Citing further evidence provided by economists Lawrence Katz and Alan Krueger, of this changing dynamic of employment, Pfeffer notes that “94 percent of the net employment growth in the US economy from 2005 to 2015 appears to have occurred in alternative work arrangements” (p. 66).

Another key source of stress is unpredictable schedules that many workers confront. One example is the increasing use of just-in-time scheduling, widely used in a variety of settings, including retail, offices, and hospitals. Such workers are increasingly faced with widely fluctuating schedules and hours as their employers

see fit to only call them in as needed. Such patterns, can “wreak havoc on people’s lives”, with schedules changing with only a couple of days or even hours of notice. Pfeffer, quoting a part-time service worker at an airline, “the disruption to our lives soon became unbearable. The unpredictable hours were problematic, but even more demoralizing was the sense of being treated like a machine part” (p. 66).

In today’s increasingly competitive economy in the context of globalization, many employees are experiencing growing pressure to meet performance standards in ways where they feel “constantly under the gun”. That if they don’t meet these standards, which can be at times be unrealistic, driven by a top-down management system out of touch with the daily demands faced by their employees, they will lose their jobs. While meeting performance standards is a reality that all workers must accept, it is the out-of-touch, arbitrary, arrogant, and unforgiving cultures of many organizations that need to be changed. Companies should realize that they can do well by doing good, that what’s good for workers can also be good for their organizations, with lower turnover and higher levels of employee commitment and performance (Pfeffer, 2018).

Over the past several decades, job loss due to accelerated changes in technology, global competition, cost-reduction, and organizational restructuring has become a reality faced by workers across many industries and job categories. Among the consequences of this pattern are unhealthy individual behaviors and contrary to employer expectations, reduced productivity and innovation.

Research on the relationship between job loss and unhealthy individual behaviors (Dooley, Fielding, & Levi, 1996) have addressed the complexity of this relationship. For example, as noted by the authors, aggregate level studies of mental health have yielded mixed findings on such outcome variables as psychiatric treatment rates. They point out that such studies cannot be interpreted at the individual level as providing evidence of a causal relationship between personal unemployment as the occurrence of mental disorders. Another limitation of the research is that an individual’s employment status can vary along a continuum from adequate employment to unemployment. Within that continuum are various types of *underemployment*. They include involuntary part-time employment, low and poverty-wage employment, and intermittent employment—all of which can be related to economic insecurity and uncertainty. The authors suggest that given that these underemployment statuses “*share some of the more stressful features of unemployment (e.g. decreased income, status, or time structure), it seems plausible that they could produce adverse effects on health*” similar to those reported for unemployment. “*It follows that future research in this area might usefully explore the health correlates of these increasingly common statuses that fall between adequate employment and unemployment on the employment continuum*” (p. 461).

Economic insecurity and job loss also generate adverse health outcomes for workers who are not laid off. For example, research cited by Pfeffer (2018), dealing with workers in manufacturing plants during recessions such as the most recent one in 2008–2009, provides self-reported data indicating greater economic insecurity as they worry if they will be the next to go and wonder when the layoffs will stop. Related research provides evidence that “*those who survive layoffs wind up with greater workloads, something that also increases stress*” (p. 72).

Cognitive and Group Silos

The very human tendency to seek clarity, structure, security, and for many, simplification, is part of a broader cognitive process referred to as a *schema* (Gilovich, Keltner, Chen, & Nisbett, 2016), defined as “a knowledge structure consisting of any organized body of stored information” (p. 16). Schemas on one level can be functional, as they help us know what is expected of us and enable us to behave in appropriate ways in particular situations. On another level, however, schemas can fuel *cognitive silos*, a tendency to seek out information, situations, and people who validate our preexisting beliefs and expectations. These *silos* can trigger a way of organizing our thinking in *very selective and often distorted ways* leading to unfair, unjust, and dysfunctional social interactions such as stereotypes, prejudice, discrimination, dysfunctional group conformity, intergroup conflict, and incivility in our political and cultural interactions.

Our needs for belonging and social connection play a central role in our motivational orientations. We seek out group membership in ways that can eventually contribute to our *individual and social identity* (Huddy, Sears, & Levy, 2013). When such identities are shared among group members, powerful forces of *cohesion* emerge. While cohesion can be a *good thing*, as it can be an important predictor of positive group outcomes in the workplace and in other contexts, *too much of that good thing can be a bad thing*, fueling negative outcomes.

One such negative outcome is *groupthink*, a “mode of thinking that group members engage in when they are deeply involved in a cohesive group and when their desire of agreement overrides their motivation to appraise alternative courses of action realistically” (Landy & Conte, 2016, p. 499). A pattern of dysfunctional conformity emerges where group members are reluctant and fearful of expressing disagreement which can lead to bad and indeed, catastrophic decisions.

Groupthink can emerge when a group falls into a pattern of self-righteous overconfidence and superiority. Such groups are locked into a “fixed mind-set”—a rigid pattern of thinking based on faulty assumptions, instead of a “growth mind-set” with open, honest, transparent, and respectful discussion (Dweck, 2016). Rather than shutting down disagreement, groups and their leaders with a growth mind-set are empowered to step back, state their honest opinions, learn from mistakes, and be open to new ideas.

There are profound political consequences related to the psychological dynamics of strong in-group cohesion, the merging of individual and group identity, and groupthink. For starters, there is a logical flow that emerges when highly cohesive groups, locked into their fixed mind-sets and groupthink patterns, position themselves in a polarized *in-group vs. out-group mode*. The in-group mentality lays the foundation for self-righteous, arrogant, hostile, and aggressive attitudes and behaviors directed towards the out-group. Those in the out-group are viewed as opponents who should be degraded and delegitimized. Rather than finding common ground and ways to build bridges to address critical issues domestically and globally, a political environment fueled by anger, polarization, and populism is threatening democracy (Mounk, 2018).

Intergroup Relations

Social identity theory provides insights into powerful forces within and between groups based on in-group vs. out-group dynamics (Molina, Tropp, & Goode, 2016). An evolving process of categorization of individuals into social groups, to group identification, to viewing one's group predominantly through positive and unique attributes, to an "us vs. them" pattern of prejudice, lay the foundation for intergroup conflict, aggression, and at the extreme—violence. As this process continues to unfold, perceptions of threat intensify, coupled with increased adherence and justification of the group's norms, values, and behaviors.

From a social psychological perspective focused on attitude-behavior relationships, laws that prohibit discrimination have the potential to also change attitudes in ways that reduce prejudice and promote norms of respect and equality. Yet, all too often, the gap persists between laws and social-economic justice. For example, laws prohibiting school segregation do not address systemic inequities, inadequate resources, and implicit biases that occur in school districts across our nation. Other examples such as anti-immigrant attitudes and group disparities in our criminal justice system provide further evidence that anti-discrimination laws, while critically important, can only go so far in addressing societal inequities. Other steps, or *pathways of social connection* need to be identified and implemented as a best practice initiative that can potentially be expanded and occupy a more central place in our society.

Expanding on the theme of "us vs. them", Mounk (2018), notes the global patterns of populism and isolationism which can present warning signs for democracy. At the extreme ends of the policy debate continuum involving such issues as climate change, immigration, human rights, healthcare, education, economic development, and job opportunities, the pattern of intergroup conflict and divisiveness continues to emerge. Those who have different viewpoints, perspectives, and policy positions are increasingly delegitimized, to the point where they are viewed as unpatriotic. Stagnant living standards, job loss, pay inequities, lack of access to health care, among other factors contribute to a growing sense of frustration, anger, and fear of the future, which fuels and intensifies the political and cultural divisions, here in the United States and globally. The age-old pattern of scapegoating, where others are blamed for one's discontent continues.

On both the left-right sides of the political continuum there continues to be growing signs of radicalization and extremist patterns. Adding further fuel to the fire, social media provides a "safe" way to participate in such patterns, where "fake news" are embraced as facts, lessening the possibilities of having respectful debate. Finding common ground and principled compromise are challenging goals amidst such division and disrespect.

In our current political climate, thoughtful, respectful, and fact-based debate has been replaced by exploitation of wedge issues and pointless messaging wars (Amash, 2019). Mistrust, anger, and dysfunction are intensified by such division where political opponents are viewed with contempt and extremist views become magnified.

Social Connection and Civility

Restoring social connection and unlocking the barriers to civility present many challenges. Among them are identifying pathways where people can move beyond their *cognitive silos, unconscious biases, and tribalism*, allowing themselves to be open to facts, reason, empathy, and connectivity. Other pathways involve identifying *best practices* occurring in our communities, where examples of courage, resilience, and creative collaboration often go unnoticed and thus stay under the radar screen.

The Concept of Civility

The concept of civility has multiple interpretations. On one level, civility is about respect for one another's intentions and humanity. It is about respectful debate, reasoned and fact-based arguments, and principled compromise. As noted by Boatright et al., (2019): "*Civility assumes that we speak to each other—whether in political debate or in our interpersonal relations—in a manner that respects our shared status as citizens, or more broadly, as humans. It means that we should always maintain a shared level of humility when we discuss our rights or our aims*" (p. 3).

While respect, restraint, and humility provide a critical foundation upon which to build, as the process moves forward, a second level of engagement becomes critical. Avoidance of dysfunctional conflict is necessary but not sufficient in addressing some of the critical issues facing our nation—issues such as health care, jobs, education, immigration, and climate change. A similar distinction is provided through the concepts of "politeness" and "responsiveness". Civility in this context is about reaffirming a commitment to a cooperative virtue of political life, a willingness to listen, and be fair-minded regarding the view of others, to the point where we as citizens and political leaders are willing to change our views and perspectives on issues. This approach requires an engaging process of listening, making room for the voices of others with whom we might disagree, understanding and appreciating such voices, and how they might lead us to reevaluate our attitudes, and policy perspectives. In summary, regarding politeness, we can disagree without being disagreeable; regarding responsiveness, we can disagree, but also continue to listen and talk to one another.

As noted by Benson (2011), civility is inherently connected to how we communicate with one another. "*Civility as a behavior is fundamentally about communication; our shared sense of the rules of civility governs the way we talk and the meaning we attribute to our actions and those of others. Our shared concern with civility as a communicative practice also carries with it an implicit sense that talk has consequences and that uncivil speech is not merely rude but that it has effects*" (p. 23).

Our democratic norms and principles can be well-served when social and political relationships are developed and enriched by trust, respect, open communication, healthy debate, and collaborative problem-solving.

Moral Courage and Empathy

Much has been written and discussed about the threat to our democratic values and norms in our country and abroad. The rise of tribal discord, populism, and isolationism, are fueling threats to our freedom, security, and opportunities for “*life, liberty, and happiness*”. A starting point for this discussion is a fundamental vision for connectivity in our society—that what unites us can be, and should be, a greater force than what divides us.

A central motivational basis of moral courage can be viewed within the prism of universal norms and values, basic human rights, constitutional declarations of equality, and the protection of citizens against physical violence or psychological oppression (Jonas & Morton, 2012). On an individual level, altruistic motives linked to helping others can be very powerful—in varying degrees—depending on perceived risk and a self-efficacy that one’s efforts have the potential for having a positive impact. When the desire to help others in need is connected to both empathy and integrity, the moral courage propelling such help can outweigh perceived risks.

On a group level, key factors include normative expectations among the members, cohesion, and perceived identity. These factors can move the pendulum in positive, prosocial, empathetic and morally courageous directions, or as noted earlier, such factors can trigger a downward cycle of dysfunctional cognitive-group silos fueled by an “us vs. them” identity. In effect, such dysfunction can serve to elevate a self-righteous and egoistic fixed mind-set that can enable people to overcome their low self-esteem and fear. What emerges is a self-perpetuating cycle of fear, anger, prejudice, discrimination, and possibly violent acts of aggression.

Empathy, “the capacity to accurately understand the position of others—to feel that ‘this could happen to me’” provides the psychological foundation for improving the lives of people (Trout, 2009). Differentiating empathy from sympathy, Trout refers to the former in the context of accurate understanding of another’s inner states, and the latter as focused not on understanding but on feelings. “We might share the fear of a frightened person, by pity a beggar” (p. 21). Empathy integrates both our cognitive and emotional responses to people in need of caring and help. It can be viewed as providing the motivational force and direction for altruistic-helping behavior.

The motivational foundation of empathy is a critical starting point. Moving forward, however, the impact of empathy needs a directional focus through effective relationships that need to be cultivated in our communities. Best practice pathways or bridges are needed to convert empathy into policy and program initiatives that are both cost-effective and promote opportunities for people to live healthier, happier, and more productive lives. We need to strengthen the social bonds that reflect our humanity, our capacity to reach out to others in need, and to link our passion to do well with evidenced-based strategies that can improve the quality of life for people.

Transformational Leadership

As noted by Brown (2018), courageous leadership is needed in all spheres of our society, in both the public and private sector. Such leadership can be cultivated through both empathy and social connection. In the context of our workplaces, such leadership moves from a *transactional to transformational dynamic*. The starting point for those in supervisory and management roles is often focused on such outcomes as job performance, customer/client services, and overall organizational goals.

The core aspect of the transactional relationship between management and employees focuses on behavioral reinforcement theory. If you achieve X, then you may get rewarded with Y such as a salary increase or a promotion. Important as that approach is, it is a necessary but not sufficient form of leadership in today's competitive and ever-changing economy. What has become increasingly important in today's workplace is the need to enrich and deepen motivational pathways to higher levels of performance and innovation. This requires a shift from an *extrinsic to intrinsic path*. The former is grounded in our economic needs, while the latter grounded in our psychological needs for meaning and purpose. When we view our jobs beyond the economic to the broader perspective of purpose, commitment, and passion—where the response to the question of why do you do this job is—*because it matters*, we move from an extrinsic motivational-transactional relationship to an intrinsic-transformational one. Such a transition can be cultivated by supervisors and managers who become leaders. They move beyond titles, status, and power to a commitment of recognizing the potential of their employees in ways that reveal their talent and passion to make a difference. They strive to create a culture of participation, empowerment and psychological safety. Such safety reflects a culture where employees have a voice and where difficult conversations and situations are acknowledged and not avoided. Through effective teamwork and collaboration, there is open and transparent discussion for new ideas and strategies. Such discussion can promote experimentation and measured risk-taking, where mistakes and even failure are viewed as lessons to be learned and not as fear-inducing setbacks.

Social/Criminal Justice

The lack of civility, disrespect, and continued polarization fueling us vs them mindsets and behavior, has had significant consequences in the political arena and criminal justice system. Racism and other forms of injustice continue to be revealed in the context of police-community relations, arrest rates, and disproportionate representation of minorities in our prisons.

As noted by Stevenson (2014), much of what fuels injustice is a process of dehumanization where policies can reduce people to their worst acts and permanently label them as “criminal”, “thief”, “felon”—rigidly defining their identities regardless of the circumstances of their crimes or steps they may have taken to improve

their lives. In his work representing criminal defendants Stevenson (2014), refers to a *vital lesson* that continues to emerge, that people can be more than the worst thing they've ever done. In weaving together several narratives connected to a series of stories of defendants he represented, Stevenson reveals in brutal detail how attempts to achieve justice can disregard the dignity and humanity of individual offenders it condemns.

Racial discrimination in the legal system can be systemic. Stevenson refers to proliferating cultural norms of stigmatization and dehumanization that infuse discriminatory policies. Holding people accountable for their crimes is necessary in the pursuit of justice, but such pursuit should not be done through the lens of racial discrimination, where minorities are perceived as more dangerous than other people, and where an in-group/out-group paradigm provides a powerful cognitive barrier to viewing people as individuals who should not be defined by stereotypical categories.

A tough on crime approach that has been shared by both Democrats and Republicans, was intended to address the harsh realities of violence in our communities. While such intent can be viewed as reasonable and even humane, what has emerged are unintended consequences that inflame the seeds of fear, anger, and retribution. Stevenson refers to research studies that reflect a crisis of mass imprisonment: *One in three African-American men will spend time in prison. Excessive sentences are handed down for nonviolent crimes. Federal and state statutes that impose mandatory sentences continue a pattern of injustice permeating the criminal justice system. An example of the latter can be found with punishments for nonviolent drug offenders.*

In the context of police-community relations, over-reaction leading to tragic deaths of young African-American men have emerged in communities around the United States. Experts in criminal justice and psychology have examined how attitude and behavioral patterns such as *implicit bias and self-fulfilling prophecies* can inform criminal justice reform initiatives. Implicit bias is a critical starting point as it refers to a pattern of prejudice and discrimination that lies beneath conscious awareness. Such unintended bias reflects the powerful effects that cultural norms, in-group-out-group mindsets, and group stigmatization can have on people—even with educated, well-trained professionals in criminal justice—including police officers, district attorneys, and judges. When poor minority citizens are targeted as societal pariahs, a self-fulfilling pattern occurs, where premature perceptions and expectations of criminality emerge as actual behavior. The expectation becomes reality, which further reinforces biased attitudes and discriminatory behavior.

The pursuit of justice with bias is no longer justice; only when coupled with truth can justice prevail. The mark of justice should be blind toward bias but never blind toward truth. Among the pathways and strategies designed to reform the criminal justice system are training initiatives focused on implicit bias. Research studies evaluating the impact of such training have noted the difference between explicit/conscious bias from implicit bias—fueled by pernicious stereotypes that operate largely outside of conscious control (Spencer, Charbonneau, & Glaser, 2016).

Other initiatives address the need for prison reform. Cost-effective and best-practice strategies refocused on rehabilitation should be designed and implemented that provide a bridge for those incarcerated to rejoin society and rebuild their lives. An important policy initiative enacted into law by Congress in 2018—“The First Step Act”—will enable many individuals to leave prison sooner than was previously in place due to harsh prison sentencing guidelines. While this law provides an important starting point, follow-up initiatives are needed with the business community regarding their willingness to hire those recently released from prison, and with educational programs such as those within community colleges, which can offer skill-oriented courses directly linked to job opportunities and requirements. What can emerge moving forward are collaborative partnerships among prison officials, the business community, and community colleges to address a pathway from rehabilitation, to education, training, and job placement. As part of this process, former prisoners who have benefited from such partnerships can serve as advisors and mentors, inspiring and motivating others to rebuild their lives. With community support, such motivation combined with job-relevant skill-sets, can be an effective pathway to empower people as they overcome barriers and move forward with productive lives.

Challenges and Opportunities in a Changing Economy

Issues surrounding economic distress, job insecurity, stagnant pay, and income disparity impact the health and well-being of growing segments of the population. People earning low wages are forced to take on multiple jobs creating stress-related health issues (Pfeffer, 2018). Regarding income disparity, while business profits have continued to climb, the share of income going to workers (employee compensation including benefits) has fallen to its lowest level since the 1940s. Research studies have found that employees’ share of national income has fallen at a faster rate in the United States than in any other major industrial nation since 1995 (Greenhouse, 2019).

The path forward to fulfilling the *American Dream*, in a land of hope and opportunity, has been filled with roadblocks and wrong turns for millions of workers. For far too many, hope has turned into uncertainty, fear, frustration, and anger. For some, such as those who align themselves with the rising tides of “white nationalism”, their anger converts to hate, prejudice, and aggression. Instead of hope, there is despair. Instead of opportunity there is growing fear and insecurity about the future. What has become of the dream of upward mobility? What has become of the credo: hard work can lead to such mobility and other rewards? *Does the “rising tide lift all boats?”*

Many in our land of opportunity, struggle to pay their bills, work two or three jobs, move from one low-paid job to another, and have limited, if any, access to affordable health-care. As noted by Greenhouse (2019), 40 million Americans—one in eight—are suffering from food insecurity,—a lack of consistent access to

enough food for an active, healthy life, according to the U.S. Department of Agriculture. Referring to data provided by the Federal Reserve, Greenhouse cites an alarming metric that four in ten American adults do not have enough income to pay an unexpected \$400 expense. Many Americans across the political spectrum can acknowledge that such economic trends reflect a concern about our nation's priorities, core values, and sense of fairness. The political discourse from the far left/liberal/progressive, to the far right conservative end of the spectrum, is often discussed within the boundaries of principles and self-righteous motives, which have become far too rigid, leading to increase polarization and stagnation. The pragmatic left/center and right/center need to join forces and move forward with a vision and policies that support principled and pragmatic compromise.

Greenhouse shares two stories: one from a nurse and the other from a school teacher—that connects the above discussion into the daily harsh realities of life:

A nurse came down with severe pneumonia while caring for a paraplegic in Thornton, Colorado. Experiencing such symptoms as coughing, vomiting, and a 103 fever, she called her manager to say she needed to miss work for two days. She referred to being so weak that she could not care for and move patients. Her manager responded stating that she had to report to work or she would lose her job. Such harsh words became reality, as she was too sick to work the next day and was subsequently fired. And, as a result of losing her job, she was evicted from her apartment.

After seventeen years of teaching, an elementary school teacher in a suburb of Phoenix, was having such a hard time paying her bills that she felt compelled to take a twenty-hour-a-week job at McDonald's. It should be noted that her school district hadn't raised pay in a decade. She often worked at McDonald's until 11:30 p.m., arrived home around midnight, and woke up at 6:30 the next day to get ready for school. To be expected, such schedules can lead to severe exhaustion resulting in stress-related health problems (Pfeffer, 2018). Her passion and calling to teach young people—the future of our society—was hit hard by feelings of disrespect as many teachers and other lower-paid professionals have experienced.

What are the forces propelling a changing and evolving workplace? How will these forces of change shape the future of work life? As noted by Fife (2019), through her research with the Aspen Institute's *Future of Work Initiative*, the nature of work is changing with technology being a key driving force. She notes that technology has a long history of changing the relationship between workers and their jobs. The transitions have moved over the past 200 years from an agricultural, to industrial, to today's knowledge and service-based economy. Emerging technologies like advanced robotics, artificial intelligence, and machine learning have eliminated jobs once held by workers, with further job loss occurring as such technologies continue to advance. What will the future of work look like in the years ahead? Referring to a McKinsey study, Fife cites the following metric: *Up to 33 percent of workers may need to transition to entirely different occupations by 2030.*

Fife refers to data from a Brookings Institution analysis pointing to the impact that automation has on economic disruption and potential job loss in rural communities, findings consistent with previous patterns of disruption over the past several

decades. Large coal mining operations in these communities, as indicated by county-level data, support the commonly shared perspective that coal miners of today are in uncertain and vulnerable situations, with increased job loss and disruption.

Consistent with previous studies examining the effects of automation on job-loss, the most vulnerable jobs are characterized by repetitive, predictable tasks such as operating machinery, preparing fast food, or collecting and processing data. As automation continues to have disruptive impact across a broader spectrum of industries and employees, the need for best-practice initiatives focused on retraining workers to acquire in-demand skill-sets for emerging jobs becomes both an economic and moral imperative.

A recent report of the Aspen Institute's *Future of Work Initiative* has addressed the impact of automation in a changing economy, focused primarily on economic security and opportunity of workers. A set of policy solutions have been proposed to better prepare the workforce for the *opportunities and challenges* that automation will bring. As noted by Fife, while these challenges are national in nature, innovative strategies are being developed locally by non-profit organizations along with cities and states. Among such strategies are retraining programs for displaced workers, job search, career coaching, and a modernized unemployment insurance system to help workers transition to new jobs and careers.

The Future of Work Initiative has developed recommendations for—state policymakers, employers, educators, training professionals, and other critical stakeholders—designed to create strategies that are responsive to specific conditions in each state. The hope and expectation is that these strategies will help workers transition to new and changing jobs, while also addressing their financial needs amidst the disruptions from changes in technology, trade, and organizational structure (Fitzpayne and Pollack, 2019).

Among the Recommendations Are the Following

- *Create a Worker Training Tax Credit*
- To reverse the trend of declining private sector investment in worker training, and help their workers develop the skills necessary to adapt to change, state policymakers should provide an incentive for companies to increase their investment in worker training. A tax credit for employers merges economic sustainability with the moral high ground.
- *Expand Apprenticeships*
- Students and workers need access to programs that align skills with in-demand job requirements, and a pathway to good jobs and stable careers. The apprentice model incorporates local business participation, the ability for participants to earn income while learning new skills in a work setting, and a pathway to a relevant job upon completion—a critically important outcome.

- *Support Sector Partnerships*
- Collaborative partnerships among employers, educational institutions such as community colleges, training providers, labor organizations, and workforce experts provide a structure for communication, teamwork, and coordinated strategies for worker retraining initiatives. Such efforts can help identify current and future skills needed in their local communities and facilitate education-to-employment pathways.
- *Create Lifelong Learning and Training Accounts (LLTAs)*
- Enrolling in an education or training program can present financial barriers and limitations for potential participants. Few programs exist to help workers save and pay for short-term programs. To help people pay for such programs over the course of a career, LLTAs can be created by state policymakers and be co-funded by workers, employers and government.

Beyond the impact of automation are issues related to the structure of work—not just the content of job tasks, but the broader context of employee-employer relationships. As noted by Fife, it’s not just *what we’re doing* for work that is changing, it’s *how we’re doing it*. Recently released data from the U.S. Bureau of Labor Statistics, finds that 1 in 10 American workers, or about 15 million people, are employed through alternative or non-traditional work arrangements. Such trends continue to grow as many workers seek more control and flexibility in their work lives.

The tradeoff, however, is that control and flexibility can also have a negative impact on the economic security of workers, such as self-employed carpenters, plumbers, electricians, and others, such as entrepreneurs who hope to start a new business. As is often the case with tradeoffs, the potential benefits of a decision must be balanced against risks, particularly with respect to having a stable and sustainable income. By not having a traditional employer who provides benefits such as health insurance, these individuals are faced with the challenging task of creating their own so called *safety net*.

The continued transformation of the economy, automation’s broader impact on job loss, and the rising percentage of people who are self-employed, points to the need for alternative, cost-effective benefit models that combine flexibility with portability. Employee benefit models are needed to provide both economic security and mobility for workers, allowing them to transition from one job to another without the fear of losing access to benefits.

With increased understanding of how our changing economy has created significant challenges for workers as they seek financial security, mobility, control, and job satisfaction, innovative policies and strategies need to be identified, evaluated, and expanded. Locally-tested, best-practice models can become sources of innovation and hope for a better future.

With a growing national debate focused on corporate responsibility amidst increasing economic inequality, an emerging consensus, albeit slow-moving, is that “business leaders should commit to *balancing the needs of shareholders with customers, employees, suppliers, and local communities*” (McGregor, 2019). More

Americans need to feel included in this ever-changing twenty-first century economy, where they can reap the rewards of hard work, and lead a more meaningful and fulfilling life. In these challenging times, we need an economy that infuses capitalism with morality.

Moving Forward

Better Angels

Better Angels is a national citizens' movement with a primary goal to reduce political polarization in the United States by bringing liberals and conservatives together to understand each other beyond stereotypes. To achieve this goal, *red state/blue state* community alliances are developed where practical skills are taught for communicating across political differences. The organization is guided by a vision that people can overcome their ways of viewing people who have different perspectives and viewpoints—in *effect to depolarize America*.

Instead of asking people to change their minds about key issues, Better Angels seeks to give all Americans a chance to better understand and respect each other. Building on that foundation, further social connections emerge by absorbing the values and experiences that inform our political orientations and beliefs, and to ultimately recognize and strengthen our common humanity. Political adversaries need to move from us-vs-them polarization, stereotyping, and in some cases—hatred—to mutual understanding, respect, shared values, and an appreciation of our common humanity. By forging such relationships among people who disagree with one another, Better Angels is moving the pendulum forward in ways that foster unity rather than division.

Weave: The Social Fabric Project of the Aspen Institute

This project is about our country's social fabric, which is badly frayed by distrust, division, and exclusion. A primary goal is to enable people to find a path from loneliness, isolation, and anger to one of inclusion, support, hope, empathy, and connective relationships. To engage in *weaving*, people cultivate a spirit of caring in their social interactions and a willingness to be open, honest, empathic, and altruistic, where the expectation for self is about internal feelings of satisfaction and not external rewards. Building connections through understanding, respect, empathy, and altruistic helping, the Social Fabric Project, like Better Angels, is strengthening our common bonds of humanity.

Leadership in Times of Crisis

Among the attributes of great leaders is their vision and moral commitment to give people hope and confidence that we can come through times of fear, and triumph over our impulses of anger and division. Wounds can be healed in ways that make us stronger and more resilient. As we search for *light at the end of the tunnel*, we can move forward by *seeing light while in the tunnel*. It is this resilient spirit that enables us to be hopeful in the face of doubts and divisive impulses.

In his compelling, passionate, and inspiring book, Meacham (2018), provides enlightening lessons on how we as a nation have overcome our fears over what seemed like intractable problems, with determination, hope, and resilience. He refers to a draft of a speech that Franklin Roosevelt was scheduled to deliver on April 13, 1945 on the occasion of the birthday of Thomas Jefferson. Here is a quote from part of that speech that was never delivered—as Meacham states, “they were, in a way, his last words” (p. 172).

Today we are faced with the preeminent fact that, if civilization is to survive, we must cultivate the science of human relationships—the ability of all peoples, of all kinds, to live together and work together, in the same world, at peace.....The only limit to our realization of tomorrow will be our doubts of today. Let us move forward with strong and active faith.

Meacham explores the extremism and racism that have continued to permeate and infect our relationships and politics. His compelling narratives of past eras of fear, division, and strife are infused with hope and wisdom in ways that give us perspective on our country today. Offering us calm and insightful reassurance, hope, and confidence in these uncertain and troubled times, Meacham helps us connect to a modern day version of our “*better angels*” with hope and determination to strengthen our common humanity.

In a quote of the famous passage from Lincoln’s First Inaugural Address, 1861, Meacham connects our hope and faith for a better future from past to present:

We are not enemies, but friends. We must not be enemies. Though passion may have strained, it must not break our bonds of affection. The mystic chords of memory, stretching from every battlefield and patriot grave to every living heart and hearthstone all over this broad land, will yet swell the chorus of the Union when again touched, as surely they will be, by the BETTER ANGELS of our nature (p. 3).

As stated so eloquently by Meacham:

For all of our darker impulses, for all of our shortcomings, and for all of the dreams denied and deferred, the experiment begun so long ago, carried out so imperfectly, is worth the fight. There is, in fact, no struggle more important, and none nobler, than the one we wage in the service of those better angels who, however besieged, are always ready for battle (p. 272).

References

- Amash, J. (2019, July, 5). Our politics is in a Partisan Death Spiral, so I’m leaving the GOP. *Washington Post*.
- Benson, T. W. (2011). The rhetoric of civility: power, authenticity, and democracy. *Journal of Contemporary Rhetoric*, 1, 22–30.

- Boatright, T. J., Shaffer, S., Sobieraj, S., & Young, D. (2019). *A crisis of civility: Political discourse and its discontents*. London: Routledge.
- Brown, B. (2018). *Dare to lead: Brave work, tough conversations, whole hearts*. New York: Random House.
- Dooley, D., Fielding, J., & Levi, L. (1996). Health and unemployment. *Annual Review of Public Health, 17*, 449–465.
- Dweck, C. (2016). *Mindset: The new psychology of success*. New York: Ballantine Books.
- Fife, A. (2019). *Work in a changing economy*. Aspen Institute – Future of Work Initiative.
- Fitzpayne, A., & Pollack, E. (2019). *How governors can respond to the challenges and opportunities of automation*. Aspen Institute – Future of Work Initiative.
- Gilovich, T., Keltner, D., Chen, S., & Nisbett, R. (2016). *Social psychology*. New York: Norton.
- Greenhouse, S. (2019). *Beaten, down, worked up*. New York: Penguin/Random House.
- Huddy, L., Sears, D., & Levy, J. (Eds.). (2013). *Oxford handbook of political psychology*. New York: Oxford University Press.
- Jonas, K., & Morton, T. (2012). *Restoring Civil Societies: The psychology of intervention and engagement following crisis*. Chichester, West Sussex: Wiley.
- Landy, F., & Conte, J. (2016). *Work in the 21st century*. Chichester, West Sussex: Wiley.
- McGregor, J. (2019, August 20). CEO group shifts view maximizing shareholder profits. *The Washington Post*.
- Meacham, J. (2018). *The Soul of America. The battle for our better angels*. New York: Random House.
- Molina, L., Tropp, L., & Goode, C. (2016). Reflections on prejudice and intergroup relations. *Current Opinion in Psychology, 11*, 120–124.
- Mounk, Y. (2018). *People vs. democracy: Why our freedom is in danger and how to save it*. London: Harvard University Press.
- Pfeffer, J. (2018). Dying for a paycheck. *Harper Business*.
- Spencer, K., Charbonneau, A., & Glaser, J. (2016). Implicit bias and policing. doi:<https://doi.org/10.1111/spc3.12210>.
- Stevenson, B. (2014). *Just mercy*. New York: Spiegel & Grau.
- Trout, J. D. (2009). *Why empathy matters*. London: Penguin Books.

Voice and Votes: Gender, Power and Politics



Hilary M. Lips

January of 2017 was marked by the largest political demonstrations in US history: The Women’s March. Millions of women and men converged in the streets of Washington DC, New York City, Los Angeles, and other US cities. The gatherings reverberated around the world—in Ottawa, London, Paris, Berlin—protesters marched, chanted, sang, waved signs registering their concern for and commitment to gender equality and their opposition to sexism, racism, misogyny, homophobia. This one-day event planted the seeds for what later became a record number of women running for, and winning, political office in the United States. What galvanized this outpouring of political activism? Many women would say that it was the psychological gut-punch generated by the outcome of the US presidential election: the stunning selection of a proudly misogynist and underqualified man over a woman who was demonstrably the most qualified presidential candidate ever to seek the office. Psychologists might reasonably argue that the sense of injustice generated by this outcome deepened women’s group identification and raised their political consciousness about the need for collective action in the face of a threat. In the development of such action, women have begun to shift the traditional rules of gender relations: they emphasize their feminine roles rather than trying to mask them—and they blend these roles with traditionally masculine stereotypes of strength and courage. They are less likely to hide their anger. They (often publicly) diverge in political opinions and actions (including voting behavior) from the men in their lives. Yet this eruption of female political activism has been met with resistance—from both women and men who rationalize the existing gender power structure and do not want the change that activism implies. The situation has revealed, in new ways, the deep and pervasive bias in favor of male power, a revelation that is

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both shattering and energizing to feminists. Psychology has something to say about the ways in which these impacts have unfolded.

Group Identification and the Growth of Political Consciousness

Women Identifying as a Group

Social identity researchers have long documented the high priority people place on group membership, how individuals gain self-esteem and status from their groups, and the ways they prefer and privilege their own identity groups over others (e.g., Brewer, 1979). Women know they are women, of course, but not every woman thinks of her gender as her main group identity. For many people, it may feel more important to identify with their nationality, their race or ethnicity, their political party, or their religion as a primary group identity. Indeed, despite the outpouring of furious female political activism in the wake of the presidential election, many women did not respond in the same way. Some were cynical about the two establishment political parties, and maintained that the outcome made very little difference. Some cheered the outcome as one that would support their allegiance to causes such as curtailing immigration and increasing restrictions on abortion. For these women, public expressions of sexism and misogyny by the winning candidate did not threaten their identity; such comments were excused or brushed aside as jokes, mistakes, or simply labeled as unimportant.

Precisely because women as a group have so often been belittled and characterized as inferior, it may be difficult to claim that particular group identity as important. Members of disparaged groups may find it hard to develop the positive ingroup or negative outgroup biases that come so easily to members of privileged groups. Rather, members of groups that are targets of discrimination and stereotyping sometimes either accept and internalize a negative social identity defined by the stereotypes or refuse to identify with their group (Allport, 1954). It is difficult for a group to organize for change around a negative identity. Yet, in different ways, women on both sides of the political spectrum have rejected negative identities and banded together to construct positive ones. Right-wing women, for instance, have responded with outrage to the idea that they are uninformed or that they support anti-woman policies. Forming their own political groups, they assert that the president's policies are good for women and families, and that his sexist or insensitive comments stem from his refusal to be scripted or to rely on a teleprompter. They claim an identity, not simply as women, but as "women for Trump" and assert that they "will not be pushed around by bullies who tell us who we are 'supposed' to like" (Women Vote Smart PAC, 2018).

However, many women focused on and loudly claimed their identity *as women* in the aftermath of an election in which a strong, competent woman was repudiated

in favor of a man who consistently belittled and disparaged women. These women banded together to challenge the negative stereotypes—perhaps because their hopes and expectations had been so strong in the lead-up to the election. The notion that high expectations can result in anger, disappointment, and dissatisfaction has a long history; indeed the term *revolution of high expectations* refers to the idea that political unrest is a likely result of social change moving more slowly than expected among disadvantaged groups. The gap between what people have been led to believe they can expect and what actually occurs leads to the perception of unfairness.

And many people had clearly expected the glass ceiling at the top of the political hierarchy to shatter in the 2016 presidential election. On election day, public media were replete with stories of parents taking their young daughters along to see them vote for the first woman president, of people thronging to the tomb of suffragist Susan B. Anthony to leave their “I voted” stickers on her gravestone, of elderly women, some born before women’s suffrage, weeping, exulting, or hugging each other in triumph over having been able, finally, to cast their vote for a female president. The next day was a different story. More than one woman described her reaction to the electoral outcome as “like being punched in the stomach.” Many could not talk about it without shedding tears of grief, disbelief, and frustration. But that grief and frustration quickly turned to outrage, and the outrage was soon channeled into various forms of activism.

Awareness of Injustice and Political Consciousness

American feminist Lucy Stone (1855) proclaimed that it was her mission in life “to deepen the disappointment in every woman’s heart until she bows down to it no longer,” instead, banding together with other women to claim her rights. Long before psychologists theorized the notion that a shared sense of injustice and the perception of a common enemy drew people together, Stone had articulated this crucial principle, realizing that a shared awareness of injustice was critical to stimulate collective action toward social change.

Politicians often seem to operate intuitively on the notion that it is important to keep people from recognizing injustice and to encourage them to believe that, regardless of whatever signs they see to the contrary, people are, in general being treated fairly and getting what they deserve. In this regard, they are acting in line with the long-established principle that humans are motivated to believe their relationships are fair and the world is just (Lerner, 1970). When observers see a person being punished or hurt for no apparent reason, they feel uncomfortable—and try to resolve that discomfort by conjuring up reasons why the person may have deserved the misfortune visited upon them (Lerner, 1970, 1974). In a similar vein, there is considerable evidence for system justification theory: the idea that people tend to defend, bolster and justify aspects of the societal status quo, often without realizing they are doing so (Jost, 2017). The motivation to justify the status quo seems to be rooted in the need to reduce uncertainty, threat, and social disagreement.

Feminists are not immune to such motivations. We want (desperately) to believe that women are making progress, despite setbacks, that the world views women as competent, treats them with respect, evaluates them on their merits. We *know* this is not true, but much of the time we manage to keep such knowledge at bay, just so we can live our lives smoothly and without experiencing anger and misery all the time. We even sometimes—by making excuses for bad behavior, brushing off insults, failing to investigate suspicious situations—participate in covering up the ugly foundations of misogyny on which so many societal relations and interpersonal relationships rest. Yet events of the 2016 election and the years that followed have peeled back the veneer of propriety that hides what is often really going on. As revelation has followed revelation, from the virulent sexism of political campaigns, to the countless searing survival stories of the #MeToo movement, to the numbing realization that sexual assault allegations against a nominee for the Supreme Court could still be brushed aside as unimportant, many women have come to a deeply uncomfortable understanding. Patriarchy is not dead—and maybe is not even in its death throes. Most societal power still rests in men’s hands. While women have been celebrating such breakthroughs as a female presidential candidate, the (almost) ratification of the Equal Rights Amendment, and the first woman to referee an NFL game, power, dominance, and decision-making has remained pervasively masculine. Responses to this dawning realization have been mixed.

Translating Political Consciousness Into Political Action

Voting

Traditionally, women are more likely than men to vote in elections (e.g., Coffé & Bolzendahl, 2010). Indeed, U.S. women have voted in higher numbers and rates than men for decades, and more women than men register to vote (Dittmar, 2018). Furthermore, it is not unusual for women and men to differ in the candidates for whom they cast their vote. In every presidential election since 1980, women and men have differed significantly in their support for the candidates. This pattern held in 2016, when 52% of men and 41% of women cast their vote for Donald Trump, and again in the 2018 midterms, when exit polls showed that women favored the Democratic candidate in their district 59–40%, while men favored the Republican candidate 51–47% (Tyson, 2018). The gender divide was much smaller among African American voters, with 88% of men and 92% of women voting for the Democratic candidate. Furthermore, education was an important factor among White women: those without a college degree supported Republicans 56–42%, whereas college-educated White women supported Democrats 59–39%. The movement of women, particularly White women (who went from voting 43% for Democrats in 2016 to 49% in 2018), toward the Democrats produced the largest gender gap in recent memory.

Clearly, there were significant differences in how women and men viewed the political situation and, just as importantly, there were stark differences *among* women. On balance, it appears that many women used the power of their votes in 2018 to express their distaste for the current situation in Washington. In some states, voter turnout for these midterms broke decades-long records (Sharma, Mellnik, & Fischer-Baum, 2018), driven, in particular by women and young people. Yet, only about one-half of all eligible voters exercised their franchise. Among young women—the group that held the most negative views of the Trump presidency—stated likelihood of voting was lower than that of older women. One poll taken a few months before the midterms indicated that, although 70% of women aged 18–35 believed the country was heading in the wrong direction, only 30% said they definitely planned to vote in the midterms. This compared with 46% for those aged 36–49, 55% for those ages 50–64, and 65% for those aged 65 and over (De Pinto, Backus, Khanna, & Salvanto, 2018). Their reasons? Nearly 20% said their vote does not matter. Young women were also less likely than those older than 36 to agree that voting is the most important way to influence politics, and were more likely to cite volunteering, donating money, or posting on social media as the most effective ways to make an impact (Van Oot, 2018). Women’s dissatisfaction, then, translated only moderately into voting behavior—a result that might well make the early suffragists wonder why they had gone to so much trouble to win the vote.

Political Action and Engagement

Women’s first roar of protest in response to the awareness of injustice was the Women’s March of January 2017. That event mobilized women to channel their anger into further rallies, demonstrations, petitions, letters and calls to their congresspersons, delegations to town hall meetings. Indeed, in the years since 2016, a gender gap in many aspects of political interest, activism and ambition that has traditionally favored men (e.g., Burns, 2007) has narrowed or turned around dramatically (e.g., Bode, 2017). Whereas an earlier survey of U.S. college students had shown that young women were less likely than young men to have considered running for office or to consider elective office a desirable profession (Lawless & Fox, 2013), more recent research suggests that young women are more politically engaged than men (Jones, Cox, Fisch-Friedman, & Vandermaas-Peeler, 2018). For example, during the 12 months preceding the survey, young (18–25-year-old) women were more likely than young men to have donated money to or volunteered for a campaign or cause, attended a public rally or demonstration, signed an online petition, or posted on social media about an issue of that mattered to them. Research on college-educated women aged 25–64 suggested that the “Trump effect” was pushing more women to be politically engaged in a variety of ways—although perhaps not to run for office (Lawless & Fox, 2017). Women in this sample were also more likely than their male counterparts to say they had communicated about politics via social media, signed letters or petitions, attended rallies or marches, or

joined a political interest group—at rates three to four times higher than before the 2016 election. However, these researchers found that only 23% of women, compared to 38% of men said they had considered running for office—a gap almost as large as the 16-point gap in political ambition they had documented among potential candidates in 2001 and 2011. Interestingly, however, among respondents who *had* considered running for office, more than one quarter of the Democratic women (a far bigger proportion than of Democratic men or Republican women or men) reported they had first thought about running in the last 6 months.

In the past, one reason women have said they do not want to be “in” politics is that it feels like a domain that is hostile to interpersonal relationships (Lips, 2000). When asked to imagine themselves in the future as political leaders, college-aged women were more likely than men to demur, and to make comments that indicated anxiety about what they would be like, how they would be perceived, and how they would manage relationships while holding such powerful positions. More women than men foresaw relationship problems associated with a political leader position; they also rated this type of position as less possible for them and less positive than did men. In sum, they seemed to feel that occupying such a role would force them into distasteful modes of relating to others.

More recently, researchers have found that both women and men view political careers as involving significant conflict and as mainly focusing on tasks that fulfill such male-stereotypic goals as seeking power and recognition. In three studies, involving both students and adults, both female and male respondents indicated that lawmakers spent more time on task that fulfill power goals than on tasks geared toward independence or communal goals (Schneider, Holman, Diekman, and McAndrew 2016). Among these respondents, men expressed more interest than did women in power goals; interest in independence and communal goals was similar for women and men. The women also expressed significantly less interest than men did in conflict and in participating in potentially unpleasant political discussions. Conflict tolerance and interest in power goals mediated the gender difference in political ambition. Furthermore, when political careers were described as engaging in tasks that fulfilled communal goals, the gender gap in projected enjoyment of political careers was closed: women’s rated enjoyment of such careers matched that of men.

Clearly, although they may involve a great deal of cooperation and communality, political leadership roles are often perceived as inherently and primarily power-oriented, competitive and individualistic—a poor fit for women interested in politics as a way of making a difference by working with others to help their communities, reduce inequalities, and make the world better. But what if that perception were to begin to change? What if women no longer felt they had to short-change their interpersonal and family relationships and hide their “soft” side in order to be successful in politics? Some of the newest crop of female political candidates have tried to revision and redefine political leadership in just such a way.

Running for Office While Female

In the lead-up to the 2018 US midterm elections, some campaign ads for female candidates broke the cautious mold of presenting the candidate as carefully professional, not too aggressive, not too “feminine.” Krishanti Vignarajah, candidate for Maryland governor, breastfed her infant daughter in her first ad, while talking about the shortage of women in elected office in her state. Wisconsin gubernatorial candidate Kelda Roys posted an ad in which she breastfed her infant daughter while talking about her work to ban the chemical BPA. Georgia Democratic primary candidate Stacey Evans was shown walking hand in hand with her young daughter and saying that, while she does not have to worry about her daughter being taken care of during the day, many other mothers do have that worry. This approach tackles head-on two dilemmas that have traditionally dogged female political candidates: the notion that femininity and power do not mix, and the idea that it is impossible, or at least inadvisable, for a woman to juggle motherhood with a demanding career.

Women in politics are subjected more than men are to questions and doubts about their family lives. They are queried about how they will manage childcare, how they can expect to serve effectively in public office while raising small children. Men are not asked such questions. Voters apparently worry that women will not be able to balance family responsibilities with political priorities—and they also express concern about the impact on a candidate’s children of her running for or holding office. On the other hand, if a woman has never married and has no children, they worry that she will not be able to relate to families’ concerns (Barbara Lee Family Foundation, 2016).

Women candidates are no longer flummoxed by such questions. As one candidate put it, “I’m not running in spite of my children. I’m running because of them” (Mihalek, 2018). Furthermore, they are often highlighting their ability to navigate the supposed contradictions between feminine and tough, soft and hard—running as “tough mothers” (Kurtzleben, 2018). Kentucky candidate Amy McGrath emphasized her record as military combat pilot in her campaign—but an ad also shows her taking her children to the doctor. A Texas House candidate, M.J. Heger, ran an ad in which she holds a toddler while talking about having her helicopter shot down while serving in the military.

Women have also broken traditions about revealing personal issues and discussing taboo topics that are often especially relevant to women. Sol Flores, campaigning in Illinois’ Democratic primary, spoke about fighting off a sexual predator as a child; California primary candidate Katie Hill reflected on the time when, at 19, she considered having an abortion before suffering a miscarriage. Research suggests that these strategies may be dangerous for women—because women may already be stereotyped as “too emotional” for leadership (Brescoll, 2016), and this kind of personal revelation may intensify that stereotype. However, the new wave of women running for office appeared determined to run as themselves, to eschew the traditional strategy of trying to fit a narrow mold, to let voters see them as women.

There is still controversy in the research literature about whether candidates should embrace or avoid gender stereotypes during their campaigns (Bauer, 2017). However, women may encounter gender bias whether or not they “fit” descriptive or prescriptive stereotypes. Compared to male candidates, female candidates receive more negative reactions, and are less likely to obtain votes, when their competence is questioned (Ditonto, 2017). Female politicians also face more punishment—especially from female voters—for perceived misconduct or corruption than do male politicians (Eggers, Vivyan, & Wagner, 2018). And people who are explicit in their preference for male leaders do not select a female candidate, even if she is portrayed as clearly more qualified than her male opponent (Mo, 2015). One study that looked particularly at the 2016 presidential race found that, not only conservatism, but also hostile sexism, significantly predicted voting for Trump (vs. Clinton). Furthermore, sexism was a stronger predictor of Trump voting for more left-leaning than for more right-leaning voters (Rothwell, Hodson, & Prusaczyk, 2019).

Female candidates now and in the future may take some heart from changing attitudes toward women and political leadership. A 2018 poll shows that most Americans want to see more women in top political positions—although that response is much more common among women (69%) than among men (48%) (Horowitz, Igielnik, & Parker, 2018). That change appears to be coming—although it is not yet clear whether it will be a lasting one. In the 2018 midterms, a record number of women candidates ran for state and federal office—and wins for many of them changed the face of the U.S. Congress, many state legislatures and statewide executive offices. At this writing, women make up record proportions of officeholders in the U.S. Congress (23.7%), statewide elective offices (27.6%), and state legislatures (28.7%) (Center for American Women and Politics, 2019a). Within these records, women of color have also broken new ground: 37% of the 127 women serving in the 116th U.S. Congress are women of color. Women of color also hold 6.2% of all state legislative seats and 4.5% of statewide elective executive positions (Center for American Women and Politics, 2019b). Ironically, credit for these promising changes is sometimes given, in a backhanded way, to the current president. A February 2019 *Saturday Night Live* skit, captured this surreal take on Congress’s new look, presenting eight of its regulars, clad in suffragist white, as newly elected Senators and Congresspersons celebrating their new collective power—until they receive a phone call from the president, congratulating *himself* for the country’s election of more female members of Congress than ever before.

But getting elected is not the end, it is the beginning. How does gender affect the public’s reaction to these newly-minted congresspersons? As new congresswomen began their terms in January 2019, there were already signs that they would be judged by gender-relevant standards. Michigan Representative Rashida Tlaib drew intense fire for using profanity when she said, speaking about the president, that they would “impeach the motherfucker.” People—even some who agreed with her about impeachment—were quick to call her language inappropriate and offensive. The Christian Broadcast Network labeled her a “foul-mothed Islamic congresswoman.” Trump himself called her comments disgraceful and disrespectful—even though he himself has used similar language when describing others. Yet male politicians, from Dick Cheney to Beto O’Rourke have often used such language for effect, and with little criticism.

Such reactions are predictable from what we know of prescriptive gender stereotypes. Women are not supposed to express emotions—such as anger and pride—that convey dominance (Brescoll, 2016). Women who express anger when a colleague makes an error are characterized as emotional and out of control; men who express similar sentiments in the same situation gain stature (Brescoll & Uhlmann, 2008). Yet anger, as many commentators have pointed out, is an expression of, and sometimes a source of, power. Women, constrained by feminine role expectations to be nice and polite, miss opportunities to be emphatic, to express the depth of their outrage or shock, to convey the enormity of their hurt or indignation. Traister (2018) captures the pushback against such constraint in the title of her book *Good and mad: the revolutionary power of women's anger*, released, with exquisite timing, just days after Dr. Christine Blasey-Ford's testimony during the confirmation hearings of Brett Kavanaugh for the Supreme Court.

Profanity is especially sanctioned in women, perhaps because, as Byrne (2018) notes, it challenges gender power dynamics by allowing women to express their strong feelings and strong ideas in strong words. "Swearing," she notes, conveys that "My experience and my feelings matter and you *will* hear me." To avoid negative labelling, women in the political sphere have often been careful to avoid swearing in public. However, women's anger and growing sense of empowerment has led some to throw such caution to the winds.

Besides disparaging the new congressional representatives for straying into the use of "unladylike" language, some observers have also leveled criticism at behaviors they try to characterize as inappropriate, undignified, or even treasonous. A video of Alexandria Ocasio-Cortez dancing, taken when she was in college, was circulated with disapproving comments—until she responded with a new, unapologetic, video that showed her dancing into her congressional office.

And the women have also been targeted by false information campaigns. A celebratory photograph of four new congresswomen was photoshopped to include, among other things, a picture of Osama Bin Laden and an ISIS-linked flag—then circulated on Facebook. Ilhan Omar, one of two Muslim women newly elected to Congress, has been labeled a terrorist and falsely accused of saying that all white men should be put in chains. Such attempts at smearing these women are consistent with the idea that they do not belong in Congress—or in politics at all.

Resistance to Change

The Politics of Exclusion

When members of the new Congress converged on Washington DC in January 2019, members encountered a novel problem: for the very first time, there was a significant line for the women's restroom off the House floor (Viebeck, 2019)! This small incident highlights the degree to which the halls of Congress have been male-

dominated. Indeed, women's experience within Congress reflect women's broader experiences of discrimination and exclusion. It was 1962 (when there were already 20 women in Congress) before a women's lounge—containing the only women's restroom on the premises—was established on the first floor of the Capitol. The men's gym for the House of Representative did not become co-ed until 1985, and only after women protested their exclusion. The first lactation room in the Senate office building was opened only in 2006. And in 2017, female lawmakers had to stage a protest in which they all wore sleeveless tops to challenge the archaic rule that congresswomen were not allowed to show their arms on the House floor (Linderman, 2017). These incidents reflect the degree to which women in Congress were an afterthought, marginal rather than full members of “the club.” Their lower status is even more starkly revealed by reports of sexual harassment by their fellow lawmakers—harassment that can embarrass and undercut a woman who is trying to operate as an equal member of the team (Werner & Linderman, 2017).

Of course, women are used to dealing with exclusion. As Shirley Chisholm, the first African American woman elected to the U.S. Congress (in 1968), is quoted as saying, “If they don't give you a seat at the table, bring a folding chair.” Women Representatives and Senators have consistently used this approach—firmly refusing to accept marginalization.

The Politics of Legitimacy

The notion that women's participation in politics is illegitimate—that politics (or any type of power) is a male game in which women do not belong—has a long history. Women who advocated for women's suffrage in the nineteenth and early twentieth centuries were met with ridicule and insults. The National Association Opposed to Woman Suffrage, founded in 1911 (and with many women as members), produced pamphlets that told women “you do not need a ballot to clean out your sink.” The pamphlets included a variety of useful household hints—thus reminding women that their place was in the home and that they should not “waste time, energy, and money” on voting (National Women's History Museum, 2018). They also produced postcards depicting hapless men doing laundry or childcare while their wives were off voting.

Female politicians report that they still experience negative reactions from people who perceive a disconnect between political power and femininity. As one frustrated candidate commented to a researcher, “The biggest barrier is . . . the perception that a powerful woman is a negative. That ambition is a negative personality characteristic in a woman. . . . That being strong . . . and being outspoken is being a bitch” (quoted in Political Parity, 2014, p. 19). Resistance to female politicians is often couched in language and images that imply that powerful women are ugly, unpleasant, manipulative, and even evil. Indeed, the demonizing of Democrats Hillary Clinton and Nancy Pelosi—two of the country's most recognizable powerful women—was a major strategy of Republicans in the 2018 midterm elections

(Korecki, 2018). This strategy is congruent with research showing that people are less likely to vote for a female politician if they perceive her as seeking power—but that preferences for male politicians are not affected by perceived power-seeking intentions (Okimoto & Brescoll, 2010). Powerful women incur disapproval and backlash if they talk more than others, but powerful men do not (Brescoll, 2011). Apparently, it is dangerous for a powerful woman to act powerful. Paradoxically, however, a woman who behaves in a tentative manner in a leadership position loses likeability and influence—but a man behaving in a similar way does not (Bongiorno, Bain, & David, 2014).

Typically, women who do not conform to social expectations of deferential, self-effacing femininity have been targeted by insults that imply they are not “good” women. Terms such as “bossy” and “nasty” are aimed at women more than men—particularly at women who behave in ways deemed threatening (Baer, 2016). Women candidates who demonstrate too much nonverbal assertiveness receive fewer votes; men using similar gestures gain more support (Everitt, Best, & Gaudet, 2016). Furthermore, when the violation of the gender norms is made particularly salient, people may be especially likely to penalize a female candidate. In one recent study, conservative female undergraduates gave the highest interpersonal hostility ratings and lowest indications of support to Hillary Clinton when they were exposed to the slogan that highlighted the fact that she was a woman (“I’m with her”) than when exposed to an ad with no slogan or with a gender-neutral slogan (“Stronger together”) (Mendoza & DiMaria, 2019).

Women of color who seek power may face a different set of reactions. Some research has found that Black female leaders, like their White male counterparts, were not penalized for expressing dominance—whereas White female and Black male leaders did incur negative reactions when they expressed dominance rather than communality (Livingston, Rosette, & Washington, 2012). On the other hand, Black women leaders who make mistakes on the job have been found to be penalized more severely than Black male or White female leaders (Rosette & Livingston, 2012). A more nuanced look at the intersection of gender and race in reactions to women leaders suggests that race-gender stereotypes differ on two dimensions that are relevant to leadership evaluations: competence and dominance (Rosette, Koval, Ma, & Livingston, 2016). Americans tend to stereotype Asian American women as competent, but passive. They stereotype Black American women as dominant and angry, but not necessarily as competent. White women are viewed as communal, and neither particularly competent nor particularly dominant. None of these groups, then, is credited with the full set of qualities assumed to be necessary for leadership. However, Black women may not incur as much disapproval for dominant behavior, since such behavior fits with the qualities stereotypically attributed to them. Furthermore, Black women are perceived as more masculine than White women—leading, perhaps, to less surprise when they are seen in leadership roles. In one study, for example, Black women were more likely than White or Asian women to be matched with a leadership position described as masculine (Galinsky, Hall, & Cuddy, 2013). However, as noted above, Black women are still targeted with discrimination when aiming for or holding a leadership position.

All this derives from, and feeds back into, an often deeply and unconsciously-held notion that female leadership is illegitimate: women simply do not belong in leadership positions. Women in powerful positions simply have more difficulty than men in gaining respect, admiration, and status from their subordinates. With less status, they elicit less cooperation, further undermining their authority (Vial, Napier, & Brescoll, 2016).

Politics of Misdirection

Resistance to gender equality is often couched in arguments that are deliberately confusing and that confound equality with other, more controversial issues. For example, during the 2019 debate over passage of the Equal Right Amendment in Virginia, opponents argued that the true intent of the amendment was not gender equality, but to create a “Trojan horse” to enshrine the right to abortion in the U.S. Constitution (Richardson, 2019). Opponents to the ERA have cited many other specious arguments, such as, for example, that its passage would nullify gender designations for bathrooms, locker rooms, hospital rooms, etc., force the integration of prisons for men and women, and provide “special” legal rights on the basis of sexual orientation and gender identity (Cobb, 2018). Such arguments are advanced to muddy the waters—distracting from what should be a simple, non-controversial attempt to establish that women and men are entitled to equality under the law.

The politics of misdirection is also on display when people assert that, whereas they have nothing against women, they strongly dislike whatever particular powerful woman (Hillary Clinton, Nancy Pelosi, Alexandria Ocasio-Cortez) is under discussion. The truth is, it is extraordinarily difficult for a woman to be viewed as likeable and powerful at the same time—and women leaders are always “dancing on the edge” (Zheng, Surgevil, & Kark, 2018).

It can be shattering to feminists to confront women, in particular, who argue against gender equality or who appear willing to sacrifice this most basic form of equality in the service of some other political goal. Yet, research has shown, over and over again, that biases against women in leadership positions are deep, often unacknowledged, and held to some degree by most of us.

Conclusion: The Birth of Change

In the political climate following the 2016, many people have invoked the language of resistance to characterize the opposition to administration policies that threaten women, the LGBTQ communities, people of color, immigrants, sexual assault survivors, and other vulnerable groups. The #Resist hashtag has mobilized thousands to demonstrate and engage in various political actions. Calls to “resist” are energizing; they evoke the courage and stamina required in desperate times to hold back the

forces of darkness, to keep destruction at bay. Yet, as commentator Michelle Alexander (2018) reminds us, there is another way to think about this. It is the election of Donald Trump, she argues, that represents resistance: a resistance to the birth of a new America in which the privileged status of a few would dissipate and be replaced by a truly egalitarian democracy in which every voice matters. If we think of the movement toward freedom and equality for all as a river, she notes, “Donald Trump’s election represents a surge of resistance to this rapidly swelling river, an effort to build not just a wall but a dam” (para 13, lines 1–2).

Alexander’s comments are a reminder that we are in a moment of cultural change, in which we ought not to be simply reacting to threats, but be creatively engaged in designing new ways of working together as a society and new pathways toward equality. In the service of such a goal, women have changed a great deal, as evidenced by the statistics on political engagement. However, the changes (for example, in voting or in running for office) have not been as dramatic as might be anticipated. Furthermore, women cannot be the only ones to change. Of the notion that women are more aware of the need for change, there can be little doubt. Many more women (69%) than men (48%) say there are too few women in high political office. Women outstrip men (59–36%) in the belief that gender discrimination is a major reason why women in political office are in short supply, and more women (74%) than men (60%) believe that it is easier for men than for women to get elected to high political office (Horowitz et al., 2018). Clearly, there are more men than women who may need to increase their understanding and support for women making a foray into political life.

Yet perhaps nowhere is optimism about just such a change more evident than in the swearing-in ceremony for the more than 100 new women of the 116th Congress. On that day, the women were the center of attention. Husbands helped attach members pins to their wives’ lapels, carried the bags, and hushed the children. As Representative Ilhan Omar commented, “I look forward to ushering in further progress so that my daughters and their daughters don’t have to have these conversations about what this moment means because it would just become really normal” (quoted in Viebeck, 2019).

References

- Alexander, M. (2018, September 21). We are not the resistance. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/09/21/opinion/sunday/resistance-kavanaugh-trump-protest.html>
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Baer, D. (2016, October 20). Why there are way more ‘nasty women’ than men. *The Cut*. Retrieved from <https://www.thecut.com/2016/10/why-there-are-way-more-nasty-women-than-men.html>
- Barbara Lee Family Foundation. (2016). *Modern family: How women candidates can talk about politics, parenting, and their personal lives*. Retrieved from http://oe9e345wags3x5qik-p6dg012.wpengine.netdna-cdn.com/wp-content/uploads/BL_Memo_Final-3.22.17.pdf

- Bauer, N. M. (2017). Gender stereotypes and voter evaluations of female candidates. In A. L. Bos & M. C. Schneider (Eds.), *Routledge studies in political psychology* (The political psychology of women in U.S. politics) (Vol. 4, pp. 167–183). Routledge/Taylor & Francis Group: New York, NY.
- Bode, L. (2017). Closing the gap: Gender parity in political engagement on social media. *Information, Communication & Society*, 20, 587–603. <https://doi.org/10.1080/1369118X.2016.1202302>
- Bongiorno, R., Bain, P. G., & David, B. (2014). If you're going to be a leader, at least act like it! Prejudice towards women who are tentative in leader roles. *British Journal of Social Psychology*, 53, 217–234. <https://doi.org/10.1111/bjso.12032>
- Brescoll, V. L. (2011). Who takes the floor and why: Gender, power, and volubility in organizations. *Administrative Science Quarterly*, 56, 622–641. <https://doi.org/10.1177/0001839212439994>
- Brescoll, V. L. (2016). Leading with their hearts? How gender stereotypes of emotion lead to biased evaluations of female leaders. *The Leadership Quarterly*, 27, 415–428. <https://doi.org/10.1016/j.leafqua.2016.02.005>
- Brescoll, V. L., & Uhlmann, E. L. (2008). Can an angry woman get ahead? Status conferral, gender, and expression of emotion in the workplace. *Psychological Science*, 19, 268–275. <https://doi.org/10.1111/j.1467-9280.2008.02079.x>
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86, 307–324.
- Burns, N. (2007). Gender in the aggregate, gender in the individual, gender and political action. *Politics & Gender*, 3, 104–124. <https://doi.org/10.1017/S1743923X07221014>
- Byrne, E. (2018, March 21). There's a swearing double standard—And women can change it. *Elle*. Retrieved from <https://www.elle.com/life-love/a19431418/swearing-double-standard/>
- Center for American Women and Politics. (2019a). *Facts: Women in elective office 2019*. Retrieved from <https://www.cawp.rutgers.edu/women-elective-office-2019>
- Center for American Women and Politics. (2019b). *Facts: Women of color in elective office 2019*. Retrieved from <http://www.cawp.rutgers.edu/women-color-elective-office-2019>
- Cobb, V. (2018, August 30). The “equal rights amendment” (ERA) is about abortion. *Letter to legislators from The Family Foundation*. Retrieved from <https://varatifyera.org/wp-content/uploads/2018/11/Family-Foundation-ERA-Letter-to-Legislators.pdf>
- Coffé, H., & Bolzendahl, C. (2010). Same game, different rules? Gender differences in political participation. *Sex Roles: A Journal of Research*, 62, 318–333. <https://doi.org/10.1007/s11199-009-9729-y>
- De Pinto, J., Backus, F., Khanna, K., & Salvanto, A. (2018, September 20). Young women: Age group of women most unhappy with Trump presidency - CBS News/Refinery29 poll. *CBS News*. Retrieved from <https://www.cbsnews.com/news/young-women-are-the-group-most-unhappy-with-trump-presidency-cbs-news-refinery-29-poll/>
- Ditonto, T. (2017). A high bar or a double standard? Gender, competence, and information in political campaigns. *Political Behavior*, 39, 301–325. <https://doi.org/10.1007/s11109-016-9357-5>
- Dittmar, K. (2018, July 3). The gender gap in voting: Setting the record straight. *Footnotes: A blog of the Center for American Women and Politics*. Retrieved from <https://www.cawp.rutgers.edu/footnotes/gender-gap-voting-setting-record-straight>
- Eggers, A. C., Vivyan, N., & Wagner, M. (2018). Corruption, accountability, and gender: Do female politicians face higher standards in public life? *The Journal of Politics*, 80, 321–326. <https://doi.org/10.1086/694649>
- Everitt, J., Best, L. A., & Gaudet, D. (2016). Candidate gender, behavioral style, and willingness to vote: Support for female candidates depends on conformity to gender norms. *American Behavioral Scientist*, 60, 1737–1755. <https://doi.org/10.1177/0002764216676244>
- Galinsky, A., Hall, E., & Cuddy, A. (2013). Gendered races: Implications for interracial marriage, leadership selection, and athletic participation. *Psychological Science*, 24, 498–506.
- Horowitz, J. M., Igielnik, R., & Parker, K. (2018, September 20). Women and leadership 2018. *Pew Research Center, Social & Demographic Trends*. Retrieved from <http://www.pewsocial-trends.org/2018/09/20/women-and-leadership-2018/>

- Jones, R. P., Cox, D., Fisch-Friedman, M., & Vandermaas-Peeler, A. (2018). *Diversity, division, discrimination: The State of Young America*. Public Religion Research Institute and MTV. Retrieved from <https://www.pri.org/research/mtv-culture-and-religion/>
- Jost, J. T. (2017, June). A theory of system justification. *Psychological Science Agenda*. Retrieved from <https://www.apa.org/science/about/psa/2017/06/system-justification.aspx>
- Korecki, N. (2018, October 12). GOP deploys Pelosi and Clinton to rouse base in mid-terms. *Poliitico*. Retrieved from <https://www.politico.com/story/2018/10/12/clinton-pelosi-2018-attack-ads-896050>
- Kurtzleben, D. (2018, October 4). Women veterans show off fighter jets in campaign ads, but also their minivans. *National Public Radio*. Retrieved from <https://www.npr.org/2018/10/04/651950621/women-veterans-show-off-fighter-jets-in-campaign-ads-but-also-their-minivans>
- Lawless, J. L., & Fox, R. L. (2013). *Girls just wanna not run. The gender gap in young Americans' political ambition*. Washington, DC: Women & Politics Institute. Retrieved from https://www.american.edu/spa/wpi/upload/girls-just-wanna-not-run_policy-report.pdf
- Lawless, J. L., & Fox, R. L. (2017). *The Trump effect. Results from a Politico/American University/ Loyola Marymount university survey of potential candidates*. Washington, DC: Women & Politics Institute. Retrieved from <https://www.american.edu/spa/wpi/upload/The-Trump-Effect.pdf>
- Lerner, M. J. (1970). The desire for justice and reactions to victims. In J. Macaulay & L. Berkowitz (Eds.), *Altruism and helping behavior*. New York: Academic.
- Lerner, M. J. (1974). Social psychology of justice and interpersonal attraction. In T. Huston (Ed.), *Foundations of interpersonal attraction*. New York: Academic.
- Linderman, J. (2017, November 3). How women in Congress have fought for equal treatment within the halls of Capitol Hill. *The Christian Science Monitor*. Retrieved from <https://www.csmonitor.com/USA/Politics/2017/1103/How-women-in-Congress-have-fought-for-equal-treatment-within-the-halls-of-Capitol-Hill>
- Lips, H. M. (2000). College students' visions of power and possibility as moderated by gender. *Psychology of Women Quarterly*, 24, 39–43. <https://doi.org/10.1111/j.1471-6402.2000.tb01020.x>
- Livingston, R. W., Rosette, A. S., & Washington, E. F. (2012). Can an agentic Black woman get ahead? The impact of race and interpersonal dominance on perceptions of female leaders. *Psychological Science*, 23, 354–358. <https://doi.org/10.1177/0956797611428079>
- Mendoza, S. A., & DiMaria, M. G. (2019). Not “with her”: How gendered political slogans affect conservative women’s perceptions of female leaders. *Sex Roles: A Journal of Research*, 80, 1–10. <https://doi.org/10.1007/s11199-018-0910-z>
- Mihalek, N. (2018, March 18). For women candidates, that ‘extra’ question: ‘What about the kids?’. *Pittsburgh Post-Gazette*. Retrieved from <https://www.post-gazette.com/opinion/Op-Ed/2018/03/18/For-women-candidates-that-extra-question-What-about-the-kids/stories/201803310027>
- Mo, C. H. (2015). The consequences of explicit and implicit gender attitudes and candidate quality in the calculations of voters. *Political Behavior*, 37, 357–395. <https://doi.org/10.1007/s11109-014-9274-4>
- National Women’s History Museum. (2018). Vote NO on woman suffrage. *Anti-suffrage pamphlet*. Public Domain. Retrieved from <http://www.crusadeforthevote.org/naows-opposition>
- Okimoto, T. G., & Brescoll, V. L. (2010). The price of power: Power seeking and backlash against female politicians. *Personality and Social Psychology Bulletin*, 36, 923–936. <https://doi.org/10.1177/0146167210371949>
- Political Parity. (2014). *Shifting gears: How women navigate the road to higher office*. Cambridge, MA: Hunt Alternatives. Retrieved from <https://www.politicalparity.org/research/shifting-gears/>
- Richardson, V. (2019, January 10). ‘Smokescreen’ for abortion? Pro-life movement mobilizes to defeat revived Equal Rights Amendment. *The Washington Times*. Retrieved from <https://www.washingtontimes.com/news/2019/jan/10/equal-rights-amendment-bid-enshrine-abortion-const/>

- Rosette, A. S., Koval, C. Z., Ma, A., & Livingston, R. (2016). Race matters for women leaders: Intersectional effects on agentic deficiencies and penalties. *The Leadership Quarterly*, 27, 429–445. <https://doi.org/10.1016/j.leafqua.2016.01.008>
- Rosette, A. S., & Livingston, R. (2012). Failure is not an option for Black women: Effects of organizational performance on leaders with single versus dual-subordinate identities. *Journal of Experimental Social Psychology*, 48, 1162–1167.
- Rothwell, V., Hodson, G., & Prusaczyk, E. (2019). Why Pillory Hillary? Testing the endemic sexism hypothesis regarding the 2016 U.S. election. *Personality and Individual Differences*, 138, 106–108. <https://doi.org/10.1016/j.paid.2018.09.034>
- Schneider, M. C., Holman, M. R., Diekmann, A. B., & McAndrew, T. (2016). Power, conflict, and community: How gendered views of political power influence women's political ambition. *Political Psychology*, 37, 515–531. <https://doi.org/10.1111/pops.12268>
- Sharma, M., Mellnik, T., & Fischer-Baum, R. (2018, December 31). How did voter turnout in your county compare to the 2016 presidential election. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/graphics/2018/politics/county-turnout/?noredirect=on>
- Stone, L. (1855). Disappointment is the lot of women. Reprinted in E. Cady Stanton (Ed.), *History of Woman Suffrage*, vol. 1. (New York: Fowler and Wells, 1922), pp. 165–167. Retrieved from http://bpi.edu/ourpages/auto/2006/10/24/1161680745471/tar03_03_149_ps.pdf
- Traister, R. (2018). *Good and mad: The revolutionary power of women's anger*. New York: Simon & Shuster.
- Tyson, A. (2018, November 8). The 2018 midterm vote: Divisions by race, gender, education. *FactTank*. Pew Research Center. Retrieved from <http://www.pewresearch.org/fact-tank/2018/11/08/the-2018-midterm-vote-divisions-by-race-gender-education/>
- Van Oot, T. (2018, August). Marching to nowhere: Women are more politically active, but still not voting. *Refinery 29*. Retrieved from <https://www.refinery29.com/en-us/2018/08/206687/why-young-women-dont-vote-midterm-election-2018>
- Vial, A. C., Napier, J. L., & Brescoll, V. L. (2016). A bed of thorns: Female leaders and the self-reinforcing cycle of illegitimacy. *The Leadership Quarterly*, 27, 400–414. <https://doi.org/10.1016/j.leafqua.2015.12.004>
- Viebeck, E. (2019, January 3). Lawmakers hail a new 'sisterhood' as more than 100 women take their seats in the House. *The Washington Post*. Retrieved from https://www.washingtonpost.com/powerpost/lawmakers-hail-a-new-sisterhood-as-more-than-100-women-take-their-seats-in-the-house/2019/01/03/b4aba1ee-0f88-11e9-8938-5898adc28fa2_story.html?noredirect=on&utm_term=.53e89bd2b219
- Werner, E., & Linderman, J. (2017, November 3). Female lawmakers come forward with experiences of sexual harassment by peers in Congress. *The Christian Science Monitor*. Retrieved from <https://www.csmonitor.com/USA/Politics/2017/1103/Female-lawmakers-come-forward-with-experiences-of-sexual-harassment-by-peers-in-Congress>
- Women Vote Smart PAC. (2018). Women vote Trump. Retrieved from <http://womenvotesmartpac.com/>
- Zheng, W., Surgevil, O., & Kark, R. (2018). Dancing on the razor's edge: How top-level women leaders manage the paradoxical tensions between agency and communion. *Sex Roles: A Journal of Research*, 79, 633–650. <https://doi.org/10.1007/s11199-018-0908-6>

Political Identity Development in a Changing World



Bobbi Gentry

Identity development directly affects political behavior because knowing who we are politically encourages us to act. Going through the process of identity development involves questioning, becoming an individual, and differentiating oneself from others. In order to achieve the highest levels of development, one must be concerned about developing an identity, question their identity, and illustrate how they are an individual. During any part of the process and life cycle, a person can get stuck in a lower identity status, which then affects their behavior in the political realm. Identifying different demographic characteristics and their impact on identity status can clarify how people develop their identity in a world of politics that is continually changing.

Early literature on identity development suggests that as we move from adolescence to adulthood people develop a sense of who they are in many aspects of life such as identity in career, relationships, and religion. Erik Erikson's work on identity theorized that people develop their understanding of self, but that much of the growth and individuation (seeing oneself as different and separate from others) happens in the years between adolescence and early adulthood (1994). James Marcia built on the idea of identity development and created development stages of identity (1980). Marcia also specified that there were different types of identity and that people can be in different stages with different types of identity. For instance, a person might be very clear what their career identity is but less sure about their relationship identity.

Marcia's three types of identity include career, relationship and political/religious. In the stages model of identity development, Marcia found demographic differences in political identity which included women and young people having a less developed identity than their male or older counterparts (1980). Some of these

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demographic differences may be a result of the time period that Marcia was studying. In the 1970s, fewer women participated in politics and many of Marcia's female subjects often had an identity that was similar to their husband's or parents. However, as recent work about women's increased voting patterns suggests, women once they built social connections that engaged them in politics were more likely to participate once they had the resources to individuate (Burns, Scholozman, & Verba, 2001).

While much of the work on identity falls into the discipline of psychology, some of the research on political identity is by scholars of political science who differentiate between a social identity and an individual identity. Huddy discusses the difference for individuals to experience political identity acquisition and how these individual differences can explain the process of social identity development; however, he also notes that this issue "has been largely ignored by social identity researchers" (2001, 139). The idea of a social identity and the demographic differences between groups can account for adherence to a group identity and categorization into specific social groups. Social identity does not account for individual differentiation and individuation and one's sense of their own political identity.

In a more nuanced approach, political psychology can offer a blend of social and individual identity. Brewer's work encourages political psychologists to consider identity as both social and individual. Brewer sees identity as the individual's connection with a social identity, rather than separate from a social identity. With self-concept, a person develops a sense of understanding and "weighs and assesses available aspects of the self to determine which are activated or engaged as guides to behavior in the current situation," (2001, 121). However, Brewer does not necessarily distinguish personal from social identity, but considers that social identity is not an individual identity.

For the purposes of this work, identity is understood to be an individual's identity, not a social identity. An individual identity is a person's understanding of who they are or a sense of self. For a political identity, it is a person's sense of who they are politically. If a person has a developed political identity, then they are more likely to participate in politics to confirm that identity and to act on it. If a person is not sure of their political identity or actively avoids their political identity, then they are less likely to participate.

Differences in Identity Between Groups

There do tend to be gender differences in statuses around political identity development. Men tend to excel in achieving a political ideology, whereas women tend to take on identities of peers or parents (Matteson, 1993, 89), but on other aspects of identity development women are more likely to be highly developed, such as relationship identities. Some of the explanation for women to be foreclosed (a status where one has a secure understanding of their identity, but has not defined how they are different from role models such as peers, partners, or parents) in political identity development comes from the social support for women; there is social support

for religious, occupational, interpersonal, and relationship aspects to an identity, there is little support for women to develop their identity politically (Burns et al., 2001). Matteson also found within identity development girls are more likely to believe stability as important and girls in committed statuses (Achievement and Foreclosure) are more likely to be popular. In a review of the research, Alan Waterman found different accounts of political identity development in a few different studies. However, in each of the studies males tended to be more developed in their political ideology than women (1982, 350). While there may be variation between domains of an identity, those who have achieved an identity have commitments in many different domains such as occupation, relationship, and life style commitments.

In a comparison between Black and White women, Cole and Stewart find that political identity differences between races do exist where political identity can predict midlife political participation for White women, but not for Black women. However, differences in mean scores between political identity were present based on race (1996, 136). Black women had higher means on a political identity scale based on a variety of measures compared to their white counterparts. Racial differences may exist in this research, and future research into the impact of identity on political behavior could confirm the differences found in Cole and Stewart's work.

The focus of this work is on individual identity development. As a person develops an identity they develop the sense of who they are politically. Socialization can impact individual identity development by providing examples of different identities and what identities may be mainstream or outside typical political affiliations. Socialization of a political identity can be limited due to the limitation of identity options. Socialization can both identify questions and commitments available, but in order for the individual to reach the highest levels of identity development, they must question and make commitments that are unique to who they are politically. Group identity can inform the person about their own sense of self, but individuation of an identity means the person defining their own identity that is different from the group and others. Consider group identity as finding sameness and individual identity as finding uniqueness.

In this research, four identity categories are used. The first category is fully developed which requires an individual to go through a period of questioning and make decisions about their own identity that is different from others, which is known as individuation. Secondly, there are people who have political commitments but have not always gone through a period of questioning or individuation. These individuals often have taken on an identity of a role model whether it is a peer, parent, or partner. Explorers are the third group who are recognized by their persistent seeking of information without making commitments in the political realm. Lastly, people in the avoidant status are avoidant to politics meaning they do not have commitments and they are not seeking to define their identity.

As people go through the process of identity development, they question, seek examples from role models, and eventually begin to determine their own identity. The process is complex and at many points a person can have an identity crisis where they are no longer in a developed state. For instance, a person who deeply

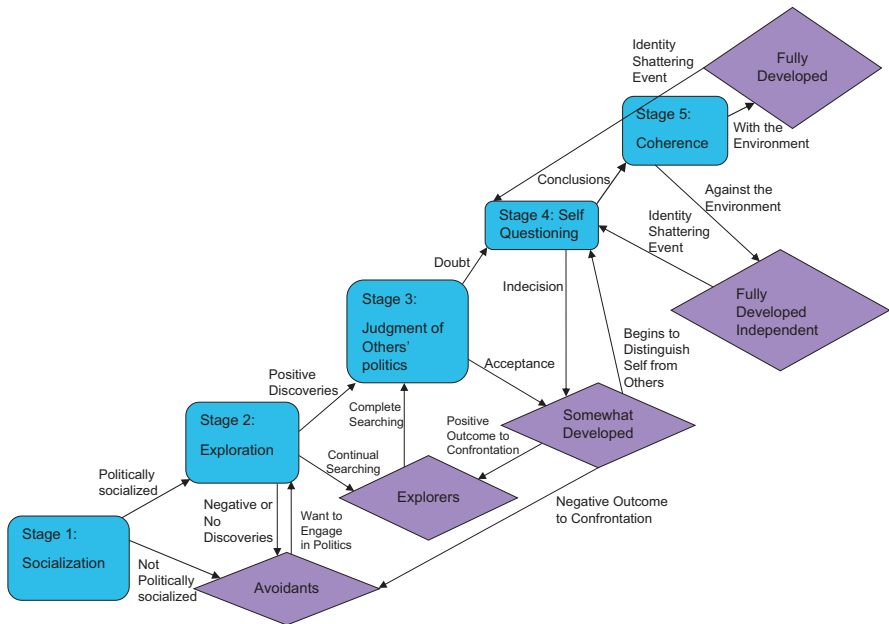


Fig. 1 The process of political identity development. From: Why Youth Vote

believes in their political party but is shocked or disappointed with their party’s actions can revert to the avoidant status where they want nothing to do with politics. On the other hand, a person who is only somewhat developed is confronted about their beliefs and begins to see that they are no different from their peers or parents may take time to question and figure out how they are different. Moments in a person’s life can have an impact on their political identity and can shift their status (Fig. 1). Please see Fig. 1 for an identity development model.

Methods

A regional poll conducted by the Winthrop University Social and Behavioral Research lab was conducted in May 2009. Registered voters were polled and questions about identity development were included. In addition, questions about political knowledge, following politics, and demographic questions about age, race, income, and gender were also asked. The total sample size was 740, which allows for comparisons between demographic groups and political behaviors.

Four questions were asked to determine a person’s status and within the questions aspects of self-knowledge and discovery were assessed against self-ignorance

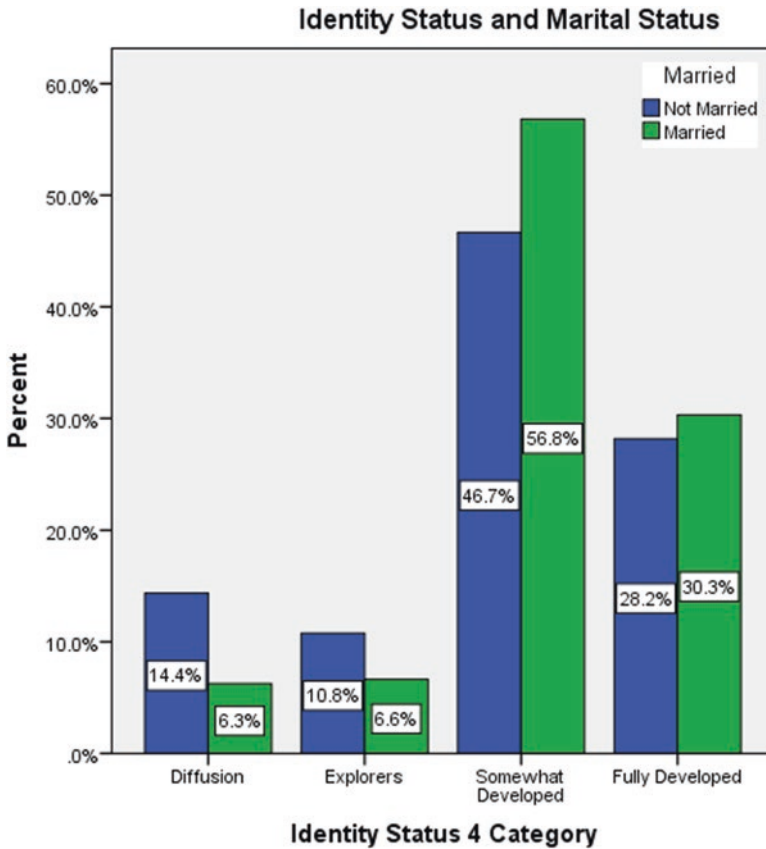
and passiveness. Each question tapped into a different identity status: Avoidant, Explorer, Somewhat Developed and Fully Developed. Because people could answer that more than one status “completely described” them, a person could feasibly say that two statuses completely describe them. In such cases, the person was coded as the lower status. Often individuals will admit that they think they are a higher status than they actually are, and the choice was to treat these individuals as idealistic towards their possible identity status. Specific question wording for the assessment of identity statuses was for Avoidant: “I really have never been involved in politics enough to have made a firm stand one way or the other on what I believe in.” For Explorers uncertainty and commitment to searching were assessed with “I’m not sure about my political beliefs, but I’m trying to figure out what I can truly believe in.” The status of somewhat developed tested commitment to one’s beliefs without much exploration: “I’ve always known who I was politically without much questioning or consideration of alternatives.” Fully developed individuals were assessed with the question: “I’ve gone through a period of serious questions about politics and can now say that I understand what I believe in as an individual.”

Common demographic variables were analyzed with crosstabulations to examine significant differences between groups. Variables included race, income, education, marital status, gender, vote in the 2008 election, preference for candidate over party, political knowledge, follow government and public affairs, and political ideology.

Findings

Marital status has some interesting dimensions as it relates to identity status and gender. Married people ($N = 528$) are more likely to be in higher development categories (30.3% fully developed and 56.8% somewhat developed). Non-married people ($N = 195$) tend to be lower on the identity development scale with their highest category as somewhat developed (46.7%) and their lowest category as explorers (10.8%; Chi-Square = 17.175, $p = .001$, $N = 723$).

Marital status does not affect all genders the same. Differences between married and unmarried women did not exist (Chi-Square = 6.096, $p = .107$, $N = 308$). However, there were significant differences between married and unmarried men (Chi-Square = 9.76, $p = .021$, $N = 405$). Married men ($N = 343$) are more developed in their political identity (29.7% fully developed, 58% somewhat developed) than their unmarried counterparts ($N = 62$, 25.8% fully developed, 46.8% somewhat developed). More unmarried men were either in the status of Avoidant (12.9%) or explorers (14.5%).



Similar differences also exist in following government and public affairs. The highly developed participants also follow government (fully developed 81.8%, somewhat developed (80.1%). While the overall pattern suggests more people follow government and public affairs than those that do not, this may be due to the sample of registered voters. Predictable patterns exist with more development in one’s political identity then we see more following of government and public affairs. As a result, those with more developed identities are more likely to engage in behaviors that reaffirm their political identity rather than avoiding information that might cause a crisis of identity (Table 1).

Ideology in this sample does tend to be skewed towards more conservatives than are typical in a population which ranges between 33 and 37%. However, moderates (N = 63, 37.3%) and more conservatives (somewhat conservative, N = 60, 31.4% and very conservative, N = 47, 25%) tend to be more developed than their very liberal counterparts (N = 6, 12%). The most likely level of identity development for all of the ideologies is somewhat developed, which assumes commitment without necessarily a stage of questioning. One interesting element is the differences

Table 1 Identity status and follows government and public affairs

Follows government and public affairs	Identity status				
	Avoidant	Explorers	Somewhat developed	Fully developed	Total
Most of the time	56.5% (35)	71.9% (41)	80.1% (314)	81.8% (180)	78% (570)
Some of the time	25.8% (16)	17.5% (10)	15.3% (60)	13.6% (30)	15.9% (116)
Only now and then	11.3% (7)	5.3% (3)	3.1% (12)	4.1% (9)	4.2% (31)
Hardly at all	6.5% (4)	3.5% (2)	1.5% (6)	0.5% (1)	1.8 (13)
Refuse	0% (0)	1.8% (1)	0% (0)	0% (0)	0.1% (1)

Chi-Square = 40.728, p = .000, N = 731

Table 2 Identity status and ideology

Identity status	Ideology					Total
	Very liberal	Somewhat liberal	Moderate	Somewhat conservative	Very conservative	
Avoidant	8% (4)	15.5% (16)	8.9% (15)	6.8% (13)	5.3% (10)	8.3% (58)
Explorers	6% (3)	8.7% (9)	8.9% (15)	8.4% (16)	5.3% (10)	7.6% (53)
Somewhat developed	74% (37)	44.7% (46)	45% (76)	53.4% (102)	64.4% (121)	54.5% (382)
Fully developed	12% (6)	31.1% (32)	37.3% (63)	31.4% (60)	25% (47)	29.7% (208)

Chi-Square = 33.011, p = .001, N = 701

between moderates and all other ideologies, where moderates tend to be the most fully developed (37.35%) (Table 2).

Party identification also has different development rates between affiliations. Overall, somewhat developed is the highest category for almost all of the party identifiers, the only exception is those who identify as Independent, but lean towards the Democratic party (N = 18, 34%). Democratic leaners are the most Fully Developed (N = 24, 45.3%). Interestingly, Independents also have more people that are fully developed (N = 48, 37.8%) than those that identify as Strong Republican (N = 37, 25.2%) or Strong Democrats (N = 34, 20.7%) (Tables 3 and 4).

Political identity development also seems to impact political behaviors such as knowledge, following politics and government, and voting behavior. Overall, people in every level of development were correct in their responses to the question of who the current vice president is. However, the highest number of participants with correct answers were the somewhat developed participants (N = 319, 82.9%), followed by the fully developed participants (N = 170, 79.4%). Surprisingly, explorers did not have more political knowledge (N = 38, 32.1% incorrect), which we would expect since they are in the stage where they are seeking knowledge. Participants in

Table 3 Identity status and party identification

Identity status	Party identification								Total
	Strong democrat	Weak democrat	Democratic leaner	Independent	Republican leaner	Weak republican	Strong republican		
Avoidant	6.1% (10)	23.7% (14)	7.5% (4)	9.4% (12)	4.1% (3)	12.9% (12)	4.1% (6)		8.5% (61)
Explorers	8.5% (14)	11.9% (7)	13.2% (7)	11% (14)	2.7% (2)	6.5% (6)	2.7% (4)		7.5% (54)
Somewhat developed	64.6% (106)	35.6% (21)	34% (18)	41.7% (53)	53.4% (39)	51.6% (48)	68% (100)		53.8% (385)
Fully developed	20.7% (34)	28.8% (17)	45.3% (24)	37.8% (48)	39.7% (29)	29% (27)	25.2% (37)		30.2% (216)

Chi-Square = 72.342, p = .000, N = 716

Table 4 Identity status and political knowledge

Knows VP	Identity status				
	Avoidant	Explorers	Somewhat developed	Fully developed	Total
Incorrect	43.5% (27)	32.1% (18)	17.1% (66)	20.6% (44)	21.6% (155)
Correct	56.5% (35)	67.9% (38)	82.9% (319)	79.4% (170)	78.4% (562)

Chi-Square = 25.95, p = .000, N = 717

Table 5 Identity status and voting behavior

Vote	Identity status				
	Avoidant	Explorers	Somewhat developed	Fully developed	Total
Did not vote	13.3% (8)	7.3% (4)	2.3% (9)	2.3% (5)	3.6% (26)
Voted	86.7% (52)	92.7% (51)	97.7% (382)	97.7% (209)	96.4% (694)

Chi-Square = 21.337, p = .000, N = 720

the Avoidant status had the highest rate of incorrect answers (N = 27, 43.5%) compared to their more developed counterparts (Table 5).

Some demographic categories that were previously found to impact identity development did not in this sample. For instance, racial differences showed no significant difference between non-whites and whites (Chi-Square = 4.771, p = .189, N = 716). Level of education, which is often identified with increased levels of development, was not significant (Chi-Square = 15.706, p = .402, N = 709). Gender differences were not significant (Chi-Square = 3.617, p = .306). Differences between participants’ income also did not impact level of identity development (Chi-Square = 42.516, p = .065). Identity also did not produce differences in perceptions about preference of candidate over party (Chi-Square = 4.008, p = .261).

Discussion

Previous demographic differences found in identity development did not appear in this sample. One major limitation of this sample is that all of the participants were registered voters, which means that they, at some point, engaged in the behavior of registering to vote. This limitation could explain the higher levels of development in the sample than what is often found in other research.

Results suggest there are significant differences between demographic groups and their levels of identity development, but not the typical explanations of race, gender, education, and income. These variables also impact voting behavior, which makes the story of identity more complicated. Marital status impacted political identity status. This makes sense because Marcia’s original understanding of identity statuses included relationship identity status as a measure of development along with ideological that he combined as political and religious (Marcia, 1966). If a

person has a committed relationship identity status then they might also might commit to a political identity status. However, when looking at gender and marital status it seems like the differences are explained by the impact of marriage on men rather than women.

Ideology and political party affiliation also had some interesting dynamics, where individuals who were liberal tended to be less developed than their moderate and conservative counterparts. In addition, those who identify with the Democratic party also had less identity status development than their Republican or Independent counterparts. For future research, examining the intersection of liberalism and identity development with other demographic variables could contribute to our understanding of why these differences exist.

Those in the middle of the spectrum, people who originally identify as Independent tend to have higher levels of development than their partisan counterparts, which suggests being an Independent may require more identity development than simply choosing a partisan affiliation or taking on your parent's affiliation. Even though the world may change around us, those who are questioning and eventually committing are those who say that they are Independent. Another interesting element is the number of Weak Democrats who are in the Avoidant category (23.7%). Identifying as a partisan, but having weak affiliation could mean that people are going along with the popularity of Obama as a candidate and chose to identify as partisan because they identify with the candidate. In a changing political world, the political environment can impact identity development, which can have positive or negative consequences to political choices.

Identity status did shape certain political behaviors. Following public affairs was a behavior most represented in individuals with higher identity statuses. Political knowledge varied by identity status with the Somewhat Developed status having the most correct answers. Identity status also explains variation in voting behavior, which is one way to confirm or act out one's identity. Individuals who possessed higher levels of development were the most likely to vote, even though the sample was over-representative of possible voters.

Conclusion

Identity matters and with the changing nature of politics people will develop differently than we did in the past. As access to information, role models, and a 24 h news cycle may increase information, it does not increase how people will become their individual selves. The time and energy necessary to individuate and be unique is high, especially in an identity area where there can sometimes be little guidance and variation. Demographic differences are present, but more importantly this study affirms the importance of identity development on behavior.

References

- Brewer, M. B. (2001). The many faces of social identity: Implications for political psychology. *Political Psychology, 22*(1), 115–125.
- Burns, N., Scholozman, K. L., & Verba, S. (2001). *The private roots of public action: Gender, equality, and political participation*. Cambridge MA: Harvard University Press.
- Cole, E. R., & Stewart, A. J. (1996). Meanings of political participation among black and white women: Political identity and social responsibility. *Journal of Personality and Social Psychology, 71*(1), 130–140.
- Erikson, E. (1994). *Identity: Youth and crisis*. New York: W. W. Norton & Company.
- Huddy, L. (2001). From social to political identity: A critical examination of social identity theory. *Political Psychology, 22*(1), 127–156.
- Marcia, J. E. (1966). Development and validation of ego identity status. *Journal of Personality and Social Psychology, 3*(5), 551–558.
- Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology*. New York: Wiley.
- Matteson, D. R. (1993). Differences within and between genders: A challenge to the theory. In J. E. Marcia et al. (Eds.), *Ego identity: A handbook for psychosocial research*. New York: Springer.
- Waterman, A. (1982). Identity development from adolescence to adulthood: An extension of theory and a review of research. *Developmental psychology, 18*(3), 341–358.

Facial Appearance and Dominance in Leadership



Elif Gizem Demirag Burak

Introduction

Does leader's facial appearance influence our decision to vote? You might think that there are many other factors that influence our political behavior except how a leader looks like. In fact, it has been proven that we have a tendency to judge who can be a good leader based on how candidates appearance. This chapter will discuss political psychology behind selecting leaders based on their facial appearance.

A tremendous number of research has shown that facial appearance play a significant role in selecting leaders (e.g. Todorov et al., 2005). In empirical studies, people are asked to choose one of the given pictures of faces, which reflect several traits and attributes such as dominance, competence, trustworthiness, and attractiveness. Those studies show that people have a tendency to choose dominant looking leaders in times of crisis and war. It is open to discussion why dominant looking leaders are selected in our age when there is no conflict or war.

This chapter will speculate on psychological reasons behind this choice. The chapter will focus on individual differences and context that contributes one's choice of a dominant looking leader. It intends to make an overview of literature by analyzing individual's selection of dominant looking leaders with respect to theories in social psychology, evolutionary psychology and political psychology.

This paper has five main sections. In the section one, I will provide traditional and modern psychological perspectives. In the section two, I will discuss individual and context related factors that influence choice of dominant leaders. In the section three, I will give emphasis on theories used to analyze facial appearance and leadership. In the section four, I will provide overview of existing literature with the focus on empirical studies. In the section five, I will discuss the issue of selecting dominant

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leaders in the light of existing literature and put forward future policies. In the last section, I am going to have a concluding statement.

Traditional and Modern Approaches in Psychology

Two main psychological trends, which are psychoanalysis and cognition, allow us to understand human behavior in political context. This section provides a very brief overview of these perspectives.

The traditional approach in psychology has been very much influenced by Freudian approach of psychology. Freudian approach (1961) suggests that people pass through three stages in their life. The Id—with pleasure seeking and instinct gratification—drives us, the Ego takes the role of moral conscious and the Superego acts as a mediator between Id and Ego. As the person grow up, suppression takes place because more motives appear in the unconsciousness. Although it is possible to identify conscious, unconscious continues to influence our lives. Similar to other contexts in everyday life, understanding a human behavior in politics requires analyzing the unconscious behaviors.

The answer for why people support for a dominant leader can be found in unconscious motives. Considering the Freudian perspective, selection of a dominant leader is not considered as rationality. At a deeper level of this selection, the unconscious motives might play an important role. For instance, those kinds of leaders constantly refer to threats as they aware that increasing threat increases support that they gain from society. To better explain the relationship between followers and leaders, unconscious motives needs to be analyzed.

In contrast to classical approach, modern cognitive approach is interested in explicit and implicit processes. As Daniel Kahneman (2011) mention in *Thinking Fast and Slow*, we develop certain cognitive strategies to help us survive better. System 1 is fast, which is intuitive and automatic processes that we are not aware of it. System 2 is slow and effortful, which we actually aware of them. Using System 1 leads us to make quick judgments about people. If we are in political arena, we use facial cues to judge candidate's capabilities. Our judgment can also influence our voting behavior.

Both perspectives are influential in terms of understanding human behavior and motives. Rest of the chapter will mention about the theoretical knowledge and empirical studies which are driven by Freudian or cognitive approach.

Contextual and Individual Factors

This section aims to provide an overview of contextual and individual factors that influence follower's psychology while selecting dominant looking leaders. We have seen that dominant politicians like Donald Trump in the US, Vladimir Putin in

Russia and Silvio Berlusconi in Italy won majority of the votes (Laustsen & Petersen, 2017). Although it is attributed to our evolutionary past, a trend for selecting dominant looking leader still exists today. The main concern is to understand why people support dominant looking leader when there is no crisis.

In order to understand this phenomenon more, one needs to know more about leadership and its relation with context. Scholars suggest that not only political and psychological atmosphere but also cultural context influence selection of a dominant looking leader (e.g.: Popper, 2012). Popper (2012) argues that leadership is a subject that needs to be analyzed with a perspective, which involves context in which followers and leaders interact. As Popper (2012) states this matter in his book *Fact and Fantasy about Leadership*:

Universal characteristics that often serves as a psychological explanation for the attraction to leaders who are perceived as strong and giving a sense of security, particularly in crisis situations, is the craving for security. But beyond this, the psychology of followers in respect to choice of leaders and compliance with leaders in quiet times when there is no urgent sense of existential crisis is culturally biased (p. 4).

From a social psychological perspective, the answer for this question could be found in history where there was a desperate war like Second World War that gave a dominant or authoritarian person a chance to rise to the power. Influenced by the real historical events, the studies of famous social psychologists—Muzaffer Sherif's Autokinetic Effect study, Stanley Milgram's electric shock experiment, Solomon Asch's experiment on conformity, Philip Zimbardo's Stanford Prison Experiment—display that how social and personal factors increase conformity and obedience to authority.

Apart from the sole influence of context, certain individual related factors might trigger the emergence of dominant leaders. In the Springboard Model of Dictatorship, Moghaddam (2013) discusses how leader's personality interacts with context. Although this model is mostly concerned with the rise of the dictators, it is a useful model to understand any kind of toxic or dark side of leadership.

In the Springboard Model, Moghaddam (2013) suggests an alternative way than traditional approach, which only focuses on personality of the leader. The Springboard Model argues that through contractual factors, a springboard comes into place, then, the potential dictator spring to power. As Moghaddam (2013) states that "context creates the springboard, and the availability of the potential dictator who takes advantage of the situation to spring to power completes the shift to or continues the dictatorship" (p. 53). There are personality factors that might influence this situation and potential dictators exist in all societies. As long as the springboard is there, the potential dictator gets the advantage. This situation is mostly seen in the case of male dominance while there are very few female dictators.

Moghaddam (2013) suggests that in order to understand dictatorship, it is crucial to analyze the elements of the springboard (Moghaddam, 2013). The elements that create an atmosphere for springboard are high level of perceived internal and external threat, uncertainty in the direction of political change, collective insecurity and relative deprivation, the fear of moral decline population.

1. There is a high level of perceived threat both at the domestic and international level. The role of potential dictator is so crucial in this respect. A potential dictator might speculate about a threat in her/his speeches. The speculation can be about a real threat coming from an enemy or fiction. The following is an example of one of Hitler's speeches that might be an example of how the enemy image was created in the society:

The struggle for world domination will be fought entirely between us, between Germans and Jews. All else is facade and illusion. Behind England stands Israel, and behind France, and behind the United States. Even when we have driven the Jew out of Germany, he remains our world enemy (Rauschnig, 2010, p. 234).

In this kind of atmosphere, people may fear, get anxious and feel the need for strong leader that can defend society against potential enemy. It is actually perception of a fear that people feel that they are under threat.

2. The second element of the Springboard Model is the fear of decline. Being a most powerful among all the countries in the world can be a very important for some countries. The potential dictator can also speculate about the position of a country in the international arena. For instance, Donald Trump, in his election campaign, has frequently used the slogan of "Make America great again".
3. The third one is about the moral decline. For the countries, which put great emphasis on moral values, potential dictators can target moral values such as religion.
4. The last one is manipulating population. People search for a dictator when they feel collective helplessness. A potential dictator benefits from the psychological situation in the society by decreasing trust. George Orwell's 1984 is a great dystopia which explains how a person can be a fearful while living in a society and even question about what he/she knows as a right or wrong (Orwell et al., 1989). Overall, insecurity, low trust, collective helplessness, moral revival is the main elements of Springboard that potential dictator use it for his/her advantage.

The authoritarian personality also plays an important role in rising dictators through springboard. The dictators share common personality characteristics. Those who are known as dominant leaders are usually high in narcissism. In addition, they show the attributes of Machiavellianism, considering the world as a threat. Those leaders have illusions of control, which makes them believe that they can establish control over all events. The egocentrism is also common part of the dictator's personality as they put emphasis on only themselves. Using their personality, they increase conformity and obedience in the society.

Theories in Facial Appearance and Leadership

This section will discuss some theories in the field of psychology that explain the selection of leadership based on facial appearance.

Evolutionary-Psychology Approach

Evolutionary-contingency hypothesis assumes that leadership and followership exist in order to tackle with coordination problems among social animals (van Vugt, Hogan, & Kaiser, 2008). In the past, people were faced with a number of challenges such as finding food to eat, searching for a place to stay, fighting with enemies, managing intra and inter group conflicts. Evolutionary psychologists believe that leadership emerged to solve these kinds of coordination challenges. Leadership and followership interaction has been seen in all kind of animals such as bees, ants and birds (van Vugt et al., 2008).

Evolutionary psychology approach argues that evolution created an assessment mechanism for followers. As van Vugt and Grabo (2015) states that this mechanism allows followers “to assess situations in terms of the need for leadership, compare individuals in terms of leadership qualities for different group challenges, encourage these individuals to take the lead, and monitor their effectiveness” (p. 485). In one of their studies, van Vugt and Grabo analyzed why and when people infer specific leadership attributes from diverse facial characteristics (van Vugt & Grabo, 2015). They hypothesized that although facial cues are connected to ancestral human environments, they still influence individual’s attributions of leadership today.

The followers’ psychological mechanism is constituted by environmental cues, leadership cues and different characteristics of followers (Van Vugt & Grabo, 2015). Evolutionary psychology approach argues that selection of leadership is related with, to what extent leaders can bridge the gap between the need of followers and environmental demands. In this respect, facial cues provide clues about the physical and psychological character of the people. Some studies found that age, gender and ethnicity are the common facial cues while judging faces to infer leadership (van Vugt & Grabo, 2015; Zebrowitz & Montepare, 2015). Other secondary facial cues adapted by people are facial symmetry, baby-facedness, height to width ratio (Re et al., 2013; van Vugt & Grabo, 2015).

Implicit Leadership Theories

Implicit leadership beliefs play an important role when observable cues are limited, especially the signals expressing one’s leadership ability. When there are limited cues that are used to judge leader’s attributes, people can apply for leader prototypes. In the case of facial expressions, considering that perception of leader’s trait will lead to behavior when it is observed, facial expressions can also be evaluated as leadership attributions (Trichas & Schyns, 2012). In this respect, nonverbal behaviors become associated with believing other’s leadership ability. This shapes the leader-to-be’s nonverbal behaviors to influence followers by giving messages of

certain attributes such as charisma or power. As stated by Kenney, Schwartz-Kenney, and Blascovich (1996),

Implicit leadership theories (ILTs) are everyday theories that individuals hold about leaders in general (or ideal leaders). They are mental representations of leaders and influence how an individual acts toward leaders or as leaders based on these cognitive representations. These cognitive representations are similar to stereotypes, in that they are stored in memory and will be activated when the person meets an individual whose characteristics and behavior matches their implicit representations of a “leader” (p. 7).

This kind of stereotype can influence leader behavior in a way that a person tries to fulfill the expectations of cognitively structured leadership role. Therefore, ILTs actually shape the expectations of followers about leader’s qualities and behaviors. People evaluate the leaders based on the ILTs that they created based on previous experience. One research has found that the leaders who act parallel to the expectations of follower’s ILTs get more support (Gray & Densten, 2007).

Face Perception and Leadership

This section provides an overview of the literature on facial appearance and leadership. There are number of nonverbal communication tools such us posture, facial expression, eye movements, hand movements, gestures that influence follower’s psychology while choosing leaders. The recent studies propose that facial appearance is one of the most important factors that influence people’s selection of a leader. This chapter provides an overview of face perception first and then; focus on facial dominance in leadership.

Face Perception

Face represents a number of information about a person such as identity, emotion and attractiveness (Adolphs & Tusche, 2017). Using the information that we derive from someone’s face in less than 100 ms, we can make social judgments about whether that person can be trusted or not (Todorov, Olivola, Dotsch, & Mende-Siedlecki, 2015). We can make social judgments about a face based on a several factors, for example, whether someone looks like us or similar to someone genetically close to us (Adolphs & Tusche, 2017). According to Ward and Bernier (2013),

Face perception refers to ability to rapidly recognize and understand information from faces. The ability to perceive faces and to use that information to guide and direct behavior plays a critical role in interpreting and forming representations from the social world and in the acquisition and understanding of reciprocal social interaction. (p. 1215)

How does our brain respond to social judgments based on a face? The recent neuroscience studies suggest that a full representation of a face requires a work interaction

between neural parts of a brain (Haxby, Hoffman, & Gobbini, 2000). These parts allow brain to process different aspects of a face such as mouth, eyes, nose and their location in the face. Some regions in the brain like Fusiform Face Area (FFA) are identified with the static, physiognomic appearance of a face while the some other parts like Superior Temporal Sulcus (STS) correspond to the changes in the face such as emotions and identity (Haxby et al., 2000).

The neuroscience studies show that there are number of parts in the brain which allows us to combine full representation of a face (Adolphs & Tuschke, 2017). If a person has a bias in one of these regions, this may lead to influence of facial cue on social behavior. For instance, if a person has a positive bias in physically attractive person, then, reward-related regions of a brain like orbitofrontal cortex are activated (Adolphs & Tuschke, 2017). Other parts of a brain, dorsomedial prefrontal cortex, amygdala and insula are also activated when people make other social judgments such as trustworthiness based on a person's face (Adolphs & Tuschke, 2017; Bzdok et al., 2012). In addition, some studies such as Todorov et al. (2015) manipulates features of a face such as a noise on computer-generated faces to understand which part of a face is mostly related to the social judgment.

It is possible to identify which part of the brain is activated when a person make a judgment based on another person's face. However, some questions still remain. The existing research shows that although people can truly judge a person's facial characteristics like attractiveness based on facial symmetry, those judgments may not be valid all the time. In response to this critique, Adolphs and Tuschke (2017) suggest that traditional and modern approaches should be used together and mediating mechanisms between face perception and pro-social behavior should be identified.

Facial Appearance and Leadership

This part analyzes the facial characteristics that influence people's decision to select a leader. How does an organization decide which candidate has suitable traits for a job? When selecting leader for a specific position, candidate's traits or characteristics are one of the most influential factors.

The existing studies on facial appearance and leadership mainly focus on two topics. Facial appearance matters considerably for leader selection and leader effectiveness (Antonakis & Eubanks, 2017; Todorov, Mandisodza, Goren, & Hall, 2005). In both leadership emergence and effectiveness, observers use facial cues to make inferences about a target's character, traits, attributes and competencies (Todorov et al., 2015; van Vugt & Grabo, 2015). According to Antonakis and Eubanks (2017), "when observers are distant from a leader, they do not have specific information about the leader's ability or trustworthiness; consequently, in such frugal information environment, observers will use any information, including looks, to make inferences about a leader's characteristics" (p. 270).

The studies in this area concerns who is going to be selected as a leader based on a given faces in a certain kind of context. Other part of research analyzes the relationship between facial appearance and leadership success. Those studies analyze whether leader's facial characteristics will predict company's success or election results.

The existing research reveals that public image of politicians influence the election results. The effective use of social media creates an atmosphere where individual attribution of politicians influence voters perception of a leader (Little, Burriss, Jones, & Roberts, 2007). It is shown that using an image of politicians, people predict the future election results. Todorov et al. (2005) analyzed the influence of image on voting decisions and found a significant relationship between individual's ratings of competence and the results of actual US congressional elections. Another research figured out that when a political leaders' facial characteristic is changed to a more positive look, people's support for them increases. For instance, when Bill Clinton's facial look was transformed to a more baby-face looking in the picture, evaluators found him more honest, compassionate and attractive (Huddy, Sears, & Levy, 2013).

Similar to Todorov et al. (2005), Little et al. (2007) also analyzed the relationship between facial appearance and voting decisions. This study has used actual images of politicians from losing and winning parties in four different countries: Australia (John Howard vs. Mark Latham, John Howard vs. Kim Beazley), New Zealand (Helen Clark vs. Jenny Shipley), the UK (Tony Blair vs. William Hague, Tony Blair vs. John Major) and the US (George Bush vs. John Kerry, George Bush vs. Al Gore). Creating a hypothetical election, participants were asked to select among the candidates. Participants' selection truly predicted winner and loser in the actual election results. In order to tackle with familiarity effect, the children are also used in in the study of predicting electoral results based on face judgments studies. To illustrate, Antonakis and Dalgas (2009) showed that Swiss children predicted the real election results in the US, which compares faces of Barack Obama and Hillary Clinton. Therefore, this study suggested that experiential learning that allows people to predict the real election results (Antonakis & Dalgas, 2009).

Leaders with a Dominant Facial Appearance

A large part of the studies focus on leader's physical characteristics including physical strength, body movements and facial characteristics. Some of these studies show that people give more importance to strong leadership when there is a terrorist attack happened recently (Merolla & Zechmeister, 2009). And, many other studies show that people prefer leaders with certain facial cues such as dominant and masculine faces with lower-pitched voices in the times of war and intergroup conflict more than the times of peace and cooperation (see Hall, Goren, Chaiken, & Todorov, 2009; Laustsen & Petersen, 2015; Little et al., 2007; Little & Roberts, 2012; Little, Roberts, Jones, & DeBruine, 2012; Spisak, Dekker, Krüger, & van Vugt, 2012;

Spisak, Homan, Grabo, & van Vugt, 2012; Tigue, Borak, O'Connor, Schandl, & Feinberg, 2012). From an evolutionary psychologist's perspective, leadership tasks in history—defense against the enemy, solving conflict—created an understanding that a better leader should be aggressive and physically strong (Van Vugt & Grabo, 2015).

Laustsen and Petersen (2015) conducted a study, which analyze increased preferences for facial dominance in leaders. They conducted two studies using Danish university students. They expected to find that “increased preferences for facial dominance in leaders reflect increased needs for enforced coordinated action when one's group is seen to face threats from other coordinated groups rather than random natural events” (Laustsen & Petersen, 2015, p. 286). To test this claim, they conducted a scenario-based experiment, which use game metaphor. In the experiment, first, participants are told to imagine themselves on a ship, which travels from Old World to New World in eighteenth century. Then, participants are randomly assigned to two groups, which are “game against people” and “game against nature”. Both groups receive additional information about the voyage. The people in the game against people condition learn that the voyage is at risk due to the pirate attack and participants should be ready for the fight. On the other hand, the people in the game against nature condition are told that the voyage is at risk due to the bad weather and people should be ready to cooperate with each other.

After that, participants in each group receive two pairs of face pictures. Then, while the first group is asked to choose a captain, who indicates a leader, the second group is asked to choose a cabin mate, who represents a friend. The study uses the faces that are generated by Alexandar Todorov at Social Perception Lab in Princeton University. For each condition, the faces represent two different personal traits, which are dominance and competence. In addition to the information taken from the participants as the choice, participants' ideological view is collected based on conservative or liberal dichotomy. This study is important because it empirically showed that “preferences for dominant-looking leaders are a function of contextual primes of group-based threats rather than nature-based threats and political ideology” (Laustsen & Petersen, 2015, p. 286). The study's result also indicates that conservative people prefer a dominant leader more than liberals. Moreover, the dominant leader selection is significant only for “choice of a captain”, not for a friend. In other words, we look for a dominant leader in the times of crisis, but we prefer competent friends.

Laustsen and Petersen (2017) conducted a second study where they analyzed selection of a dominant leader using a real time example based on online interviews with Ukrainian and Polish subjects in the Crimea crisis in 2014. In this study, they figured out that followers in the cooperation group do not change their preference for non-dominant looking leader compared to the control group. Similar to previous study, they found that preferences for dominant leaders increase in intergroup conflict. In addition, dominant leaders are preferred in crisis not for protection but for the intuition of aggressive responses or overpowering other groups (Laustsen & Petersen, 2017).

People with dominant face characteristics are judged more frequently as a leader (van Vugt & Grabo, 2015). What are the characteristics of a dominant face? Results from earlier studies show that lowered eyebrows and a non-smiling mouth were perceived as signs of dominance (Keating, 1985). Building on similar findings, Todorov et al. (2015) also suggest that people with a masculine face-squared face shape, strong jawline, thin eyes and lips, pronounced eyebrows-are considered as a dominant.

There is an ample research, which displays that people infer leadership domain from facial appearance. People can identify the military, business or sports leaders based on the faces (Olivola, Eubanks, & Lovelace, 2014). In addition, people judge the military leaders as more dominant than politicians and businessman (Mazur, Mazur, & Keating, 1984). The recent studies also show that political ideology plays an important role (Laustsen & Petersen, 2015, 2017). For instance, comparing to liberals, conservatives prefer dominant looking leaders more. Unsurprisingly, this is valid for both leadership style and physical appearance (Barker, Lawrence, & Tavits, 2006; Hibbing, Smith, & Alford, 2013; Laustsen & Petersen, 2015, 2017).

Discussion and Concluding Remarks

The goal of this chapter was to provide an overview of psychological mechanisms that influence people's choice of selecting dominant leaders. To do so, the mainstream psychological approaches were discussed at the beginning. Following that contextual and individual factors, which influence one selection of a leader, were explained. Later, the chapter explained how evolutionary contingency hypothesis and implicit leadership theories affect individual's selection of a dominant leader. The main emphasis was given to the role of individual's facial appearance in leadership emergence. Overall, this chapter suggests that leader's facial look as well as the suitability of the environment influence followers (or follower-to-be) choice of dominant leaders.

Based on the overview of the literature on selection of dominant leaders, I can argue that choosing a dominant looking leader in the times of cooperation stem from the interaction between followers and leaders in a specific context. Some of the contextual factors mentioned in this chapter mostly about understanding the rise of dictators. Although dominant people may not be always dictators, they have a potential to rise as a dictator. From an evolutionary perspective, a context of war or conflict will make more possible of this rise. In the times of crisis, people are not aware of the reality and highly afraid of massive killings and terrorist attacks.

Although facial appearance studies in psychology made a great effort to understand the factors that allow dominant people to become a leader, some methodological limitations exists in empirical studies. Firstly, majority of the studies analyzing leaders facial appearance use face images which look like a male person. Would people select a female with dominant look for leadership position? This question can be tested more deeply.

Secondly, evolutionary perspective suggests that people select dominant leaders in the times of conflict. In these studies, the construct of the term ‘conflict’ is mostly defined as ‘an attack from one party to another’. The reasons of conflicts can vary and it might influence when a dominant leader is preferred. Would people choose a dominant looking leader in ethnic based or resource-based conflicts?

Thirdly, most of the studies have been conducted adapting static face images. Although it could be beneficial for controlling the influence of other factors, using dynamic stimulus can be another alternative that is more ecologically valid. Current technologies such as virtual reality can be also very useful for manipulating dynamic stimulus.

Before completing the chapter, the main take away messages are provided below. This can be helpful for both theoreticians and practitioners whose goal is to eliminate the rise of destructive leaders in organizations and politics.

- *The disciplines of politics and psychology should act together to understand the rise of dominant leaders.*
- *People use facial cues while voting for dominant looking leaders.*
- *Conflict and war trigger selection of dominant leaders.*
- *Leaders with a dominant personality are more likely to become a dictator in the crisis.*

References

- Adolphs, R., & Tusche, A. (2017). From faces to prosocial behavior: Cues, tools, and mechanisms. *Current Directions In Psychological Science*, 26(3), 282–287.
- Antonakis, J., & Eubanks, D. (2017). Looking leadership in the face. *Current Directions In Psychological Science*, 26(3), 270–275.
- Antonakis, J., Dalgas, O. (2009). Predicting Elections: Child's Play!. *Science*, 323(5918):1183–1183
- Barker, D. C., Lawrence, A. B., & Tavits, M. (2006). Partisanship and the dynamics of candidate centered politics in American presidential nominations. *Electoral Studies*, 25(3), 599–610.
- Bzdok, D., Schilbach, L., Vogeley, K., Schneider, K., Laird, A. R., Langner, R., & Eickhoff, S. B. (2012). Parsing the neural correlates of moral cognition: ALE meta-analysis on morality, theory of mind, and empathy. *Brain Structure & Function*, 217(4), 783–796.
- Freud, S. (1961). The ego and the id. In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 19, pp. 3–66). London: Hogarth Press. (Original work published 1923).
- Gray, J. H., & Densten, I. L. (2007). How leaders woo followers in the romance of leadership. *Applied Psychology: An International Review*, 56(4), 558–581.
- Hall, C. C., Goren, A., Chaiken, S., & Todorov, A. (2009). Shallow cues with deep effects: Trait judgments from faces and voting decisions. In E. Borgida, J. L. Sullivan, & C. M. Federico (Eds.), *The political psychology of democratic citizenship* (pp. 73–99). New York, NY: Oxford University Press.
- Haxby, J. V., Hoffman, E. A., & Gobbini, M. I. (2000). The distributed human neural system for face perception. *Trends In Cognitive Sciences*, 4(6), 223–233.
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2013). *Predisposed: Liberals, conservatives, and the biology of political differences*. New York, NY: Routledge.

- Huddy, L., Sears, D. O., & Levy, J. S. (2013). *The Oxford handbook of political psychology*. Oxford: Oxford University Press.
- Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.
- Keating, C. F. (1985). Gender and the physiognomy of dominance and attractiveness. *Social Psychology Quarterly*, 48(1), 61–70.
- Kenney, R. A., Schwartz-Kenney, B. M., & Blascovich, J. (1996). Implicit leadership theories: Defining leaders described as worthy of influence. *Society for Personality and Social Psychology*, 22, 1128–1143.
- Laustsen, L., & Petersen, M. (2017). Perceived conflict and leader dominance: Individual and contextual factors behind preferences for dominant leaders. *Political Psychology*, 38(6), 1083–1011. <https://doi.org/10.1111/pops.12403>
- Laustsen, L., & Petersen, M. B. (2015). Does a competent leader make a good friend? Conflict, ideology and the psychologies of friendship and followership. *Evolution and Human Behavior*, 36, 286–293.
- Little, A. C., Burriss, R. P., Jones, B. C., & Roberts, S. C. (2007). Facial appearance affects voting decisions. *Evolution and Human Behavior*, 28(1), 18–27.
- Little, A. C., & Roberts, S. C. (2012). Evolution, appearance, and success at work. *Evolutionary Psychology*, 10, 782–801.
- Little, A. C., Roberts, S. C., Jones, B. C., & DeBruine, L. M. (2012). The perception of attractiveness and trustworthiness in male faces affects hypothetical voting decisions differently in wartime and peacetime scenarios. *The Quarterly Journal of Experimental Psychology*, 65(10), 2018–2032.
- Mazur, A., Mazur, J., & Keating, C. (1984). Military rank attainment of a West Point class: Effects of cadets' physical features. *American Journal of Sociology*, 90, 125–150.
- Merolla, J. L., & Zechmeister, E. J. (2009). *Democracy at risk: How terrorist threats affect the public*. Chicago, IL: University of Chicago Press.
- Moghaddam, F. M. (2013). *The psychology of dictatorship*. Washington, DC: American Psychological Association.
- Olivola, C. Y., Eubanks, D. L., & Lovelace, J. B. (2014). The many (distinctive) faces of leadership: Inferring leadership domain from facial appearance. *The Leadership Quarterly*, 25, 817–834.
- Orwell, G., Pimlott, B., & Davison, P. H. (1989). *Nineteen eighty-four*. London: Penguin.
- Popper, M. (2012). *Fact and fantasy about leadership*. Northampton, MA: Edward Elgar.
- Rauschnig, H. (2010). *Hitler speaks: A series of political conversations with Adolf Hitler on his real aims*. Whitefish, MT: Kessinger Publishing, LLC.
- Re, D. E., Hunter, D. W., Coetzee, V., Tiddeman, B. P., Xiao, D., DeBruine, L. M., & Perrett, D. I. (2013). Looking like a leader—Facial shape predicts perceived height and leadership ability. *Plos ONE*, 8(12), 1–10.
- Spisak, B., Homan, A. C., Grabo, A., & van Vugt, M. (2012). Facing the situation: Testing a bio-social contingency model of leadership in intergroup relations using masculine and feminine faces. *The Leadership Quarterly*, 23(2), 273–280.
- Spisak, B. R., Dekker, P. H., Krüger, M., & van Vugt, M. (2012). Warriors and peacekeepers: Testing a biosocial implicit leadership hypothesis of intergroup relations using masculine and feminine faces. *Plos ONE*, 7(1), 1–8.
- Tigue, C. C., Borak, D. J., O'Connor, J. M., Schandl, C., & Feinberg, D. R. (2012). Voice pitch influences voting behavior. *Evolution and Human Behavior*, 33(3), 210–216.
- Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, 308, 1623–1626.
- Todorov, A., Olivola, C. Y., Dotsch, R., & Mende-Siedlecki, P. (2015). Social attributions from faces: Determinants, consequences, accuracy, and functional significance. *Annual Review of Psychology*, 66(1), 519–545.
- Trichas, S., & Schyns, B. (2012). The face of leadership: Perceiving leaders from facial expression. *The Leadership Quarterly*, 23(3), 545–566.

- van Vugt, M., & Grabo, A. E. (2015). The many faces of leadership: An evolutionary-psychology approach. *Current Directions In Psychological Science*, 24(6), 484–489.
- van Vugt, M., Hogan, R., & Kaiser, R. B. (2008). Leadership, followership, and evolution: Some lessons from the past. *The American Psychologist*, 63(3), 182.
- Ward, T., & Bernier, R. (2013). *Face perception*. *Encyclopedia of autism spectrum disorders* (pp. 1215–1222). New York, NY: Oxford University Press.
- Zebrowitz, L. A., & Montepare, J. M. (2015). *Faces and first impressions*. Washington, DC: American Psychological Association.

The Inclusion of Conservatives in Science: Acknowledging Liberal and Conservative Social Cognition to Improve Public Science Attitudes



Robert D. Mather

In the United States, the two major political parties are the Democratic and Republican parties, which reflect different ideologies. Democrats reflect liberal and progressive ideologies, while Republicans reflect conservative ideology. There is an important dynamic in the relationship of political parties to science. This dynamic is funneled through higher education, where there is a disproportionate representation of the two ideologies. Higher education is composed of more liberals than conservatives (Shields & Dunn, 2016). Higher education is responsible for training scientists and helping to produce some science. The general citizenship of the United States is more balanced in liberal and conservative ideology than is the ideological composition of higher education faculty or many areas of science (Duarte et al., 2015). This leads to issues with the general public failing to trust scientific findings, as science is often viewed by many as an outcome of an ideologically biased enterprise. Since the public consists of voters and politicians are accountable to voters, this can result in strange bedfellows of politics and science when it comes to funding allocation. These dynamics are the result of the social cognitive processes of individuals and the fundamental differences in cognition between liberals and conservatives. By making sure that higher education and science reflect both of the major ideologies, either in number of constituents or in acceptance of voices from both perspectives, politics and science can better support each other in scientific searches for facts.

The general theme of this chapter is that individual social cognitive processes have an impact on the outcome of larger societal systems. This is not confined to any specific governmental policies or universities, but is a more general outcome of ideological groups not understanding the cognitive processes of other ideological groups. In this case, the system of higher education and science is weighted heavily

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with liberal individuals who tend to either discount conservative perspectives or just not know how to tailor their messages to conservatives. Both liberals and conservatives need each other and both fall well short of incorporating the other perspective. Science does not have sufficient conservative input and, particularly in the social sciences, displays a systemic bias against conservatives (Crawford & Jussim, 2018; Shields & Dunn, 2016). This ultimately leads to voters who do not trust or understand scientists. Science suffers with insufficient funding, biases that lead to incomplete inquiry and interpretations of data and ultimately all citizens fail to enjoy the benefits of a scientific enterprise that reaches its full potential by including all ideological perspectives.

To understand this dynamic, it is important to understand three elements. First, it is important to understand conservative political ideology. Second, it is important to understand how conservatives fit ideologically within the higher education system. Third, it is important to understand the differences in social cognition between conservatives and liberals. Subsequent to this, it is important to discuss the implications of these dynamics on scientists and scientific research.

What Is Conservatism?

The Conservative approach is nothing more or less than an attempt to apply the wisdom and experience and the revealed truths of the past to the problems of today. The challenge is not to find new or different truths, but to learn how to apply established truths to the problems of the contemporary world. My hope is that one more Conservative voice will be helpful in meeting this challenge. (Goldwater, 1960)

In the 1950s and 1960s, Barry Goldwater greatly shaped the conservative movement in U.S. politics. One of the most influential promoters of conservative thought, Goldwater paved the way for conservative ideology to take root with Ronald Reagan and George Bush in the 1980s, and George W. Bush in the 2000s. It is important to understand Goldwater's foundational perspectives, since mischaracterizations of conservatism by non-conservatives often shape the biases and discrimination faced by conservatives in higher education and science.

Goldwater's view that conservatives take the whole man into account while liberals look only at the material side of man (p. 10) is consistent with the empirical work on moral foundations, where conservatives evaluate information using a greater number of moral foundations than liberals (Graham, Haidt, & Nosek, 2009). Goldwater noted that in addition to this, conservatives recognize that each individual is responsible for their own development, and that conservatives prioritize maximizing individual freedoms while maintaining enough social order so that individuals do not encroach on each others' freedom.

Goldwater believed that the role of the federal government is to remain as small as possible so as to not intrude on individual freedoms, but to legitimately keep internal order, protect against foreign governments, serve justice, and facilitate commerce. He believed that States Rights were important, as local problems were

best dealt with by local populations, and not a centralized federal government. He believed that Civil Rights should be left to States to determine, though he agreed with the moral principles of desegregation. He argued that social and cultural changes were best made by individuals persuading each other in legal, orderly ways, to change institutions, not by mandated changes dictated by the federal government.

Goldwater argued for free market to dictate the farming industry (arguing against federal farm subsidies) and labor unionization (arguing against monopolistic mandatory labor unions but acknowledging the importance of labor unionization). He argued for low, equal tax rates as being fair, that federal spending cuts should precede federal tax cuts, and that reducing the amount of taxes collected leaves more money in the market and leads to a stronger economy based on the exercise of individual freedoms to control earnings. He believed that welfare is not an issue for the federal government, but one for individuals, families, churches, hospitals, and charities. He argued that conservatives are deeply concerned with welfare issues, but that they do not believe that the federal government is the entity through which to solve the problems, as it ends up creating individuals who become dependent on the federal government and thus lose their individual freedoms.

Goldwater believed that education should not be dealt with by the federal government, but that local school boards and citizens should demand higher standards and take ownership of their schools. Federal aid to a school is redistributed from other schools and additionally gives the federal government a degree of control over the school that receives the aid. He said the purpose of schools is to educate individuals and prepare them to take care of society's needs. He believed that the federal government is not empowered to promote the economic and social welfare of foreign nations, with the exception of when it is specifically in our expressed national interest. He believed that a strong military is a necessary tax investment to protect against foreign invasion. He suggested that the United Nations was unnecessary and that it was an unwise tax burden for American citizens to fund a coalition that rarely advances our national interests in the United States.

On October 27th, 1964, Ronald Reagan gave a speech entitled "A Time for Choosing" in which he laid out a conservative agenda for the campaign of Barry Goldwater. Goldwater lost the United States Presidential election to Lyndon Johnson, but consistent with conservative ideology that was the foundation of Goldwater's campaign, it helped to build the conservative coalition that led to Reagan's election as U.S. President in 1980. Reagan's thoughts on the role of federal government were evident in these two quotes from that speech.

A government can't control the economy without controlling people. And they know when a government sets out to do that, it must use force and coercion to achieve its purpose. They also knew, those Founding Fathers, that outside of its legitimate functions, government does nothing as well or as economically as the private sector of the economy.

No government ever voluntarily reduces itself in size. So governments' programs, once launched, never disappear. Actually, a government bureau is the nearest thing to eternal life we'll ever see on this earth. (From A Time for Choosing (Reagan, 1964, "A Time for Choosing," The Ronald Reagan Presidential Library))

Reagan believed in a small federal government that gave freedoms to citizens. He promoted individual liberties.

The conservative movement has not created a monolithic line of ideology. George Nash (2016) described the conservative coalition as having several different components: libertarians, traditionalists, Cold War anti-Communists, neoconservatives, and Religious Right/social conservatives. Libertarians were most concerned with preserving individual liberties by protecting against overreach by the federal government into the lives of individuals. Traditionalists were most concerned with the implications of the degraded moral and religious foundations of a healthy society. Cold War anti-Communists viewed liberalism as the gateway to socialism in the United States. Neoconservatives were liberals who had been attracted to the practicality of the ideas in the conservative movement in some form, many of whom participated in the Reagan Revolution of the 1980s and supported internationalism and free trade. Religious Right/social conservatives began to more forcefully advance the agendas that identified liberalism and secular humanism as the entities most threatening to society. These five components were united around the ideas of Ronald Reagan, forming a powerful coalition. More recently, paleoconservatives represent the traditionalists in a nationalist form, led by Pat Buchanan and largely supporting the campaign of Donald Trump. This departs from the neoconservative trend of the Republican Party (a formal conservative coalition) of the 1980s and 1990s.

Current conservative thought has been described by Jonah Goldberg (2015), who noted that conservatives are a diverse group underneath the label, but usually exhibit gratitude for the successes of the past, individual liberties, and a quasi-free market that may produce wealth inequalities but is a fair and just system. *Conservative Review* (www.conservativereview.com; 8-20-2018) states guiding conservative principles to include “limited government, free markets, traditional family values, individual freedom, rule of law, and a strong national defense.” Goldberg and *Conservative Review* clearly show the influence of Goldwater and Reagan on modern conservatism in the United States.

Conservatives Underrepresented in Higher Education

In the book “Passing on the Right: Conservative Professors in the Progressive University,” Jon Shields and Joshua Dunn (2016) present data they collected assessing the attitudes of conservative professors. In their review of previous surveys, they determined that between 7% and 9% of professors in the social sciences were Republican, and between 6% and 11% of professors in the humanities were Republican. Shields and Dunn conducted their own study and surveyed 153 conservative professors in the disciplines of economics, political science, sociology, history, philosophy, and literature from 84 universities. This task required overcoming the problems of identifying rare conservative professors and convincing them to talk. Given the overwhelming odds against conservatives in liberal academia, this

was no small feat. Within this sample, 49% of the conservative professors identified as “Strong Republicans,” 14% as “Republicans (not strong),” and 13% as “Leaning Republicans.” After coaxing the skiddish, rare conservative professors to participate in their study by word of mouth references, they found 153 conservative professors. Only 76% of the conservative professors identified at all as Republican.

From the 153 conservative professors, of those who had voted in the 2000 and 2004 presidential election, 80% voted for George W. Bush. Conservative professors engaged in at least one form of self-censorship regarding their political views due to fear of colleagues, with 46% reporting at least one form of self-censorship and 20% reporting three or more forms. Such concealment was more common among younger faculty (46% for age 25–44; 33% for age 45–64) than older faculty (7% for age 65 and over), despite the fact that over the course of a longer career, one would have more chances to conceal their politics (and more chances to not do so once they were public, if they were made public). As far as academic rank, 53% were Full Professors, 27% were Associate Professors, 8% were Assistant Professors, 9% were Visitor/Adjunct, and 4% were Emeritus.

In a separate study (Abrams, 2016) on the political views of professors, it was discovered that in 2014, liberal professors outnumbered conservative professors at a rate of 28 to 1 in New England, 6 to 1 in the Far West of the U.S., and 3 to 1 in the Plains and Southeast U.S. Excluding New England, the U.S. shifted from an overall ratio of 2 liberal professors for every conservative professor in 1989 to 4 liberal professors for every 1 conservative professor in 2004. This is a substantial shift in the politics of universities. In a study of 7243 professors (Langbert, Quain, & Klein, 2016) researchers found a rate of 11.5 Democrat-registered professors for each Republican-registered professor in economics, history, journalism, law, and psychology combined. Law schools have their own unique misrepresentations, where the ideology of the faculty do not represent the ideology of lawyers (Bonica, Chilton, Rozema, & Sen, 2017) and can put law school logic at odds with Supreme Court decisions (Rosenkranz, 2014).

Nowhere is this more problematic than the field of psychology, specifically in social psychology. In the field of psychology, Duarte et al. (2015) reported the ratio is 10.5 liberal professors to 1 conservative professor (compared to the U.S. ratio of 1 liberal for each 2 conservatives). Inbar and Lammers (2012) reported a 14 to 1 ratio for their survey of social psychologists (6%). Haidt (Duarte et al.) reported a ratio of 267 to 1 in an informal “raise your hand” survey of 1000 conference attendees in social psychology. Both Duarte et al. (2015) and Inbar and Lammers (2012) described the discrimination and hostile climate challenges faced by conservative social psychologists.

The negative impact of political correctness in social sciences of universities is not a recent development. As Takooshian and Rieber noted in 1996, there have long been consequences for “political incorrectness” with career implications such as harassment, termination, lawsuits, university-mandated psychotherapy, and forced apologies. The increasingly restricted role of free speech on campuses in the new age of political correctness has unfolded over time. Campuses have shifted to be overwhelmingly liberal and conformity to progressive norms has become salient.

These factors have likely led to training social scientists in the same way of thinking, resulting in social science research with very limited potential to impact social policy. Though the hard sciences do not suffer from the same ideological discrepancies as the social sciences (Gross, 2013), since social science curriculum makes up a large portion of college majors, these large discrepancies magnify the public's perception of the ideology of science. But how did we get to this point?

How the Discrepancy Developed: Group Polarization

A general principle of social psychology is group polarization, where groups develop more extreme attitudes over time. This can occur due to group members holding initial opinions, then upon discussion finding out they held them for different reasons (resulting in an additive effect) or to individuals wanting to be known and then strategically taking a more extreme position to gain popularity within the group (Eagly & Chaiken, 1993). On a larger scale, there has been a general political polarization of American culture.

The context for group polarization has been developing on the political landscape for many years (Mather & Jefferson, 2016). Since the 1990s, there has been a polarization of Democrat and Republican political parties themselves. In 1994, the GOP had a "Contract with America," written by Newt Gingrich, that promised specific legislation to be introduced if Republicans won the majority in the House of Representatives. In 1996, Fox News Channel launched with a Republican media consultant (Roger Ailes) as CEO. In 1998, President Bill Clinton was impeached by the House of Representatives. In 2000, George W. Bush's legitimacy as being the elected President was contested to the Supreme Court. In 2008, Barack Obama was elected as the first Black President. In 2016, Donald Trump was elected with an appeal to authoritarians in a populist campaign. These landmark events, as well as the mass media venues such as the internet, social media, and cable news, all provided the context for Democrat and Republican parties to polarize.

There are differing opinions on the role of one of the most prominent faces of Fox News in developing this polarization. Bill O'Reilly, was relieved of his duties as host of "The O'Reilly Factor" at Fox News in April of 2017. *National Review* writer David French (2017) viewed O'Reilly as being emblematic of "a toxic culture of conservative celebrity." *National Review* writer Ian Tuttle (2017) described O'Reilly's core viewers as "older, suburban, or rural, middle or lower-middle class, generally white, and Republican." O'Reilly connected with the Great Depression, New Deal, 1960s counterculture, Reagan Revolution baby boomer conservatives. Tuttle suggested that O'Reilly and Fox News missed a key demographic of conservatives born in the 1960s and 1970s who were raised in the Reagan-Bush era of conservatism, and a subsequent demographic that was raised in the post 9/11, Iraq War, recession, progressive Obama years. Fox News Channel's Sean Hannity helped Donald Trump to capture voters across these demographics, according to Tuttle. *National Review* writer Jonah Goldberg (2017) viewed Fox News as historically

“more populist than conservative,” and O’Reilly as having been influenced by Rudy Giuliani’s New York City transformation in the late 1990s and early 2000s.

Social Cognitive Research on Ideology

In the polarized political climate, it is important to note that liberals and conservatives do not think the same way. There are several reliable findings related to ideological differences in psychology. There are some distinct individual differences in among liberals and conservatives for processing information, emotional experience, and behavior. These include differences on moral foundations, the Big Five Personality traits, locus of control, authoritarianism, equalitarianism, meaning of life and well being, and compassionate giving. Understanding these differences is important to facilitating communication between individuals in both groups.

Moral Foundations

Jonathan Haidt and colleagues have developed Moral Foundation Theory. Their evidence has supported a model where humans have five foundations on which they build their moral reasoning. Empirical research by Graham et al. (2009) found that liberals and conservatives do not employ the same primary moral foundations in their evaluation of information. Liberals construct their moral systems around the individualizing foundations of harm/care and fairness/reciprocity. These foundations serve to protect the individual. Conservatives construct their moral foundations around the individualizing foundations of harm/care and fairness/reciprocity, but also around the social binding foundations of ingroup/loyalty, authority/respect, and purity/sanctity. Thus, Moral Foundation Theory proposes that liberals and conservatives evaluate information through different lenses. This information processing difference results in different types of information being better suited to some ideological audiences than other types, and affects how the message is received by the individual.

Big Five Personality Traits

There are several of the Big Five Personality Traits that have been related to liberals and conservatives, particularly openness to new experience, conscientiousness, and agreeableness. People who are open to new experiences are creative and intellectually curious, while those who are not are more cautious. People who are conscientious are organized and reliable, while those who are not are flexible and less reliable. People who are agreeable are cooperative and easy to get along with, while

those who are not are uncooperative and difficult to interact with. Previous research in a university sample found that people who are open to new experience, people who are low in conscientiousness, and people who are low in agreeableness are more likely to be liberals than conservatives (Cooper, Golden, & Socha, 2013).

Locus of Control

Sweetser (2014) examined young voters on a college campus and found that Republicans were more conscientious than Democrats and Independents. In addition to differences on the Big Five, Sweetser's study found that both Democrats and Independents had a higher external locus of control than Republicans, meaning that Republicans believed that they had more control over the outcomes of their lives than Democrats or Independents believed themselves to have.

Authoritarianism

Social psychological researchers have long suggested that conservatives are authoritarian, with many arguing that it is a defining characteristic of conservatives and is absent in liberals. Jost, Glaser, Kruglanski, and Sulloway (2003) argued that conservatives are authoritarian and dogmatic, and primarily motivated by fear, uncertainty, and characterized by resistance to change and the endorsement of inequality. "Conservative" and "authoritarian" are traditionally viewed by social psychologists as synonymous. Recently, Jost, van der Linden, Panagopoulos, and Hardin (2018) reviewed research that they suggested demonstrated that relative to liberals, conservatives prioritize conformity and tradition, desire to share reality with like-minded others, perceive within-group consensus for judgments (political and non-political), and maintain homogenous echo chambers from which they spread misinformation (see Fessler, Pisor, & Holbrook, 2017; Khazan, 2017; Mather, 2017, for discussions of the misinformation effects). It is noteworthy here that Jost's System Justification Theory (Jost & Hunyady, 2005) and Jonathan Haidt's Moral Foundation Theory are competing theories, with Jost highly critical of Haidt (Parry, 2012) and Haidt's work (Kugler, Jost, & Noorbaloochi, 2014; Rosenberg, 2015).

Conway, Houck, Gornick, and Repke (2018) challenged the notion that authoritarianism is a conservative trait. They conducted two studies, one with college students and one with a diverse MTurk sample. They modified a common measure of right wing authoritarianism to examine issues focused on by liberals to create a measure of left wing authoritarianism. Their two studies found evidence that authoritarianism, dogmatism, and prejudice are all present in both liberals and conservatives, with different contexts triggering them for each. Jesse Singal (2018) has written a more accessible review of this work in *New York Magazine*.

Mather and Jefferson's (2016) "The Authoritarian Voter? The Psychology and Values of Donald Trump and Bernie Sanders Support" provides a discussion of the role of authoritarianism in the 2016 U.S. Presidential Election. Note that the article was published in May of 2016, prior to the November election. They put authoritarian voting behaviors in the U.S. at that time in the context of European history.

Equalitarianism

Winegard, Clark, and Hasty (2018) developed a concept of equalitarianism, which refers to the belief that all ethnic and cultural groups, social classes, and sexes are relatively equal on all socially desired traits and a commitment to treating all groups equally and treating victim's groups better than other groups. Their empirical studies support the idea that liberals (but not conservatives) evaluate information with bias when perceived victim's groups or perceived privileged groups are involved. This is an interesting new area for future research.

Meaning of Life and Well-Being

Newman, Schwarz, Graham, and Stone (2018) conducted several studies and found that conservatives reported greater meaning and purpose in life than liberals. Their findings indicated that higher meaning in life was rooted in social conservatism more than economic conservatism. In their four studies, they examined data across nearly 40 years with consistent findings, all controlling for religion. In Study 1, they examined data from the European Values Survey (collected from 1981 to 1984 with representative samples from 14 European countries, the United States, and Canada) and the Baylor Religion Study (collected in 2007 with a representative sample from the United States). Conservatives reported greater meaning in life than liberals and also reported greater life satisfaction than liberals. Conservatives reported greater purpose in life than liberals, even after controlling for age, gender, area of residence, income, education, and religious attendance.

In Study 2, they examined data from YourMorals.org that had been collected between 2010 and 2017. Conservatives again reported greater meaning and satisfaction in life than liberals, controlling for several factors. Both social conservatism and economic conservatism positively predicted meaning of life, but social conservatism was a stronger predictor. However, economic conservatism was a stronger predictor than social conservatism for life satisfaction. In Study 3, they surveyed undergraduate students in the United States in a 2-week daily end-of-day diary study. Conservatives reported greater daily meaning in life, an effect that held after controlling for religiosity. In Study 4, they examined data from the Ecological Momentary Assessment that assessed momentary reports from participants in the United States and Canada in 2013 and 2014. Conservatives reported more

momentary purpose in life, more happiness, more positive affect, and less stress relative to liberals. This difference between conservatives and liberals held for momentary purpose in life and stress controlling for religiosity. For further discussion of these findings, Dolan (2018) and Khazan (2018) have accessible descriptions of the studies by Newman et al. as well as interviews with the authors of the studies.

Compassionate Giving

Conservatives are often stereotyped as being less caring about societies' poor compared to liberals (e.g., Olsen, 2013; The Editorial Board, 2017; Walker, 2010; Willett, 2007). However, behavioral research on charitable giving shows a very different picture, where conservatives donate more money and larger percentages of their incomes to charity compared to liberals (e.g., Brooks, 2006; Hiltzik, 2014; Kristof, 2008; Watson, 2012; Will, 2008; Willett, 2007).

According to Arthur Brooks (2006), in 2000, conservative-headed households gave 30% more money to charity despite the fact that liberal headed households earned 6% more per year. This held for families of each income class: poor, middle class, and rich. This is true for other forms of compassion. In 2002 conservatives were more likely to give blood than liberals. In 2003 residents of the top five states won by George W. Bush were 51% more likely to volunteer than the bottom five states, and this held for both religious and secular organizations. In 2001, a person who indicated that they opposed the redistribution of wealth by the government was 10% more likely to contribute to charity than one who favored such redistribution, controlling for income, education, religion, age, gender, marital status, race, and political views. This held for both religious and secular charitable contributions.

Lack of Conservatives Matters

Conservative input in the social sciences has broad implications for science. If science research is only compelling to the public when liberals are in office because the science itself was built by liberals asking liberal questions with a liberal viewpoint, all without conservative input, then when conservatives are in office they will not use the research and there will be no one to convincingly advocate to conservatives on behalf of the research. It results in an incomplete science at best, and a biased one at worst. When conservatives are not included, science is not as impactful as it could be. When conservatives are in power, like after the 2016 national elections when Republicans won the House, Senate, and Presidency, then the political tendency is that liberals have no seat at the conservative table of resource allocation when liberals have not included conservatives in their previous discussions. These are scenarios

to be avoided (see “Embracing the Right” and “Building a Politically Tolerant Social Psychological Science”; Mather, 2016a, April; 2016b, May).

Tribes on Campus

Higher education is the gateway to science and shapes the public perception of science, as it is the last intimate encounter with science for many voters. Political ideology on campus is not a new phenomenon. In 1951, William F. Buckley (2002) wrote of Yale faculty biases in “God and Man at Yale.” He argued that the faculty at Yale had shifted to a culture of liberal and Marxism, actively undermined Christianity, and promoted economic collectivism. His suggested way forward was for the alumni to take a large role in running the school, as alumni interests were disconnected from the liberal and Marxist perspectives. Buckley’s writing of these ideological tribes at Yale in 1951 was a springboard to the modern conservative movement.

It is established that liberal professors far outnumber conservative professors in academia (Shields & Dunn, 2016). But how much influence do liberal professors have over shaping the ideology of their students? While Cohen (2008) outlined research that suggested that professors have very little cultural influence on their students, Sabey (2016) argued that the ideological influence of liberal professors occurs primarily for students who aspire to become professors. The ideological influence of liberal professors on a small subset of college students would confine such influence only to the next generation of professors, and only when they were already open to the ideology but had simply not yet been exposed (Mather, 2016c, September).

A controversial project called Professor Watchlist, developed by Turning Point USA, was created to publicly document specific professors who discriminate against conservative students. The project was widely criticized in academic circles (e.g., Flaherty, 2016; Heterodox Academy Executive Team, 2016; Warner, 2016), which is not surprising given the liberal majority within academia. The Professor Watchlist was a conservative response to the general discrimination of conservative students that comes from being the ideological minority, and it served as a free market adaptation of an after market tool (such as Ratemyprofessors.com) to give consumers more information to use in making their enrollment decisions (Mather, 2016d, November). Indeed, Professor Watchlist by Turning Point USA is a similar concept to the 25 year old Right Wing Watch by People for the American Way. The mission of Professor Watchlist is “to expose and document college professors who discriminate against conservative students and advance leftist propaganda in the classroom” (<https://professorwatchlist.org/index.php/about-us>; 5-3-17), while Right Wing Watch is “dedicated to monitoring and exposing the activities and rhetoric of right-wing activists and organizations in order to expose their extreme agenda” (<https://www.rightwingwatch.org/about/>; 5-3-17).

The Development of the Heterodox Academy

To combat ideological biases in higher education, a recent development in academia has been the creation of the Heterodox Academy in September of 2015 by Jonathan Haidt, Lee Jussim, and Chris Martin. The goal of the Heterodox Academy is to promote viewpoint diversity in academia, recognizing that the ideological composition of the professorate has shifted to be predominantly liberal. The Heterodox Academy is careful not to promote any particular ideology, and indeed for an organization of professors it has about as diverse an ideological composition as can be created.

By embracing a culture of diversity, higher education begins to lay the foundation for including conservatives once again. If campuses are genuinely tolerant, this will facilitate more positive attitudes towards science from voters. The first step is to embrace a culture of viewpoint diversity. The Heterodox Academy has several initiatives to develop this process, four of which are briefly discussed here. First, they compile a yearly *Heterodox Academy Guide to Colleges* that rates the top 150 universities and top 50 liberal arts schools in the United States for how much viewpoint diversity they have on politically controversial topics. Second, they have created a Fearless Speech Index that can be used by teachers and administrators in both high schools and universities to assess the extent to which they have an open academic environment for speech. Third, they have the Viewpoint Diversity Experience, which is a six step set of training modules that prepare college students to have their ideas challenged and contribute to dialogue in a civilized manner. Fourth, they have a program where a school can become a Heterodox University, a designation that comes when the university adopts a number of free speech promoting statements and policies. Each of these initiatives could play a valuable role in bringing more conservatives to support and participate in science.

Conclusions

Goldwater's conservatism influenced modern conservative ideology in the U.S., giving rise to the core tenets of a conservative coalition. Professors of this ideology are generally rare in higher education, especially the social sciences and particularly in social psychology. This is important because universities produce scholars and then scholars produce knowledge. Knowledge is then used to make decisions. When conservatives are underrepresented in the knowledge production, it results in incomplete knowledge and it is less likely that the knowledge produced will be used to make important decisions. It is imperative that viewpoint diversity be taken seriously as an initiative to remedy this process breakdown.

Many citizens only encounter science through school, and higher education has the responsibility of being the last impression of science for many individuals. By making higher education more tolerant of conservatives and more welcoming to future conservative scientists, science will gain more public support. As social science

majors and classes are increasingly popular, much of what the public believes science to be is represented by these areas. Society gains better quality science when public support is high for research and politicians allocate funding commensurate with the public support. Since liberals and conservatives have differences in social cognitive processes, increasing ideological diversity in science should be a goal in the effort to increase funding to science by contributing to a more positive public perception of science across ideologies.

References

- Abrams, S. J. (2016, July 1). There are conservative professors. Just not in these states. *New York Times*.
- Bonica, A., Chilton, A., Rozema, K., & Sen, M. (2017). *The legal academy's ideological uniformity* (Coase-Sandor Institute for Law and Economics Working Paper No. 806). University of Chicago Law School.
- Brooks, A. C. (2006). *Who really cares: The surprising truth about compassionate conservatism*. New York, NY: Basic Books.
- Buckley, W. F., Jr. (2002/1951). *God and man at Yale: The superstitions of "academic freedom"*. Washington, DC: Regnery.
- Cohen, P. (2008, November 2). Professors' liberalism contagious? Maybe not. *New York Times*.
- Conway, L. G., Houck, S. C., Gornick, L. J., & Repke, M. A. (2018). Finding the Loch Ness Monster: Left-wing authoritarianism in the United States. *Political Psychology, 39*, 1049–1067.
- Cooper, C. A., Golden, L., & Socha, A. (2013). The big five personality factors and mass politics. *Journal of Applied Social Psychology, 43*, 68–82.
- Crawford, J. T., & Jussim, L. (2018). *The politics of social psychology*. New York, NY: Routledge.
- Dolan, E. W. (2018, July 8). *Conservatives report greater meaning and purpose in life than liberals, study finds*. PsyPost.
- Duarte, J. L., Crawford, J. T., Stern, C., Haidt, J., Jussim, L., & Tetlock, P. E. (2015). Political diversity will improve social psychological science. *Behavioral and Brain Sciences, 38*, 1–58.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich.
- Fessler, D. M. T., Pisor, A. C., & Holbrook, C. (2017). Political orientation predicts credulity regarding putative hazards. *Psychological Science, 28*, 651–660.
- Flaherty, C. (2016, November 22). *Being watched: New website seeks to register professors accused of liberal bias and "anti-American values"*. Inside Higher Ed.
- French, D. (2017, April 20). *O'Reilly, Ailes, and the toxic conservative-celebrity culture*. National Review.
- Goldberg, J. (2015, June 20). *When we say 'conservative,' we mean* National Review. Retrieved from <https://www.nationalreview.com/g-file/conservatism-definition-difficult-produce/>
- Goldberg, J. (2017, April 22). *Bill O'Reilly's nostalgia factor*. National Review.
- Goldwater, B. (1960). *The conscience of a conservative*. Shepherdsville, KY: Victor.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology, 96*, 1029–1046.
- Gross, N. (2013). *Why are professors liberal and why do conservatives care?* Cambridge, MA: Harvard.
- Heterodox Academy Executive Team. (2016, November 24). *Heterodox Academy condemns Professor Watchlist*. Heterodox Academy.
- Hiltzik, M. (2014, March 31). Who's more charitable—Conservatives or liberals? *Los Angeles Times*.

- Inbar, Y., & Lammers, J. (2012). Political diversity in social and personality psychology. *Perspectives on Psychological Science*, 7, 496–503.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.
- Jost, J. T., & Hunyady, O. (2005). Antecedents and consequences of system-justifying ideologies. *Current Directions in Psychological Science*, 14, 260–265.
- Jost, J. T., van der Linden, S., Panagopoulos, C., & Hardin, C. D. (2018). Ideological asymmetries in conformity, desire for shared reality, and the spread of misinformation. *Current Opinion in Psychology*, 23, 77.
- Khazan, O. (2017, February 2). Why fake news targeted Trump supporters. *The Atlantic*.
- Khazan, O. (2018, July 26). Why conservatives find life more meaningful than liberals. *The Atlantic*.
- Kristof, N. (2008, December 20). Bleeding heart tightwads. *New York Times*.
- Kugler, M., Jost, J. T., & Noorbaloochi, S. (2014). Another look at Moral Foundations Theory: Do authoritarianism and social dominance orientation explain liberal-conservative differences in “moral” intuitions? *Social Justice Research*, 27, 413–431.
- Langbert, M., Quain, A. J., & Klein, D. B. (2016). Faculty voter registration in economics, history, journalism, law, and psychology. *Econ Journal Watch*, 13(3), 422–452.
- Mather, R. D. (2016a, April 13). Embracing the right: American Conservatism can save social psychology from irrelevance. *Psychology Today*.
- Mather, R. D. (2016b, May 5). Building a politically tolerant social psychological science: Critical thinking, bias correction, and American Conservatism. *Psychology Today*.
- Mather, R. D. (2016c, September 5). The limited influence of liberal professors. *Psychology Today*.
- Mather, R. D. (2016d, November 27). Politics in the professorate and the Professor Watchlist. *Psychology Today*.
- Mather, R. D. (2017, February 3). On conservatives, liberals, and fake news. *Psychology Today*.
- Mather, R. D., & Jefferson, K. W. (2016, May). The authoritarian voter? The psychology and values of Donald Trump and Bernie Sanders support. *Journal of Scientific Psychology*, 1–8.
- Nash, G. H. (2016, April 26). The conservative intellectual movement in America: Then and now. *National Review*.
- Newman, D. B., Schwarz, N., Graham, J., & Stone, A. A. (2018). Conservatives report greater meaning in life than liberals. *Social Psychological and Personality Science*, 10, 494.
- Olsen, H. (2013, September 19). Food (stamps) for thought. *National Review*.
- Parry, M. (2012, January 29). A political defector. *The Chronicle of Higher Education*.
- Reagan, R. (1964). *A time for choosing*. Ronald Reagan Presidential Foundation and Library. Retrieved from <http://www.reaganfoundation.org/pdf/ATimeForChoosing.pdf>
- Rosenberg, P. (2015, March 5). *The right has f***ked up minds: Meet the researcher who terrifies GOP congress*. Salon.
- Rosenkranz, N. Q. (2014). Intellectual diversity in the legal academy. *Harvard Journal of Law & Public Policy*, 37(1), 137–143.
- Sabey, J. (2016, August 25). *Is one group of students more susceptible to their professors' ideology?* Heterodox Academy.
- Shields, J. A., & Dunn, J. M., Sr. (2016). *Passing on the right: Conservative professors in the progressive university*. New York, NY: Oxford.
- Singal, J. (2018, July 15). How social science might be misunderstanding conservatives. *New York Magazine*.
- Sweetser, K. D. (2014). Partisan personality: The psychological differences between Democrats and Republicans, and Independents somewhere in between. *American Behavioral Scientist*, 58, 1183–1194.
- Takooshian, H., & Rieber, R. W. (1996). Introduction: Political correctness and social distress in Academe: What's old, what's new, what's right, and what's left? *Journal of Social Distress and the Homeless*, 5, 99–109.

- The Editorial Board. (2017, March 19). Editorial: 'Conservative' doesn't have to mean 'heartless'. *USA Today*.
- Tuttle, I. (2017, April 20). The O'Reilly divide. *National Review*.
- Walker, P. D. (2010, August 3). *Are conservatives heartless villains or naïve idealists?* The Huffington Post.
- Warner, J. (2016, November 22). *Why I'm not (super) worried about that Professor Watchlist: It's the work of someone who's looking for something to believe in and probably hasn't found it.* Inside Higher Ed.
- Watson, T. (2012, June 1). Giving differently: Liberals and Conservatives have radically different views of charity. *Forbes*.
- Will, G. (2008, March 27). *Conservatives more liberal givers.* Real Clear Politics.
- Willett, D. R. (2007). An inconvenient truth: Conservatives behaving charitably. *Texas Review of Law and Politics*, 12(1), 181–205.
- Winegard, B., Clark, C., & Hasty, C. R. (2018, May 18). Equalitarianism: A source of liberal bias. *SSRN*.

Can We Deliberate? How Motivated Reasoning Undermines Democratic Deliberation and What We Can Do About It



David R. H. Moscrop

Ever since democratic theory took the “deliberative turn” in the late 1980s and early 1990s, theories of deliberation have dominated discussions about democratic decision making (Dryzek, 2002; Goodin, 2008). Deliberative democracy principally concerns itself with generating or transforming individual and collective preferences through rational argument and the exchange of reasons by those affected by a decision (or by their representatives) (Elster, 1998; Fung, 2013; Gutmann & Thompson, 1996; Gutmann & Thompson, 2004; Rawls, 1996). Proponents of deliberative democracy justify their approach with one or more of three kinds of supporting argument: political, ethical, and epistemological. Each corresponds, respectively, to the expected ability of deliberative democracy to support and enhance democratic institutions, to generate fair and legitimate decisions that encourage compliance, and to produce epistemically “better” (i.e. more valid) decisions (Warren, 2002). This chapter is concerned with the third kind of supporting justification for deliberative democracy: the generation of epistemically valid judgments through the exchange of preferences and supporting reasons. While the epistemic argument for deliberation is normatively compelling, empirical research casts doubt on the extent to which the purported epistemic goods of democratic deliberation are being delivered across cases in practice.

Epistemically better judgments are valuable; if the claims made by proponents of the epistemic defense of deliberation are correct, properly-constituted deliberations will yield improved issue and preference understanding among those who deliberate (Chambers, 2006). If that is true, deliberation should produce better justifications for emergent preferences and more rational, acceptable, and legitimate policy options. However, if the claim is not true, or else if it holds less often in practice than expected, then proponents of the epistemic defense of deliberation will be required

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to revise the status of their claim on empirical grounds, work to find ways to bridge the gap between normative expectations and performance, or both.

In this chapter I ask *Can we deliberate?* I pose this question considering the specific challenge to deliberation by motivated reasoning—an affective, often irrational and non consciously directed, form of reasoning. This challenge is manifested in a threat to the autonomous agency of individuals required to *generate reasons that are recognized as reasons* that can be used to generate epistemically valid and authoritative judgments. Motivated reasoning is not the only troubling cognitive tendency that humans have—decades of research in social and political psychology have revealed many (see, for instance, Kahneman, 2011). But motivated reasoning is particularly troubling to the epistemic defense of democratic deliberation since as a common, stubborn cognitive process it may routinely undermine our ability, *outside of our own awareness*, to communicate openly and honestly with one another by undercutting what is meant to be an autonomous and rational process of intersubjectively establishing validity towards some particular end (for instance, generating a policy decision, establishing the rules of the game, or sorting out options to scrutinize). Motivated reasoning buries precisely what ought to be uncovered in democratic deliberation—our reasons and motivations for the preferences we develop and hold and the commitments that underwrite them.

To answer the question of whether we can deliberate autonomously considering motivated reasoning, I do four things. First, I argue in favor of a specific conception of personal autonomy that avoids two common sorts of definitional problems with the concept: overspecification and infinite regress. Second, I establish that epistemic deliberative democracy requires reasons generated by autonomous agents capable of connecting their motivations to their preferences and judgments in an intersubjective process of reason giving. Third, I explain how motivated reasoning undermines autonomous deliberation. Finally, I very briefly sketch three conceptual approaches to addressing the problems raised by the challenge of motivated reasoning to epistemic deliberative democracy as a first pass at reconceiving deliberation towards the end of more rational, autonomous deliberative practice.

Varieties of Personal Autonomy

Part of the challenge of dealing with any discussion of autonomy is defining precisely what it means for someone to be autonomous. Autonomy is often loosely defined as a sort of freedom, liberty, or general absence of constraints—what I am calling *external* autonomy. For instance, someone is considered autonomous if she is free to cast a ballot in an election. In this chapter, I am not concerned with that sort of autonomy, which casts it as license rather than as a capacity. Rather, I am concerned with *internal* autonomy, which I define as having the ability to self govern one's thinking: the *capacity* to self-direct one's thoughts and actions *cognitively* and to justify those thoughts and actions to others with accurate reference to one's *true* reasons and motivations. So, one is *internally* autonomous to the extent that

they capable of and do form, direct, and control their cognition, even though throughout the cognitive process their thinking will interact be affected by factors including social groups, other individuals, physical locations, biological states, and so on. While internal autonomy may be best considered along a continuum—from more to less aware of what influences one’s cognition—it is probably a rare occurrence that someone is found *entirely* at one end of the spectrum or the other. Below, I will examine a definition of autonomy that is consistent with this approach. But first, we must consider two other approaches to characterizing autonomy.

Upon scratching the surface of what is required for internal autonomy, we find several justifiable approaches that do not fit together. Two common sorts problems plague definitions of autonomy: overspecification, in which the conditions of autonomy are so narrowly defined that internal autonomy is impossible, and infinite regress, the failure to specify an ultimate and decisive point at which the presence or absence of personal autonomy can be isolated and affirmed. One extreme conception of internal autonomy is known as “maximal autonomy” (Berofsky, 1995). This conception refers to radical, independent self-creation outside of any significant external direction or determination. This definition of autonomy, even as an ideal standard, suffers from the problem of overspecification. Indeed, the definition is implausible: socially, culturally, psychologically, and biologically it is an impossible standard to even approach, let alone meet, and it is not even clear whether it would be normatively desirable if we could. Moreover, it is unclear how one would measure compliance with attempts at pursuing it. Perhaps because of this major shortcoming, maximal definitions of autonomy are rarely used.

More commonly, autonomy is defined as a second-order capacity. But such capacity-based definitions tend to suffer from the problem infinite regress. For instance, Dworkin defines personal autonomy as “... a second-order capacity of persons to reflect critically upon their first order preferences, desires, wishes ... and the capacity to accept or attempt to change these in light of higher-order preferences and values” (Dworkin, 1988, p. 20). While this definition is more appealing and realistic than the maximal definition of autonomy, it still suffers from a logical deficiency: the problem of infinite regress. Because first-order preferences may be formed heteronomously, on a second-order level, any affirmation or rejection of a preference, desire, or wish will also require its own justification (and affirmation) if it is also to be an autonomous choice, and so on and on, ad infinitum (Christman, 1991). However, by slightly modifying this definition, we can address the problem of infinite regress.

Christman defines autonomy as a *process* that relies on a *capacity* rather than as a fixed state—and in this sense, it fits well with the continuum approach outlined above, since it is consistent with a dynamic and variable understanding of internal autonomy. It is a process of progressive checks that acts as a kind of cognitive reviewer and underwriter that draws on an individual’s ability to rationally self-assess. According to Christman, an individual is autonomous when “... the influences and conditions that give rise to the desire [or preference or intention] were factors that the agent approved of or did not resist, or would not have resisted had she attended to them, and that this judgment was or would have been made in a

minimally rational, non-self-deceived manner” (Christman, 1991, p. 22. Emphasis mine). Thus, in Christman’s formulation an agent can only be said to be autonomous if she is aware “of the changes and development of her character and of why they came about,” (Christman, 1991, p. 11) since only in this way can she encourage or resist these changes through deliberation. To present the argument as Christman does:

- (i) A person P is autonomous relative to some desire D if it is the case that P did not resist the development of D when attending to this process of development, or P *would not have* resisted that development had P attended to the process;
- (ii) The lack of resistance to the development of D did not take place (or would not have) under the influence of factors that inhibit self-reflection; and
- (iii) The self-reflection involved in condition (i) is (minimally) rational and involves no self-deception (Christman, 1991, p. 11. Emphasis in original).

His definition avoids the problem of infinite regress by fixing the conditions required for autonomy to the *first level* of evaluation: the *process* by which a desire, preference, or interest is formed (Christman, 1991, pp. 18–19). Thus, the process of evaluation, if undertaken in conditions of minimal rationality and self-awareness, serves as both the necessary and sufficient condition of autonomy without the need to evaluate any *particular* outcome.

Since so much in Christman’s argument depends upon precisely what is meant by autonomy, it is worth spending a bit more time specifying its definition, especially since autonomy is central to democratic decision making in general and deliberation in particular. To be more precise, autonomy requires what Christman calls “minimal ‘internal’ conditions for rationality” (Christman, 1991, p. 14). He cites a basic consistency of beliefs and desires as requirements but stops short of demanding that there be an absolute and clear link between the epistemic process of developing internal consistency and any presupposed ontologically objective account of the external world. Thus, autonomy requires only internal consistency and not a universal “objectively” verifiable connection to a pre-established shared reality.

The construction of autonomy I am working with in this chapter is consistent with Warren’s argument that deliberation is epistemically valuable to establish mutual understanding through talk (Warren, 2002). This is critically important. The link here to the model of deliberative democracy that I am working with is central to normative justifications for deliberation and we should expect to find it in practice: participants in deliberation who are in search of epistemic validity must be capable of maintaining at least a basic internal consistency that they can communicate with others who will recognize and adopt it; otherwise the ground upon which the deliberative enterprise rests dissolves. The decision, however, must reflect a logical consistency that is unlikely to emerge if it is drawn from a collection of inconsistent internal processes; and even if it did, it could not be said to be the product of an epistemically valid process.

Returning to Christman, for an agent to be autonomous “the influences and conditions” surrounding a judgment, through the interests, preferences, and desires that support such a judgment, must be approved of by the agent—or would have been approved of—under what we might call conditions of sufficient awareness (a

minimal level of knowledge about factors relevant to the judgment at hand). So, for an agent to be autonomous, she must be able to assent to all the immediate factors that contribute to a desire; proponents of democratic deliberation expect this capacity, since they expect that those who deliberate can and will give a true account of their reasons for or against a preference or proposition. The ability to deliver on these expectations requires, as Christman notes, a capacity for critical self-reflection (Christman, 1991, p. 11). To this point I must add a clarifying coda: for an agent to be autonomous she must also be able to access the factors that are *the actual mobilizing factors related to the desire or judgment at hand*. This requirement is centrally important to a robust defense of democratic deliberation. An agent is only autonomous to the extent that the process of self-reflection she undertakes in the process of approving of a desire or judgment *accurately* links “influences and conditions” to outcomes and is not interrupted or non-consciously distorted by some internal or external force. For instance, if a person tells you they support the Democrats or Republicans because of their capacity as economic managers or their position on school choice or abortion, but in reality supports them out of a deep, unspecified identity attachment, then that expression of support would not be autonomous (on party identity and partisanship see, for instance, Achens & Bartels, 2016). This requirement for autonomy is what I am referring to, drawing on Kant, as the principle of non-self-deception. It is premised on the hypothesis that while some degree of self-deception is a common enough occurrence among agents, it is possible to minimize how often it occurs and how significant its effects are when it does occur-again, to move the needle along the scale of internal autonomy close to the “autonomy” end and further away from the “heteronymy” end.¹

Deliberative Democracy, Autonomy, and the Epistemic Defense of Deliberation

Why is personal, internal autonomy important to and necessary for the epistemic defense deliberative democracy? Before addressing this question, it is necessary to define precisely what the epistemic defense deliberative democracy is. One of the leading and most comprehensive theories of epistemic deliberation is offered by Estlund (2008). In his conception of epistemic proceduralism, Estlund clearly and carefully distinguishes between purely procedural theories, which rely on some procedural good for legitimacy-such as Rawls’ “justice as fairness” approach (Rawls, 1999)-and thick, correctness-based epistemic theories-such as Rousseau’s General Will (Rousseau, 1971). While the former is only concerned with establishing fair procedures for decision making to generate legitimate outcomes, the latter requires

¹For more on this, see Kant’s distinction between autarchy-the capacity to make decisions for oneself-and autonomy-the capacity to accurately give reasons for one’s decisions-in Elstun (2008), Guyer (2005), and Kant and Gregor (1785/1998).

that decisions be correct to be legitimate and authoritative: for instance, as the most popular product of a majority vote.

In contrast, Estlund's epistemic proceduralism requires only that the minority accept a majority decision as legitimate. They do not *have to* accept it as *correct* if it is the outcome a properly constituted and fair procedure *that has the tendency to generate correct outcomes* (within the parameters of a given, broader political or ethical system) *on a better-than-random basis*. The core of this argument rests of "the counterpart" of procedural fairness, epistemic proceduralism, which Estlund defines as: "procedural impartiality among individuals' opinions, but with a tendency to be correct; the impartial application of intelligence to the moral question at hand" (Estlund, 2008, p. 107). In the absence of a procedure-independent moral standard for producing and judging an outcome, this approach ensures that compliance based on the procedure's tendency to produce correct outcomes often enough, rather than mere fairness or the certainty that any decision produced must be morally correct—a requirement that necessitates some prior established standard that exists outside of deliberation (Estlund, 2008, p. 108).

So, why do theories of deliberative democracy, in so far as they are defended as epistemically superior approaches to generating valid and legitimate political decisions, require personal internal autonomy of the sort outline above? If the deliberative approach to democracy is to live up to its claim of producing correct decisions, even if on a mere better-than-random-chance basis, then that process will require that individuals connect their *actual reasons and motivations* to preferences that can be clearly communicated to others in a deliberative setting with fidelity to reality. That way, ultimately, the decisions that are generated through deliberation can be reasonably expected to link facts about the world—as they are interpreted and established by those assembled individuals—to reasons, then to their preferences, and, finally, to the decisions that are generated by the assembly. What autonomy ensures in this instance is the high-fidelity translation of the empirical and normative realities of deliberators into preferences, backed by motivations and reasons of which those deliberators are aware—which acts as a sort of first-level check on the validity of statements. What autonomy guards against is the presence of an internal (to the individual) fifth-column that acts to distort those empirical and normative realities, or that acts to mobilize them in a way contrary to the ultimate wishes of that individual, in such a way that the preferences generated by those individuals do not match their true preferences (i.e. those they would have chosen in a state of autonomy) and thus misleads the agent in question and subsequently all those with whom she engages on the issue.

In a deliberative assembly, the absence of a critical mass of autonomous individuals runs the risk that they outcomes they generate will be incorrect within the political or ethical parameters of the deliberation due to *structural distortion in judgment and decision-making tendencies*. This risk directly undermines the epistemic proceduralist defense of deliberation as an approach to decision-making that generates correct outcomes on a better-than-random basis. This is because the effects of the failure to reach a state of full autonomy (both in deliberative settings and non-deliberative settings) *are structural, rather than random*. The effects are *structural* in

two ways: first, they are structural in terms of *who they directly affect*; second, they are structural in terms of *who is affected by outcomes related to them*.

In the former instance, those most directly affected by a breakdown in autonomy—due to a lack of comprehension about the information they are using—tend to be less-educated, low information citizens (Althaus, 1998; Chong & Druckman, 2007; Converse, 1964; Cutler, 2002; Iyengar, Peters, & Kinder, 1982; Kuklinski & Quirk, 2000; Zaller, 1992). In the latter instance, those disproportionately affected by heteronomously generated preferences and outcomes tend to be people of color (Mendelberg, 2001; Snidennan, Hagen, Tetlock, & Brady, 1986), the poor and undereducated (Althaus, 1998; Zaller, 1992), and groups who tend to already suffer deleterious effects due to negative stereotyping (Kuklinski & Quirk, 2000). Thus, the issue of internal personal autonomy is normatively important in at least two ways: first, in the sense that it represents a commitment to a conceptual understanding of a good political life as being bound up in part in self-determination; and second, in the sense that heteronymy might be bound up in the structural oppression, or at least the structural marginalization, of certain groups. While both normative approaches are interesting, it is primarily the former with which I am concerned in this chapter.

Motivated Reasoning as a Challenge to Deliberative Democracy

What Is Motivated Reasoning?

So far, I have argued that for theories of deliberative democracy to serve as plausible accounts of how to generate epistemically better judgments and decisions those who deliberate must be autonomous in a constrained sense. I have also claimed that the psychological phenomenon of motivated reasoning undermines autonomy and thus threatens to undermine the epistemic defense of deliberative democracy. In the following section I will explain what motivated reasoning is and outline specifically how it affects deliberators and undermines the epistemic authority of deliberations.

The phenomenon of motivated reasoning refers to “reliance on a biased set of cognitive processes: strategies for accessing, constructing, and evaluating beliefs” (Kunda, 1990, p. 480). Motivated reasoning serves as a core (potentially non-conscious) strategy employed by human beings in the interpretation of the world and the construction of reality—towards less accurate or more accurate, or better or worse, ends. In her review article on theory and evidence from the practice of deliberation, Tali Mendelberg (2002) notes, referencing Taber et al. (2001, p. 168), the bias in motivated reasoning “occurs at every step of information processing, from setting goals, to gathering and evaluating evidence from the outside or from memory, to constructing inferences and judgments.” Furthermore, Mendelberg cites Bodenhausen, Macrae, & Milne (1998, p. 169) to point out a few sources of

motivated reasoning: self-presentation, which comes from the desire to appear good, and self-deception, in which individuals are entirely unaware that they are in error or deluded. The latter is the sort with which I am concerned here.

There are two kinds of self-deceptive motivated reasoning: accuracy-driven and directional-driven. Accuracy-driven reasoning occurs when a subject is motivated to get the conclusion “right”—such as when there are rewards for a correct outcome or when the subject is required to justify their judgment publicly—and *tends to generate* more cognitively effortful, careful, and complex thinking, though there are limitations to avoiding biased cognition even under these circumstances (Kruglanski & Klar, 1987; Kunda, 1990). Think of a politician giving a speech in which his facts are being closely tracked and checked—he may be motivated to therefore get the facts right (although, these days, perhaps not). In the context of motivated reasoning, the word “bias” is, at least in its theoretical usage, stripped of any nonnative or ethically-evaluative (e.g. fair or unfair) content and instead refers to the phenomenon of prejudiced selection of tactics or strategies. Directionally-driven goals involve far less cognitive effort, care, and complexity; individuals who are directionally-driven are motivated to reach a defensible conclusion, but not necessarily the correct one. The last several years of American and European, Australian, Canadian, and other-politics are replete with examples, as any fact checking website reveals (see, for instance, PolitiFact.com in the United States or FactsCan.ca in Canada).

Under conditions of directionally-driven reasoning, individuals tend to maintain an “illusion of objectivity” (Pyszczynski & Greenberg, 1987) and reason in such a way that cognitive biases tend to be employed non-consciously—that is, without deliberate reflection and an active choice to employ them—and heavily directed towards maintaining or enhancing existing beliefs or preferences or reaching some desired conclusion (Kahan, 2013; Lodge & Taber, 2013; Redlawsk, 2002). While individuals reasoning towards directionally-driven goals cannot reach or justify *just any conclusion whatsoever*, they tend to reach use common tactics to reach more-or-less defensible, directionally-driven (and often biased) conclusions. Tactics for reaching such conclusions include selectively searching one’s memory for beliefs or evidence that support or confirm the desired conclusion, “creatively” combining and integrating existing and new evidence in such a way that supports the outcome they are after, and selectively choosing statistical heuristics that fit with their desired conclusions (Kunda, 1990, pp. 483–488). Challenging or disconfirming evidence in such cases tends to be ignored or rationalized in such a way that either minimizes conflicting or unwanted counter-evidence or else explains it away.

In summary, according to Kunda, “both kinds of goals affect reasoning by influencing the choice of beliefs and strategies applied to a given problem. But accuracy goals lead to the use of those beliefs and strategies that are considered most appropriate, whereas directional goals lead to the use of those that are considered most likely to yield the desired conclusion” (Kunda, 1990, p. 481). So, much of the reasoning we do is structurally biased; thus, when it comes to individual reasoning in a given political context, deliberative or otherwise, the question is not whether or not there is a biased—in the non-normative sense mentioned above—use of tactics or strategies for cognition, but whether the direction of cognition is towards accuracy or

some self-serving directional goal. We can now ask what the effects of motivated reasoning are on the practice of deliberative democracy and the kinds of judgments and decisions produced by democratic deliberation.

The sources of directional motivated reasoning vary, and each source poses different threats to epistemically good democratic deliberation. When it comes to political matters, attachment to a political party can lead to partisan motivated reasoning, which emerges from the relationship between an individual and their emotional attachment to a political party seen as representing or defending a group with which they identify (Leeper and Slothuus, 2014, pp. 136–137). Related to this challenge, individuals asked to evaluate candidates are cognitively biased in favor of their existing preferences, in stark violation of assumptions about the tendency of individuals to make fair, rational evaluations from memory rather than “hot” (i.e. affect-driven), immediate, and running evaluations with the goal of maintaining one’s existing preferences despite new or altered evidence (Redlawsk, 2002).

There are at least three structural cognitive errors, driven by motivated reasoning, occurring in these circumstances. The first is confirmation bias related to information search surrounding candidates they already approve of: individuals are looking to confirm what they already know and for which they hold positive affective evaluations (Redlawsk, 2002, p. 1025). The second, related to the first, is disconfirmation bias. In instances of disconfirmation bias, individuals will argue against, denigrate, explain away, or at least discount, information that challenges their pre existing preference and will actively seek to disconfirm evidence that violates their assumptions and preferences (Taber, Cann, & Kucsova, 2009, pp. 137–139). The third is the anchoring effect: voters, presented with negative evidence about a candidate they prefer, will *strengthen their support* for that candidate if they have already decided to support them (Redlawsk, 2002, pp. 1025–1026). Initial evaluations of a candidate, reinforced by biased searches for information and further biased processing of information about that candidate, create a strong anchor that either withstands challenges that should generate an adjust or, as noted, warps that adjustment so that evidence pushes an evaluation towards a candidate, when it should be pushing it away.

Why Is Motivated Reasoning a Threat to Epistemically Good Democratic Deliberation?

Epistemically good deliberation is deliberation that tends to bring about “correct” outcomes as defined here. The challenge of motivated reasoning to democratic deliberation is not one that can be explained away by asserting that the ideal of rational deliberation is a chimera, and that those who deliberate are necessarily human and thus predictably prone to a mix of rational and emotional thinking. Motivated reasoning is a specific and real challenge to deliberative democracy, not because it is emotional, but because *it is hidden*. The problem with motivated

reasoning is that it obscures motivations and makes it much more difficult for participants in a deliberation to put all their concerns and reasons on the table; under such conditions, it becomes difficult for each participant to access and engagement with the *actual* motivations and reasons that motivate a participant to hold this preference or to offer that reason. So, the question we should ask is not whether emotions or affective-based forms of reasoning—including motivated reasoning—can be eliminated from deliberation, but whether they can be interrogated, brought out into the open, and collectively managed.

We might assume that accuracy-directed cognition in a deliberative setting is epistemically desirable and that prompting accuracy goals is a solution to the challenge of motivated reasoning to epistemically good deliberation. After all, the epistemic concern of deliberation is getting to correct judgments and subsequent decisions. However, there are two problems with this. First, accuracy prompts do not always lead individuals to overcome the effects of motivated reasoning (Kunda, 1990; Redlawsk, 2002, pp. 1033–1035). So, the “cognitive baggage” that individuals bring with them into a deliberation cannot always be unpacked and set aside. And second, absent a consensus on what counts as “accurate” information within the group, the epistemic function of deliberation might be compromised and may result in a situation in which not only is a correct decision not reached, but sub-optimal outcomes are generated or exacerbated. In this case, a structural bias might be built into the structure of a democratic deliberation before it even begins and may influence proceedings from the get go. For example, a participant might deeply identify with a political party or organization and he may bring their views to the deliberation as his own, as a fixed heuristic. These two concerns encapsulate the general threat of motivated reasoning to deliberation: common, persistent or routine, and entrenched biased reasoning.

Motivated reasoning generates other threats to democratic deliberation. One threat related to the concern of the anchoring effect and generated by motivated reasoning is the “boomerang effect.” This occurs when some messaging strategy or approach inadvertently generates the *opposite* of the desired effect—and thus polarizes participants. So, in the context of a deliberation, some participants who are directionally-motivated may be induced to become further entrenched in their beliefs and less likely to support certain policies, even when presented with facts contrary to their existence beliefs or preferences or good arguments in favor of a certain policy—which can have a further polarizing effect (Hart & Nisbet, 2012). Indeed, in an experiment on motivated reasoning and preferences on climate change policy in the United States, Hart and Nisbet found that political partisanship influenced support for climate change and that new information—shared equally and presented identically—further *polarized* opinions on climate change between Republicans and Democrats (Hart & Nisbet, 2012; see also Taber, Cann, & Kucsova, 2009). If such effects are combined with a group in which a minority-type is outnumbered, polarization can become worse through increased (non-cognitive) bias and decreased cooperation (Bettencourt & Dorr, 1998).

Motivated reasoning also violates the basic deliberative requirement that strategic considerations be left outside the room, or, at least, that they are largely muted.

Instead, as noted, motivated reasoning threatens to introduce *structural* error into deliberation, threatening the epistemic force of deliberation as a theory of democratic decision making that produces correct outcomes on a better-than-chance basis. Regarding the epistemic function of deliberation, motivated reasoning undermines attempts at building shared understanding and generating shared preferences by increasing the chances of a boomerang effect occurring and by undermining the reliability of relatively stable, open-and therefore transparent-motivations that are open to discussion and debate. Moreover, motivated reasoning generates goals, incentives, and contributes to the generation of supporting arguments (or rationalizations) which may not be brought about absent such reasoning. Consequently, motivated reasoning *structurally violates* the principle of autonomy required for deliberation. When motivated reasoning is strong in a deliberation, the risk of a sort of shadow deliberation emerges: a kind of perverted deliberation that is taken place alongside the primary deliberation, based on factors and motivations that have little or nothing to do with the deliberation at hand. This is a significant threat to both the spirit and practice of deliberative democracy since if individuals were fully aware of the source of their motivations they might reason differently and present different preferences and justifications for those preferences.

How Should Theorists of Deliberation Respond to Motivated Reasoning?

As challenging as motivated reasoning is to epistemic defenses of deliberative democracy, its existence alone is not enough to warrant dropping the epistemic defense of deliberation all together. For one, the challenge of motivated reasoning is probably *worse* in non-deliberative political settings. But, more importantly, it is likely that sophisticated deliberative design, both at the level of deliberative events (for instance, one-off deliberations or series of deliberations) and deliberative systems (for instance, institutionalized deliberative democracy, such as regular citizens' assemblies) can attenuate the deleterious effects of motivated reasoning, even if they are unable to eliminate them all together. If we believe that structure affects function-that the way something is designed will condition how it is used-then there may be several ways to change how cognition is "used" in deliberations, and thus to improve judgments made in democratic deliberation. Theorists of deliberation should respond to the challenge of motivated reasoning by changing how deliberations are structured and carried out. In this section I will briefly outline five approaches to minimizing the negative effects of motivated reasoning on the epistemic value of democratic deliberation. These approaches represent a mix of my own recommendations and those of others drawn from literature in social psychology and political science, combined in such a way as to directly address the challenge of cognitive distortion-in this case motivated reasoning-in the context of democratic deliberation.

Targeted Motivation

As I have argued throughout this piece, inducing accuracy-driven goals is essential to moderating the effect of motivated reasoning, even if such inducements may not all together, or always, eliminate the challenge of such reasoning. Indeed, it is likely that it will require a combination of several approaches to seriously arrest the impacts of motivated reasoning on the production of epistemically good judgments in deliberative settings. Targeted motivation, however, is the first and most important approach to addressing this challenge. It relies on an understanding of the elaboration likelihood model (ELM), which was developed in the 1980s by psychologists Richard Petty and John Cacioppo. Petty and Cacioppo used dual-process theory in the model to specify two general routes through which a statement or argument might be processed: the central route, along which subjects were more likely to scrutinize a message, and a peripheral route along which subjects were more likely to employ cognitive short-cuts and external cues to evaluate it (Petty & Wegener, 1999; Petty, Cacioppo & Heesacker 1981; Petty & Cacioppo 1986). As the authors discovered, the key to getting subjects to employ the first route—one far better suited to the goals and exigencies deliberative democracy—was motivation: various factors, including a message's relevance or the availability of cognitive resources, went into determining which route a subject was likely to take (Chaiken & Trope, 1999; Jae & Delvecchio, 2004; Petty, Wells, & Brock, 1976).

Targeted motivation is an attempt to engage central-processing through highlighting to participants in a deliberation the relevance and importance of an issue and making it explicit that participants will be asked to explain and justify their preferences and underlying reasons to the gathered group. The goal of targeted motivation is to increase the probability that accuracy driven goals are primed prior to issue-related cognition. Targeted motivation can be further subdivided into tactics aimed at engaging individuals. Specifically, targeted motivation should take the form of ensuring that: (1) arguments are presented in clear, manageable form and language; (2) individuals are given appropriate amounts of time to scrutinize information, ask questions, and discuss their perspectives; (3) rewards for adopting peripheral methods are minimized or eliminated (e.g. rewards for finishing early or before another group or sub-group); (4) individuals are presented with clear arguments as to why a given issue is relevant to them, their families and friends, their community, city, state, or country; (5) the environment in which deliberation occurs is free from distracting elements, including any stimuli that may provide subtle nudges as to which way a participant should decide.

When it comes to motivated reasoning as a threat to autonomy and epistemically good deliberative judgments, within the context of deliberation, targeted motivation may assist in shifting subjects' attention towards the subject matter as well as *how they think about the subject matter*. This focus should help maximize the likelihood that individuals scrutinize the data and arguments presented to them, as well as bring some scrutiny to bear on their *cognitive process* for reaching a judgment. Targeted motivation alone may not entirely address the challenge of motivated

cognition by cueing accuracy-directed goals; it may, however, minimize instances of motivated reasoning. It may also enable other tactics, which I will discuss below, to work or else to work better.

Arational receptivity

Motivated reasoning is driven by affect-and while much of the processing that occurs under conditions of motivated reasoning is hidden from consciousness, the *effects* of such are potentially traceable, if individuals are able and willing to interrogate them. Arational receptivity is a state in which individuals are open to publicly questioning and discussing-within the context of a group deliberation-their affective disposition towards issues and their related preferences. Cultivating openness to scrutinizing the affective dispositions one has towards certain issues and concomitant preferences could help generate stronger accuracy-driven goals and attenuate directionally-driven ones, especially in a public setting, by reminding participants and facilitators that when it comes to generating judgments affect is an entrenched and necessary element.

In fact, as neuroscientist Antonio Damasio has shown, feelings and emotions (what I lump together as “affect”) do important cognitive work and are essential for both mundane day-to-day choices as well as more complex decisions (Damasio, 1994, 2003). Just as notably, Heath and Pinker have neatly summarized, there are good evolutionary reasons why affect looms large in our lives: it is necessary for providing cues based on experience that are needed for future decisions (Heath, 2014; Pinker, 1997). This should not come as a surprise: brain systems drawing on affective considerations and processing tend to be faster and more efficient-if also more prone to error and bias-than those relying on rational reflection and processing (Kahneman, 2011). So, when it comes to the force of affect, we ought to row with the current, though we should also work hard to know where it is taking us. Returning to Kant: autonomy requires that individuals can both make decisions and have reasons for those decisions; I hasten to add that true autonomy requires that individuals have *valid and accurate* reasons for decisions, which would include the emotions and feelings that play a role in generating and perhaps sustaining those choices and which must be acknowledged if accuracy-driven goals are to be facilitated over directional-goals.

Cognitive Diversity

Those who are subject to the effects of motivated reasoning and the directional-goals generated by it are, as I have discussed, also prone to polarization and boomerang effects under certain conditions when their reasons or preferences are challenged. However, as I have also mentioned, conditions generating

high-elaboration in cognition are more likely to generate accuracy-driven goals—which should mean that more autonomous deliberation would be brought about. So, a key challenge to overcoming the threat of directional motivated reasoning to the epistemic defense of democratic deliberation is finding ways to move individuals who deliberate from “cognitive auto pilot” to a more engaged and reflective state *without polarizing the group*. I believe that targeted motivation and arational receptivity are two important tools for this. But they may also require that groups be cognitively diverse.

According to Landmore (2013), who draws on Hong and Page (2004), cognitive diversity “refers to a diversity of ways of seeing the world, interpreting problems in it, and working out solutions to these problems. It denotes more specifically a diversity of perspectives ... interpretations ... heuristics ... and predictive models” (p. 1211). In deliberative contexts, the presence of cognitive diversity is hypothesized to improve decision-making (Page, 2008) and increase the quality of argumentation (Landmore, 2013). So, the presence of diverse ways of thinking may also offer a cognitive jolt to those who might otherwise rely heavily on the low-resource motivated reasoning when processing information and coming to judgments. Once again, the mechanism at work in such a case would likely be a shift from directional goals to accuracy goals; and the presence of a properly-constituted diverse group (Mendelberg, 2002) might enhance the effect of accuracy goals and further diminish motivated reasoning—potentially even eliminating, or at least significantly checking, the boomerang effect. At this stage, the cognitive diversity hypothesis is still largely experimental—it is indeed still a hypothesis—and more research is required into its long-term effects, plausibility, and generalizability. This is especially important in relation to how, if at all, cognitive diversity interacts with motivated reasoning and more specifically directional goals and polarization. None the less, if having diverse ways of approaching a problem means that individuals are more inclined to critically engage, and to consider closely their reasoning pattern, is promising.

Conclusion

Motivated reasoning, insofar as it can be an irrational cognitive process, and because it occurs largely non-consciously, violates the principle normative goal of personal internal autonomy. This sort of autonomy is essential for generating epistemically good deliberative outcomes. Specifically, it does so by concealing the motivations of an individual who deliberates (i.e. to preserve and protect one’s current worldview) and biasing both the process of generating reasons for or against a preference and the reasons themselves. Of course, motivated reasoning is not universal and unavoidable; it can be attenuated. But as we have seen, it is commonplace, occurs in deliberations, and remains persistent in some cases despite efforts to counteract it with inducement to generating accuracy-driven outputs.

Occurrences of motivated reasoning act as challenges to democratic deliberation, but they do not render it useless—or even make it a less preferable alternative to aggregative democracy, which is easily worse at generating and exacerbating motivated reasoning in individuals engaged in political acts. Rather than gainsaying the value of such deliberation, the phenomenon of motivated reasoning points to an area of theories of deliberation—its epistemic defense—that requires further exploration and elaboration. It also serves as a reminder to both scholars and practitioners of deliberative democracy that deliberative design, at both the individual levels of deliberative events and the general level of institutional deliberative setup, that more work must be done if we are to generate the best possible outcomes from democratic deliberation.

References

- Achens, L., & Bartels, C. (2016). *Democracy for realists*. Princeton, NJ: Princeton University Press.
- Althaus, S. (1998). Information effects and collective preferences. *American Political Science Review*, 92(3), 545–558.
- Berofsky, B. (1995). *Liberation from self: A theory of personal autonomy*. Cambridge, MA: Cambridge University Press.
- Bettencourt, B. A., & Dorr, N. (1998). Cooperative interaction and intergroup bias: Effects of numerical representation and cross-cut role assignment. *Personality and Social Psychology Bulletin*, 24(12), 1276–1293.
- Bodenhausen, G. V., Macrae, C. N., & Milne, A. B. (1998). Disregarding social stereotypes: Implications for memory, judgment, and behavior. In *Intentional forgetting: Interdisciplinary approaches* (pp. 349–368). Erlbaum.
- Chaiken, S., & Trope, Y. (Eds.). (1999). *Dual-process theories in social psychology*. New York: Guilford Press.
- Chambers, S. (2006). *Reasonable democracy*. Ithaca: Cornell University Press.
- Chong, D., & Druckman, J. (2007). Framing public opinion in competitive democracies. *American Political Science Review*, 4(4), 637–655.
- Christman, J. (1991). Autonomy and personal history. *Canadian Journal of Philosophy*, 21(1), 1–24.
- Converse, P. (1964). The nature of belief systems in mass publics. In D. Apter (Ed.), *Ideology and discontent* (pp. 207–281). Glencoe, IL: Free Press of Glencoe.
- Cutler, F. (2002). The simplest shortcut of all: Sociodemographic characteristics and electoral choice. *Journal of Politics*, 64(2), 466–490.
- Damasio, A. R. (1994). *Descartes' error: Emotion, rationality and the human brain*. New York: Putnam.
- Damasio, A. R. (2003). *Looking for Spinoza: Joy, sorrow, and the feeling brain*. New York: Houghton Mifflin Harcourt.
- Dryzek, J. (2002). *Deliberative democracy and beyond*. New York, NY: Oxford University Press.
- Dworkin, G. (1988). *The theory and practice of autonomy*. Cambridge, MA: Cambridge University Press.
- Elster, J. (1998). Introduction. In J. Elster (Ed.), *Deliberative democracy* (pp. 1–18). Cambridge, MA: Cambridge University Press.
- Elstub, S. (2008). *Towards a deliberative and associational democracy*. Edinburgh: Edinburgh University Press.
- Estlund, D. (2008). *Democratic authority*. Princeton, NJ: Princeton University Press.

- Fung, A. (2013). The principle of affected interests: An interpretation and defense. In J. Nagel & R. M. Smith (Eds.), *Representation: Elections and beyond* (pp. 236–268). Philadelphia, PA: University of Pennsylvania Press.
- Goodin, R. (2008). *Innovating democracy*. New York, NY: Oxford University Press.
- Gutmann, A., & Thompson, D. (1996). *Democracy and disagreement*. Cambridge, MA: Belknap.
- Gutmann, A., & Thompson, D. (2004). *Why deliberative democracy?* Princeton, NJ: Princeton University Press.
- Guyer, P. (2005). *Kant's system of nature and freedom: Selected essays*. Oxford: Oxford University Press.
- Hart, P. S., & Nisbet, E. C. (2012). Boomerang effects in science communication: How motivated reasoning and identity cues amplify opinion polarization about climate mitigation policies. *Communication research*, 39(6), 701–723.
- Heath, J. (2014). *Enlightenment 2.0*. Toronto: Harper Collins.
- Hong, L., & Page, S. E. (2004). Groups of diverse problem solvers can outperform groups of high-ability problem solvers. *Proceedings of the National Academy of Sciences*, 101(46), 16385–16389.
- Iyengar, S., Peters, M. D., & Kinder, D. R. (1982). Experimental demonstrations of the 'not-so-minimal' consequences of television news programs. *American Political Science Review*, 76(4), 848–858.
- Jae, H., & DelVecchio, D. (2004). Decision making by low-literacy consumers in the presence of point-of-purchase information. *Journal of Consumer Affairs*, 38(2), 342–354.
- Kahneman, Daniel. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.
- Kahan, D. M. (2013). Ideology, motivated reasoning, and cognitive reflection. *Judgment and Decision Making*, 8, 407–424.
- Kant, I., & Gregor, M. J. (1785/1998). *Groundwork of the metaphysics of morals*. Cambridge, MA: Cambridge University Press.
- Kruglanski, A. W., & Klar, Y. (1987). A view from the bridge: Synthesizing the consistency and attribution paradigms from a lay epistemic perspective. *European Journal of Social Psychology*, 17, 448–468.
- Kuklinski, J. H., & Quirk, P. J. (2000). Reconsidering the rational public: Cognition, heuristics, and mass opinion. *Elements of reason: Cognition, choice, and the bounds of rationality*, 153–82.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480–498.
- Landmore, H. (2013). *Democratic reason: Politics, collective intelligence, and the rule of the many*. Princeton: Princeton University Press.
- Leeper, T. J., & Slothuus, R. (2014). Political parties, motivated reasoning, and public opinion formation. *Political Psychology*, 35, 129–156.
- Lodge, M., & Taber, C. (2013). *The rationalizing voter*. Cambridge, MA: Cambridge University Press.
- Mendelberg, T. (2001). *The race card: Campaign strategy, implicit messages, and the norm of equality*. Princeton, NJ: Princeton University Press.
- Mendelberg, T. (2002). The deliberative citizen: Theory and evidence. *Political decision making, deliberation and participation*, 6(1), 151–193.
- Page, S. E. (2008). *The Difference: How the power of diversity creates better groups, firms, schools, and societies*. Princeton: Princeton University Press.
- Petty, R. E., Wells, G. L., & Brock, T. C. (1976). Distraction can enhance or reduce yielding to propaganda: Thought disruption versus effort justification. *Journal of Personality and social Psychology*, 34(5), 874.
- Petty, R. E., Cacioppo, J. T., & Heesacker, M. (1981). Effects of rhetorical questions on persuasion: A cognitive response analysis. *Journal of personality and social psychology*, 40(3), 432.
- Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In *Communication and persuasion* (pp. 1–24). New York: Springer.
- Petty, R. E., & Wegener, D. T. (1999). The elaboration likelihood model: Current status and controversies. *Dual-process theories in social psychology*, 1, 37–72.

- Pinker, S. (1997). *How the mind works*. New York: Norton.
- Pyszczynski, T., & Greenberg, J. (1987). Toward an integration of cognitive and motivation perspectives on social inferences: A biased hypothesis-testing model. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 297–340). New York, NY: Academic Press.
- Rawls, J. (1996). *Political liberalism*. New York: Columbia University Press.
- Rawls, J. (1999). *A theory of justice*. Cambridge, MA: Belknap Press of Harvard University.
- Redlawsk, D. P. (2002). Hot cognition or cool consideration? Testing the effects of motivated reasoning on political decision making. *The Journal of Politics*, 64(4), 1021–1044.
- Rousseau, J. J. (1971). In L. G. Crocker (Ed.), *The social contract, and discourse on the origin and foundation of inequality among mankind*. New York, NY: Pocket Books.
- Snidennan, P. M., Hagen, M. G., Tetlock, P. E., & Brady, H. E. (1986). Reasoning chains: Causal models of policy reasoning in mass publics. *British Journal of Political Science*, 16(4), 405–430.
- Taber, C. S., Cann, D., & Kucsova, S. (2009). The motivated processing of political arguments. *Political Behavior*, 31(2), 137–155.
- Taber, C. S., Lodge, M., & Glathar, J. (2001). The motivated construction of political judgments. In *Citizens and Politics: Perspectives from political psychology*, edited by J. H. Kuklinski. Cambridge: Cambridge University Press: 198–226.
- Warren, M. (2002). Deliberative democracy. In A. Carter & J. Stokes (Eds.), *Democratic theory today* (pp. 173–202). Cambridge, MA: Polity Press.
- Zaller, J. R. (1992). *The nature and origins of mass opinions*. Cambridge, MA: Cambridge University Press.

Part IV
National (USA) Perspectives

American National Identity: Issues of Race, Culture, Social Class, Gender and Politics Affected by Social Change



Joan S. Rabin

Human beings do not typically embrace change. Change means having to modify well-learned and familiar behavioral patterns. Change often requires that we learn entirely new behaviors that are intimidating because we do not possess the appropriate foundation upon which to build. Change makes us feel less competent, less in control. Unfortunately for us, life is change (Billings & Moos, 1981). Even more unfortunately, the pace of change occurring around us is increasing exponentially. These rapid social, technological, and even eco-system changes are presenting us with unprecedented psychological pressures (de la Sablonnière, Lina, & Cárdenas, 2019; Pinquart & Silbereisen, 2004). Our success as individuals and as a species depends on adapting to ongoing change in our environmental surround. Unfortunately for us, our species evolved in a world of slow change and is not physiologically suited to the ever-increasing pace of ongoing change (Toffler, 1980; Woody, Hooker, Zoccola, & Dickerson, 2018) starting with the industrial revolution and continuing ever more rapidly up until our current technological era. The psychological consequences of failure to adapt to rapid change have been termed Future Shock by Alvin Toffler (1970).

Future Shock

The self-taught sociologist, Alvin Toffler, whose only formal degree was in English and who spent his life, first as a welder in a steel mill and then as a journalist and writer, has been one of the few non-fiction authors to truly project forward into the future with predictions predicated on social science and technology. Toffler

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formulated the idea of Future Shock to explain much of the irrational behavior he observed around him. Future Shock is brought on by the “shattering stress and disorientation that we induce in individuals by subjecting them to too much change in too short a time” (Toffler, 1970, p. 2). Toffler argues that it is the pace of change not necessarily the direction of change that makes it difficult for humans to adapt successfully.

Physiological Responses to Rapid Social Change

Failure in adaptation to rapid social change is highly stressful. Stress is psychologically induced but has powerful physiological consequences. The process of allostasis keeps the body in physiological balance. An excess of perceived stress can overwhelm the body’s complex and intricate feedback systems causing allostatic overload which has widespread debilitating effects. Bruce McEwen (2012, p. 17183) has noted that “the primary core of allostasis and allostatic load focuses on how individuals perceive and have or do not have confidence in their ability to cope with the burdens of life experiences.” Being able to cope gives people a sense of control over their lives even in times of stress. For those who cannot cope, the sense of control is lost and the physiological consequences of uncontrolled stress damage the body.

“While the human physiological system is incredibly adaptive to short periods of intense stress, our system is completely unprepared for chronic stress, stress that keeps our system from returning to physiological and psychological stasis” (Buckwalter, 2018, para. 10). One of the major sources of chronic stress is economic distress. People without sufficient economic resources are less likely to have stress reduction strategies available to them, including a sense of control over one’s life.

Emotional Reactions of Non-adapters to Social Change

The chief emotions among those who cannot adapt to rapid social change are anger and mourning (Hochschild, 2016/2018). A predominant sense of grievance haunts the discourse (Vance, 2016) among those who feel “culturally marginalized” (J. C. Williams, 2017, p. 68). Resentment is a core feature of those who feel they are entitled to more than they have (Gest, 2016). Feeling powerless and unimportant in the face of social change which they cannot embrace, a sense of alienation from their own country sets in (*Strangers in Their Own Land*, Hochschild, 2016/2018).

Information Overload

Daniel Levitin (2014) focusses on the problem of information overload in this time of rapid change. We have evolved with a brain that has an attentional filter. This filter operates on just two factors, change and importance. Our brain is highly sensitive to any change in the environmental surround. This “change detector” operates continuously, signaling the brain whenever change occurs. If there is no change the brain is not stimulated. Information can also be allowed through to the brain by the attentional filter, which operates by the importance factor. To be important the information must be specifically relevant to you. However, there is a problem in that attention has limits and if we exceed those limits our cognitive capacity is compromised.

The Attentional System

Levitan stresses a third factor relevant to our attentional system which is “attentional switching”. Our brains evolved to focus on one thing at a time in the slow information world of the African savannah. “Multitasking is the enemy of a focused attentional system” (Levitan, 2014, p. 16). As we try to attend to a virtual bombardment of information we overuse the attentional switching mechanism engendering a “neurobiological switching cost” (p. 16).

Attentional ability is centered in the prefrontal cortex of the brain. There are neuronal networks specifically evolved to respond to the hormone dopamine. “Attention is a limited capacity resource” (Levitan, 2018, p. 16). The question then becomes what in our environment most readily grabs our attention by activating dopamine in our nervous system? First there is the basic survival system based on eternal “vigilance”, a gift from our evolutionary history. This vigilant attentional filter is always at work even when we are sleeping. Second, we can effectively focus our attention on specifics in the environment which then activates specific neurons in the pre-frontal cortex and not others. We then become highly efficient at locating what we are looking for since we have limited the search parameters.

Failures in Adaptation

“When we combine the effects of decisional stress with sensory and cognitive overload, we produce several common forms of individual maladaptation” (Toffler, 1970, pp. 358–359). These maladaptations keep the individual from successfully dealing with rapid changes in the real world. They do, however, protect the individual from stress deriving from sensory and cognitive overload. Toffler (1970)

describes four different strategies for coping with information overload by victims of Future Shock: Denial, Specialization, Reversion, and Super-simplification.

Denial of rapid change in society, technology, and the earth itself means that the denier fails to adapt to any of these. Climate change deniers are the most obvious maladapters currently.

Specialization in one area of expertise while ignoring all other change leaves the specialist in a comfortable cocoon emotionally but prevents adaptation to changes not included in the area of specialization. American culture rewards specialists (the “experts”) and denigrates generalists as superficial. Functionally, generalists are the ones who weave together knowledge from many separate disciplines in ways that facilitate spectacular breakthroughs in complex problem solving like dealing with global warming. Specialists have to be able to talk to each other across disciplines if knowledge is to be shared and built upon. All too often specialists are too uncomfortable outside of their disciplines to engage in the adaptive problem solving needed to deal with rapid social and environmental change.

Reversion to earlier forms of behavior and beliefs that worked in the past. The reversionist is the first to support the idea of “Make America great again”. Challenged by the pace of change in modern life the reversionist looks backward not forward. Nostalgia for how it used to be is a central part of reversion and is painfully obvious in militant male power groups from white supremacists to misogynistic men who resent the advances that women have made “in a man’s world”.

Super-Simplifier approaches involve a single very clear and simple explanation for complex happenings. Examples of current fixed ideas are smaller government (government is the enemy), no new taxes (starve the Beast), communist conspiracies are behind liberal social movements, liberals are the elite who look down on everyone else, and religious fundamentalism explains everything.

Social Change

Rapid social change presents different challenges for those located in high opportunity environments than those experiencing change in very low opportunity environments. Adaptation strategies that appear to be maladaptive may be of value to the psychological survival of individuals with few options.

Secondary Compensatory Control Strategies

Self-protective cognitions and motivational disengagement are part of the compensatory secondary control strategy open to people trapped by social change, with little control over their lives. People who used self-protective and disengagement

strategies experienced higher satisfaction levels (Tomasik, Silberstein, & Heckhausen, 2010). As this strategy continues, individuals may become more vulnerable to emotions of blame and anger. Disengagement brings social disapproval and possible sanctions. Despite this, secondary compensatory control may be an adaptive response in opportunity-deprived regions of the country (Tomasik et al., 2010).

Interval and Point Strategies

Individual differences in adaptive strategies to social change can increase or decrease success depending on environmental specifics. A study done in Poland which has experienced dramatic social change, looked at two strategies employed by different types of people. In an

interval strategy, individuals are less discriminating and are willing to accept a large number of possible goals. Hence, they adapt well when there is a scarcity of attractive options, but if the environment is rich in possibilities, their strategy can force them to deal with an overwhelming amount of information, and, as a result, to become ineffective. The other method of goal setting, called a point strategy, refers to people who are discriminating in their choices and typically reject a large number of options as not good enough. Such people thrive in an environment where there are plenty of good options; however, when such options are few and far between, they become frustrated and adapt poorly. (G. Wiczorkowska & E. Burnstein, 2004, p. 83)

Interval strategies work well when there are few options and point strategies are successful when there are many options.

Psychology of Social Change

Roxane de la Sablonnière (de la Sablonnière et al., 2019) is working on creating a psychology of dramatic social change. She is developing mathematical formulas that describe the complexities of interactions between people and specific social environments.

Such Bayesian formalisms further our understanding on how the individual functions in a dynamic social context with the hopeful ambition of developing the psychology of social change. We argue that there is a strong need to apply methods able to test dynamic models of human process as they can better account for an ever-changing human in an ever-changing context. (de la Sablonnière et al., 2019, p. 191)

Secondary compensatory control, interval, and point strategies could be better tracked with de la Sablonnière's formulas.

White Identity

Identity is the key to human psychological survival. Without a clear identity we could go mad, we wouldn't know who we are. Human identity can be rooted in family, community, ethnicity, nation, religion, and work whether paid or unpaid. Identity is based on one's true inner self. "The inner self is the basis of human dignity ... the inner self seeks recognition. Self esteem arises out of esteem by others" (Fukuyama, 2018, p. 10). In times of rapid social, technological, and environmental change one's very identity as a distinct human individual may easily be threatened. When a person feels imperiled that individual tends to become more conservative (Nail, McGregor, Drinkwater, Steele, & Thompson, 2009). "When groups feel threatened, they retreat into tribalism" (Chua, 2018, p. 8). Tribalism isn't just based on belonging to a specific group, it is also about excluding others from the group. Tribal belonging becomes part of the individual's identity.

White as the Norm

Historically, white identity in the United States didn't exist. Ethnic identity was a larger factor given the immigrant nature of the country. In more modern times, white identity was not a clear cognitive entity because people who are in the overwhelming majority do not see themselves as a racial identity but rather as the norm for social identity. "You don't notice normalcy; you see the deviations from it. So, the word "white" could always be hopped over as an adjective" (Chalabi, 2018, para. 5). Doctors, lawyers, U.S. senators, etc., were assumed to be white (and male). White was the default identity (as was male), everybody else needed labels.

In 2018, the United States Census Bureau indicated that the non-Hispanic, non-Latino, white population was 60.4%. In response to the immense social demographic change represented by the rapid drop in white predominance, whiteness is becoming more of a visible identity. For those who are not discomforted by social change a heightened awareness of whiteness can lead to fuller identity formation based on a close examination of white cultural heritage, including white privilege and racism (Lund, 2009). For those who feel threatened by social change, creating a powerful white tribal identity based on traditional values and familiar social patterns functions as a protective response.

Brenda Major and her colleagues (Major, Blodorn, & Blascovich, 2018) used white identity as an ethnicity in categorizing how much white Americans identified as "white". High identification as white was treated as an ethnicity. The researchers found that in response to a message on the shifting racial demographics in America, white people high in ethnic identification increased their support of Donald Trump. Parenthetically, Trump's rhetoric exhorts white people to give voice to their fear and anger over race. Without Trump many people's concerns would have remained latent. It took Trump to dredge up the muck (Badger & Cohn, 2019).

Social Identity Theory

Personal identity and group identity can connect when group identity offers both protection and enhancement of self-identity. Social identity theory (SIT) was established by Henri Tajfel and John Turner (1979) and has exerted a powerful influence on political psychology (Islam, 2004). “People derive a sense of self-worth and social belongingness from their memberships in groups, and so they are motivated to draw favorable comparisons between their own group and other groups” (Tajfel & Turner, 1986, p. 7). It is an easy step toward defining oneself within the context of group identity. This presents a situation “with group threats interpreted as threats to the self” (Islam, 2004, p. 1781).

Trump and the Republican Party: Politics of Racism and Anti-immigration

Trump has expressed fierce racist rants against current immigrants to the US, most especially Latinos/Latinas coming from Central America to the southern border. Opposition to immigrants forms a large part of the white backlash. Racial demographics are a perceived threat to white dominance identity. “The president has all but declared that he will redefine the Republican Party as one of white grievance against a changing America” (The Editorial Board, 2019, para. 2).

Ron Brownstein, a senior editor at the Atlantic, told CNN: “Under Trump, the Republican coalition has become overwhelmingly centered on the voters and the parts of the country that are most uneasy with demographic change.”

Brownstein cited research by the Public Religion Research Institute showing two in three Republicans say the growing number of immigrants threaten traditional American values, compared to six in 10 of the country overall saying that immigrants strengthen society. (Smith, 2019, para. 13–14)

The Republican party has presented itself as the party of whiteness and is using white identity as a political ploy by emphasizing the threat that immigrants present to the country. The underlying theme is that white identity itself is being threatened by immigrants.

Who Elected Trump?

“Media coverage suggests that economically distressed whiteness elected Mr. Trump, when in fact it was just plain whiteness” (Smarsh, 2019, para. 14). Many college-educated white people voted for Donald Trump, with college educated white men predominating (Ball, 2018). The appeal of Donald Trump to many white people was pushing back against the dramatic social changes that had so disrupted

their sense of place in the social order, undermining personal identity. For many white people, Trump's slogan, "Make America Great Again" was understood to mean "Make America White Again". Toni Morrison (2016) wrote an article titled "Making America white again" in response to the whiteness of Trump supporters.

On Election Day, how eagerly so many white voters—both the poorly educated and the well-educated—embraced the shame and fear sowed by Donald Trump. The candidate whose company has been sued by the Justice Department for not renting apartments to black people. The candidate who questioned whether Barack Obama was born in the United States, and who seemed to condone the beating of a Black Lives Matter protester at a campaign rally. The candidate who kept black workers off the floors of his casinos. The candidate who is beloved by David Duke and endorsed by the Ku Klux Klan. (Morrison, 2016, para. 9)

Status Threat, Symbolic Group Status, Privilege, and White Identity

White identity is a rising force in America (Metzl, 2019). "White racial solidarity influences many whites' worldview and guides their political attitudes and behaviors" (Jardina, 2019, p. 7). Status threat is a significant psychological factor driving motivation for low SES white people.

When whites perceive threats to their relative advantage in the racial status hierarchy, their resentment of minorities increases This heightened resentment among whites in turn leads to greater opposition of welfare programs because these programs are perceived to primarily benefit racial minorities. (Wetts & Willer, 2018, p. 793)

Support for the Tea Party movement in right wing Republican politics came largely from white people who perceived an existential threat to white status in the United States. This perception of status threat need not have been personal but rather was based mostly on symbolic group status (Willer, Feinberg, & Wetts, 2016). Symbolic group status is a psychological anchor for personal identity. Much of the support for both the Tea Party and for Donald Trump was based on psychological factors far more than economic ones. Status threat, not economic hardship, explains the 2016 presidential vote (Mutz, 2018). The "decline of whiteness" is a powerful factor in the lives of many people who may not consider themselves to be racist but who functionally define themselves in relation to a status hierarchy that requires people of color, especially black people to occupy the bottom of the hierarchy, both socially and economically.

White Women's Support for Republicans and Trump

The majority of white women have voted Republican in each of the presidential elections since 1952. The only exceptions were Lyndon Johnson in 1964 and Bill Clinton in 1996 (Grennell, 2018). Jane Junn (2017) clarifies that it is the steady

increase in minority voters over the past 60 years that forms the statistical basis of greater female support for Democrats.

Various explanations have been offered for white women's overall support for Republicans. Conor Friedersdorf (2018) points out that neither party strongly endorsed women's rights until more recent times. He argues that it is overly simplistic to interpret white women's voting patterns as supporting racism and patriarchy. Others strongly disagree (Junn, 2017; Frasure-Yokley, 2018; McRae, 2018; Grenell, 2018; Traister, 2018). Junn (2017) analyzed the voting patterns of women in the 2016 presidential campaign.

Alexis Grenell demonstrates how female Republican senators have "made standing by the patriarchy a full-time job" (2018, para. 2). She uses the term, "gender traitors", from the *Handmaid's Tale*, to describe the many women for whom it is more important to protect being white than to protect being female. Rebecca Traister (2018) maintains that "white women, who enjoy proximal power from their association with white men, have often served as the white patriarchy's most eager foot soldiers." (Traister, 2018, para. 29).

Elizabeth McRae documents the history of segregation where it was white women who were the prime movers behind segregated schools and facilities. She places white women squarely at the center of white supremacy. Lorrie Frasure-Yokley (2018) found that ambivalent sexism explains why so many white women voters (by an 11% margin) chose Donald Trump over Hillary Clinton in the 2016 U.S. Presidential election. Sexism can be separated into hostile and benevolent. Ambivalent sexism combines them into a system of control that lures women into compliance by offering male protection and economic benefits rather than coercion. Women become part of their own subjugation. (Connor, Glick, & Fiske, 2017).

Jane Junn analyzed the voting patterns of women in the 2016 presidential campaign and before. A majority (estimated at 52%) of white women voted for Donald Trump over Hillary Clinton. Since 1952, only twice have white women voted for Democrats for president, Lyndon Johnson in 1964 and Bill Clinton in 1996. Junn suggests that "analysts consider the positionality of white women as second in sex to men, but first in race to minorities, and the invocation of white womanhood in political rhetoric and practice as a potential explanation of the Trump majority" (2017, p. 343).

Rebecca Traister (2018) goes even farther in her view of why so many white women voted for Trump. Traister emphasizes historical and power dynamics to explain white women's depending on patriarchy.

We are a country that is built around a white patriarchy, in which white men from the founding have been afforded economic, political, public, social, and sexual power and other people have been barred from it.

White women, via their associations with white men, have enjoyed that proximal power and are thus incentivized to defend it, to uphold it. They benefit from white supremacy, and many are dependent on patriarchy, which they are then moved to support, politically and socially. (cited in Friedersdorf, 2018, para. 13, 14)

Ashley Jardina (2019) puts the situation into remarkably simple perspective which distances both racism and patriarchy from women's motivation to strongly identify as white, supporting Friedersdorf's (2018) perspective.

One compelling explanation is that, when it comes to social identities, people like to identify with higher-status groups. And so for women, if you've got a choice between your gender and your race, identifying as a white person is a higher-status group. It imbues this greater sense of self-esteem. (quoted in Chotiner, 2019, Is there some sort of pattern, para. 1)

Dying of Whiteness

Jonathan Metzl (2019) is a physician who has just published a book titled *Dying of Whiteness: How the Politics of Racial Resentment is Killing America's Heartland*. Healthcare in many places in America is declining rapidly due to policies implemented by the Trump administration and Republican politicians in some states. Yet the people whose health is hurt by these policies still support Trump. These "white Americans make tradeoffs that negatively affect their lives and livelihoods in support of larger prejudices or ideals" (Metzl, 2019, p. 6). White men are particularly vulnerable to following Trump no matter what he does. "They just feel like, as white men in America, their voice wasn't being heard. Trump gave them their voice back" (Metzl, 2019, p. 264). Meanwhile death rates are steadily increasing and life expectancy is declining for the first time in a century. **Self-defeat** Monica Potts (2019) returned to live in small-town rural Arkansas to write a book on low-income women. She found a prevailing anti-tax, anti-government ethos. In assessing the local culture, she found that things had deteriorated to the point where many low-middle-income white people did not want to support the town library because they did not use it. A strong anti-education, anti-community ethos has developed to the point where many people are focusing on taking care of themselves and their families and not their neighbors. They oppose things that would greatly help them, such as low-cost medical care, and library-based support and assistance programs. "Economic appeals are not going to sway any Trump voters, who view anyone who is going to increase government spending, especially to help other people, with disdain even if it ultimately helps them too" (Potts, 2019, p. SR 5). The fact that Trump has created an enormous deficit is lost on them, especially since most Trump supporters listen to Fox News which glosses over anything negative about Trump.

Whiteshift

Eric Kaufman (2018) uses the term Whiteshift to describe a series of events and consequences related to white identity. In its simplest sense Whiteshift is the continuing decline of white populations relative to non-white populations in white majority Western countries such as Canada, the United States, and the many countries that comprise Europe.

The psychological consequences of Whiteshift produce “a process by which majorities absorb an admixture of different peoples through intermarriage, but remain oriented around existing myths of descent, symbols and traditions” (Kaufman, 2018, p. 1). The white ethnic orientations override the non-white aspects and allow people to keep strongly connected to tradition and a sense of identity linked to their ancestors. Kaufman maintains that the brain facilitates this white identity override of diversity by operating as a Gestalt that allows the whole to dominate over the details of all the parts.

Ethno-Traditionalism

White ethno-traditionalism is the complex relationship between white identity and perception of one’s nation. When an American is being imagined that person is a white American. This happens when “ethnic majorities ... express their ethnic identity as nationalism” (Kaufman, 2018, p. 6). Patriotism reinforces white identity. Many white people may feel deeply connected to their country going back hundreds of years. Their nation has become part of their personal ethnic identity. “National identity is often congruent with race identity” (Kaufman, 2018, p. 6).

Political Influences on National Identity

New identity concepts have emerged out of the political turmoil of Brexit (the 2016 vote for Great Britain to leave the European Union), and the 2016 election of Donald Trump as president of the United States. These new identities of “remainers” or “leavers” in Britain (Castle, 2019) and pro-Trump or anti-Trump in the U.S. are the most extreme and polarizing in non-wartime modern history (Eichengreen, 2018). What both these new identity polarities have in common is those who successfully adapt to social change and those that are left behind. A second similarity between pro-Trump and pro-Brexit true believers is status threat, a combination of white superiority and world domination (Mutz, 2018). “English Euroskepticism is rooted in a long-standing belief in English exceptionalism” (Fukuyama, 2018, p. 152).

The belief in American exceptionalism comes close to a national religion with problematic consequences (Levitz, 2019). American exceptionalism can be summed up as the widely held belief that the United States “has a set of characteristics that gives it a unique capacity and responsibility to help make the world a better place.... the exceptionalist idea has proved resilient, no matter how many experts declare it useless or wrong” (J. Sullivan, 2019, II. Self-Correction, Self-Renewal, para. 1, 3). The power of the American exceptionalism belief starts with the mythology of the conquest of the American West (the frontier myth) which saw the American intruders on the continent as heroes not genocidal colonialists (Grandin, 2019).

According to historian Greg Grandin (2019), this myth continues to define American identity in ways that block out many harsh, and unexamined historical realities.

Current political identities have a tribal quality to them (Chua, 2018) that makes them immensely powerful. In the U. K. Brexit merchandise both pro and con is available and the website “Bollocks to Brexit” is especially active in sales. All over the U.S. there are little stands selling Trump paraphernalia. There is even an official website selling T-shirts that say things like “God, Guns, Trump” and “Sorry we’re full” written over a map of the United States. Make American Great Again (MAGA) hats and confederate flags mark the tribe. “The very symbols of Trumpism ... are now the new iconography of white supremacy, white nationalist defiance and white cultural defense” (Blow, 2019).

Identity Politics and Political Tribalism

Identity politics is yet another part of the mixture (Chua, 2018). In India social change is occurring but at a different pace in urban vs. rural communities. Rural communities are centers of slow change around the world, including the U.S. In India one’s caste identity still takes primacy in elections, even though marrying someone of a different caste has slowly become more acceptable (Sharma, 2019). The power of caste in elections is partly driven by the fatalism that nothing is going to get better anyway. “It’s hard to get excited about politics and elections when no matter which party comes into power, your life never changes” (Chua, 2018, p. 143).

A sense of that lack of change is felt by many working-class people, both people of color and whites. “If many whites feel anxiety in today’s America, many blacks feel an existential threat that seems never to end” (Chua, 2018, p. 175). As the absolute dominance of whites in America no longer seems assured, every group feels that they are in competition with all others for limited resources and most of all for the legitimacy to define the nation’s identity. This dynamic manifests as political tribalism.

Failure in Adaptation to Social Change: Authoritarianism

For some people the threatened loss of white privilege creates a white identity based on tribal solidarity and active opposition to racial demographic change as well as the social changes brought on by the feminist movement. Violence is considered acceptable in protecting against the waves of social change that have diminished the privileged position white extremists feel entitled to (MacWilliams, 2016). Overall, white solidarity groups have been increasing as the percentage of white people in the United States has been decreasing. However, prior to the election of Donald Trump in 2016, the number of hate groups in the U.S. had been decreasing for 3 years in a row (Beirich, 2019).

Since Donald Trump encourages violence among his supporters it is not surprising that the number of hate groups in the U.S. has suddenly increased (Leonhardt, 2019). The Alt-Right group existed before Trump came to power but has been rejuvenated by his rhetoric. Over 1000 hate groups now exist in the U.S. (Beirich, 2019). Some of the major ones, in addition to the Alt Right, are Proud Boys, Identity Evropa, Rise Above Movement (RAM), Vanguard America, White Nationalist (American Nazi Party), Neo-Nazis, KKK, The American Front (Racist Skinhead groups), Christian Identity, The Unforgiven, and Neo-Confederate.

Janet Helms (1995) created a developmental model of racial identity. She maintains that it is difficult to separate white identity from both racism and privilege. Trump and the Republican party have turned privilege into grievance for those who identify as “ethnic white”. “Increasingly, for many white Americans, their racial privilege resides not in positive benefits of work and security but in the sole fact that it could be worse – they could be black or Latino. In other words, their whiteness is all they have left” (Younge, 2017, para. 16).

In a 1993 interview, Toni Morrison was asked about how she deals with racism. Morrison indicated that the wrong question was being asked.

“Don’t you understand, that the people who do this thing, who practice racism, are bereft?” she continued, turning the question posed to her on its head. “There is something distorted about the psyche.”

“If you can only be tall because somebody is on their knees, then you have a serious problem,” she concluded. “My feeling is that white people have a very, very serious problem. And they should start thinking about what they can do about it.” (Oh, 2019, para. 3, 4)

Slavery/Racism: The American Original Sin

The current year 2019 marks the 400th anniversary of the first slaves brought to colonial America near the end of August in 1619. Kidnapped from Angola, more than 20 Africans were on board the White Lion, taken after an attack on a Portuguese slave ship. The Jamestown colony in Virginia was just upstream from Point Comfort where the White Lion docked. Slavery existed 157 years before the American Revolution (Hannah-Jones, 2019).

The Legacy of Slavery

American slavery existed for 246 years. It ended 154 years ago. Slavery has been part of American history longer than “freedom” for African Americans (Heim, 2019). Even with the technical ending of slavery, and the short period of Reconstruction during which freed slaves voted and held office for the first time, the backlash of Jim Crow laws in the South soon kept black people from any semblance of equality and equal opportunity. Only with the passage of the 1964 Civil Rights Act did any real, long-term progress toward equality begin (Hannah-Jones, 2019).

Slavery and the Birth of American Democracy

The original American sin of slavery has never left the fabric of American culture. American democracy was in large part founded by slaveholders. “Of the 55 delegates to the Constitutional Convention, about 25 owned slaves” (Mintz, 2019, para. 4). According to the Constitutional Rights Foundation web page (para. 13): “In 12 of the first 16 presidential elections, a Southern slave owner won.” American democracy was based on the constitutional compromise which counted black slaves as three-fifths of a white person for purposes of apportioning Representatives in Congress. “The compromise ensured that Southern states would ratify the Constitution and gave Virginia, home to more than 200,000 slaves, a quarter (12) of the total electoral votes required to win the presidency (46)” (Roos, 2020, Slavery and the three-fifths compromise, para. 4).

Racism allowed the American South to prosper, leaving a cultural heritage of valuing some humans far less than others. The massive inequality that exists today is in large measure due to the legacy of slavery and plantation economics. Plantation organization and accounting practices laid the foundation for Wall Street and the American style of capitalism (“low-road capitalism”) (Desmond, 2019).

Low-Road Capitalism

American capitalism is far more extreme than that of many modern countries. Unions have always been fiercely and often violently opposed. In more recent times, unions have been ferociously uncut ever since President Reagan broke the air-traffic controllers’ union (McCartin, 2011).

In a capitalist society that goes low, wages are depressed as businesses compete over the price, not the quality, of goods; so-called unskilled workers are typically incentivized through punishments, not promotions; inequality reigns and poverty spreads. In the United States, the richest 1 percent of Americans own 40 percent of the country’s wealth, while a larger share of working-age people (18-65) live in poverty than in any other nation belonging to the Organization for Economic Cooperation and Development (O.E.C.D.). (Desmond, 2019, para. 2)

Slavery, Capitalism, and the American Paradox

Matthew Desmond (2019) presents an in-depth analysis of the connection between American slavery and American capitalism. It was the massive wealth created by slavery that allowed the fledgling United States of America to pay off its Revolutionary War debts and move on to a successful financial grounding for the new country.

By the eve of the Civil War, the Mississippi Valley was home to more millionaires per capita than anywhere else in the United States. Cotton grown and picked by enslaved workers was

the nation's most valuable export. The combined value of enslaved people exceeded that of all the railroads and factories in the nation. New Orleans boasted a denser concentration of banking capital than New York City. What made the cotton economy boom in the United States, and not in all the other far-flung parts of the world with climates and soil suitable to the crop, was our nation's unflinching willingness to use violence on nonwhite people and to exert its will on seemingly endless supplies of land and labor. Given the choice between modernity and barbarism, prosperity and poverty, lawfulness and cruelty, democracy and totalitarianism, America chose all of the above. (Desmond, 2019, para. 5)

African American Life in 2019

Leonard Pitts, Jr. reflects on what is happening in America in 2019 as the 1619 beginning of the 400-year history of African American life is acknowledged.

Four hundred years later, that history deposits us here, on a monumental anniversary in the midst of a strange and unsettling time. The most nakedly racist president since Andrew Johnson. Victories long ago won being unraveled. Voting rights under assault. Unarmed black people routinely killed under color of authority. Mass incarceration devastating whole communities. The wealth gap and the health gap and the education gap yawning wide. (Pitts, 2019, para. 8)

Profound Economic Inequality

Most Americans are completely unaware of the degree of economic inequality separating black people from white people. Even worse, the economic divide is increasing. "In 2016, the median wealth of non-Hispanic white households was \$171,000. That's 10 times the wealth of black households (\$17,100) – a larger gap than in 2007" (Bialik, 2018, Black households have only 10 cents in wealth for every dollar held by white households, para. 1).

The situation is even more dire when examined through the lens of gender. Women overall makes far less than men. White women made 20% less in 2017, and 15% less in 2018 (Graf, Brown, & Patten, 2019). African American women experience double discrimination: race and gender.

According to Census data, on average, black women were paid 61 percent of what non-Hispanic white men were paid in 2017. That means it takes the typical black woman 19 months to be paid what the average white man takes home in 12 months. This gap persists despite the fact that black women participate in the workforce at much higher rates than most other women. (AAUW, 2018, para. 2)

Extreme economic inequality is a major source of prejudice in people. Many advantaged people need to believe that disadvantaged people deserve their fate because of their own inadequacies. Racial stereotypes are formulated to explain the economic differences. Conservatives are far more comfortable with economic inequalities than liberals (Smith, 2017).

Awareness of Slavery in American History

In most school systems in the United States slavery is passed over quickly when teaching the history of this country. It is not uncommon for false information to be offered. Many people don't even know that the Civil War was about the agricultural South's demand to preserve slavery unimpeded by the industrial North (Stewart, 2019).

"The failure to educate students about slavery prevents a full and honest reckoning with its ongoing cost in America" (Heim, 2019, para. 8). In the Fort Dodge Community School District in Iowa slavery is taught in depth "as fundamental to America's growth, wealth and identity" (Heim, 2019, para. 15). It would make a real difference if all the school districts across the entire United States followed suit.

Native American Genocide

Trump did not come out of nowhere. This country has a long history of abusing minorities but none quite like the legal discrimination against the original inhabitants. The Supreme Court case of the United States vs. Rogers 1846 "plenary power doctrine" took away all Native American rights.

According to this doctrine, the United States could wield power over the "unfortunate race" of Native Americans without constitutional limit. The doctrine prevented the Supreme Court from intervening, even to protect constitutional rights. It was the plenary power doctrine that provided the federal government with the authority to establish detention camps and boarding schools, to engage in family separation and to criminalize religious beliefs. (Blackhawk, 2019, p. A19)

For over a hundred years after the birth of the United States of America (and even before) warfare with the original inhabitants was ongoing as immigrants took the lands of the native people. There were no legal limits during the "Indian Wars". What is known in the modern era as war crimes, were standard American military procedure in warfare against native peoples. "As Gen. Andrew Jackson said, long before he became one of President Trump's heroes, 'The laws of war did not apply to conflicts with savages'" (Blackhawk, 2019, p. A19).

White Working Class in America

I grew up somewhere between working-class and lower middle class. My father graduated from sixth grade and my mother from eighth grade. My father was a repair man and my mother a bookkeeper. But they read newspapers and books. I grew up surrounded by books. I was educated for free from kindergarten to Ph.D. by New York City and New York State (Rabin, 2009). I always had family support and hope. My mother thought I should become a secretary, but a Junior High School

Assistant Principal called my parents in for a conference and explained to them that I was going to college.

I grew up surrounded by the working-class experience, but psychologically I am more a product of the second-generation American immigrant experience (the generation born in America of immigrant parents). Immigrants typically work very hard to give their children a chance to succeed. American born immigrant children typically want to justify their parents' hopes for them and so they too work very hard to personally succeed and justify their parents' sacrifices (Fulgini, 1997).

Working Class Despair

When generations of a family have been part of the marginal working-class, life's possibilities seem more constrained. When everyone around you seems stuck in the marginal working-class with no avenues of upward mobility available, hope can die. People can stop believing in a way out. The tendency to engage in self-defeating behaviors increases (Vance, 2016).

Anne Case and Angus Deaton (2015, 2017) have described the increase in deaths from alcoholism, drug addiction, and suicide in the twenty-first century as "deaths of despair". A 2019 report from the Joint Economic Committee of the U.S. Senate has revealed that deaths linked to the crisis of despair have doubled from 2000 to 2017 (Douthat, 2019). Case and Deaton (2020) attribute much of this despair to the loss of place that working-class people have endured as capitalism has abandoned them. Deaths of despair occur mostly in people who do not have a college degree. The data from their extensive research has led Case and Deaton to believe that America has split into two societies based on the possession or absence of a college degree. People without this critical credential have very different lives from those that do. "Those without a degree are seeing increases in their levels of pain, ill health, and serious mental distress, and declines in their ability to work and to socialize" (Case and Deaton, 2020, p. 3). Almost half of non-college degree Americans over the age of 25 are not in the labor force anymore. Meanwhile, people with college degrees are becoming both wealthier and healthier. The quality of life differential has been progressively widening as unions have diminished and decent paying jobs have disappeared.

Working Class Despair: The Black Experience

"It is these working-class Americans, white and black alike, who have seen earnings collapse, family structure disintegrate and mortality climb" (Kristof, 2020, p. SR 9). African Americans presaged the more recent collapse when they were the first fired in the 1970's and 1980's. The damage done to the African American community continues today. Green & McElwee (2018) found that people of color who were suffering from economic distress largely failed to vote in the 2016 presidential election. The people who needed the most help had given up on the process.

Low Socio-Economic Status Can Affect the Brain

Socio-economic status (SES) differences in brain function have been widely studied (Farah, 2017; He & Yin, 2016; Yaple & Yu, 2019). Particular concern has been focused on potential influences of the low SES environment on cognitive and emotional functioning. Among other issues, low SES has been associated with reward sensitivity (Gonzalez, Allen, & Coan, 2016).

The life-history model of evolution (Horn & Rubenstein, 1984) maintains that living beings existing in distressed environments are strongly motivated to go after immediate rewards. This behavior appears to be quite adaptive for survival in harsh environments. “Individuals adapting to a low SES environment may be more prone to immediate gratification of rewards (as opposed to long-term rewards), which may in turn reflect adaptive cognitive processes as well as neural plasticity regarding structure and function” (Yaple & Yu, 2019, p. 11). Undertaking a meta-analysis of research using functional magnetic resonance imaging to study activation and deactivation of reward systems and executive decision making function in the brain among lower SES individuals, researchers Zachary Yaple and Rungjon Yu concluded that “individuals exposed to low SES are less likely to have sustained executive network activity yet a greater likelihood to enhanced activity within reward-related regions” (2019, p. 1). This means that lower SES individuals are more susceptible to the allure of quick rewards because their decision-making functions are suppressed. The anterior cingulate cortex of the brain is central to impulse control and decision-making. The brains of lower SES individuals have less gray matter volume, a structural difference in the brain indicating less growth in the anterior cingulate cortex, most likely linked to epigenetic factors responding to high ambient stress during development (Bolton, Short, Simeone, Daglian, & Baram, 2019). “The quality of the social environment becomes embedded at a biological level” (Champagne, 2010, p. 299).

Low SES individuals are also more likely to respond to immediate gratification because key brain areas involved with reward (the orbital frontal cortex, dorsal lateral prefrontal cortex and hippocampus), show greater gray matter volume. Both brain function and brain structure are affected by developing in high stress, poor nutrition, and low nurturance environments. “Early adversity-induced changes in gene expression can be lifelong because of epigenetic processes involving master regulators” (Bolton et al., 2019, Epigenetic alterations, para. 3).

J. D. Vance (2016) despairs that his relatives continue to make poor choices given their limited economic resources (huge flat screen televisions, new trucks, etc.), only to lose them to repossession. The brain changes that may be caused by low SES environments could be part of the reason why his relatives “never seem to learn”. Temptation easily overwhelms reason when the brain is producing “hypoactivity within executive network regions and hyperactivity within reward-related regions” (Yaple & Yu, 2019, p. 11). Epigenetics is highly sensitive to early environmental factors in development and the limitations of the low SES environment can potentially affect the brain (Miller et al., 2009).

Folkways

Joan C. Williams (2017) confronts the attitudes displayed by many high socio-economic status (SES) liberals towards white working-class culture. She speaks of the elite folkways that leave many liberals inwardly focused on their own cultural norms while simultaneously criticizing working-class folkways. Williams' point is that we all have powerful sub-cultures that define our worldviews. American elites are just as deeply enmeshed in their folkways as any other group including "the deplorables" who are viewed as being racists, sexists, homophobes, and dangerously anti-immigrant.

Williams refers to the "professional-managerial elite" (PME) which she defines as being in the top 20% economically and having one college graduate, or more in each household. The median income which Williams uses to characterize the PME group is \$173,000 per household. Williams doesn't use the term "middle class" because in America everyone tends to identify as middle class and the term doesn't help in defining class problems. Working class families are those with incomes above the one-third who anchor the bottom of the economic scale (the poor). Working class families have incomes below the top one-fifth earners. In 2015 the median income that Williams used to define working class was \$75,000, with a range from \$41,000 to \$132,000.

Class Cluelessness

White working-class people often feel disrespected. Elites often exhibit class cluelessness when they insult millions of people by referring to things like the "fly-over states", implying that only the east and west coasts have any real importance. Many such terms are gratuitously insulting and create hostility toward the elites who espouse them. Liberals who are so sensitive to micro-aggressions and the importance of inclusiveness nevertheless often insult working class people because of class cluelessness. Disparaging comments about choices of fuel inefficient pickup trucks and huge SUV's, types of restaurants, brands of beer, country music, clothing, hairstyles, lifestyles, etc. are thoughtlessly expressed. It seems logical that everyone should want to reduce pollution and global warming. Therefore, it seems logical that buying a huge pickup truck or SUV is a bad idea. But to conservatives, a very large vehicle is about safety and a feeling of security (Hetherington & Weiler, 2018), which is very important to those who are motivated by fear rather than hope (which motivates liberals).

Justin Gest (2016, p. 3) points out that "white elites, whose antecedents may once have supported policies of exclusion and rose to elite status through prejudiced systems of education and promotion, vilify poor whites." Gest includes white working class in his designation of poor because they have lost so much economic traction compared to pre-globalization jobs.

Fluid vs. Fixed Worldviews

Liberal PME folkways center on flexibility, adaptability, creativity, rational decision-making and problem-solving, high levels of achievement motivation, delayed gratification, environmentalism, a more secular orientation, utilizing science-based data, giving one's children maximal opportunities in life, and similar traits, motives, and behaviors. Liberals are likely to be fluid, which means that they "support changing social and cultural norms, are excited by things that are new and novel, and are open to, and welcoming of, people who look and sound different" (Hetherington & Weiler, 2018, p. xiii). Liberals tend to be optimistic. It is hard for liberals to understand the worldviews of conservatives who tend to be fixed, meaning that they are "warier of social and cultural change and hence more set in their ways, more suspicious of outsiders, and more comfortable with the familiar and predictable" (Hetherington & Weiler, 2018, p. xiii). J. D. Vance (2016, p. 4) in his book on Appalachian culture, points out that survey research has determined that "working-class whites are the most pessimistic group in America." Vance describes his childhood in Kentucky and how "our neighbors had a desperate sadness in their lives" (2016, p. 142). How do optimists appreciate the motivational-emotional world of pessimists?

It is difficult for liberal PMEs to understand why people don't move to areas with jobs when factories and mines close near home? Why don't people get re-trained for the jobs that exist? Why don't they send their kids to college? In other words, why don't they have the same folkways as the elites.

White Working-Class Support Systems vs. Leaving for a Job

In *Hillbilly Elogy*, J. D. Vance (2016) describes the folkways that characterize his extended family and their friends, which he calls "a culture in crisis". The major theme is that family is the only support system that many people can truly count on. To ask a jobless person to move away from family to an unfamiliar place where there are jobs is asking that person to give up their entire support system (Hochschild, 2016/2018). Rural, low income, adolescents living in Appalachia showed greater resiliency if they have good social support from their families (Markstrom, Marshall, & Tryon, 2000).

Religion and especially their community church provide a significant support system and psychological mainstay for many white working-class people (Chua, 2018; Jardina, 2019; J. C. Williams, 2017). Leaving their community for a job elsewhere often means leaving like-minded people who provide comfort and validation. In an increasingly secularized national culture leaving one's community seems even more daunting. When the media, public institutions and large nationwide corporations urge their employees to wish customers "Happy Holidays" rather than "Merry Christmas" it can be alienating for people from homogeneous religious

communities (Raushenbush, 2013). Whereas I am thrilled with this change for myself as a Jew and most especially for my children, many deeply religious Christians see this as a terrible transgression against their core beliefs. For many white Americans, Christianity is still the “state religion” of a country founded predominantly by Anglo-Protestants (Jardina, 2019).

J. D. Vance (2016) makes an important distinction between individuals moving away from home and group migrations that bring their culture with them. Whole families and neighborhoods moved to a new location in a job rich area. Two waves of migration from Appalachian Kentucky to centers of robust economies in the Midwest have occurred, one following WWI and the other WWII. These were major social dislocations required by the return of veterans seeking jobs in large numbers. “In the 1950’s thirteen out of every one hundred Kentucky residents migrated out of the state” (Vance, 2016, p. 28). Remembering that post-war history of job migration, many PME’s wonder why people in need of jobs don’t just repeat the past solution, unaware of the difference between losing your culture and relocating your culture en masse.

Job Retraining and College

People have trouble getting retrained for jobs mostly because there are few programs available and of the existing ones few are functionally useful (Selingo, 2018). As for sending children to college, there are many places in the “fly-over states” that do not have a community college nearby. If students cannot live at home the cost of college escalates quickly. If students commute to a nearby college then a car is needed, constituting a major expense. The practicalities of working-class life are often lost on PME’s (Carney, 2019; J. C. Williams, 2017).

Working-Class Realities

Liberal PME’s assume that they are not sexist in the way that they believe white-working class men are. In the late 1980s I reviewed the state of shared childcare in two-paycheck families in America (Rabin, 1987). The results were disheartening. Women did most of the work at home, and almost all of the childcare, in addition to working outside of the home. Resistance to changing traditional sex roles around childcare is still noticeable (Sinnott & Rabin, 2012). Ironically, in the twenty-first century, it is working-class fathers who are more likely to participate in direct childcare than PME fathers (Shows & Gerstel, 2009), even though workplace inflexibility is a major source of stress for working-class and low-income fathers who provide childcare (Nomaguchi & Johnson, 2016).

Joan C. Williams (2017) is trying to enlighten liberal cultural elites regarding the structural factors that underlie both the attitudes and the behaviors of white working-class people. Typically, liberal PME's are well aware of the structural reasons for poverty. Williams hopes that liberal PME's will learn to factor in the structural factors limiting the working-class, as well.

The American Dream, the Myth of Upward Social Mobility

The American dream of succeeding on your own merits and achieving upward mobility is the central motivational and belief system for a vast number of impoverished people in the United States. Southerners are the poorest people in the country and have the least likelihood of upward mobility, but the expectation of upward mobility remains high. This does not bode well for political support for redistribution of some wealth from the very rich to the poor (P. Cohen, 2019). If the very people that need help believe that the American dream will take care of the next generation then the political interest of the poor is mitigated by their delusional belief system.

Perceptions of social mobility opportunity and attitudes toward redistribution of wealth are closely associated. Conservatives, in particular, believe that if you work hard you will achieve your goals. Conservatives also believe in the just world hypothesis (Lerner, 1980) that if someone is wealthy, they deserve to be because they have worked for it. Parenthetically, the poor are viewed as deserving of their poverty for failing to take advantage of opportunities for advancement.

Political support for redistribution of wealth is low among both conservatives who are against government hand-outs to the “undeserving” and among many poor people whose fervent belief in the American dream keeps them from focusing on wealth distribution (Alesina, Stantcheva, & Teso, 2018). Even when conservatives shifted their perceptions about social mobility, they still believed that government should do nothing to help the poor. The authors speculated that this was most likely because conservatives don't trust government intervention as an effective strategy.

Americans are more optimistic than Europeans about intergenerational mobility, and they are over-optimistic relative to actual mobility in the United States, especially about the probability of a child from a family in the bottom quintile making it to the top quintile: the “American dream.” We show that, paradoxically, optimism is particularly high in US states where actual mobility is particularly low. (Alesina et al., 2018, pp. 522–523)

The triple combination of American optimism, belief in a just world and in the American dream explains part of the political conundrum of how people can vote against their own economic self-interest. The same combination of traits is frequently part of a person's very identity. Identity can be defended by ignoring information that threatens that identity in any way.

Ironically, in less capitalistic, more socialistic countries upward mobility is far more likely than in the United States. The enormous expenditure on corporate welfare in the United States combined with favorable tax policies for the rich starve educational and community welfare systems that actually help upward mobility. “Many Americans don’t realize how unequal our society really is” (Krugman, 2019, p. A23). In the United States, parental income is the single most accurate predictor (and determiner) of the economic status of adult children (Chetty, Hendren, Kline, & Saez, 2014). Upward mobility is not likely to happen for the vast majority of poor and working-class Americans.

Racial Hierarchy and Cultural Displacement

It took until 1964 to make racial segregation illegal in the U.S. It was only in 1967 that the Supreme Court made interracial marriage legal for the entire country. For most of the twentieth century different races were kept apart by strict anti-miscegenation and segregation laws. The white social hierarchy was legally enforced. After desegregation laws were finally passed the mixing of races was sabotaged by discrimination in housing, schools and churches. Fifty-five years after the 1964 Civil Rights act was passed by Congress, housing, schools and churches in the U.S. are still mostly segregated (Meatto, 2019; Vock, Charles, & Maciag, 2019; J. C. Williams, 2017). It should not be surprising that a social hierarchy of superior white status remains embedded in much of white culture.

For those whose cultural identity and racial identity have become one (ethnic white identity) it is easy to feel threatened by immigrants and other races. For a significant group of low SES Americans their white identity is the only thing that gives them a sense of higher social status. Social change around race and overall demographic changes are therefore a potential threat to that status. “White, working-class voters who expressed fears of ‘cultural displacement’ were three-and-a-half times more likely to vote for Trump than those who didn’t share these fears” (Hasan, 2018, para. 7).

Social Identity: White, Rural, and Low Education

Ann Oberhauser, Daniel Krier, and Abdi Kusow (2019) examined the political polarization and rightward shift of voters in Iowa:

Findings indicate that rurality and two measures of social identity, education, and whiteness contributed to Iowa’s political shift in the 2016 general election and the 2018 midterm election. This research demonstrates how factors that tend to bind voters into communities of identity - rurality, whiteness, and low education – are the very factors that drive political polarization. (p. 224)

Liberal White Working-Class

The shock of the 2016 election of Donald Trump sent journalists and social science researchers into a frenzy, trying to find out what happened. Much of the “blame” came to fall on white working-class people who voted for Trump against their own best economic interests. While many white-working class people, especially men, did vote for Trump, too much emphasis has been directed toward them and not enough toward all the white working-class people who voted for Hillary Clinton. Susan Smarsh (2019, para. 2) makes the point that “white-working class” is starting to become synonymous with “the aggrieved laborer: male, Caucasian, conservative, racist, sexist”. Smarsh is from Kansas and resents her state being referred to as “Trump Country” by the media. “Most struggling whites I know here live a life of quiet desperation, mad at their white bosses, not resentful toward their co-workers or neighbors of color” (Smarsh, 2019, para. 1).

Vast numbers of white-working class liberals voted in 2016. Hillary Clinton won the popular vote by three million people. The anachronistic, anti-democratic Electoral College, extensive Republican gerrymandering, Republican voter suppression, Russian interference in the election on Trump’s behalf, and the illegal activities of Cambridge Analytica which did Trumps’ digital campaign, accounted for far more of Trump’s victory than working-class racism and sexism.

Black Working-Class

In a country saturated with a history of racism it is no surprise that the experience of the black working class has been largely ignored during the devastating economic changes brought by de-industrialization. Ironically, “the black working class has been the driving force of the U.S. labor market for many generations, and the engine driving social change” (Martin, Horton, & Booker, 2015, p. 11). Far more black people than white people are working class.

Between 2007 and 2009, this country experienced unemployment and general economic decline that has not been seen since the Great Depression, And, of course, while all Americans felt the impact of this recession, the black population was devastated. Making matters worse, during economic hard times blacks experience even greater discrimination as whites exclude them from the few job opportunities that exist. (Martin et al., 2015, p. 3)

Black or African American unemployment is persistently higher — roughly twice as high on average over time — than white unemployment. The difference between the two rates narrows when the economy is particularly strong and widens in recessions. Across data that go back to 1972, however, black unemployment in the best of times is not much better than white unemployment in the worst of times. (Center on Budget and Policy Priorities, 2019, Black Unemployment Rate, para. 1)

Traditionally, the white working class has been mostly ignored in the media. “Poor whites are for all intents and purposes invisible in the popular press and in public policy initiatives, as such images undermine the idea of white superiority and black

inferiority” (Martin et al., 2015, p. 225). Only very recently have the media discovered the white working class. *Hillbilly Elegy* and *Strangers in Their Own Land* drew a great deal of interest whereas *Lessons from the Black Working Class: Foreshadowing America’s Economic Health* was largely ignored.

“After Trump’s election, attention to the white working class turned feverish, as if understanding their problems was the surest path to reclaiming America’s soul” (Gilligan, 2017, para. 4). After mostly ignoring the white working class, suddenly the political power of this group generated intense analysis. The loss of steady factory jobs with acceptable wages for rural whites was thematic. “The economic anxiety facing black and brown workers, while arguably more profound, has been largely left out of the conversation” (Vega, 2016, para. 3).

African Americans experience the effects of economic downturns before any other group. With appropriate focus and analysis regarding the black working class, it would be possible to forecast imminent economic trouble for the whole country (Martin et al., 2015).

Middle Class Under Threat

Given stagnant wages and rising costs the middle class in American and many other modern countries has been in trouble for a long time (Leaf, 2019). Recovery from the 2008 recession has been slow and problematic (Arends, 2019). One of many crises facing the American middle class in metropolitan areas is affordable housing. Professor Lizabeth Cohen (2019) has described the situation as a complete market failure with no federal support in sight.

A recent Pew Research Center analysis also found that the wealth gaps between upper-income families and lower- and middle-income families in 2016 were at the highest levels recorded. Although the wealth of upper-income families has more than recovered from the losses experienced during the Great Recession, the wealth of lower- and middle-income families in 2016 was comparable to 1989 levels. Thus, even as the American middle class appears not to be shrinking (for now), it continues to fall further behind upper-income households financially, mirroring the long-running rise in income inequality in the U.S. overall. (Kochhar, 2018)

The Struggle to Remain Middle Class

Elizabeth Warren and her daughter, Amelia Warren and Tyagi (2016) have detailed the problems faced by families trying to stay in the middle-class. “Today’s middle-class mother is trapped: She can’t afford to work, and she can’t afford to quit” (p. 11). Bankruptcy is way up for the middle-class, especially for families with children. The distress of the middle class is caused by stagnant wages at a time when everything else is increasing in cost: housing, day care, cars, medical insurance, house and car insurance and general medical costs such as prescriptions. Added to this is the factor of job insecurity as corporations cut back on employees and the

difficulty of finding a new job that will pay at a middle-class income level (Ehrenreich, 2006).

The economic and social threats to the American middle class are mirrored in all of the modern world. If you want to understand the surge in angry politics around the developed world, from President Trump's populist politics to the U.K.'s Brexit to France's "yellow-vest" protesters, look no further than the economic plight of the middle class.

The middle class is shrinking, stagnating, and becoming less secure, even as the world enters the 10th year of economic growth and the U.S. experiences a decade-long bull market (Arends, 2019, para. 1–2).

Income Inequality: Psychological Dimensions and Implications for Democracy

There is an important psychological aspect to income inequality. Self-perception of social status is highly sensitive to income inequality. People often feel as if they are losing status not just money. The consequence of this perceived social status loss is often a decrease in life satisfaction (Schneider, 2019).

The middle class is the bulwark of democracy. Any threat to the middle class is a threat to democracy itself. Supreme Court Justice Louis Brandeis warned that "We can have a democratic society or we can concentrate great wealth in the hands of a few. We cannot have both". The massive income inequality in America today puts most of the country's wealth in the hands of just 1% of the population. This represents an oligarchy of political influence through limitless economic resources of a very small group with an immensity of power not seen since the Golden Age of the Robber Barons.

The great irony in all this is that Trump who is part of the political oligarchy was so successful in magnifying and directing the anger of the downwardly mobile middle class, as were the Brexiteers in the UK, and the yellow-vest organizers in France. Instead of blaming the true culprits producing downward mobility in the world, people strike out at what is simple, near, and emotionally satisfying. Trump's populist genius is that he even talked of how he gave money to politicians and expected favors back. He implied that he would now use his political manipulation acumen in the favor of his supporters, and they loved it. It hasn't worked out that way, but many still cling to their attachment to Trump as their savior.

Gender Issues

Traditionalists are especially uncomfortable with modern concepts of sex and gender. While Psychology as a discipline is researching the spectrum of biological sex and psychological gender that challenges the belief in just two sexes and genders (Hyde, Bigler, Joel, Tate, & van Anders, 2019), traditionalists are appalled at a science that threatens their foundational beliefs.

Patriarchy and Women

The Republican party power structure is primarily made up of older white men. White male adults of all ages are attracted to the Republican party. The barriers to women's participation in the power structure are substantial. Even an outstanding candidate such as Dr. Joan Perry, with financial backing, important endorsements, and strongly conservative views could not win in a Republican primary (Davis, 2019).

In the 116th Congress (2019–2021), of the 25 women in the Senate, eight are Republicans. In the House of Representatives, there are 13 Republican women and 89 Democratic women. Two of the 13 Republican women have already announced their retirement (CAWP, 2019). The number of Republican women in Congress is the lowest in 25 years, dropping from 23 to 13 (Och & Shames, 2019), and the gender gap is the largest in 25 years (Cottle, 2019). Under Donald Trump, the Republican party and Congressional representatives are coming to be known as primarily comprised of angry white men. “‘We’re a party of angry, older white men at a time when our country is going through tremendous demographic change,’ Republican strategist John Weaver said, predicting that the GOP would suffer the consequences in future elections” (Rucker & Costa, 2018, para. 22).

Toxic Masculinity

The traditional notion of masculinity in Western culture encourages boys and men to suppress their emotions, avoid weakness, appear tough, be dominant, be agentic, be independent, and use violence to indicate power. At no time should they embrace such stereotypic feminine attributes as nurturance, compassion, gentleness, cooperativeness, sensitivity, and emotional warmth. This notion of masculinity has come to be recognized as “toxic” because it so often leads to greater incarceration in prisons, higher suicide rates, divorce, loneliness, substance abuse, poorer health, poorer academic performance, and shorter lifespans. (Pappas, 2019; Fortin, 2019).

The only way to bring about true gender equality is to change traditional (toxic) masculinity, especially the definition of masculinity as power. If men cannot feel masculine if they have to share power equally with women, then a negative dynamic of hostility toward women's equality becomes uppermost as can be seen in the 2016 election.

Raewyn Connell (Connell & Messerschmidt, 2005) believes that there are many different kinds of masculinities based on factors such as socio-economic class, race, and local culture. However, she recognizes that “when the term toxic masculinity refers to the assertion of masculine privilege or men's power, it is making a worthwhile point. There are well-known gender patterns in violent and abusive behavior” (cited in Salter, 2019, para. 10).

Referring to Hilary Clinton and Nancy Pelosi, journalist Molly Ball (2018) points out that “A powerful woman is always defined less by what she has done than

by how she makes people feel” (p. 26). Women in power is all too often about challenging toxic masculinity rather than about being competent, trustworthy, experienced, intelligent, innovative, reliable, or any other relevant traits. It would be better all around if gender stereotypes were abandoned entirely, to be supplanted by an acceptance of individual differences in human traits. The range of human differences in traits and behavioral/emotional styles is far greater than the artificial boundaries of culturally assigned gender distinctions (Sinnott & Rabin, 2012; Rabin, 1986).

Anti-feminism of Conservatives and Especially Authoritarians

The only way to bring about true gender equality is to change the definition of masculinity as power. If men cannot feel masculine if they have to share power equally with women, then a negative dynamic of hostility toward women’s equality becomes uppermost as can be seen in the 2016 election. Raewyn Connell (2005) believes that there are many different kinds of masculinities based on factors such as socio-economic class, race, and local culture. However, she recognizes that “when the term toxic masculinity refers to the assertion of masculine privilege or men’s power, it is making a worthwhile point. There are well-known gender patterns in violent and abusive behavior” (cited in Salter, 2019, para. 10). Referring to Hilary Clinton and Nancy Pelosi, journalist Molly Ball (2018) points out that “A powerful woman is always defined less by what she has done than by how she makes people feel” (p. 26). Women in power is all too often about challenging toxic masculinity rather than about being competent, trustworthy, experienced, intelligent, innovative, reliable, or any other relevant traits.

Sexism and the Election of Trump

Sexism is a political force that has not been realistically acknowledged. There is widespread acceptance that racism and/or an authoritarian orientation account for much of Trump’s support. Recent analyses have found sexism to be a powerful factor in explaining political motivation. An analysis of support for Donald Trump in the 2016 election found that

while economic dissatisfaction was an important part of the story, racism and sexism were much more impactful in predicting support for Trump among white voters and more specifically both sexism and racism explain close to two-thirds of the educational gap among white voters in the 2016 presidential (Schaffner, Macwilliams, & Nteta, 2018, p. 10).

Emotion provides critical insight into the voting behavior of sexists. Valentino, Wayne, and Ocen (2018) found that anger was the key factor propelling sexists to vote for Trump. According to the authors, anger made the difference between sexist voters sitting the election out or voting for Trump. Those sexists who were primarily

motivated by fear showed a very different voting pattern. “Fear sharply reduced sexism’s impact on support for Trump relative to those who experienced anger” (Valentino et al., 2018, p. 213). Fear tends to have a dampening effect on behavioral motivation. Hostility toward women was the key factor driving sexist Trump support; “the more hostile voters were toward women, the more likely they were to support Trump” (Nelson, 2016, para. 3).

Benevolent sexists, who believe that women need to be protected and are naturally nurturing and compassionate, were not motivated by anger. Hostile sexists who degrade and objectify women are the ones motivated by anger (Valentino et al., 2018). Both kinds of sexism are nevertheless damaging to women. Simas and Bumgardner (2017) found that overall, white people, men, and Republicans score higher on tests of sexism as compared to people of color, women, and Democrats.

Splitting Apart/Coming Together

The election of Barack Hussein Obama as president of the United States in 2008 represented the profound impact of social change in America. Such was the power of Obama’s message of hope during the turmoil of social, economic, and technological change that it went beyond America to the world. The Nobel Prize for Peace was awarded to President Obama in 2009 for bringing hope to a world undergoing unprecedented rapid social change.

Hope was followed by fear and anger, triggered by a new president engaged in hate-mongering. A combination of racism, sexism, authoritarianism, and economic grievance high-lighted the non-adaptive reaction to social change. Trump wants to return to an earlier America. Nostalgia of this magnitude is another sign of non-adaptation to social change. The culture war between traditionalists and progressives has become extreme with an unprecedented level of political polarization. Rapid social change has brought authoritarian threat to American democracy (and many others around the world). Extreme political partisanship destabilizes democracy.

Two Cultures, One Country

Mark Hetherington and Jonathan Weiler (2018) describe two entirely different cultures in America today, with little overlap between them. The choice of cars, food, brands of beer, recreation, restaurants, music, breeds of dogs, and so much more, largely differ according to conservative or liberal culture. The presence of recycling, solar power, organic food, and bicycle lanes depends largely on whether liberal or conservative politics are predominant in a given location. People of differing political views used to live together in the same communities. Today many communities are overwhelmingly Republican or Democratic. Whole counties now can now be

characterized as blue or red. In present-day America, small population counties tend toward Republican politics, whereas counties with large populations are typically Democratic. It is possible to take a county map of the United States and color the vast majority of these counties either red or blue. The differing worldviews separating Democrats and Republicans have resulted in extreme political partisanship. Two separate societies have emerged, living uncomfortably within the same country. The body politic and the human body have this in common—cells need to communicate with one another to remain healthy... Communication between different parts of the body politic is similarly essential to maintaining a healthy democracy. When Democrats and Republicans stop talking to each other, a political sclerosis develops. That is what is happening today, and the disease is getting worse (Hetherington & Weiler, 2018, p. 60).

Coming Together

Arlie Russel Hochschild's (2016/2018) foundational work on white working-class Southern culture and social change focused attention on a neglected segment of society. More recently, Hochschild has wondered if it is possible to bridge the divide separating traditionalists and progressives.

Even among the most ardent and extreme people I met over five years of research in Louisiana, I found specific issues on which there was potential for coalition — for example, safeguarding children on the Internet, reducing prison populations for non-violent offenders, protecting against commercialization of the human genome, pushing for good jobs and re-building our rail system, roads, bridges – America's infrastructure. In fact, most of my Louisiana Trump supporters wanted to mend its social infrastructure too. (Hochschild, 2018, para. 4)

Common Ground

Many groups in America are trying to bring people locked into opposite partisan positions together to explore common ground. One such group is “LivingRoom Conversation” founded by Joan Blades, a mediation lawyer. The [Living-room Conversation](https://www.livingroomconversations.org/) website (<https://www.livingroomconversations.org/>) describes a “conversational model developed by dialogue experts in order to facilitate connection between people despite their differences, and even identify areas of common ground and shared understanding”. Groups are encouraged to form and meet eight times in different people's homes. It is even possible to participate online.

Small groups everywhere are trying to bring back the culture of respect that used to hold communities together. The point is to search out areas of agreement and connect again. Bridge Alliance (<https://www.bridgealliance.us/>) is an umbrella group bringing together over 90 small groups involved with civic engagement,

thereby providing communication opportunities between bi-partisan groups. “By itself, the simple act of crossing the partisan divide will not resolve our crisis. But it could help us slowly rebuild a nation in which we feel as if we know each other again” (Hochschild, 2018, para. 8).

References

- AAUW. (2018, August 1). *Black women and the pay gap*. Retrieved from <https://www.aauw.org/article/black-women-and-the-pay-gap/>
- Alesina, A., Stantcheva, S., & Teso, E. (2018). Intergenerational mobility and support for redistribution. *American Economic Review*, 108(2), 521–554. Retrieved from <https://www.aeaweb.org/articles?id=10.1257/aer.20162015>
- Arends, B. (2019, April 22). *Why the middle class is shrinking*. MarketWatch. Retrieved from <https://www.marketwatch.com/personal-finance>
- Badger, E., & Cohn, N. (2019, July 20). White anxiety, and a president ready to address it. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/07/20/upshot/white-anxiety-trump.html>
- Ball, M. (2018, September 17). Nancy Pelosi doesn’t care what you think of her. And she isn’t going anywhere. *Time*. <https://time.com/5388347/nancy-pelosi-democrats-feminism/>
- Beirich, H. (2019, Spring). Rage against change: White supremacy flourishes amid fears of immigration and nation’s shifting demographics. *Intelligence Report: The Southern Poverty Law Center*, 166, 35–61.
- Bialik, K. (2018, February 22). *5 facts about blacks in the U.S.* Pew Research Center Fact Tank. Retrieved from <https://www.pewresearch.org/fact-tank/2018/02/22/5-facts-about-blacks-in-the-u-s/>
- Billings, A. G., & Moos, R. H. (1981). The role of coping responses and social resources in attenuating the stress of life events. *Journal of Behavioral Medicine*, 42(2), 139–157.
- Blackhawk, M. (2019, May 27). Where the walls began. *The New York Times*, A19. Retrieved from <https://www.nytimes.com/2019/05/26/opinion/american-indian-law-trump.html>
- Blow, C. (2019, March 24). It’s bigger than Mueller and Trump. *The New York Times*. <https://www.nytimes.com/2019/03/24/opinion/trump-mueller-white-supremacy.html>.
- Bolton, J. L., Short, A. K., Simeone, K. A., Daglian, J., & Baram, T. Z. (2019). Programming of stress-sensitive neurons and circuits by early-life experiences. *Frontiers in Behavioral Neuroscience*, 13, 30. <https://doi.org/10.3389/fnbeh.2019.00030> BridgeAlliance. <https://www.bridgealliance.us/>
- Buckwalter, J. G. (2018). Why white Americans voted for Trump – A research psychologist’s analysis. *Techonomy*. <https://techonomy.com/2018/.../white-americans-voted-trump-research-psychologists>
- Carney, T. P. (2019). *Alienated America: Why some places thrive while others collapse*. New York, NY: HarperCollins.
- Case, A., & Deaton, A. (2015). Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proceedings of the National Academy of Sciences*, 112(49), 15078–15083. <https://doi.org/10.1073/pnas.1518393112>
- Case, A., & Deaton, A. (2017). Mortality and morbidity in the 21st century. *Brookings Pap Econ Act*, 2017, 397. Retrieved from <https://www.brookings.edu/wp-content/uploads/2017/08/case-textsp17bpea.pdf>
- Castle, S. (2019, March 10). Lost friends and split families: Brexit’s toll on relationships only grows. *The New York Times*, 7.
- CAWP. (2019). *Women serving in the 116th Congress 2019-21*. New Brunswick, NJ: Rutgers Eagleton Institute of Politics. Retrieved from <https://cawp.rutgers.edu/list-women-currently-serving-congress>

- Center on Budget and Policy Priorities. (2019, September 6). *Chart book: Tracking the post-great recession*. Washington, DC: Author. Retrieved from <https://www.cbpp.org/research/economy/chart-book-tracking-the-post-great-recession-economy>
- Chalabi, M. (2018, February 26). What is white culture, exactly? Here's what the stats say. *The Guardian*. Retrieved from <https://www.theguardian.com/world/2018/feb/26/white-culture-statistics-vegetables-alcohol>
- Champagne, F. A. (2010). Epigenetic influence of social experiences across the lifespan. *Developmental Psychobiology*, 52(4), 299–311. <https://doi.org/10.1002/dev.20436>
- Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, 129(4), 1553. National Bureau of Economic Research. Retrieved from <https://www.nber.org/papers/w19843>
- Chotiner, I. (2019, January 19). The disturbing, surprisingly complex relationship between white identity politics and racism. *The New Yorker*. Retrieved from <https://www.newyorker.com/news/q-and-a/the-disturbing-surprisingly-complex-relationship-between-white-identity-politics-and-racism>
- Chua, A. (2018). *Political tribes: Group instinct and the fate of nations*. New York, NY: Penguin Press.
- Cichocka, A., Dhont, K., & Makwana, A. P. (2017). On self-love and outgroup hate: Opposite effects of narcissism on prejudice via social dominance orientation and right-wing authoritarianism. *European Journal of Personality*, 31, 366–384. <https://doi.org/10.1002/per.2114>
- Cohen, L. (2019, July 11). A market failure in affordable housing. *The New York Times*, A27.
- Cohen, P. (2019, July 4). Against the odds, southerners believe in a path out of poverty. *The New York Times*, A1–A14.
- Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & Society*, 19(6), 829–859. <https://doi.org/10.1177/0891243205278639>
- Connor, R. A., Glick, P., & Fiske, S. T. (2017). Ambivalent sexism in the twenty-first century. In C. G. Sibley & F. K. Barlow (Eds.), *The Cambridge handbook of the psychology of prejudice* (pp. 295–320). Cambridge, UK: Cambridge University Press. <https://doi.org/10.1017/9781316161579.013>
- Constitutional Rights Foundation. *The constitution and slavery*. Los Angeles, CA: Author. Retrieved September 4, 2019, from <https://www.crf-usa.org/black-history-month/the-constitution-and-slavery>
- Cottle, M. (2019, June 18). Why do Republicans in Congress have so much trouble increasing the number of women in their ranks? *The New York Times*. Retrieved from <https://www.nytimes.com/2019/06/18/opinion/republican-party-women.html>
- Davis, J. H. (2019, July 11). She had fund raising, and backers in Congress, but she lost the race anyway. *The New York Times*, 20.
- de la Sablonnière, R. (2017). Toward a psychology of social change: A typology of social change. *Frontiers in Psychology*, 8, 397. <https://doi.org/10.3389/fpsyg.2017.00397>
- de la Sablonnière, R., French Bourgeois, L., & Najih, M. (2013). Dramatic social change: A social psychological perspective. *Journal of Social and Political Psychology*, 1, 253–272. <https://doi.org/10.5964/jssp.v1i1.14>
- de la Sablonnière, R., Lina, J., & Cárdenas, D. (2019). Rethinking current models in social psychology: A Bayesian framework to understand dramatic social change. *British Journal of Social Psychology*, 58(1), 175–195. <https://doi.org/10.1111/bjso.12>
- Desmond, M. (2019, August 14). In order to understand the brutality of American capitalism, you have to start on the plantation. *The New York Times Magazine*, 30–40.
- Douthat, R. (2019, September 8). The age of American despair. *The New York Times*, SR9.
- Ehrenreich, B. (2006). *Bait and switch: The (futile) pursuit of the American Dream*. New York, NY: Metropolitan Books.
- Eichengreen, B. (2018). *Economic grievance and political reaction in the modern era*. New York, NY: Oxford University Press.
- Farah, M. J. (2017). The neuroscience of socioeconomic status: Correlates, causes, and consequences. *Neuron*, 96(1), 56–71. <https://doi.org/10.1016/j.neuron.2017.08.034>

- Friedersdorf, C. (2018, November 26). Why have white women so often voted for Republicans? *The Atlantic*. Retrieved from <https://www.theatlantic.com/ideas/archive/2018/11/white-women-gop/576586/>
- Fukuyama, F. (2018). *Identity: The demand for dignity and the politics of resentment*. New York, NY: Farrar, Straus and Giroux.
- Fulgini, A. J. (1997). The academic achievement of adolescents from immigrant families: The roles of family background, attitudes, and behavior. *Child Development*, 68(2), 351–363.
- Gest, J. (2016). *The new minority: White working class politics in an age of immigration and inequality*. New York, NY: Oxford University Press.
- Gilligan, H. (2017, May 19). *It's the black working class—Not white—That was hit hardest by industrial collapse*. Timeline. Retrieved from <https://timeline.com/its-the-black-working-class-not-white-that-was-hit-hardest-by-industrial-collapse-1a6eea50f9f0>
- Gonzalez, M. Z., Allen, J. P., & Coan, J. A. (2016). Lower neighborhood quality in adolescence predicts higher mesolimbic sensitivity to reward anticipation in adulthood. *Developmental Cognitive Neuroscience*, 22, 48–57. <https://doi.org/10.1016/j.dcn.2016.10.003>
- Graf, N., Brown, A., & Patten, E. (2019, March 22). *The narrowing, but persistent, gender gap in pay*. Washington, DC: Pew Research Center. Retrieved from <https://www.pewresearch.org/fact-tank/2019/03/22/gender-pay-gap-facts/>
- Grandin, G. (2019). *The end of the myth: From the frontier to the border wall in the mind of America*. New York, NY: Metropolitan Books.
- Green, J., & McElwee, S. (2018). The differential effects of economic conditions and racial attitudes in the election of Donald Trump. *Perspectives on Politics*, 17, 358–379. <https://doi.org/10.1017/S1537592718003365>
- Grennell, A. (2018, October 6). White women, come get your people. They will defend their privilege to the death. *The New York Times*. <https://www.nytimes.com/2018/10/06/opinion/lisa-murkowski-susan-collinskavanaugh.html>.
- Hannah-Jones, N. (2019, August 18). America wasn't a democracy, until Black Americans made it one. *The New York Times Magazine*, 14–26.
- Hasan, M. (2018, September 18). *Time to kill the zombie argument: Another study shows Trump won because of racial anxieties — Not economic distress*. The Intercept. Retrieved from <https://theintercept.com/2018/09/18/2016-election-race-class-trump/>
- He, Z. H., & Yin, W. G. (2016). Family environments and children's executive function: The mediating role of children's affective state and stress. *Journal Genetic Psychology*, 177(5), 143–155. <https://doi.org/10.1080/00221325.2016.1218322>
- Heim, J. (2019, August 28). Teaching America's truth. Why haven't the nation's schools done a better job of teaching about slavery? *The Washington Post*. Retrieved from <https://www.washingtonpost.com/education/2019/08/28/teaching-slavery-schools/>
- Helms, J. E. (1995). An update of Helm's White and people of color racial identity models. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 181–198). Thousand Oaks, CA: Sage.
- Hetherington, M., & Weiler, J. D. (2018). *Prius or pickup? How the answers to four simple questions explain America's great divide*. New York, NY: Houghton Mifflin Harcourt Publishing Company.
- Hochschild, A. R. (2016/2018). *Strangers in their own land*. New York, NY: The New Press.
- Hochschild, A. R. (2018, January 19). Trump has divided the country. Some Americans are trying to bring us back together. *Time*. Retrieved from <https://time.com/5109800/political-divide-republicans-donald-trump/>
- Horn, H. S., & Rubenstein, D. I. (1984). Behavioural adaptations and life history. In J. R. Krebs & N. B. Davies (Eds.), *Behavioural ecology* (pp. 279–300). Oxford, UK: Blackwell Scientific Publications.
- Hyde, J. S., Bigler, R. S., Joel, D., Tate, C. C., & van Anders, S. M. (2019). The future of sex and gender in psychology: Five challenges to the gender binary. *American Psychologist*, 74(2), 171–193. <https://doi.org/10.1037/amp0000307>

- Islam, G. (2004). Social identity theory. In T. Teo (Ed.), *Encyclopedia of critical psychology*. New York: Springer-Verlag.
- Jardina, A. (2019). *White identity politics*. New York, NY: Cambridge University Press.
- Junn, J. (2017). The Trump majority: White womanhood and the making of female voters in the U.S. *Politics, Groups, and Identities*, 5(2), 343–352. <https://doi.org/10.1080/21565503.2017.1304224>
- Kaufman, E. (2018). *Whiteshift: Populism, immigration, and the future of white majorities*. New York, NY: Abrams Press.
- Kochhar, R. (2018). *The American middle class is stable in size, but losing ground financially to upper-income families*. Washington, DC: Pew Research Center. Retrieved from <https://www.pewresearch.org/fact-tank/2018/09/06/the-american-middle-class-is-stable-in-size-but-losing-ground-financially-to-upper-income-families/>
- Krugman, P. (2019, February 28). Socialism and the self-made woman. *The New York Times*. <https://www.nytimes.com/2019/02/28/opinion/ivanka-trump-social-mobility.html>.
- Leaf, C. (2019). The shrinking middle class. *Fortune*, 179(1), 52–55. Retrieved from <https://fortune.com/longform/shrinking-middle-class/>
- Lerner, M. J. (1980). *The belief in a just world, a fundamental delusion*. New York, NY: Plenum.
- Living Room Conversations. *Healing divides starts with conversation*. Retrieved from <https://www.livingroomconversations.org/>
- Levitin, D. J. (2014). *The organized mind: Thinking straight in the age of information overload*. New York, NY: Penguin Random House.
- Levitz, E. (2019). American exceptionalism is a dangerous myth. *New York Magazine*. <https://nymag.com/intelligencer/2019/01/american-exceptionalism-is-a-dangerous-myth.html>
- Leonhardt, D. (2019, March 19). Is Trump causing white terrorism? *The New York Times*. <https://www.nytimes.com/2019/03/21/opinion/the-argument-trump-new-zealand-attack.html>
- Lund, C. L. (2009). White racial identity development model for adult educators. *Adult Education Research Conference*. Retrieved from <http://newprairiepress.org/aerc/2009/papers/38>
- MacWilliams, M. C. (2016). *The rise of Trump: America's authoritarian spring*. Amherst, MA: Amherst College Press.
- Major, B., Blodorn, A., & Blascovich, G. M. (2018). The threat of increasing diversity: Why many white Americans support Trump in the 2016 presidential election. *Group Processes & Intergroup Relations*, 21(6), 931–940. <https://doi.org/10.1177/1368430216677304>
- Markstrom, C. A., Marshall, S. K., & Tryon, R. J. (2000). Resiliency, social support, and coping in rural low-income Appalachian adolescents from two racial groups. *Journal of Adolescence*, 23, 693–703. <https://doi.org/10.1006/jado.2000.0353>
- Martin, L. L., Horton, H. D., & Booker, T. A. (2015). *Lessons from the black working class: Foreshadowing America's economic health*. Westport, CT: Praeger Publishers.
- McCartin, J. A. (2011, August 2). The strike that busted unions. *The New York Times*. Retrieved from <https://www.nytimes.com/2011/08/03/opinion/reagan-vs-patco-the-strike-that-busted-unions.html>
- McEwen, B. S. (2012). Brain on stress: How the social environment gets under the skin. *Proceedings of the National Academy of Sciences*, 109(2), 17180–17185. <https://doi.org/10.1073/pnas.1121254109>
- Meatto, K. (2019, May 2). Still Separate, still Unequal: Teaching about schools, segregation and educational inequality. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/05/02/learning/lesson-plans/still-separate-still-unequal-teaching-about-school-segregation-and-educational-inequality.html>
- Metzl, J. M. (2019). *Dying of whiteness: How the politics of racial resentment is killing America's heartland*. New York, NY: Basic Books.
- Miller, G. E., Chen, E., Fok, A. K., Walker, H., Lim, A., Nicholls, E. F., ... Kobor, M. S. (2009). Low early-life social class leaves a biological residue manifested by decreased glucocorticoid and increased proinflammatory signaling. *Proceedings of the National Association of Science*, 106(34), 14716–14721. Retrieved from <https://www.pnas.org/content/106/34/14716>

- Mintz, S. (2019). *Historical context: The constitution and slavery*. The Gilder Lehrman Institute of American History. Retrieved from <https://www.gilderlehrman.org/content/historical-context-constitution-and-slavery>
- Morrison, T. (2016, November 14). Making America white again. *The New Yorker*. Retrieved from <https://www.newyorker.com/magazine/2016/11/21/making-america-white-again>
- Mutz, D. C. (2018). Status threat, not economic hardship, explains the 2016 presidential vote. *Proceedings of the National Academy of Sciences*, 115(19), E4330–E4339. <https://doi.org/10.1073/pnas.1718155115>
- Nail, P. R., McGregor, I., Drinkwater, A. E., Steele, G. M., & Thompson, A. W. (2009). Threat causes liberals to think like conservatives. *Journal of Experimental Social Psychology*, 45(4), 901–907. <https://doi.org/10.1016/j.jesp.2009.04.013>
- Nelson, L. (2016, November 1). *Hostility toward women is one of the strongest predictors of Trump support*. Vox. Retrieved from <https://www.vox.com/2016/11/1/13480416/trump-supporters-sexism>
- Nomaguchi, K., & Johnson, W. (2016). Parenting stress among low-income and working-class fathers: The role of employment. *Journal of Family Issues*, 37(11), 1535–1557. <https://doi.org/10.1177/0192513X14560642>
- Oberhauser, A. M., Krier, D., & Kusow, A. M. (2019). Political moderation and polarization in the heartland: Economics, rurality, and social identity in the 2016 U.S. presidential election. *The Sociological Quarterly*, 60(2), 224–244. <https://doi.org/10.1080/00380253.2019.1580543>
- Och, M., & Shames, S. (2019, January 3). Why aren't there more Republican women in Congress? *Chicago Tribune*. Retrieved from <https://www.chicagotribune.com/opinion/commentary/ct-perspec-women-congress-republicans-democrats-0104-20190103-story.html>
- Oh, I. (2019, August 6). Watch Toni Morrison explain the “Profound Neurosis” of racism. *Mother Jones*. Retrieved from <https://www.motherjones.com/politics/2019/08/watch-toni-morrison-explain-the-profound-neurosis-of-racism/>
- Pinquart, M., & Silbereisen, R. K. (2004). Human development in times of social change: theoretical considerations and research needs. *International Journal of Behavioral Development*, 28(4), 289–298. <https://doi.org/10.1080/01650250344000406>
- Pitts, L. (2019, August 24). ‘Where do we go from here?’ After 400 years, African Americans continue to walk a long and winding road. *The Miami Herald*. Retrieved from <https://www.miamiherald.com/opinion/opn-columns-blogs/leonard-pitts-jr/article234262112.html>
- Rabin, J. S. (1986). Adaptation across the lifespan: Evolution, future shock, and sex roles. In J. D. Sinnott (Ed.), *Sex roles and aging: Theory and research from a systems perspective*. Basel, CH: Karger.
- Rabin, J. S. (1987). Two-Paycheck families: Psychological responses to social change. In D. B. Carter (Ed.), *Current conceptions of sex roles and sex typing: Theory and research*. New York, NY: Praeger.
- Rabin, J. S. (2009). Survival connections and social change. In R. G. Johnson III (Ed.), *A twenty-first century approach to teaching social justice: Educating for both advocacy and action* (pp. 167–190). New York: Peter Lang.
- Roos, D. (2020). Why was the Electoral College created? *History*. <https://www.history.com/news/electoral-college-founding-fathers-constitutional-convention>
- Rucker, P., & Costa, R. (2018, October 1). ‘The trauma for a man’: Male fury and fear rises in GOP in defense of Kavanaugh. *The Washington Post*. Retrieved from https://www.washingtonpost.com/politics/the-trauma-for-a-man-male-fury-and-fear-rises-in-gop-in-defense-of-kavanaugh/2018/10/01/f48499a2-c595-11e8-b2b5-79270f9cce17_story.html
- Salter, M. (2019, February 27). The problem with the term ‘Toxic Masculinity’. *The Atlantic*. www.theatlantic.com/health/archive/2019/02/toxic-masculinity
- Schaffner, B. F., Macwilliams, M., & Nteta, T. (2018). Understanding white polarization in the 2016 vote for president: The sobering role of racism and sexism. *Political Science Quarterly*, 133, 9–34. <https://doi.org/10.1002/polq.12737>

- Schneider, M. (2019). Why income inequality is dissatisfying—Perceptions of social status and the inequality-satisfaction link in Europe. *European Sociological Review*, 35(3), 409–430. <https://doi.org/10.1093/esr/jcz003>
- Selingo, J. (2018). The false promises of worker retraining. *The Atlantic*. Retrieved from <https://www.theatlantic.com/education/archive/2018/01/the-false-promises-of-worker-retraining/549398/>
- Sharma, R. (2019, February 2). Casting their votes by voting their caste. *The New York Times*. <https://www.nytimes.com/2019/02/02/sunday-review/narendra-modi-india-politics.html>
- Shows, C., & Gerstel, N. (2009). Fathering, class, and gender: A comparison of physicians and emergency medical technicians. *Gender and Society*, 23(2), 161–187. <https://doi.org/10.1177/0891243209333872>
- Simas, E. N., & Bumgardner, M. (2017). Modern sexism and the 2012 US presidential election: Reassessing the casualties of the “war on women”. *Politics & Gender*, 13(3), 1–20. <https://doi.org/10.1017/S1743923X17000083>
- Smarsh, S. (2019, July 19). Liberal blind spots are hiding the truth about ‘Trump Country’. *The New York Times*. <https://www.nytimes.com/2018/07/19/opinion/trump-corporations-white-working-class.html>
- Smith, D. (2019, July 16). ‘His only tool is racism’: Why Trump’s bigoted tirade could be a vote winner. *The Guardian*. Retrieved from <https://www.theguardian.com/us-news/2019/jul/15/trump-twitter-aoc-racist-rant-congress>
- Smith, S. (2017, May 2). *Why people are rich and poor: Republicans and Democrats have very different views*. Washington, DC: Pew Research Center. Retrieved from <https://www.pewresearch.org/fact-tank/2017/05/02/why-people-are-rich-and-poor-republicans-and-democrats-have-very-different-views/>
- Sinnott, J. D., & Rabin, J. S. (2012). Sex roles. In V. Ramachandran (Ed.), *Encyclopedia of human behavior* (2nd ed., pp. 411–417). Cambridge, MA: Academic.
- Stewart, B. D., Gulzaib, F., & Morris, D. S. M. (2019). Bridging political divides: Perceived threat and uncertainty avoidance help explain the relationship between political ideology and immigrant attitudes within diverse intergroup contexts. *Frontiers in Psychology*, 10, 1236. <https://doi.org/10.3389/fpsyg.2019.01236>
- Stewart, N. (2019, August 19). ‘We are committing educational malpractice’: Why slavery is mistaught — And worse — In American schools. *New York Times Magazine*. Retrieved from <https://www.nytimes.com/interactive/2019/08/19/magazine/slavery-american-schools.html>
- Sullivan, J. (2019) Yes America can still lead the world. *The Atlantic*. <https://www.theatlantic.com/magazine/archive/2019/01/yes-america-can-still-lead-the-world/576427/>
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks/Cole.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Hall Publishers.
- The Editorial Board. (2019, July 15). Trump’s racist rants are too offensive to overlook. *USA Today*. Retrieved from <https://www.usatoday.com/story/opinion/editorials/2019/07/15/trump-racism-omar-pressley-tlaib-ocasio-cortez-our-view/1740646001/>
- Toffler, A. (1970). *Future shock*. New York, NY: Bantam Books.
- Toffler, A. (1980). *The third wave*. New York, NY: Bantam Books.
- Tomasik, M. J., Silberstein, R. K., & Heckhausen, J. (2010). Is it adaptive to disengage from demands of social change? Adjustment to developmental barriers in opportunity-deprived regions. *Motivation and Emotion*, 34(4), 384–398. <https://doi.org/10.1007/s11031-010-9177-6>
- Traister, R. (2018). *The revolutionary power of women’s anger*. New York, NY: Simon & Schuster.
- Valentino, N. A., Wayne, C., & Ocenio, M. (2018). Mobilizing sexism: The interaction of emotion and gender attitudes in the 2016 US presidential election. *Public Opinion Quarterly*, 82(3), 213–235. <https://doi.org/10.1093/poq/nfy035>

- Vance, J. D. (2016). *Hillbilly elegy: A memoir of a family and culture in crisis*. New York, NY: Harper.
- Vega, T. (2016, November 23). *What about the black working class?* CNN Business. Retrieved from <https://money.cnn.com/2016/11/23/news/economy/black-working-class-trump/index.html>
- Vock, D. C., Charles, J. B., & Maciag, M. (2019, January 23). How housing policies keep white neighborhoods so white: Broken homes. *Governing*. Retrieved from <https://www.governing.com/topics/health-human-services/gov-segregation-housing.html>
- Warren, E., & Tyagi, A. W. (2016). *The two-income trap: Why middle-class parents are (still) going broke*. New York, NY: Basic Books.
- Wayne, C., Valentino, N., & Ocen, M. (2016, October 23). How sexism drives support for Donald Trump. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/monkey-cage/wp/2016/10/23/how-sexism-drives-support-for-donald-trump/>
- Wetts, R., & Willer, R. (2018). Privilege on the precipice: Perceived racial status threats lead white Americans to oppose welfare programs. *Social Forces*, 97(2), 793–822. <https://doi.org/10.1093/sf/soy046>
- Wieczorkowska, G., & Burnstein, E. (2004). Individual differences in adaptation to social change. *International Journal of Sociology*, 34(3), 83–99. <https://doi.org/10.1080/00207659.2004.11043135>
- Willer, R., Feinberg, M., & Wetts, R. (2016). Threats to racial status promote Tea Party support among white Americans. *SSRN*. <https://doi.org/10.2139/ssrn.2770186>. Retrieved from <https://ssrn.com/abstract=2770186>
- Williams, J. (2017, July 10). *3 reasons why churches are still racially segregated*. Verge Network. Retrieved from <https://www.vergenetwork.org/2017/07/10/why-churches-are-still-racially-segregated/>
- Williams, J. C. (2017). *White working class: Overcoming class cluelessness in America*. Boston, MA: Harvard Business Review Press.
- Yaple, Z. A., & Yu, R. (2019). Functional and structural brain correlates of socioeconomic status. *Cerebral Cortex*, bhz080. <https://doi.org/10.1093/cercor/bhz080>
- Younge, G. (2017, November 6). My travels in white America – A land of anxiety, division and pockets of pain. *The Guardian*. Retrieved from <https://www.theguardian.com/us-news/2017/nov/06/my-travels-in-white-america-a-land-of-anxiety-division-and-pockets-of-pain>
- Woody, A., Hooker, E. D., Zoccola, P. M., & Dickerson, S. S. (2018). Social-evaluative threat, cognitive load, and the cortisol and cardiovascular stress response. *Psychoneuroendocrinology*, 97, 149–155. <https://doi.org/10.1016/j.psyneuen.2018.07.009>

Authoritarian Responses to Social Change: Psychological Mechanisms Underlying the Election of Donald Trump



Joan S. Rabin

The election of Donald Trump sent shock waves across America and the world. How could an openly sexist, racist, semi-literate, multiply bankrupt businessman and shallow television personality with no political experience, become the president of the most powerful country in the world?

The election also high-lighted the most invidious anti-democratic feature built into American democracy, the Electoral College. In the United States of America, it was not a voter majority of three million for candidate Hillary Clinton that determined the 2016 election of the president but rather an archaic system of each state having a set number of electoral college votes based on population, but undermined by a system whereby the winner gets all of the state's Electoral College votes. Only Maine and Nebraska apportion the votes. For the other 48 states it is a winner-takes—all system that empowers the many small population, mostly rural states and disempowers the large population, mostly urban/suburban states.

This archaic anti-democratic system was the result of one of the many compromises that allowed all 13 states to agree to a single American Constitution. The Electoral College was a compromise between those who wanted Congress to choose the president and those who wanted a direct popular vote. At the time of the Constitutional Convention no country in the world directly elected its leader.

The College was put forth as a way to give citizens the opportunity to vote in presidential elections, with the added safeguard of a group of knowledgeable electors with final say on who would ultimately lead the country, another limit on the burgeoning nation's democratic ideals. (Nalewicki, 2016, para. 1)

There is little acknowledgement that a majority of American voters did not elect Donald Trump. In any other democratic system in the world, Hillary Clinton would now be president of the United States. This must be taken into account when asking

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how such an unqualified candidate could be elected president. He wasn't, as far as the American people are concerned. It was the Electoral College that made Donald Trump president, not the American people.

Authoritarianism Rising

The answer to how an authoritarian like Trump could possibly be elected under any circumstances, is complex but clear. The social, emotional, and psychological consequences of rapid social change, added to the social and economic aftermath of the 2008 Great Recession (Mukunda, 2018), propelled a fierce populism with strong authoritarian underpinnings. The power of social media was hijacked while the right-wing news megaliths distorted reality and purposefully triggered anger and fear in their followers. This situation far too closely resembles the conditions that gave rise to Hitler and Mussolini (Albright, 2018; Arendt, 1951; Posner, 2018; Snyder, 2017; Stanley, 2018; Sunstein, 2018, 2019). Trump's authoritarian style is pervasive, and he closely follows much of Hitler's playbook even though he is not actually a fascist ideologue, but rather, a malignant narcissist (Albright, 2018; Mattison, 2016).

Cognitive Closure and Authoritarianism

In the 1990s social psychologist, Arie Kruglanski, created the term "need for closure" (NFC) to explain why some people will accept any answer to an important question, just to stop the discomfort of not knowing. Humans are a species in need of answers. Humans abhor being in a state of cognitive ambiguity and confusion (Zimbardo, 1969). Human cognitive motivation is all about answering the question: why? *Homo sapiens* has a profound need to understand why things happen in order to have some sense of control in the world.

"The need for closure (NFC) has been defined as a desire for a definite answer to a question, as opposed to uncertainty, confusion, or ambiguity" (Kruglanski & Fishman, 2009, abstract). Democracies around the world are experiencing populist surges and new authoritarian leaders. High need for closure, as an individual disposition, may affect people's attraction towards those (authoritarian) attitudes or ideologies that promise stability, order, powerful leadership and discipline, and towards those political parties that fulfil these criteria (Chirumbolo, 2002; Onraet, Van Hiel, Roets, & Cornelis, 2011; Roets & Van Hiel, 2006). This process is far more blatant in certain specific situations and can partially explain why conditions of social insecurity caused by rapid changes in society, or by economic or political crises, are often associated with a shift to the right of the electorate. Authoritarianism thrives on certainty. Matthew MacWilliams (2016) has determined that the trait which most predicts a Trump supporter is authoritarianism.

Motivation by Hope or Fear (and Anger)

The conventional account holds that authoritarian populists catalyze public anxiety about the changing social order and/or deteriorating national economic conditions, and this anxiety subsequently drives up support for the far right. We propose that while emotions do indeed play an independent causal role in support for far-right parties and policies, that support is more likely built upon the public's anger rather than fear. (Vasilopoulos, Marcus, Valentino, & Foucault, 2019, abstract)

Jost (2019) worked with Vasilopoulos et al. (2019) to re-analyze their data and found mutual agreement that “anger and authoritarianism both mediate the effect of fear on support for the Far Right” (abstract).

Authoritarians prey on fear and anger. Professor of political science, Bo Rothstein (2018), draws a distinction not between liberals and conservatives but rather on whether they operate with “politics based on fear versus politics based on hope” (para. 1). In both the United States and Europe today, people can be divided into “those who are geared toward environmentalism, internationalism and the extension of civil liberties against those who defend traditional authorities, established religious authorities and their own nation” (Rothstein, 2018, para. 1). Unfortunately, the former group has been using the fear of environmental collapse, to try to focus voter's attention on the problem. Rothstein advocates using the hope of environmental renewal as both more effective and just plain better in motivating people. He maintains that fear is never a good way to motivate people on either side of the political spectrum.

What is it about species *Homo sapiens* that makes us so susceptible to authoritarianism? The answer lies in our psychological make-up.

Human Social Vulnerability

Why are humans so susceptible to authoritarianism? The answer lies in our psychological make-up which evolved in circumstances very different from the rapid social change that typifies the modern era.

Finding Meaning in Life

Humans are unique in their depth of cognitive motivation. *Homo sapiens* is the only species that needs to find meaning in life. Since humans are all too aware that everyone will sooner, or later die, psychological survival demands that there be a point to living (Solomon, Greenberg, & Pyszcznski, 2015).

When individuals state that their lives are meaningful this implies that (a) they are positively committed to some concept of the meaning of life; (b) they have a framework or have derived a set of life goals, purpose in life or life view from these; (c) they see themselves as

having fulfilled or as being in the process of fulfilling their framework or life goals; (d) they experience this fulfilment as a feeling of significance. (Debats, 1996, p. 9)

Both health and longevity are improved by having a purpose in life (Alimujiang et al., 2019). How one responds to this human need to make life meaningful becomes part of personal identity. Existential need for meaning presents a deep vulnerability to those whose lives are upended by rapid social change.

Social Beings

Humans are social creatures whose very survival depends on our social attachments to family, kin, friends, and community. People are highly vulnerable to social ostracism and highly motivated toward social conformity. Everyone just wants to belong. Social identity is a potential source of self-esteem but protecting that self-esteem may lead to disparaging out-groups, even to the point of prejudice and discrimination (Tajfel & Turner, 1979).

However, being accepted and going along with whatever the group is doing are linked together in ways that can become highly problematic. People will do terrible things in groups that they would never do as individuals (i.e. lynching, rape, arson, and total property destruction).

The growth of white nationalist/white supremacy groups has been directly fostered by Donald Trump's senior policy advisor, Steven Miller, who is also Trump's chief speech writer. Miller is an active part of a political strategy that seeks to rehabilitate toxic political notions of racial superiority, stokes fear of immigrants and minorities to inflame grievances for political ends, and attempts to build a notion of an embattled white majority which has to defend its power by any means necessary. These notions, once the preserve of fringe white nationalist groups, have increasingly infiltrated the mainstream of American political and cultural discussion, with poisonous results. (Clark, 2020, para. 1)

Significance Quest Theory

Many members of extreme right-wing groups report that being deeply attached to a hate group gives their lives great meaning and purpose as well as supporting their identities (Kruglanski, Jasko, Webber, Chernikova, & Molinaro, 2018). Arie Kruglanski and his co-researchers have put forward a theory of violent extremism which they call Significance Quest Theory (SQT). This theory focuses on three factors: need, narrative, and network. The need to have meaning in life, to matter to others, and to be someone, creates an overall need for personal significance. Compared to an ideological narrative that justifies violence and a social network of people who find violence justifiable to support their beliefs, the need for personal significance is the major force underlying violent extremism.

Human beings have a fundamental, social species need to be thought well of by others. Evolutionarily derived sociality makes psychological and physical isolation highly problematic for most people. Approval of others helps to maintain social-emotional balance. “The need for significance encapsulates other needs that have been identified as definitive of the human condition, including the desires to gain respect, competence, esteem, and meaning in life” (Kruglanski et al., 2018, p. 112). If life circumstances have given an individual little opportunity for meeting these basic human psychological needs, then significance quest motivation can become dominant.

In the 1980s a white supremacist group at the bottom of the SES scale in America formed an entity called the sovereign citizens. Membership grew significantly in the aftermath of the 2008 recession which brought about both high unemployment, psychological and economic dislocation. Sovereign citizens are conspiracy theorists who see themselves as revolutionaries fighting against an illegitimate government rather than as powerless and unimportant in American society (Chua, 2018). Ironically, African Americans also join the sovereign citizens, not realizing the racist roots of the organization.

Working Class Despair

A possible alternative to dying of despair through alcohol and/or drug addiction, or from committing suicide (Case & Deaton, 2017), is to find meaning in belonging to a vibrant and empowering social movement. The allure of white nationalist extremist groups can counter the sense of hopelessness felt by some desperate economically stressed people. “Despair as a sociological phenomenon is rarely permanent: Some force, or forces, will supply new forms of meaning eventually. And it matters not only that this happens, but which forces those will be” (Douthat, 2019, p. SR9).

The Enormity of the Great Recession of 2008

In the US alone, the great recession erased about \$8 tn in household stock-market wealth and \$6 tn in home value. From 2003 to 2013, inflation-adjusted net wealth for a typical household fell 36%, from \$87,992 to \$56,335, while the net worth of wealthy households rose by 14%. Workers without college degrees and low-income Americans were especially hard hit.

In addition to causing such widespread deprivation, the 2008 crash stripped the sheen off global capitalism. Just as the Iraq war undermined the authority of the US foreign policy establishment, so did the financial crisis discredit the bankers, asset managers, ratings agencies, and regulators responsible for running the world economy. Compounding that damage was the government’s decision to bail out many of the same institutions – Bank of America, Citigroup, Goldman Sachs, JPMorgan Chase and Wells Fargo – that had caused the crisis. (Massing, 2020, para. 8–9)

Political Consequences of the Great Recession

Barack Obama gave people hope, Donald Trump gave people a promise of escape from despair and encouragement to vent their rage. Neither was successful in directly bettering the majority of those lives suffering the greatest economic and social devastation by the Great Recession (December 2007–June 2009). The Center on Budget and Policy Priorities created a chart book tracking the economic downturn. “It shows how deep a hole the Great Recession created — and how much deeper that hole would have been without the financial stabilization and fiscal stimulus policies enacted in late 2008 and early 2009. And it documents the return to stronger labor market conditions by the end of the period” (2019, para. 2). Despite the economic salvation that Barack Obama’s policies provided for the country, and the avoidance of another Great Depression, the perception of most Americans was that the banks that caused the recession were bailed out by the government while they were left to suffer.

Political Consequences of the Great Recession Bank Bailout

The bailout of the very banks that had caused the Great Recession by their greed and lawlessness, infuriated most Americans. “Fundamentally, the American (and world) economy was crippled by the actions of the leaders of the American financial sector, and the U.S. government chose to “punish” those leaders by giving them enormous sums of money through bailouts” (Mukunda, 2018, para. 4). It doesn’t matter whether this was good economic policy or even that the recovery from the Great Recession has finally begun to happen. People care very much about fairness and what happened cannot be justified as fair by any standards.

Justice is generally conceived of in one of two ways. The first, and more common, one is that justice is fairness. In a fair world, good behavior is rewarded and bad acts (usually meaning acts that contravene generally accepted norms) are punished. Economists and people with significant training in economics, however, often conceive of justice as efficiency — that is, the just outcome is the one that maximizes welfare. Although this is how economists often see it, most people have a very different perspective. Psychology experiments show that most people — and even monkeys! — believe that justice is fairness, and believe it so strongly that they will pay significant costs to protest unfair outcomes. People given the chance to punish someone who has betrayed them in a game, for example, will generally take it even if doing so leaves them worse off. They explicitly choose fairness over efficiency. (Mukunda, 2018, para. 5)

Gautam Murunda, in this excerpt from the Harvard Business Review, is referring to two important experiments on fairness and justice. Capuchin monkeys will become enraged if a monkey in an adjacent cage is given a better reward for the same behavior (Brosnan, 2013). This research emphasizes that there is an evolutionary history to the development of a sense of fairness in primates, including the human primate (Hetzer & Sornette, 2013). Economists rely heavily on the “Ultimatum Game” created by Güth, Schmittberger, & Schwarze, 1982 to examine

how differing variables affect fairness and punishment in people (Güth & Kocher, 2013).

Because fairness and justice are so ingrained in the human species, the bank bailout still rankles, leaving major political consequences. The aftermath of the Great Recession is still being felt by many, both emotionally and financially.

During the depression of the 1930s, Americans turned to the federal government for aid in their economic recovery. But in response to the Great Recession of 2008, a majority of Americans turned away from it (Hochschild, 2018, p. 8).

The Media and Politics

Media coverage of politics breaks down into very different formats. Legacy media are the traditional major newspapers and television networks (ABC, CBS, NBC, and PBS). The digital world has exploded with social media communication outlets beyond Email: YouTube, Twitter, Facebook, Snapchat, and Instagram. Cable and satellite television have brought every manner of specialty channel including news networks that silo conservative or liberal perspectives.

Donald Trump has called the media “the enemy of the people”, a profound authoritarian attack on democracy. However, Trump excludes Fox news from this condemnation. He loves Fox news, watches it pretty much exclusively, and for much of the day.

Rupert Murdoch’s Media Empire

Jonathan Mahler and Jim Rutenberg (2019) of *The New York Times* have investigated the media power brokering of Rupert Murdoch and his sons. Three major world democracies are being continuously undermined by Murdoch’s media empire of newspapers and television networks (Great Britain, Australia, and the United States). Murdoch fiercely advocated for Brexit, filling the news with lies that convinced many Britons that severing ties with the European Union was in their interest. Murdoch is so powerful in Australia that he succeeded in getting the country’s carbon tax repealed “and pushed out a series of prime ministers whose agenda didn’t comport with his own” (Mahler & Rutenberg, 2019, I love all my children, para. 3).

Dan Cassino (2016) has written a book on the influence of Fox News on American politics. According to Cassino, Fox News determined the fate of the various candidates for president in the 2012 Republican presidential primary. Sadly, for democracy, exposure to Fox News makes Americans less knowledgeable about complex information. Fox News is also a major source of conspiracy theories that have no basis in fact (Cassino, 2016).

Murdoch’s Fox News gave Trump the unwavering support he needed to win the presidency. Without Fox News to interpret and translate, Trump would have been far less likely to sway so many people with his irrational tirades.

Race in America According to Fox (State-Run) News

Donald Trump listens to Fox news obsessively. It is his only major source of information. In many ways Fox news functions as state-run television (Duffy, 2019). It echoes and supports pretty much everything that Trump says. But Fox commentators go farther. They set political policy for Trump by advocating certain positions or criticizing others (Mayer, 2019).

Donald Trump's 2016 election was based on race and perceived threat (Buckwalter, 2018; Cohen, Fowler, Medenica, & Rogowski, 2017; Knowles & Tropp, 2018). Trump has continued his open racism (Lopez, 2019) abetted by Fox news, where racism is redefined, denied, toned down, and distorted.

For the uninitiated, here are the some of the main features of the racial narrative Fox and other conservative outlets weave:

- Actual racial discrimination against African Americans and other minorities is largely a thing of the past.
- The most common victims of racial discrimination today are white people, who are regularly elbowed aside by minorities given government benefits they don't deserve.
- Liberals constantly accuse conservatives of being racist with zero justification, an accusation that can be impossible to refute.
- When minorities criticize government policy, it shows they are unpatriotic and "ungrateful."
- People of color are held back by their own pathologies.
- Democrats are The Real Racists, which is proven by the fact that their party was pro-slavery during the Civil War and many twentieth-century segregationists were Democrats (Waldman, 2019, para. 5).

TrumpXplainers

Conservative newspaper columnist, Bret Stephens uses the term "TrumpXplainers" to describe certain political pundits, many from Fox News (Sykes, 2017), who try to make sense of the word salad from Trump's speeches. For instance, Trump would give a speech or offer an answer in a debate that amounted to little more than a word jumble.

But rather than quote Trump, or point out that what he had said was grammatically and logically nonsensical, the TrumpXplainers would tell us what he had allegedly meant to say. They became our political semioticians, ascribing pattern and meaning to the rune-stones of Trump's mind. (Stephens, 2017, para. 62, 63)

Mainstream Media Collusion

Matthew MacWilliams (2016) details how even the legacy media wound up inadvertently supporting Trump during the 2016 election by giving him inordinate amounts of coverage, because they made money doing it. Trump is vastly entertaining in his

manner and the muck he puts out, grabs attention and media coverage (Stephens, 2017). Margaret Sullivan (2019a, 2019b) is highly critical of the mainstream media for soft pedaling much of the racist, sexist, homophobic, islamophobic, anti-immigrant, generally inflammatory, and profoundly anti-democratic things that Trump regularly says. Sullivan urges the media to stop using euphemisms for the openly racist, sexist, homophobic, and just plain stupid things the president says. The media need to challenge the president more directly and more often on his daily litany of false statements. Even if journalists and news media do fight back, nothing can stop Trump's negative pall on the country "but it may help an overwhelmed and numbed public find renewed reason to care" (Sullivan, 2019a, para. 31).

Trump's vicious nicknames for opponents are a personal specialty. "Crooked Hillary" damaged Hillary Clinton in the 2016 presidential race. "Lyn' Ted" was effective in diminishing Ted Cruz during the Republican primary. Currently, Trump is calling Joe Biden, former Vice President of the United States, "SleepyCreepy Joe". In 2019, Biden polled higher than any other Democratic primary candidate when pitted against Trump for the 2020 presidential campaign.

The worse the perceived political threat, perhaps, the more vicious the nickname. (Sullivan, 2019b, para. 15).

Trump's nicknames are strangely appealing to many voters. The news media are automatically attracted to attention getting phenomena. Trump's nicknames are ready made for "newsiness". Mainstream, traditional news outlets cover Trump-made nicknames right along with the right-wing companies, Fox News, Breitbart and Drudge Report. Margaret Sullivan takes Trump nicknames very seriously. "They are often false and always meant to bully. And the news media must stop trafficking in them." (Sullivan, 2019b, para. 11).

The Media and Donald Trump's Deep Narcissism

Many psychologists and psychiatrists have called attention to the narcissistic grandiosity openly and consistently displayed by Donald Trump (Buser & Cruz, 2017; Cole, 2019; Garau, 2017; Gartner, 2017; Lee, 2017). George Conway, Washington attorney and political conservative who was considered for two positions in the Trump administration, now accuses Trump of dangerous foreign policy, based on Trump's "pathological narcissism." Conway calls out to the media to focus more actively on the narcissism problem (CNN Business, 2019). In a July 11 Tweet, Conway focuses on President Trump having described himself as "so great looking and smart, a true Stable Genius" (Budryk, 2019, para. 3).

New Tools for Undermining Democracy

A plethora of new politically relevant terms have appeared in online and broadcast media.

To understand how political influence is exerted through social media, new language is necessary. But this is not just about vocabulary. The concepts generated by these terms have profound implications for democracy.

Totalitarianism is made far easier by access to these new tools as the Russian manipulation of the 2016 election makes evident. “A meticulous analysis of online activity during the 2016 campaign makes a powerful case that targeted cyberattacks by hackers and trolls were decisive” (Mayer, 2018, para. 1).

Deepfake

The name is a combination of deep learning and fake. Deepfakes are videos that have been altered by highly sophisticated artificial intelligence techniques (deep learning tools). It is now easy to superimpose any person’s face over a face on an existing video and add audio to the existing video. The technology has been updated to such a high level using a technique called generative adversarial network, that the altered video appears entirely authentic. To achieve this end requires both time and training (Guera & Delp, 2018).

FSGAN

Face swapping general adversarial network (FSGAN) is a breakthrough technique that allows deepfakes to be created very quickly and easily. On August 16, 2019 researchers Yuval Nirkin, Yosi Keller and Tal Hassner announced to the cyberworld that a game changing technology now exists that has huge political implications.

Face swapping is the task of transferring a face from source to target image, so that it seamlessly replaces a face appearing in the target and produces a realistic result. ... Face reenactment (aka face transfer or puppeteering) uses the facial movements and expression deformations of a control face in one video to guide the motions and deformations of a face appearing in a video or image. (Nirkin, Keller, & Hassner, 2019, Introduction, para. 1)

Because FSGAN can do face swapping and face reenactment simultaneously it is no longer necessary to be trained in GANS. Non-experts can now quickly create deepfakes. This means that the abuse of their technology for political manipulation is going to happen much more frequently than in the past. FSGAN can operate in real time. The implications for the 2020 American presidential election as well as the congressional elections is profoundly concerning. Reality and truth will be even more distorted than in the current media manipulations.

Bot

The name bot comes from robot but unlike robots, bots have no physical presence. They are computer programs, or software applications, that are capable of invading the internet with continuous bombardments of repetitive information. Bots can

sound like humans and can be interacted with. Apple company's voice application, Siri, is a bot (Mitroff, 2016).

Bots can also enter the media world as "tweets" that go out to enormous numbers of twitter accounts (Baraniuk, 2018). Information is politically skewed to engage voters and encourage them to "retweet" the message, thereby further spreading dis-sension, falsehoods, and hacked or leaked politically sensitive information.

Spambots

A spambot is a computer program specifically designed to gather e-mail addresses from the Internet, with the purpose of creating mailing lists for sending unsolicited e-mail, or "spam". Spambots can acquire e-mail addresses from a variety of sources including, conversations from online chat-rooms, Web sites, newsgroups, and even postings from special-interest groups (SIG) (Whatis.com, 2020). If the activities of a bot are malicious then it is a spambot. Spambots are a major cause of breaches in computer security (Vincent, 2017).

Memes

Memes most closely resemble traditional political cartooning. They use humor to either support or belittle a candidate (Flynn, 2019). Captioned photos are the most common form. The key to memes is that they spread very quickly on social media (Gill, 2019).

The sociobiologist, Richard Dawkins (1976) introduced the word meme to evoke imitation. He described memes as being the cultural transmission of special information, passed rapidly from individual to individual.

Alt-Right

Alternative right (Alt-Right) refers to extreme conservatives who have typically endorsed racism, white supremacy, nativism, anti-Semitism, anti-feminism, and homophobia. "The Alternative Right is characterized by heavy use of social media and online memes. Alt-righters eschew 'establishment' conservatism, skew young, and embrace white ethnonationalism as a fundamental value" (Southern Poverty Law Center, 2017, para. 1). The Alt-Right is deeply offended by political correctness which is perceived as limiting the freedom to behave as they wish (Benko, 2017).

Trolls

Trolls are individual human beings who post material online with the intent to make readers angry; they are baiting them. Trolls clearly identify themselves and happily make trouble with inflammatory messages. They can be of any political persuasion

or none, but mostly trolls are right-wing extremists, the Alt-Right, and neo-Nazis (Benko, 2017).

The Alt-Right tribe of trolls come through three online troll-distribution centers: 4chan, 8chan, and Reddit (Abramson, 2017). An alt-right troll will be obsessed with the Second Amendment even if they've never held a gun; to an alt-righter, gun-toting Americans are metaphors for America's commitment to a unique, frontier-like society in which personal freedoms are *religiously* prized (Benko, 2017, para. 8).

An even more disturbing issue is that the evidence strongly indicates that Russian government trolls and hackers swung the 2016 to Donald Trump (Jamieson, 2018; Mayer, 2018). In a book called *Cyberwar*, professor of Communications, Kathleen Jamieson (2018) documents how Russian trolls targeted white Christians and military veterans to stir them up and orient them toward Trump, while simultaneously demobilizing African Americans and Sanders supporters with defeatist messages to keep them from supporting Hilary Clinton. The Russian government ran a troll factory that employed vast numbers of gifted young hackers and trolls. "Fear appeal was a key feature of the troll messaging" (Jamieson, 2018, p. 37).

Sockpuppets

Unlike trolls, sockpuppets enter online media with false identities. They are often employed in huge numbers (especially by the Russians) to bombard the internet and appear to be local individuals when in fact they are paid to influence the electorate in another country than their own. The political purpose is to rile voters and divide the electorate into extreme opposing factions that loathe each other. Sockpuppets manipulate voters and spread highly damaging false information. In the case of Russia, Vladimir Putin's purpose is to undermine democracy, particularly American democracy (Poole, 2018).

Catfishing

Catfishing is creating a fraudulent online identity. From the 1970s through the 1990s Donald Trump assumed the false identity of John Barron, or John Miller to praise himself to New York City reporters (Fisher & Hobson, 2016). If Trump had used the internet rather than the telephone, he would have been catfishing.

Astrourfing

Astrourfing is a powerful tool that lets senders of an online message hide their true identity and make it appear that the message is from grassroots sources. Astrourfing is meant to enhance the credibility of certain organizations by making them look popular among ordinary people.

“In recent years, sockpuppets, spambot armies and astroturfing have become valuable tools for governments all over the world to influence public opinion, stifle dissent, and spread misinformation” (Trewinnard, 2016, para. 7). The danger these technologies presented in undermining the 2016 American presidential election will be even greater in the 2020 election.

Doxing

Doxing began in the early 1990s as an internet means of giving out private information about a person in order to harass or intimidate them. Initially it was often used against women to frighten them. Political use of doxing has recently emerged to attack politicians and urge others to join in (Schneier, 2015).

Witnesses called to testify at Trump’s impeachment trial were attacked by Trump.

Former White House national security official Fiona Hill testified that she is facing online harassment and doxing amid the widely tweeted hearings (Frazen, 2019, para. 16).

“Snowflake”

“Snowflake” is a political insult typically used by conservatives. It is meant to suggest fragility while also being emasculating (Hess, 2017). Conservative men like to think of themselves as rugged macho Westerners compared to the feminized East Coast liberals. Lately, conservatives complaining of being treated unfairly are being labeled snowflakes by laughing liberals. “Today’s tough-guy posturing seems rooted paradoxically, in threat and fear: fear of defeat, fear of lost status and fear that society is growing increasingly ill-suited to tough guy posturing in the first place” (Hess, 2017, p. 13).

Political Tropes

Tropes are used in literature as a colloquial figure of speech, either a single word or a whole phrase that means something different from its literal meaning. Tropes can be demeaning such as referring to women as “chicks”, or awe-inspiring such as “fortress America.” Tropes are repeated frequently because they work by connecting to our experiences and/or emotions. “There is much more to tropes and schemes than surface considerations. Indeed, politicians and pundits use these language forms to create specific social and political effects by playing on our emotions” (Rhetorica, n.d., para. 1).

Tropes have taken on a new meaning in political communication because of the power of repetition. Donald Trump uses the word “other” as a trope by creating a world of us and them, where them is the “other” that he will protect us from them.

On July 14, 2019, Trump tweet-attacked four Democratic congressional representatives who are liberal women of color by using the well-worn trope of “go back”:

Trump’s latest words crossed a new line, sounding more clearly like something out of a white supremacist handbook demanding that people of color “go back” to their home countries. Never mind that three of the four women Trump attacked were born here. Never mind that their families may have been in the U.S. longer than Trump’s own family has. (Cardona, 2019, para. 13)

Although tropes are defined as non-literal terms, “go back” has become a functional trope by endless repetition against immigrants and African-Americans for generations in the United States. On July 19, 2019, Representative Alexandria Ocasio-Cortez worked a new twist on an old trope when she tweeted, “The GOP wants to send us back: Back towards injustice, Back to the denial of science, Back to the times when women needed permission slips from men, Back to racism - But we won’t go back. We will move forward” (Sharif, 2019, para. 12).

Dog Whistle

Dog whistles are coded language meant to be understood only by the targeted audience in the same way that a high frequency dog whistle can be heard by dogs but not people. Trump’s “birther” movement questioning Barack Obama’s country of birth seemed silly to many people but to Trump’s ardent followers it was a racist dog whistle telling them that Trump was fighting for white people against people of color (Scott, 2018). Dog whistles are based on racial, ethnic, gender, sexual orientation, religious affiliation, and other stereotypes.

Following the impeachment of Donald Trump by the House of Representatives, Adam Schiff, the chair of the House Intelligence Committee was threatened by Trump.

Many presidents in history had dogs. This current one has a dog whistle. Americans witnessed it shown in a raging Sunday morning tweet about Adam Schiff, calling him a “corrupt politician” and probably a “very sick man” who has “not paid the price” for “what he has done” to our country (Israel, 2020, para. 1).

What Trump is dog whistling to those of his followers who are violent extremists, is that they should go after Adam Schiff. That is exactly what one of Trump’s extremist followers did in October, 2019 when he threatened to kill Schiff and was arrested and found to have two hand guns, a tactical rifle and 700 rounds of ammunition (Mordock, 2020). Given this history, it is clear the Trump knows exactly who he is whistling to and what tragedy might ensue.

The White House also tweeted a quote questioning the judgment and loyalty of Lt. Col. Alexander Vindman, a National Security Council Ukraine specialist, during his public testimony ...

The Army has taken steps to keep Vindman safe, an official told The Wall Street Journal. Officials told the paper the Army is ready to move him and his family onto a military base if they are in danger. (Frazen, 2019, para. 11, 15)

The dog whistle “loyalty” is a trigger for Trump extremists who value loyalty highly and are hostile toward disloyalty. Trump has made it abundantly clear that he expects absolute loyalty, even Medieval-style fealty, from everyone in the entire Washington administration (Parker, 2020). By questioning Lt. Col. Vindman’s loyalty, Trump is sending a very dangerous whistle to his followers and the Army knows it.

Flying Monkeys

Donald Trump is clearly an abusive narcissist who attacks and victimizes anyone who threatens him. Those who join in to support him and also attack the victim are called flying monkeys because they resemble the flying monkeys from the *Wizard of Oz* who carried out the evil intentions of the Wicked Witch of the West.

The epidemic of narcissism-enabling weakens the fabric of democracy, of community, of justice, and of healthy relationships. The toxic relational impacts of narcissism are being felt more and more, and even if you have somehow steered clear of any significant relationships with narcissists in your own life – you still see the news, scan the headlines online, and see social media posts. None of us are immune from being exposed to these toxic patterns.

When the flying monkeys are on Capitol Hill, the houses of Parliament, and corporate boardrooms, then all of us are at danger. It’s the proverbial fox in charge of the henhouse. Concepts such as checks and balances start to feel quaint. And an anxiety starts to creep into all of us, the anxiety that happens when leadership goes missing, and manipulation becomes the norm. (Durvasula, 2019, para. 6, 7)

Post-Truth: Lies and Cognition

In 2016, following the Trump and Brexit campaigns, the Oxford Dictionaries designated “post-truth” as the “word of the year” and defined it as, “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.” Lee McIntyre in his book *Post Truth* (2018) describes our current political situation as getting closer and closer to resembling George Orwell’s *1984*: “Truth is the first casualty in the establishment of the authoritarian state (p. 4).”

Lies

“Lies — especially repetitive lies — are a crucial part of how propaganda works. Truth is a basic part of a functioning democracy” (Sullivan, 2019a, para. 13). As of January 20, 2020, *The Washington Post* Fact Checker database indicates that

Trump’s “false or misleading claims” numbered 16,241 since taking office 3 years past (Kessler, Rizzo, & Kelly, 2020).

From April 26, 2019 to August 5, 2019 Trump’s lies increased to an average of 20 times a day (Einenkel, 2019). Some of Trump’s most repeated lies—meaning he’s repeated them well over 100 times—include:

- How Trump’s “wall” is being built bigger and faster “than ever.”
- How unemployment is the lowest ever for everyone.
- China has been stealing money from America.
- The investigation into Russia’s election meddling is a witch hunt with no merit.
- Democratic Party wants to open all the borders and flood our social services with Mexicans.
- He’s strengthened the military after years of “depletion.” (Einenkel, 2019)

Donald Trump seems incapable of not lying even about the simplest things, such as the country of his father’s birth. “My father is German — was German”, Trump said. “Born in a very wonderful place in Germany, so I have a great feeling for Germany.” (Blake, 2019, para. 3). Fred Trump was born in the Bronx! (Bump, 2019).

On December 18, 2019 Donald J. Trump, 45th president of the United States, was impeached by the House of Representatives of the United States Congress. The articles of impeachment were abuse of power and obstruction of Congress (Walters, 2020). In October and November of 2019, Trump told 2062 lies, mostly about the Ukraine investigation which formed the basis of the impeachment inquiry. Trump kept denying that he urged the president of Ukraine to announce that an investigation of a political rival (Joe Biden) was underway, despite clear evidence to the contrary (Kessler et al., 2020). Because of Republican dominance in the United States Senate and the complete intransigence of Majority Leader, Mitch McConnell, only a single Republican senator, Mitt Romney, voted to impeach Donald Trump. Trump will stay, and his legacy of lies continue to haunt democracy.

The Big Lie

Joseph Goebbels, Hitler’s propaganda minister, was the author of the “Big Lie” that the Jews were responsible for all of Germany’s troubles, especially WWI and its aftermath of economic depression, and then WWII. The key to making the big lie work is endless repetition.

Regarding the Jewish question, the Fuehrer is determined to clean the table. He prophesized that should the Jews once again bring about a world war, they would be annihilated. These were no empty words. The world war has come, therefore the annihilation of the Jews has to be its inevitable consequence. The question has to be examined without any sentimentality. We are not here to pity Jews, but to have pity for our own German people. If the German people have sacrificed about 160,000 dead in the battles in the east, the instigators of this bloody conflict will have to pay for it with their lives. (Goebbels’ diaries, Part II, Volume 2, p. 498—entry for December 13, 1941, cited in Jewish Virtual Library, <https://www.jewish-virtuallibrary.org/joseph-goebbels-on-the-jewish-question>)

The big lie works so well because people tend to feel that no one could make up something so overwhelming. It has to be true precisely because it is so compelling.

From the pages of the New York Times to USA Today, the New Statesman to the New Yorker, a fear exists that the United States is about to fall under the spell of the Big Lie — a lie so big that it could disrupt the entire social order (Jacobson, 2018, para. 1).

The Republican National Convention in August 2020, relentlessly pursued the new Big Lie that Democrats are the party of chaos and anarchy (Skelley, 2020) while Republicans bring about safety and security through law and order. Trump is depicting the Democratic party as being anti police, and accused Joe Biden of supporting the “defunding” of police departments (Kessler, 2020). A massively funded Republican ad campaign has depicted the police as non-functional because of Democratic party sponsored defunding: “Joe Biden’s supporters are fighting to defund police departments. Violent crime has exploded. You won’t be safe in Joe Biden’s America” (Kessler, 2020, p. 1).

Cumulative Little Lies

Zachary Jacobson (2018) argues that it is not the Big Lie that people have to worry about but rather the toll the endless little lies are taking on our psychological well-being. American society is being buried under a Tsunami of daily lies coming from president Trump’s seemingly endless Tweets.

What we should fear today is not the Big Lie but the profusion of little ones: an untallied daily cocktail of lies prescribed not to convince of some higher singularity but to confuse, to distract, to muddy, to flood. Today’s falsehood strategy does not give us one idea to organize our thoughts, but thousands of conflicting lies to confuse them. (Jacobson, 2018, para. 2)

What is at risk in this endless onslaught of presidential lies is that truth no longer functions as the foundation for a common reality. “Facts and logic gradually become more and more attenuated, indistinguishable in a world so full of little lies” (Jacobson, 2018, para. 15). Under such conditions democracy itself is being progressively undermined.

The Philosophical Theory of Bullshit

Harry G. Frankfurt (2005), Professor *Emeritus* of Philosophy at Princeton University, has written a pithy tome dedicated to creating a first theory of bullshit in modern culture. His theory is directly relevant to both politics and psychology in that it is based on a concern with truth. In an age of “alternative facts” (Wedge, 2017, para. 3) the very notion of truth is becoming destabilized. Frankfurt says that “... this lack of connection to a concern with truth---this indifference to how things really

are--that I regard as the essence of bullshit” (2005, pp. 33–34). In a philosophical sense, Donald Trump is not continuously lying but rather he is bullshitting.

According to Frankfurt, lying requires a complete knowledge of the truth so that the lie can be expertly crafted. Donald Trump does not operate from a substantial knowledge base and has only a passing relationship to the truth and therefore is typically bullshitting rather than lying.

The amazing thing about Frankfurt’s treatise is that it was written well before the 2016 presidential election, yet there are key observations that characterize Trump exactly. The bullshitter “... does not reject the authority of the truth, as the liar does, and oppose himself to it. He pays no attention to it at all” (2005, p. 61).

The bullshitter ... is neither on the side of the true nor on the side of the false. His eye is not on the facts at all, as the eyes of the honest man or of the liar, except insofar as they may be pertinent to his interest in getting away with what he says. He does not care whether the things he says describes reality correctly. He just picks them out, or makes them up, to suit his purpose (Frankfurt, 2005, p. 56).

Bullshit is unavoidable whenever circumstances require someone to talk without knowing what he is talking about. Thus, the production of bullshit is stimulated whenever a person’s obligations or opportunities to speak about some topic exceed his knowledge of the facts that are relevant to that topic. (p. 63)

Weaponized Lies

Daniel Levitin (2016, p. xx) examines the cognitive consequence of living in a “post-truth era.”

We’ve created more human-made information in the past five years than in all of human history before them. Found along things that are true is an enormous number of things that are not, in websites, videos, books, and on social media, ... The unique problem we face today is that misinformation has proliferated and lies can be weaponized to produce social and political ends we would otherwise be safeguarded against.

One of the reasons that lies can so easily delude many people is the lack of critical thinking and general lack of good education prevalent today. The ability to make good decisions based on reliable information has been badly undermined.

Counterknowledge

Levitin points out that it used to be easier to judge the authenticity of information. Books published by major companies and articles in respected newspapers or refereed journals looked authentic. For so many in the current era, information comes over the internet. “A crank website can look as authentic as an authoritative, fact-checked one” (Levitin, 2016, p. xix). So even if someone is trying to avoid confirmation bias by seeking out a wider array of information using the internet, the accuracy of that information may be hard to determine.

Counterknowledge is a term conceived by Damien Thompson (2008) to describe how misinformation is cleverly presented as fact and believed by millions of people such that society is now “facing a pandemic of credulous thinking” (p. 1). Vulnerability to misleading information has greatly increased because of the internet.

Gaslighting

Emotion is the key to gaslighting. In order to gain power over a person the gaslighter is able to undermine how reality is viewed. A person is made to question their own reality. “Feelings, not fact are essential to good gaslighting” (Carpenter, 2018, p. 167). Donald Trump was able to make outrageously false claims about the size of attendance at his inauguration. He insisted that he secured the popular vote in the election when (non-existent) voter fraud was factored into the count. He could do this because he had already undermined voter’s sense of reality with continuous very large lies throughout his campaign and before. Trump started his birther controversy lies about President Barack Obama back in 2011 (Tatem & Acosta, 2017). By ignoring truth, and evoking concepts like “alternative truths”, Trump has successfully gaslighted a sizeable segment of the American population.

Amanda Carpenter’s (2018) book on how Trump is gaslighting America, is not very optimistic about truth prevailing anytime soon. Even when Trump supporters see all the damage he has done, they don’t care. They are in thrall to him, completely under his control. He defines reality for them. Gaslighting is powerful beyond all reason because it is not based on reason.

Stephanie Sarkis, a clinical psychologist, has written a book on the psychology of gaslighting (Sarkis, 2018). In the title of an article in *USA Today*, Sarkis (2018) describes Donald Trump as a gaslighter who is in an “abusive relationship with America.” The point of gaslighting is to gain control over another person. Trump is successfully gaining control over the very notion of truth in America, where lies have become “alternative facts”.

Alternative Facts

The term “alternative facts” was created by Trump senior advisor, Kellyanne Conway to defend White House press secretary Sean Spicer’s lie about the size of the crowd attending Trump’s inauguration. Marilyn Wedge (2017) noted that the origin of the notion of alternative facts lies with George Orwell’s *1984*. In the totalitarian state which Orwell envisioned, language was changed to support simple positive concepts. Bad was changed to “ungood”. “In the current “Newspeak” that Ms. Conway called “alternative facts” on Sunday, falsehoods lose their negative connotation and become facts—albeit alternative facts. The new administration’s efforts at mind control begins.” (Wedge, 2017, The origins in “Newspeak”, para. 1).

Lee McIntyre, in his book *Post Truth* (2018), describes our current political situation as getting closer and closer to resembling George Orwell's *1984*: "Truth is the first casualty in the establishment of the authoritarian state (p. 4)." This scenario is right out of Adolph Hitler's *My new order* (1941) which Trump's first wife, Ivana, reported was by Trump's bedside (Flood, 2016). A friend corroborated that he gave Trump the book. Considering that Trump almost never reads anything, it is truly horrifying that he would make the effort to read a book on how to assert authoritarian control over a people and a country. "This is not a simple fear of the truth; it is a weaponizing of untruth. It is the use of the lie to assault and subdue. It is Trump doing to political ends what Hitler did to more brutal ends: using mass deception as masterful propaganda." (Blow, 2017).

Escape from Freedom

In 1941, *Escape from Freedom* was published. In this extraordinary book, the German Jewish psychoanalyst and social psychologist, Erich Fromm, seeks to explain how authoritarianism was supported over democracy by the people of Germany. This topic is painfully relevant today with autocrats exerting control over countries as diverse as the United States, Russia, China, Poland, Hungary, Turkey, Brazil, Venezuela, the Philippines, Israel, and most recently, with the election of Boris Johnson, Great Britain.

"What is it that creates in men an insatiable lust for power? Is it the strength of their vital energy – or is it a fundamental weakness and inability to experience life spontaneously and lovingly?" (Fromm, 1941, p. 21). Fromm emphasized the role of psychological factors in trying to understand the allure of fascism in 1930s Europe (Mussolini in Italy, Franco in Spain, Salazar in Portugal, Dollfuss in Austria, Hitler in Germany). "For we are dealing with a political system which, essentially, does not appeal to rational forces of self-interest, but which arouses and mobilizes diabolical forces in man which we had believed to be nonexistent, or at least to have died out long ago." (Fromm, 1941, p. 21). What Fromm observed from the political takeover by the Nazi party in Germany made him try to understand how humankind could go from a society based on reason to a horrendous descent into the most primal forces of hatred, unbridled aggression, and pure evil.

Freedom, Belonging, and Overstimulation

Fromm examined the reasons why so many humans are willing to trade their freedom for authoritarian political frameworks. He concluded that freedom brings with it a sense of loneliness, of being separated from the group by the pressure to exert one's individual choices. American social psychologists, Leon Festinger (1957) and Philip Zimbardo (1969) have noted that making individual choices is hard because

you have to live with the consequences of your choices and that can produce cognitive dissonance. Dissonance is deeply disturbing and disruptive to the individual. If you simply go along with what your group advocates, then you don't feel personal responsibility or the extreme discomfort of cognitive dissonance if the choice is a bad one. In the "Nazi" experiment, students indicated that they went along with giving supposedly dangerous (and perhaps lethal) electric shocks to another student because they were told by an authority figure (professor in a lab coat) that other students had followed instructions (Milgram, 1963). Obedience and social conformity are factors that reduce an individual's sense of responsibility.

Self-Interest and Voting

Erich Fromm (1941) was greatly troubled by the lack of reasoned self-interest in the German adoption of Nazism. In twenty-first century politics the question is often asked: Why do people vote against their own self-interest? Alvin Toffler (1970) argues that rational behavior depends on being able to successfully process the continuous flow of information from the environment. Information overload (Levitin, 2014) and decisional stress make the individual shut down. Future shock is the response to overstimulation. "For the uncontrolled acceleration of scientific, technological, and social change subverts the power of the individual to make sensible, competent decisions about his own destiny" (Toffler, 1970, p. 358).

The Holocaust Mentality: How It Begins

Othering and the Holocaust

Comparisons between Trump and Hitler have focused on the way "Trump drums up support by blaming and denigrating groups who do not fit the imagination of a masculine, Christian, hard-working, and essentially white American ideal-type: Mexicans, Muslims, gay and transgender people, and disabled people, to name a few of the most obvious targets." (Umbach, 2016).

"When societies experience big and rapid change, a frequent response is for people to narrowly define who qualifies as a full member of society" (Powell, 2017, para. 3). This is the beginning of the process of "Othering". Law professor, John A. Powell (director of the Haas Institute for a Fair and Inclusive Society) warns that the Othering of minority groups has been taken on by the mainstream of conservatism. "Conservative elites know how to strategically create and use fear of a perceived Other, by organising and manufacturing fear" (Powell, 2017, Exclusion and dehumanization, para. 4). "The rhetoric and language coming from Trump has begun to both define and normalise Othering. This is a threat to all the things we value" (Powell, 2017, para. 8). This is how the Holocaust mentality begins.

First they came for the Socialists, and I did not speak out —.
 Because I was not a Socialist.
 Then they came for the Trade Unionists, and I did not speak out —.
 Because I was not a Trade Unionist.
 Then they came for the Jews, and I did not speak out —.
 Because I was not a Jew.
 Then they came for me—and there was no one left to speak for me. (Marcuse, 2016, p. 173)

The quotation is attributed to Martin Niemöller, a Lutheran pastor who was an enthusiastic supporter of Adolph Hitler early in the Nazi takeover of Germany. Niemöller was a politically conservative naval officer in WWI and voted Nazi from 1924 on. He was very proud to be German. He got into trouble by questioning Nazi policy on church doctrine and was ultimately sent to Dachau concentration camp which he survived (Marcuse, 2016). Essentially, Niemöller was completely engaged in the Othering process, the opposite of the belonging and bridging dynamic (Powell, 2017) that connects all people.

Blaming

Totalitarian regimes utilize blaming as a standard tactic to direct attention away from the weaknesses of the regime onto scapegoats. The 2020 pandemic of the COVID-19 coronavirus set the stage for taking attention away from the total incompetence of the Trump administration's response to the pending disease invasion by calling it the "China virus". "The United States blew its window of opportunity to prepare for the pandemic that is now about to happen" (Drezner, 2020, para. 7). Instead of acknowledging the danger presented by COVID-19, Trump distanced the problem by labeling it a Chinese problem. As a result, Americans of Asian descent are being harassed, tormented, and physically assaulted (Buncombe, 2020), especially by the people most influenced by Donald Trump.

Today, by referring to covid-19 as a "Chinese" disease, Trump appears to be blaming the disease and its transmission on people with Chinese and East Asian ancestry. When that attitude comes from the presidential bully pulpit, it easily spreads. For instance, a Kansas county commissioner claimed his county didn't need stringent public health measures because it had so few Chinese people, making it safe. Such rhetoric mistakenly suggests China and Chinese people are medically or pathologically diseased (White & King, 2020, Calling it a 'Chinese virus', para. 1).

How Democracies Are Lost

Historian of the Holocaust, Christopher Browning (2018, para. 5) has compared events in the last decade in the US to the decade before Hitler took power during the Weimar republic in Germany:

A second aspect of the interwar period with all too many similarities to our current situation is the waning of the Weimar Republic. Paul von Hindenburg, elected president of Germany in 1925, was endowed by the Weimar Constitution with various emergency powers to defend German democracy should it be in dire peril. Instead of defending it, Hindenburg became its gravedigger, using these powers first to destroy democratic norms and then to ally with the Nazis to replace parliamentary government with authoritarian rule.

Hitler was made chancellor by von Hindenburg along with the ruling conservatives who thought that they could control him. The conservatives were happy about Hitler's success in suspending freedom of speech and the press and they were especially pleased with his destruction of the unions.

In 1925 Germany, my 17 year-old Jewish mother, then Selma Joseph, posted signs during the Weimar Republic saying, "If you elect von Hindenburg you elect Hitler." She saw the whole thing coming and joined the Underground Resistance once von Hindenburg handed over the German government to Hitler as she had predicted he would do. My mother took many refugees across the border to Czechoslovakia on skis. She would then return to Germany by train (She didn't even know how to ski very well). One time an SS officer helped her with her luggage, terrifying her greatly.

When I was very young strangers would come to our little apartment in Queens, NY and thank her for saving their lives. By sheer chance when the Nazi SS found, tortured and murdered her Resistance group she escaped and left Germany the next day with only her clothes, passport, and very little money. Given my heritage, I take the current threat to American democracy very seriously; the reason is not only Donald Trump but Mitch McConnell and the Republican party.

Democracy, McConnell and the Republican Party

If the US has someone whom historians will look back on as the gravedigger of American democracy, it is Mitch McConnell. He stoked the hyperpolarization of American politics to make the Obama presidency as dysfunctional and paralyzed as he possibly could. As with parliamentary gridlock in Weimar, congressional gridlock in the US has diminished respect for democratic norms, allowing McConnell to trample them even more. Nowhere is this vicious circle clearer than in the obliteration of traditional precedents concerning judicial appointments. Systematic obstruction of nominations in Obama's first term provoked Democrats to scrap the filibuster for all but Supreme Court nominations. Then McConnell's unprecedented blocking of the Merrick Garland nomination required him in turn to scrap the filibuster for Supreme Court nominations in order to complete the "steal" of Antonin Scalia's seat and confirm Neil Gorsuch (Browning, 2018, para. 7).

The Republican party has been almost uniformly complicit in Trump and McConnell's anti-democracy agenda. Voting rights have been curtailed across the country to depress that part of the electorate most likely to vote Democratic (Rubin, 2019; Ross, 2020). Republicans in Congress have failed to denounce even the most

extreme proclamations and lies from Trump. Despite strong evidence that Trump engaged in abuse of power, the Republican Senate, under McConnell's absolute control, refused to even call witnesses to hear detailed evidence of Trump's violation of the Constitution. Instead the Senate acquitted Trump in his so-called impeachment trial (Baker, 2020). Trump went on to fire key witnesses, Ambassador Sondland and Lt. Col. Vindman, who had testified against him in the House of Representatives (Baker, Haberman, Hakim, & Schmidt, 2020).

Republican Conservatives Critical of Trump

Charles Sykes (2017), a former conservative radio commentator, describes how American conservatives were seduced into a new culture of intimidation, acting as trolls and flying monkeys on behalf of Donald Trump. He details how paranoia, bigotry, post-truth politics, conspiracy theories, nativism, authoritarianism, "the outrage machine", and the "alt-reality media" such as Fox News and Breitbart normalized emotion driven Trump subservience. Sykes calls his book *How the Right Lost its Mind*.

Ironically, those disaffected Republican conservatives who have chosen to write about Donald Trump have done so in extremely derogatory terms. Rick Wilson (2018) titled his book: *Everything Trump Touches Dies: A Republican Strategist Gets Real About the Worst President Ever*. Amanda Carpenter (2018), Michael Wolff (2018), and Wilson decry the tyranny and chaos that Trump has brought to America and the willingness of the Republican party leadership to go along with it. Unfortunately, none of this has had the least effect on Mitch McConnell and other Republicans in government.

Republicans Undermining Election Security

One of the most powerful ways of destroying democracy is to undermine the security of elections. Republicans under Mitch McConnell have repeatedly blocked new election security measures to counter Russian interference in the 2020 election as they did in the 2016 election (Barnes, 2020; Carney, 2020; Marks, 2019). Ironically, in this high-tech age, paper ballots offer the strongest security against cyberattacks, but McConnell and the Republicans in the Senate won't support them (Sandoval, 2019).

Republicans have adopted the "win at all costs" strategy that has opened the door to the kind of dynamics that lead to the Holocaust in Nazi Germany. When power is more important than democracy no horror is too great to contemplate.

My New Order: Hitler's Speeches

People have certificates; he doesn't have a birth certificate," Trump said to Bill O'Reilly, then of Fox News Channel, in April 2011.

Now, he may have one, but there's something on that birth. ... maybe religion, maybe it says he's a Muslim. I don't know. Maybe he doesn't want that. Or he may not have one, but I will tell you this: If he wasn't born in this country, it's one of the great scams of real time." (Bump, 2019).

The cadence of this speech, and using may, maybe, or may not in an alliterative pattern is right out of *My New Order*. The owner of Ishi Press, Sam Sloane has added an introduction to the copy of Hitler's *My New Order* published by his company (Hitler, 1941/2016, p. i):

There are clear similarities between the speeches of Trump and the speeches of Hitler. Here are examples: They repeat themselves constantly, saying the same things over and over again. They never admit they have made a mistake, nor do they ever take anything back. To any criticism, they respond by insults and name calling. They use a low form of language, with simple sentences even a person with the lowest level of education or with no education at all can understand. Studies have shown that Trump speaks at a fourth grade reading level. Most of the words he uses are only one syllable long.

The original 1941 editor and translator of *My New Order*, Raoul de Roussy de Sales, commented that "Hitler's speeches are no model of oratory. His German is sloppy and full of grammatical errors. ... the substance of his speeches is usually confused and repetitious" (Hitler, 1941/2016, p. 5). Sound familiar?

Trump's Pattern of Lying Identical to Adolph Hitler's

Sam Sloan (2016) points out in his introduction that Hitler contradicted himself continuously and used lies as part of his signature delivery. Among his almost continuous lies, Donald Trump directs hatred toward four Democratic congressional representatives who are Muslim and/or women of color. Speaking of Rashida Tlaib (MI), Ilhan Omar (MN), Ayanna Pressley (MA), and Alexandria Ocasio-Cortez (NY), Trump asked "why don't they go back and help fix the totally broken and crime infested places from which they came?" (Sonmez & DeBonis, 2019, para. 1). Three were born in the United States. Trump claimed that New York Representative Alexandria Ocasio-Cortez "called our country and our people garbage" (PolitiFact National on Tuesday, July 23rd, 2019). Trump accused congressional Representative Ilhan Omar, Democrat of Minnesota of "speaking about how wonderful al-Qaida is." (PolitiFact National on Tuesday, July 16th, 2019). Trump also claimed, "that when his supporters chanted "send her back" about Ilhan Omar, he stopped it" (PolitiFact National on Friday, July 19th, 2019). Trump did nothing to reign in the vicious chanting about Representative Omar who was born in Somalia and came to the United States as a child.

Authoritarian Adoration

Just like Hitler, Trump only really comes alive before huge crowds of his supporters. His energy feeds off his fan base. Rallies are vital to his self-esteem. "The leader-follower relationship is the core of authoritarian regimes—and rallies are its distillation" (Ben-Ghiat, 2019, para. 4).

The Social Trance

Kenneth Adams (2019, p. 238) argues that “Donald Trump’s tenure as president is dependent on his followers’ immersion in a social trance that inhibits recognition and rational appraisal of his likely collusion with Russia in the 2016 election and his unparalleled malfeasance.” The source of this social trance begins with a traumatic childhood of forced obedience to authority. Adams (2019, p. 238) goes on to suggest that “right wing GOPers and Christian fundamentalists were already functioning in a trance state prior to Trump’s arrival on the political scene.” Trump is brilliant at exploiting this situation with his own trance induction presentations. As with Hitler, Trump’s speech cadences, constant lying, and repetition mesmerize his listeners. They fill in missing parts of his fractious sentences with whatever they want to hear (Adams, 2019).

Fascism

While it is hard to imagine American democracy succumbing to fascism, the groundwork for such a devastating and cataclysmic decline exists and has been put into place over a long period of time. Madeline Albright (2018) fled fascism in Europe, as a child. Her perspective as a former American Secretary of State combined with her personal experience allows an unusual understanding of fascism in geopolitics. Albright sees Donald Trump as being closer to Benito Mussolini than Adolf Hitler. Mussolini uttered the exhortation: “drenare la palude,” which means “drain the swamp.” His histrionic theatrics, while addressing the crowds from his marble balcony, are obvious to anyone viewing newsreels of the time. Mussolini loved to hear himself talk but rarely listened to others, and actively disliked being in situations where he had to pay attention to official briefings. His cabinet had to agree with him and not propose any idea that might disconcert him. This sounds exactly like a description of Donald Trump (Wilson, 2018; Wolff, 2018).

Unlike Hitler for whom Nazism suffused his entire being, Mussolini did not espouse a specific ideology. Instead he was a nativist populist (Albright, 2018), as is Trump. Donald Trump is not a fascist simply because he has no real ideology. Trump’s only ideology is Trump. He is a pure narcissist (Lancer, 2018; Lee, 2017; Mattison, 2016). Trump needs his rallies to maintain his cult of personality. Psychologically, Trump desperately needs the adulation of crowds (Dwyer, 2019), and makes frequent and unnecessary campaign rallies to get his fix.

Malignant Narcissism

Erich Fromm (1941) described Hitler, Mussolini, and Stalin as suffering from the mental illness of malignant narcissism, a term which Fromm created to describe the behavior he saw in them. According to psychoanalyst, Otto Kernberg (1989),

malignant narcissism encompasses three traits beyond simple narcissism: paranoia, antisocial personality disorder, and sadism. Paranoia involves delusions of persecution but also a sense of one's own tremendous importance. Antisocial personality disorder is associated with criminals and endless lies. Sadism is about experiencing pleasure from causing others suffering, pain and/or humiliation. Numerous mental health specialists have made the case that Donald Trump has all the behavioral and emotional indicators of being a malicious narcissist (Buser & Cruz, 2017; Garau, 2017; Gartner, 2017; Lancer, 2018; Lee, 2017).

To compensate for insecurity and shame, narcissists feel superior, often expressed with disdain or contempt. Arrogance and putdowns bolster their egos by projecting the devalued parts of themselves onto others. Trump has disparagingly and publicly labeled various people a "dog," "bimbo," "dummy," "grotesque," "losers," or "morons." Narcissists' invectives are made worse by their lack of empathy, which enables them to see people as two-dimensional objects to meet their needs. (Lancer, 2018, para. 11)

Trump's hero, Vladimir Putin, "is a poorly educated, under-informed, incurious man whose ambition is vastly out of proportion to his understanding of the world. ... it is the spectacle of power that interests him" (Gessen, 2017, para. 5). The same can be said of Trump. Neither of them is competent to deal with complexity so everything is reduced to power. On some level they are aware of their inadequacies, and compensate with cruelty, always demeaning those better equipped to govern.

Trump biographer, Michael D'Antonio (2016), concludes that the essence of Donald Trump is a mixture of cruelty, fear and even violence. His bombastic style enhances these elements. His analysis of the quality and worth of something is "entirely self-referential" (D'Antonio, 2016, p. 323). If Trump wins, he is flattered at his success, therefore the news coverage, meeting, or endeavor is deemed to be good. Things don't have merit on their own, only as they relate to Trump. "Americans too have grown familiar with the sight of a president who seems to think that politics consists of demonstrating that he is in charge" (Gessen, 2017).

Despite a clear record of profound incompetence regarding the COVID-19 threat (Drezner, 2020; Jurecic & Wittes, 2020; Sarkis, 2020), Trump continues to feed his narcissism with his usual litany of lies.

"I've gotten great marks on what we've done with respect to this," Trump said. "I've gotten great marks. And even from almost every Democrat governor, so I've gotten great marks also. But we want to always make sure that we have a great president, that we have somebody that's capable." (Parker, Dawsey, & Abutaleb, 2020, para. 8)

The Atlantic magazine has compiled a complete listing of all of Trump's lies about COVID-19 (Paz, 2020). The listing is open and will be continuously updated to keep pace with Trump's endless lies.

Trump's Authoritarianism

Authoritarianism is based on the leader-follower relationship. Inciting a mob to violence is the essence of dictatorial power. Trump has advocated violence against journalists, opponents, ordinary citizens, judges, politicians and others. "This was the method of Hitler and Mussolini, which Sinclair Lewis translated into the

American setting for his novel *It Can't Happen Here* (Posner, 2018, p. 15). Now Cass Sunstein (2018) is asking *Can It Happen Here?*

In the age of technology Trump can effortlessly escalate this pattern of intimidation. Internet harassment by Trump followers, especially the far-right extremists, can threaten physical harm and do great psychological harm to the targets of these assaults. The increase in violence by white supremacists has been notable since Trump took office (Levin, 2019).

Rick Wilson attacks Donald Trump as a devastatingly bad president, but as a Republican strategist he helped create the anti-democratic dynamic of mob incitement. “We knew they were out there, and we identified them, targeted them, and motivated them” (Wilson, 2018, p. 106). Republican strategists simply did not appreciate what they were unleashing. According to Wilson the people they were encouraging were really, just waiting for a “strongman” to take over and solve all their problems. “Then there is the problem of a Commander in Chief whose rhetoric appears to mirror, validate and potentially inspire that of far-right extremists” (Bergengruen & Hennigan, 2019, p. 23). In defense of that strongman with whom they identified closely, Trump’s extremist followers broke the bounds of democratic society and became a fascist-style intimidation force stifling dissent and openly attacking enemies.

Trump’s speeches, studded with such absolutist terms as “losers” and “complete disasters,” are classic authoritarian statements. His clear distinction between groups on top of society (Whites) and those “losers” and “bad Hombres” on the bottom (immigrants, Blacks and Latinos) are classic social dominance statements. (Pettigrew, 2017, p. 108)

The Real Terrorist Threat to America

In 2019 America the greatest terrorist threat is domestic, from the alt-right and other white supremacist and neo-Nazi groups (Forgey, 2019). Disastrously, little is being done to counter domestic terrorism. George Selim who headed counterterrorism agencies in both the G. W. Bush and Obama eras is greatly alarmed that under the Trump administration endeavors to cope with domestic terrorism “came to a grinding halt” (Bergengruen & Hennigan, 2019, p. 26).

“Since Sept. 11, far-right terrorists have killed 110 people on American soil, while jihadists have killed 107” (Rose & Soufan, 2020, p. A27). Domestic terrorism is a misnomer. Right-wing authoritarian groups are internationally connected and receive help and information from one-another. Because American law does not cover American white supremacist groups under the “foreign terrorist” designation, American law enforcement cannot use its most effective tools to combat them. One issue is that they cannot share and receive intelligence internationally, as they can with jihadists. This cripples American law enforcement in dangerous ways.

Resistance to fighting domestic terrorism comes from those Republicans who perceive that conservatism will be lumped together with far-right extremism since they share so many over-lapping traits with violent authoritarians, such as threat sensitivity, death anxiety, dogmatism-intolerance of ambiguity, and a high need for

order and structure (Jost, Glaser, Kruglanski, & Sulloway, 2003). The FBI Agents Association which met on August 21, 2019, issued a demand to legislators to make domestic terrorism a federal crime. Currently it can only be investigated as a “hate-crime” which greatly limits investigators and prosecutors (Forgey, 2019). Democrats have gone on record as giving complete support to the needs of the FBI and law enforcement generally, to have every possible tool in the fight against domestic terrorism. Most Republicans and especially, Mitch McConnell, are blocking that support just as they are blocking election security reform (Carney, 2020; Chapman, 2019; Sandoval, 2019).

Fear

Trump’s signature operating style is the promulgation of fear toward all those who surround him. He “rules” by fear (Wilson, 2018; Wolff, 2018). As a businessman with six bankruptcies in his history, Trump couldn’t care less; his power is undiminished because people are still afraid of him (Woodward, 2018). He uses fear as the basis of his diplomacy, almost causing a (perhaps nuclear) war with North Korea in early 2018. Trump’s plan had been to intimidate and “outfox” Kim Jung Un by threatening nuclear war (Woodward, 2018).

Trump gave this advice to a friend who had behaved badly toward women: “Real power is fear. It’s all about strength. Never show weakness. You’ve got to be strong. You’ve got to be aggressive. . . . You’ve got to push back hard.” (Woodward, 2018, p. 175).

Trump enjoys generating fear among his followers. Fear comes so naturally to him, as a life dynamic that he can speak of it from his innermost being, displaying great sincerity.

And no President has weaponized fear quite like Trump. He is an expert at playing to the public’s phobias. The America rendered in his speeches and tweets is a dystopian hellscape. He shapes public opinion by emphasizing dangers—both real and imaginary—that his policies purport to fix. (Altman, 2017, para. 7)

Conservatives tend to be easily threatened and authoritarians are even more susceptible (Hetherington & Weiler, 2009). Conservatives experience an existential need to minimize threat. Jost et al. (2003, p. 369) “regard political conservatism as an ideological belief system that is significantly (but not completely) related to motivational concerns having to do with the psychological management of uncertainty and fear.”

Making his followers feel fearful by expounding on the immediacy of threat to their well-being, allows Trump to manipulate people very successfully. Trump was particularly skilled at presenting immigrants to the United States as a security threat. People who believed him were much more likely to vote for him than people who perceived immigrants as economic or cultural threats (Wright & Esses, 2018). Security is such a big issue that if the sense of threat is large and immediate enough even non-conservatives can be moved to a more conservative position (Jost, Stern, Rule, & Sterling, 2017).

Meta-Violence

Instilling fear can only work if anger and violence result from the sense of threat. Trump regularly generates anger in his followers and praises violence. It is anger which motivates authoritarians.

Beyond directly instilling anger and advocating violence, Trump has created what Samira Saramo (2017) has termed a culture of “meta-violence” characterized by emotional extremes, deep social hostile divisions, and international antagonism and tension.

The meta-violent culture of the Trumpist social movement appears in its ideas, rhetoric, and science, dividing the United States into “Americans” and others, upholding Christianity above other religions, dictating control over women’s bodies, and thwarting efforts to protect and nurture the environment. In this way, meta-violence fuels the populism and popular culture of Trumpism. (Saramo, 2017, Feeling violence, para. 1)

Gamergate Political Intimidation

There is a huge worldwide gamer culture based on video and computer games. This is predominantly a male culture which has a dangerous underbelly of “angry men, trolls, racists and misogynists who hover around the video game industry” (Campbell, 2018, para. 1). “Gamergate” refers to an event that occurred in 2014 when an ex-boyfriend’s online attack against his ex-girlfriend turned into a horrific mass online attack on the woman by abusive male gamers, using gamer websites like 4chan and Reddit to inform their assaults. Now the term, Gamergate has come to define “a leaderless harassment campaign meant to preserve white male internet culture, disguised as a referendum on journalism ethics and political correctness” (Warzel, 2019, p. SR6). The culture war against feminism, racial equality, and political correctness did not start with Gamergate but it was supercharged and made visible by the horrific response to the original manic rant of the rejected boyfriend.

Gamergate wasn’t the birth of a brand-new culture war, it was a rallying cry. And its trollish successes in intimidating women, deceiving clueless brands, and picking up mainstream coverage taught a once dormant subculture powerful lessons about manipulating audiences and manufacturing outrage. (Warzel, 2019, p. SR7)

Gamergate was made for tyrants to exploit. The first was Steve Bannon, chairman of Breitbart (Green, 2018), followed closely by other right-wing political media personalities. Trump now has a ready-made online mob to viciously attack anyone who he Tweets complainingly about. Gamergate is an authoritarian’s dream come true. The gamer websites 4chan and Reddit have been hijacked by the hate-filled netherworld of gaming and respond to Trump’s Tweets with a regularity that appears almost automatic.

The Toxic Allure of Trump

The key to Trump is his aura of strength. He makes every effort to dominate, using rudeness, threats, intimidation, and incitement to aggression regularly. He presents himself as strong enough to protect his followers. His promises are wildly unrealistic, but he declares them with such authority that his followers are reassured by the feelings of safety he generates with his bluster and pugnacity. His followers feel that he is fighting for them and that is all that matters.

In 2005, Jean Lipman-Blumen cautioned that “toxic leaders” can attract us because they appear able to fulfill our basic human needs: “the yearning for certainty in an uncertain world, for self-esteem, heroism, access to centers of action, opportunities to engage in noble enterprises, and the promise of immortality” (p. x). A critical human need is security and humans have a long history of trading freedom for the security offered by an authoritarian leader, no matter how toxic.

Civilization began with the decision to give up any freedom in order to have the security of a well-regulated economy under a king. Time and again throughout history people have chosen the perceived benefits of security over the awesome responsibilities of freedom. (Fears, 2007, History of freedom section, para. 19)

“Fascist politics invokes a pure mythic past tragically destroyed. ... the mythic past may be religiously pure, racially pure, culturally pure, or all of the above” (Stanley, 2018, p. 3). Trump’s trademark “Make America Great Again” covers all of these mythic anchors. Nostalgia for a better past is one of the warning signs of maladaptation to rapid social change (Toffler, 1970). Trump represents the ultimate backlash against the rapid social change which brought the acceptance and incorporation of diversity into the mainstream of American life. His racist and sexist credentials cheer his followers who are not ready to give up the mythic past of a Christian, white, upwardly mobile America.

Anti-Semitism and Political History

Jews have been vulnerable throughout history; this is what sets Jews aside from all other oppressed groups (Gillman & Katz, 1993). Scapegoating Jews has proven to be successful political policy from ancient times to pre-WWII Germany and beyond. Hannah Arendt (1951) detailed the relationship between the rise of totalitarianism and the nurturing and exploiting of anti-Semitism as a highly effective political tool.

Karen Brodtkin (1998) wrote a history of Jews in America titled *How Jews Became White Folks and What That Says About Race in America*. More recently, Emma Green (2016) asks “Are Jews White?” The question really is, are Jews still white? Obviously, whiteness is not about genetics but instead about the social/cultural perception of being mainstream, belonging, fitting in. Losing their whiteness is about Jews again being seen as the outsider, ready to be targeted again.

Discrimination Against Jews

There was a time in twentieth century America where signs saying “no Jews or dogs allowed” were not uncommon. Entrance to certain hotels, resorts and country clubs were routinely denied based on a “Gentleman’s Agreement”. Choice residential areas were “restricted”, off-limits to Jews. Many areas of employment were closed to Jews, one of these was banking, giving the lie to the stereotype of the Jewish banker (Higham, 1957; Stember, 1966).

In 1959, I planned to apply for a summer job at the Bell telephone company, but I was told by a friend not to bother as Jews were never hired. In 1962, when I was a language major in college and planned to work for the State Department, I was gently informed by a friend’s father that Jews were not welcome in the State Department of the United States of America. After studying French, Spanish, German, and Hebrew I changed my major to biopsychology and planned to teach and do research, which I did. Everyone knew that Jews were welcome as teachers.

Jews and Whiteness

Karen Brodtkin (1998) wrote a history of Jews in America titled *How Jews Became White Folks and What That Says About Race in America*. More recently, Emma Green (2016) asked “Are Jews White?” The question really is, are Jews still white? Obviously, whiteness is not about genetics but instead about the social/cultural perception of being mainstream, belonging, fitting in. Losing their whiteness is about Jews again being seen as the outsider, ready to be targeted once more.

Discrimination against Jews steadily declined over the latter part of the twentieth century. The Civil Rights laws of the mid 1960s and the birth of the women’s movement in the early 1970s began a process of social change with wide-ranging consequences for greater inclusion of diversity in American culture.

In essence, Jews became “white” in the modern American sense of the word. They had access to the levers of political power and no longer faced institutional discrimination like restrictions on housing. The election of Donald Trump as President has caused American Jews to rethink their place in American society, and has thrown their story of ascent into the mainstream into chaos. ... While it is impossible to speculate, historians in the future may one day be asking, “When did Jews lose their whiteness?” (Morganson, 2017, para. 2, 4)

Political Tensions

Because of their history of oppression, Jews tend to fight for social justice and to be politically liberal. Recently, political tensions have arisen within the Democratic party over Israel and the Palestinian situation. First-term Congressional Representative Ilhan Omar used standard anti-Semitic tropes regarding Jews and money, as well as Jews and dual loyalty, in her Tweets about American Jewish

support for Israel (DeBonis & Bade, 2019). It is essential to American democracy that diversity of perspectives and heritage be supported and applauded. However, while Representative Omar has the freedom to support Palestinian and Muslim rights, it is vital that it not come at the cost of fostering stereotypes which can engender violence against others. She readily recognized this, and apologized. Nevertheless, James Clyburn, the third highest ranking Democrat in the House of Representatives defended Congresswoman Omar, saying that the Holocaust was a long time ago and Omar's experience (she is both a refugee and an immigrant from Somalia) was more recent and therefore more relevant (Douthat, 2019).

Recent horrific anti-Semitic attacks against synagogues, Jewish institutions, and individuals make Clyburn's remarks especially short-sighted and cruel (Anti-Defamation League Press Release, 2019; Fattal, 2018; Gillman & Katz, 1993; Lipstadt, 2019; Stephens, 2019). Referring to the massacre at the Tree of Life synagogue in Philadelphia, Rabbi Danya Ruttenger (2018, para. 4) reminds us that.

this slaughter lives in the context of more than a thousand years of scapegoating Jews for the stresses and trials of society. The trope of the powerful Jew (which itself was born out of Christian oppression) has been deployed time and time again throughout history.

In America, Jews are often perceived as a minority that is "too successful" (Chua, 2018, p. 188). Since Jews tend to be liberal, they are a perfect target for conservatives tending toward extremism who already deeply despise liberals. White supremacists most definitely do not see Jews as "white".

Scapegoats and Social Change

Rapid social change produces anxiety for many people and Jews are an always available scapegoat when people are searching for a reason why things are getting out of control. Jews are also handy when economic instability devastates people and they want to know who is at fault (Gillman & Katz, 1993). A rise in documented anti-Semitism occurred after the financial trauma of 2008 (Stoll, 2009). Stefanie Schuler-Springorum (cited in Kingsley, 2019, p. A8), the director of the Center for Anti-Semitism research in Berlin, Germany stated that "globalization and especially the crisis of 2008 have strengthened a feeling of being at the mercy of mechanisms that we do not understand, let alone control. ... From there it is only a small step to classical conspiracy theories, which have always formed the core of anti-Semitism."

After the second World War anti-Semitism was relegated to fringe politics. In the twenty-first century this has changed and now anti-Semitism is serving political goals. "Today mainstream European and North American politicians, even presidents, premiers, and prime ministers, don't hesitate to flirt with or embrace overtly anti-Semitic messages and memes" (David Nirenberg, dean of the Divinity School and Jewish historian, at the University of Chicago, cited in Kingsley, 2019, p. A8).

Tremendous Rise in Anti-Semitic Incidents

Recently in New York City, a poster of Justice Ruth Bader Ginsburg was defaced with a swastika and an anti-Semitic insult (Gold, 2019, March 15). New York City statistics for January 1, 2019 to March 10, 2019, indicate “an increase in hate crimes of 62% over the same time period last year” (Gold, 2019, p. A27).

Europe has recently experienced a significant increase in anti-Semitic acts, including murder. Political extremism of the neo-fascist far right is visible everywhere in Europe. In 2018 anti-Semitic acts in France increased by 74% and in Germany by 20%. A New York Times editorial (2019, May 27, p. A18) summarized this rising anti-Semitism:

After polling more than 16,000 Jews in 12 European countries at the end of last year, the European Union’s Agency for Fundamental Rights concluded that anti-Semitic hate speech, harassment and fear of being recognized as Jews were becoming the new normal. Eighty-five percent of the respondents thought anti-Semitism was the biggest social and political problem in their countries; almost a third said they avoided Jewish events or sites because of safety concerns. More than a third said they had considered emigrating in the five years preceding the survey.

The number of attacks on American synagogues has doubled in a single year, from 2017 to 2018 (Anti-Defamation League Press Release, 2019). There were 1879 reported anti-Semitic incidents in the United States overall in that 1-year period. Referring to the rise in anti-Semitic acts in both Europe and the United States a New York Times editorial (Anti-Defamation League Press Release, 2019, May 27, p. A18) cautioned that.

a tally of incidents does not tell the full story. To a degree, the numbers reflect the way hate speech, intolerance, anger and once-taboo themes have found their way into the open on social media or via populist movements, allowing hatred of Jews to come out of the shadows.

Most unfortunately, Islamic anti-Israel positions have often been expressed as open hostility and even aggression toward Jews in both Europe and the United States (Jikeli, 2015; Nossiter, 2018)

Trump Fosters Anti-Semitism

President Trump himself embodies the contradictions of the moment. Mr. Trump has openly courted white nationalists, saying they include “some very fine people,” even as they marched in the style of the Ku Klux Klan, gave stiff-armed Nazi salutes and chanted slogans like “Jews will not replace us.” (Kingsley, 2019, A8)

Trump is much more interested in courting ultra-right-wing anti-Semitic extremists than he is in protecting Jews, despite the fact that his daughter and son-in-law are Jewish. To Trump it’s just political expediency. Since he has no espoused principles other than his own welfare, Trump has no problem with sending out anti-Semitic dog whistles like “shifty Shift”.

This utilizes the well-worn trope of Jews being tricky, deceitful, and devious. Adam Schiff, chair of the House Intelligence Committee, is Jewish and has been targeted with death threats since Trump's Tweets. (Israel, 2020; Obeidallah, 2020)

Imagine if Rep. Ilhan Omar—or any other visible Democrat—continually called a GOP Jewish member of Congress “shifty.” It would be vocally, and rightly, condemned as anti-Semitic. But with Trump, there's silence from groups like the Republican Jewish Coalition, which condemned Omar for her use of an anti-Semitic trope in a tweet last year, which she apologized for and has not used again. This partisan double standard is dangerous. (Obeidallah, 2020, para. 6)

It would appear, that just like their leader, most Republicans are willing to put political power ahead of rejecting anti-Semitism. Many Jewish Republicans are so enamored of Trump's support for Israel that they simply ignore the stoking of anti-Semitism from his dog whistles. History indicates that this is a very dangerous game to play.

Sexual Orientation Is Still a Political Issue

Various religious groups have traditionally scorned lesbians and gay men as abominations who violate the tenets of religious texts that men and women should propagate. LGBT individuals are seen as a direct threat to the structure and order of traditional religion. Tribes always look for out-groups to attack (Chua, 2018) and LGBT individuals are perfect for the role. Conservatives, even some religious fundamentalists, are more able to accept sexual orientation diversity if they believe that it is an inborn trait. The problem is that interpreting the research findings is challenging, bringing as it does the human element of emotional commitment to a pre-existing belief system. This is true for both conservatives and liberals.

Motivated Reasoning, Attribution Theory and the Politics of Same-Sex Sexual Orientation

Motivated reasoning theory indicates that emotional motivation affects cognitions such that “people are more likely to arrive at those conclusions that they want to arrive at (Kunda, 1990, p. 495). Motivated reasoning largely determines the views of conservatives and liberals toward research data on sexual orientation diversity. Liberals tend toward environmental, social constructionism views of race and socio-economic class. Conservatives tend toward genetic determinism views of race and social class. When it comes to sexual orientation diversity, they flip perspectives (Robison, 2016).

Using attribution theory, Fritz Heider (1958) maintained that people explain the behavior of other people based on either external or internal causes. If the cause is

perceived to be internal then the behavior should be controllable, whereas external causes are not under one's control.

Conservatives start out being against sexual orientation diversity because it upsets the narrative of social order based on heterosexual family stability, male dominance, and religious righteousness. Same-sex orientation is judged to be an internally caused lifestyle choice (Wood & Bartkowski, 2004) and therefore changeable. Liberals support diversity and perceive same-sex orientation to be externally determined by the action of genetics, and therefore not under the control of the individual (Whitehead, 2014). In both cases motivated reasoning is at work. People believe the data that supports their ideologies, even if it means switching from genetic determinism to social constructionism for conservatives or the opposite for liberals.

The absurdity of political orientations determining perspectives on sexual orientation is obvious. As it turns out, there is no need for liberals to support genetic determinism because the research on sexual orientation is moving toward the interactive complexity of epigenetics. This nature via nurture dynamic of epigenetics shows that the developmental environment regulates the genetic flow (Ngun & Vilain, 2014; Rice, Friberg, & Gavrilets, 2012). The developmental interaction of environment and genes is so intimate that it is a single incredibly complex process. Human desire is embedded somewhere in that complexity.

Unfortunately, conservatives are less likely than liberals to embrace epigenetics because of the large ambiguity factor involved. Epigenetics is a process, not a thing. The complex developmental interaction between genetic heritage and environmental influence does not meet the cognitive requirements for simple causality that conservatives prefer (Jost et al., 2003).

The research on sexual orientation will continue, solving little of the problem of differing conservative and liberal perspectives. There is, however, a simpler way to look at things offered by lesbian and gay researchers into human sexual orientation.

Applied to sexual orientation, it makes sense to say that people choose their sexual partners, but it doesn't make sense to say that they choose their desires. Sexual orientation is defined as relative desire for same-sex or other-sex sex partners. Thus, it makes no sense to say that one chooses one's sexual orientation. One does, however, choose to behave consistently or inconsistently with one's sexual orientation. That is a lifestyle choice. (Bailey et al., 2016, p. 62)

Legal Same-Sex Marriage and Rapid Social Change

Toffler (1970) indicated that it is the speed of social change that most brings on a state of Future Shock. One of the fastest social changes in history was the federal legalization of same-sex marriage in a Supreme Court decision (*Obergefell v. Hodges*) rendered on June 26, 2015. Because same-sex marriage was legalized by the courts and not the legislature and president, many Americans felt that same-sex marriage recognition was forced on them and they had no control over the matter through their legislators.

Conservatives and liberals differ significantly in their attitudes toward LGBT people. Same-sex marriage has been a direct threat to conservative beliefs (van der Toorn, Jost, Packer, Noorbaloochi, & Van Bavel, 2017; Whitehead, 2014). Just as there has been a rise in anti-Semitism with the Trump presidency, there has been a destruction of protections for LGBT people by the Trump administration and an increase in violence toward LGBT people, especially transgender people (Chibbaro, 2019; Diamond, 2018; Khullar, 2018).

Anti-LGBTQ groups have become intertwined with the Trump administration, and—after years of civil rights progress and growing acceptance among the broader American public—anti-LGBTQ sentiment within the Republican Party is rising. Groups that vilify the LGBTQ community, in fact, represented the fastest-growing sector among hate groups in 2019—expanding from 49 in 2018 to 70 in 2019, a nearly 43% increase. (Southern Poverty Law Center Report, 2020, p. 12).

Gay marriage has not been the panacea that many heterosexual people assume. Gays can be married one day and lose their jobs the next day. There are no protections in place in the majority of states. Gays experience the highest hate-based violence of any group. The Trump administration has rolled back many federal protections (Diamond, 2018). Health care is a major area of discrimination (Kates, Ranji, Salganicoff, & Dawson, 2018; Khullar, 2018).

Legalized discrimination against gay people by religious organizations is increasing and does great damage to LGBT people (Human Rights Report, 2018). The clash between the conservative need for absolute inviolable religious structure, and the human rights of people condemned by those conservative religious institutions, has direct political ramifications and deep psychological underpinnings. Recently, a child was turned away from a Catholic school in Kansas because the parents were a married same-sex couple. The archdiocese posted a notice on its website indicating that same-sex parents “cannot model behaviors and attitudes regarding marriage and sexual morality consistent with essential components of the Church’s teaching” (Hauser, 2019, p. 17). At the same time the diocese recognizes that other dioceses have found ways to admit children of same-sex parents to their schools. Clearly, the rejection of LGBT couples and their children is less a matter of scripture and more a matter of how conservative or liberal the diocese is, yet the law protects the right of an individual diocese to discriminate.

The law lets businesses discriminate too. A tax preparation service in Indiana refused to prepare a couple’s taxes after their same-sex marriage. Religious principles were evoked by the owner (Ryckaert, 2019). Trying to buy a wedding cake in Colorado caused such a furor it went all the way to the Supreme Court. The baker won the right to discriminate against lesbians and gay men (Liptak, 2018).

Since 2015, support for LGBT rights has either remained the same or even increased among Southerners, Muslims, Mormons, political independents, and seniors but a glaring exception is Republicans under the age of 30. The decrease in support for laws protecting LGBT rights is from 74% to 63%. The interpretation offered by Dr. Robert P. Jones of the Public Religion Research Institute that did the study is that the “Republican Party is becoming more ideologically pure” (Murphy, 2019, p. A11) because more socially liberal young Republicans are leaving the party and identifying as independents.

In Great Britain, where Parliament legalized same-sex marriage for England and Wales in 2014, a pattern similar to Republican homophobia in the U.S., is evident among Conservative party members. Gay sex is viewed as unnatural by 61% of Conservatives and 59% of those who voted to leave the European Union (Brexit). In Great Britain a pattern similar to Republican homophobia in the U.S. is evident among Conservative party members. Gay sex is viewed as unnatural by 61% of Conservatives and 59% of those who voted to leave the European Union (Brexit). Adding an age analysis is revealing. In Britain, of those over age 65, 69% believe that gay sex is unnatural. For young people between the ages of 18 and 24, a total of 78% view gay sex as being natural (Bienkov, 2017). Resistance to destabilizing social change would appear to be a large factor driving the attitudes of many older people in this regard.

Transgender Threat to Cognitive Rigidity and Patriarchy

Even those who are more or less accepting of same-sex orientation, find a greater challenge with transgender people. The fight over “bathroom laws” has been ugly and meant to energize Trump’s base and conservatives in general. Given the rigid cognitive style prevalent among conservatives and especially authoritarians, transgender presents the ultimate problem of understanding and acceptance. Cognitive fluidity is of considerable aid in truly understanding that a person can be born with the sexual anatomy of one sex and be firmly psychologically identified with another sex. Trump has capitalized on the cognitive rigidity of conservatives and the powerful masculinity image of authoritarians to pander to his base by revoking transgender rights, especially with regard to serving in the military (the ultimate male institution under threat by women and transgender people).

Progress on transgender issues, and the very existence of transgender individuals, also challenges the basis of male hegemony, because it blurs the boundary between men and women. The directives from the Trump administration on strictly delineating and defining sex as binary, immutable and determined by chromosomes and natal genital anatomy are basically attempts to demarcate a red line between men and women. (Haider, 2018, para. 5)

Cognitive rigidity interacting with the patriarchal social structure makes both bi-racial people and transgender people, a gray area problem in a cognitive world of black and white. This is resolved by categorizing even the lightest skin bi-racial people as “black”, and by denying the legitimacy of transgender existence.

Racism

Despite declarations of a “post-racial society” after Barack Obama was elected to the presidency in 2008, racism is rampant in 2019. According to the 2016 Pew Report, *On Views of Race and Inequality, Blacks and Whites Are Worlds Apart*, how you view racism depends on your color. “Blacks, far more than whites, say black

people are treated unfairly across different realms of life, from dealing with the police to applying for a loan or mortgage. And, for many blacks, racial equality remains an elusive goal” (Pew Research Center, 2016, para. 1).

With Donald Trump’s election based largely on racism, things are looking grim for racial equality in the United States. Violence by police against unarmed black men has become an epidemic (Khan, 2019; The Times Editorial Board, 2020). Police killings of unarmed black women happen more frequently than most people are aware of (Murphy, 2020). Inferior schools, housing, and jobs are still typical for African-Americans. School segregation is still the norm (Meatto, 2019). Housing remains largely segregated (Vock, Charles, & Maciag, 2019). Black people are rarely found in high-paying jobs (Martin, Horton, & Booker, 2015; Salsberg & Kastanis, 2018).

There is a dramatic split between white Democrats and Republicans in how racism in America is viewed.

While about eight-in-ten (78%) white Democrats say the country needs to continue making changes to achieve racial equality between whites and blacks, just 36% of white Republicans agree; 54% of white Republicans believe the country has already made the changes necessary for blacks to have equal rights with whites. (Pew Research Center, 2016, para. 12)

The Democratic presidential primary for the 2020 election has shown just how far the Democratic Party has come in recognizing the depth and breadth of racial discrimination against black people in the United States.

The Democratic candidates are portraying America as infected with racism more openly and insistently than any previous party leaders, even Barack Obama, the first African American president. Many of the Democrats are explicitly calling Trump a racist and some have expressed sympathy for the concept of providing reparations to African Americans for the long-term impact of slavery. (Brownstein, 2019, Rhetoric is raising issues’ profile, para. 2)

Trump has incited violence against African-Americans, as well as Jews and gays (Dean & Altemeyer, 2019; Feinberg, Branton, & Martinez-Ebers, 2019). The Trump era has seen some of the worst racist violence in modern times.

Restoring Democracy

Much of the solution to Donald Trump is political. The presidential election of 2020 offers hope that he can be replaced in a democratic fashion. Unless the Democratic party takes the Senate and holds onto the House of Representatives, a change of presidents won’t be enough to begin to undo the damage to democracy done by Trump and the Republican party. The hatred, prejudice and violence unleashed by Trump will require new legal interventions. Unless the psychological allure of totalitarianism can be addressed, the authoritarian behaviors of many Americans will simply be driven underground again.

The consequences of social change that have driven populist reactions need to be addressed. A good deal of the problem is psychological and therefore requires better communication and understanding. The changing demographics of America require more outreach to whites who feel threatened. Ignoring or insulting fearful white Americans is not helpful in reducing authoritarian orientations. Recognizing the challenge and responding in good faith may move us forward to a more balanced America.

References

- Abramson, S. (2017, May 2). Listen up, progressives: Here's how to deal with a 4Chan ("alt-right") troll. *A Medium Corporation*. Retrieved from https://medium.com/@Seth_Abramson/listen-up-progressives-heres-how-to-deal-with-a-4chan-alt-right-troll-48594f59a303
- Adams, K. A. (2019). Trump and the social trance, part III. *Journal of Psychohistory*, 46(4), 238–258. Retrieved from <https://psychohistory.com/winter-2019-vol-46-3/>
- Albright, M. (2018). *Fascism: A warning*. New York, NY: HarperCollins.
- Alimujiang, A., Wiensch, A., Boss, A., Fleischer, N. L., Mondul, A. M., McLean, K., & Pearce, C. L. (2019). Association between life purpose and mortality among US adults older than 50 years. *JAMA Network Open*, 2(5), e194270. <https://doi.org/10.1001/jamanetworkopen.2019.4270>
- Altman, A. (2017, February 9). No president has spread fear like Donald Trump. *Time*. Retrieved from <https://time.com/PoliticsDonaldTrump>
- Anti-Defamation League Press Release. (2019, April 30). Anti-semitic incidents remained at near-historic levels in 2018; Assaults against Jews more than doubled. *ADL*. Retrieved from <https://www.adl.org/news/press-releases/anti-semitic-incidents-remained-at-near-historic-levels-in-2018-assaults>
- Arendt, H. (1951). *The origins of totalitarianism*. New York, NY: A Harvest Book (Harcourt).
- Bailey, M. J., Vasey, P. L., Diamond, L. M., Breedlove, M. S., Vilain, E., & Epprecht, M. (2016). Sexual orientation, controversy, and science. *Psychological Science in the Public Interest*, 17(2), 45–101.
- Baker, P. (2020, February 6). Impeachment trial updates: Senate acquits Trump, ending historic trial. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/02/05/us/politics/impeachment-vote.html>
- Baker, P., Haberman, M., Hakim, D., & Schmidt, M. S. (2020, February 14). Trump fires impeachment witnesses Gordon Sondland and Alexander Vindman in post-acquittal purge. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/02/07/us/politics/alexander-vindman-gordon-sondland-fired.html>
- Baraniuk, C. (2018, March 27). How twitter bots help fuel political feuds. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/how-twitter-bots-help-fuel-political-feuds/>
- Barnes, J. E. (2020, February 6). Senate report criticizes response to Russian meddling and blames partisanship. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/02/06/us/politics/russian-interference-mcconnell.html>
- Ben-Ghiat, R. (2019, July 19). "Send Her Back" and the advancement of Trump's authoritarian playbook. *GQ*. Retrieved from <https://www.gq.com/story/send-her-back-trump-authoritarian-playbook>
- Benko, R. (2017, June 30). Trigger warning, how the trolls occupied politics and what to do about it. *Forbes*. Retrieved from https://www.reddit.com/t/politics/comments/6kzf3v/trigger_warning_how_the_trolls_occupied_politics/
- Bergengruen, V., & Hennigan, W. J. (2019, August 19). Special report: The terror within. What does a terrorist look like? *Time*, 194(6), 20–27.

- Bienkov, A. (2017, July 27). 61% of Conservative voters believe gay sex is 'unnatural'. *Business Insider Nordic*. Retrieved from <http://www.businessinsider.in/61-of-conservative-voters-believe-gay-sex-is-unnatural-2017-7?r=US&IR=T>
- Blake, A. (2019, April 2). Trump wrongly claims his dad was born in Germany — For the third time. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/politics/2019/04/02/trump-wrongly-claims-his-dad-was-born-germany-third-time/>
- Blow, C. M. (2017, October 19). Trump isn't Hitler but the lying *The New York Times*. Retrieved from <https://www.nytimes.com/2017/10/19/opinion/trump-isnt-hitler-but-the-lying.html>
- Brodin, K. (1998). *How Jews became white folks and what that says about race in America*. Piscataway, NJ: Rutgers University Press.
- Brosnan, S. F. (2013). Justice- and fairness-related behaviors in nonhuman primates. *Proceedings of the National Academy of Sciences of the United States of America*, 110(Suppl 2), 10416–10423. <https://doi.org/10.1073/pnas.1301194110>
- Browning, C. (2018, October 25). The suffocation of democracy. *The New York Review of Books*. Retrieved from <https://www.nybooks.com/articles/2018/10/25/suffocation-of-democracy/>
- Brownstein, R. (2019, September 17). Why race is moving center stage for 2020. *CNN*. Retrieved from <https://www.cnn.com/2019/09/17/politics/2020-candidates-voters-racism-sexism-attitudes/index.html>
- Buckwalter, J. G. (2018). Why white Americans voted for Trump – A research psychologist's analysis. *Techonomy*. Retrieved from <https://techonomy.com/2018/02/white-americans-voted-trump-research-psychologists-analysis/>
- Budryk, Z. (2019, July 19). George Conway renews 'pathological narcissist' attack on Trump in tweetstorm. *The Hill*. Retrieved from <https://thehill.com/homenews/administration/452580-george-conway-renews-pathological-narcissist-attack-on-trump-in>
- Bump, P. (2019, April 3). Another Trump birther conspiracy debunked with a birth certificate. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/politics/2019/04/03/another-trump-birther-conspiracy-debunked-with-birth-certificate-this-time-his-father/>
- Buncombe, A. (2020, March 24). Coronavirus: Hundreds of Asian Americans have been violently attacked over last month because of 'China virus' racism, activists say. *Independent*. Retrieved from <https://www.independent.co.uk/news/world/americas/trump-china-virus-coronavirus-asian-americans-attack-activism-a9422721.html>
- Buser, S., & Cruz, L. (Eds.). (2017). *A clear and present danger: Narcissism in the era of president Trump*. Asheville, NC: Chiron.
- Campbell, C. (2018, July 25). Gaming's toxic men, explained. Experts tackle the phenomenon of angry men, trolls, racists and misogynists who hover around the video game industry. *Polygon*. Retrieved from <https://www.polygon.com/2018/7/25/17593516/video-game-culture-toxic-men-explained>
- Cardona, M. (2019, July 16). Why Trump's bigoted tropes won't work in 2020. *The Hill*. Retrieved from <https://thehill.com/opinion/campaign/453152-why-trumps-bigoted-tropes-wont-work-in-2020>
- Carney, J. (2020, February 11). Senate GOP blocks three election security bills. *The Hill*. Retrieved from <https://thehill.com/homenews/house/482569-senate-gop-blocks-three-election-security-bills>
- Carpenter, A. (2018). *Gaslighting America: Why we love it when Trump lies to us*. New York, NY: Broadside Books.
- Case, A., & Deaton, A. (2017). Mortality and morbidity in the 21st century. *Brookings Institution*. Retrieved from <https://www.brookings.edu/wp-content/uploads/2017/08/casetextsp17bpea.pdf>
- Cassino, D. (2016). *Fox news and American politics: How one channel shapes American politics and society* (Routledge studies in political psychology). New York, NY: Routledge. <https://doi.org/10.4324/9781315707488>
- Center on Budget and Policy Priorities. (2019, June 6). Chart book: The legacy of the great recession. *Center on Budget and Policy Priorities*. Retrieved from <https://www.cbpp.org/research/economy/chart-book-the-legacy-of-the-great-recession>

- Chapman, M. (2019, August 9). Mitch McConnell is the greatest threat to American democracy. *Salon*. Retrieved from https://www.salon.com/2019/08/09/mitch-mcconnell-is-the-greatest-threat-to-democracy_partner/
- Chibbaro, L., Jr. (2019, February 6). D.C. sees alarming increase in anti-LGBT hate crimes in 2018. *Washington Blade*. Retrieved from <https://www.washingtonblade.com/2019/02/06/d-c-sees-alarming-increase-in-anti-lgbt-hate-crimes-in-2018/>
- Chirumbolo, A. (2002). The relationship between need for cognitive closure and political orientation: The mediating role of authoritarianism. *Personality and Individual Differences*, 32, 603–610. [https://doi.org/10.1016/S0191-8869\(01\)00062-9](https://doi.org/10.1016/S0191-8869(01)00062-9)
- Chua, A. (2018). *Political tribes: Group instinct and the fate of nations*. New York, NY: Penguin Press.
- Clark, S. (2020, July 1). How white supremacy returned to mainstream politics. *Center for American Progress*. Retrieved from <https://www.americanprogress.org/issues/security/reports/2020/07/01/482414/white-supremacy-returned-mainstream-politics/>
- CNN Business. (2019, March 24). George Conway urges press to cover Trump's 'narcissism'. *CNN*. Retrieved from <https://www.cnn.com/videos/business/2019/03/24/george-conway-urgespress-to-look-at-trumps-narcissism.cnn>
- Cohen, C. J., Fowler, M., Medenica, V. E., & Rogowski, J. C. (2017). GenForward University of Chicago: October 2017 Report. In *The 'woke' generation? Millennial attitudes on race in the US*. Retrieved from <http://genforwardsurvey.com/>
- Cole, E. (2019, May 25). Mind the presidency. *Harvard Political Review*. Retrieved from <https://harvardpolitics.com/united-states/mind-the-presidency/>
- D'Antonio, M. (2016). *The truth about Trump*. New York, NY: Thomas Dunne Press.
- Dawkins, R. (1976). *The selfish gene*. New York, NY: Oxford University Press.
- Dean, J., & Altemeyer, B. (2019, March 20). Why do so many Americans continue to support Donald Trump? In a word: Authoritarianism. *Verdict Justica*. Retrieved from <https://verdict.justia.com/2019/03/20/why-do-so-many-americans-continue-to-support-donald-trump-in-a-word-authoritarianism>
- Debats, D. L. H. M. (1996). *Meaning in life: Psychometric, clinical and phenomenological aspects*. Dissertation, University of Groningen, Groningen.
- DeBonis, M., & Bade, R. (2019). Omar apologizes after House Democratic leadership condemns her comments as 'anti-Semitic tropes'. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/nation/2019/02/11/its-all-about-benjamins-baby-ilhan-omar-again-accused-anti-semitism-over-tweets/>
- Diamond, D. (2018, February 19). Trump administration dismantles LGBT-friendly policies. *Politico*. Retrieved from <https://www.politico.com/story/2018/02/19/trump-lgbt-right-discrimination-353774>
- Douhat, R. (2019). Is anti-semitism exceptional? *The New York Times*, *SR11*. Retrieved from <https://www.nytimes.com/2019/03/09/opinion/is-anti-semitism-exceptional.html>
- Drezner, D. W. (2020, March 9). The unique incompetence of Donald Trump in a crisis. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/outlook/2020/03/09/unique-incompetence-donald-trump-crisis/>
- Duffy, C. (2019). Trump treats Fox News like state-run television, journalists say. *CNN*. Retrieved from <https://www.cnn.com/2019/09/01/mediafox-trump-reliable-sources>
- Durvasula, R. (2019, July 18). Flying monkeys, tycoons, narcissists and predators. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/guide-better-relationships/201907/flying-monkeys-tycoons-narcissists-and-predators>
- Dwyer, J. (2019). Trump's big tent revival: Are Trump rallies religious experiences? *Topic Magazine*. Retrieved from <https://www.topic.com/trump-s-big-tent-revival>
- Einenkel, W. (2019, August 12). Analysts say the frequency of Donald Trump's lies is increasing at an alarming rate—20 per day. *Daily Kos*. Retrieved from <https://www.dailykos.com/story/201912>
- Fattal, I. (2018, October 28). A brief history of anti-semitic violence in America. *The Atlantic*. Retrieved from <https://www.theatlantic.com/politics/archive/2018/10/brief-history-anti-semitic-violence-america/574228/>

- Fears, J. R. (2007, June 6). Freedom: The history of an idea. *Foreign Policy Research Institute*. Retrieved from <https://www.fpri.org/article/2007/06/freedom-the-history-of-an-idea/>
- Feinberg, A., Branton, R., & Martinez-Ebers, V. (2019, March 22). Counties that hosted a 2016 Trump rally saw a 226 percent increase in hate crimes. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/politics/2019/03/22/trumps-rhetoric-does-inspire-more-hate-crimes/>
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fisher, M., & Hobson, W. (2016, May 13). Donald Trump masqueraded as publicist to brag about himself. *The Washington Post*. Retrieved from https://www.washingtonpost.com/politics/donald-trump-alter-ego-barron/2016/05/12/02ac99ec-16fe-11e6-aa55-670cabef46e0_story.html
- Flood, A. (2016, October 3). Hitler speeches published with Donald Trump as cover illustration. *The Guardian*. Retrieved from <https://www.theguardian.com/books/2016/oct/03/hitler-speeches-published-with-donald-trump-as-cover-illustration>
- Flynn, K. (2019, February 22). The 2020 meme election: How memes became a mainstream tool in politics. *Digiday*. Retrieved from <https://digiday.com/marketing/meme-election-memes-became-mainstream-tool-politics/>
- Forgey, Q. (2019, August 6). FBI agents warn domestic terrorism poses ‘threat to the American people’. *Politico*. Retrieved from <https://www.politico.com/story/2019/08/06/fbi-domestic-terrorism-threat-to-american-people-1449105>
- Frankfurt, H. G. (2005). *On bullshit*. Princeton, NJ: Princeton University Press.
- Frazer, R. (2019, November 23). Impeachment witnesses come under threats, harassment. *The Hill*. Retrieved from <https://thehill.com/homenews/house/471703-impeachment-witnesses-come-under-threats-harassment>
- Fromm, E. (1941). *Escape from freedom*. New York, NY: Avon Books.
- Garau, A. (2017). Trump psychologically unfit for office, over 15,000 medical professionals say. *All That’s Interesting*. Retrieved from <https://allthatsinteresting.com/mental-health-trump>
- Gartner, J. (2017, May 4). Donald Trump’s malignant narcissism is toxic: Psychologist. *USA Today*. Retrieved from <https://www.usatoday.com/story/opinion/2017/05/04/trump-malignant-narcissistic-disorder-psychiatry-column/101243584/>
- Gessen, M. (2017, June 4). Incompetence won’t save our democracy. *The New York Times*, sr1.
- Gill, P. (2019, July 1). What is a meme? How to internet & network basics. *Lifewire*. Retrieved from <https://www.lifewire.com>
- Gillman, S. L., & Katz, S. T. (1993). *Anti-semitism in times of crisis*. New York, NY: NYU Press.
- Gold, M. (2019, March 15). Ginsburg’s image is target of anti-semitic vandalism. *The New York Times*, A27.
- Green, E. (2016, December 5). Are Jews white? *The Atlantic*. Retrieved from <https://www.theatlantic.com/politics/archive/2016/12/are-jews-white/509453/>
- Green, J. (2018). *Devil’s bargain: Steve Bannon, Donald Trump, and the nationalist uprising*. New York, NY: Penguin Random House.
- Guera, D., & Delp, E. J. (2018). Deepfake video detection using recurrent neural networks. In *15th IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS)* (pp. 1–6). Washington, DC: IEEE.
- Güth, W., & Kocher, M. G. (2013). More than thirty years of ultimatum bargaining experiments: Motives, variations, and a survey of the recent literature. *Jena Economic Research Papers*, 035. Retrieved from <https://core.ac.uk/download/pdf/19496829.pdf>
- Güth, W., Schmittberger, R., & Schwarze, B. (1982). An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization*, 3, 367–388.
- Haider, M. (2018, October 22). Authoritarians like Trump target trans people for a reason. *The Guardian*. Retrieved from <https://www.theguardian.com/commentisfree/2018/oct/22/authoritarians-target-trans-people-democracy-patriarchy>
- Hauser, C. (2019, March 10). Catholic school turns child away and faces revolt. *The New York Times*, 17.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York, NY: Wiley.

- Hess, A. (2017, June 18). Ice storm. *The New York Times Magazine*, 11–13.
- Hetherington, M. J., & Weiler, J. D. (2009). *Authoritarianism and polarization in American politics*. New York, NY: Cambridge University Press.
- Hetzer, M., & Sornette, D. (2013). An evolutionary model of cooperation, fairness and altruistic punishment in public good games. *PLoS One*, 8(11), e77041. <https://doi.org/10.1371/journal.pone.0077041>
- Higham, J. (1957). Social discrimination against Jews in America, 1830–1930. *Publications of the American Jewish Historical Society*, 47(1), 1–33.
- Hitler, A. (Author), de Roussy de Sales, R. (Translator). (1941). *Sloan, S. (Introduction), (2016). My new order: A collection of speeches by Adolph Hitler*. Bronx, NY: Ishi Press.
- Hochschild, A. R. (2018, January 19). Trump has divided the country. Some Americans are trying to bring us back together. *Time*. Retrieved from <https://time.com/5109800/political-divide-republicans-donald-trump/>
- Human Rights Report. (2018, February 19). “All we want is equality”: Religious exemptions and discrimination against LGBT people in the United States. *Human Rights Watch*. Retrieved from <https://www.hrw.org/report/2018/02/19/all-we-want-equality/religious-exemptions-and-discrimination-against-lgbt-people>
- Israel, S. (2020, January 29). How long will the president go? *The Hill*. Retrieved from <https://thehill.com/opinion/white-house/480494-how-long-will-the-president-go>
- Jacobson, Z. J. (2018, May 21). Many are worried about the return of the ‘Big Lie.’ They’re worried about the wrong thing. We shouldn’t fret about the Big Lie. But all the little ones might be just as dangerous. *The Washington Post*. Retrieved from <https://beta.washingtonpost.com/news/made-byhistory/wp/2018/05/21/many-are-worried-about-the-return-of-the-big-lie-theyre-worried-about-thewrong-thing/>
- Jamieson, K. H. (2018). *Cyberwar: How Russian hackers and trolls helped elect a president what we don’t, can’t, and do know*. New York, NY: Cambridge University Press.
- Jikeli, G. (2015). *European Muslim antisemitism: Why young urban males say they don’t like Jews*. Bloomington, IN: University of Indiana Press.
- Jost, J. T. (2019). Anger and authoritarianism mediate the effects of fear on support for the far right—what Vasilopoulos et al. (2019) really found. *Political Psychology*, 40(4), 705–711. <https://doi.org/10.1111/pops.12567>
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339–375. <https://doi.org/10.1037/0033-2909.129.3.339>
- Jost, J. T., Stern, C., Rule, N. O., & Sterling, J. (2017). The politics of fear: Is there an ideological asymmetry in existential motivation? *Social Cognition*, 35(4), 324–353. <https://doi.org/10.1521/soco.2017.35.4.324>
- Jurecic, Q., & Wittes, B. (2020, March 10). Incompetence exacerbated by malevolence: The coronavirus has dangerously inverted a long-standing White House theme. *The Atlantic*. Retrieved from <https://www.theatlantic.com/ideas/archive/2020/03/incompetence-exacerbated-by-malevolence/607696/>
- Kates, J., Ranji, U., Salganicoff, A., & Dawson, L. (2018, May 3). Health and access to care and coverage for lesbian, gay, bisexual, and transgender (LGBT) individuals in the U. S. Disparities Policy. *Kaiser Family Foundation*. Retrieved from <https://www.kff.org/disparities-policy/issue-brief/health-and-access-to-care-and-coverage-for-lesbian-gay-bisexual-and-transgender-individuals-in-the-u-s/>
- Kernberg, O. F. (1989). The Narcissistic Personality disorder and the differential: Diagnosis of antisocial behavior. *Psychiatric Clinics*, 12(3), 553–570. [https://doi.org/10.1016/S0193-953X\(18\)30414-3](https://doi.org/10.1016/S0193-953X(18)30414-3)
- Kessler, G. (2020, July 14). Trump ad falsely suggests Biden supports defunding police. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/politics/2020/07/14/trump-ad-falsely-suggests-biden-supports-defunding-police/>

- Kessler, G., Rizzo, S., & Kelly, M. (2020, January 20). President Trump has made 16,241 false or misleading claims in his first three years. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/politics/2020/01/20/president-donald-trump-made-16241-false-or-misleading-claims-in-his-first-three-years>
- Khan, A. (2019, August 16). Getting killed by police is a leading cause of death for young black men in America. *Los Angeles Times*. Retrieved from <https://www.latimes.com/science/story/2019-08-15/police-shootings-are-a-leading-cause-of-death-for-black-men>
- Khullar, D. (2018, October 9). Stigma against gay people can be deadly. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/10/09/well/live/gay-lesbian-lgbt-health-stigma-laws.html>
- Kingsley, P. (2019, April 5). Bias shared by extremes of right, left, and Islam. *The New York Times*, A1–A8. Retrieved from <https://www.nytimes.com/2019/04/04/world/europe/antisemitism-europe-united-states.html>
- Knowles, E. D., & Tropp, L. R. (2018). The racial and economic context of Trump support: Evidence for threat, identity, and contact effects in the 2016 Presidential Election. *Social Psychological and Personality Science*, 9(3), 275–284. <https://doi.org/10.1177/1948550618759326>
- Kruglanski, A., Jasko, K., Webber, D., Chernikova, M., & Molinario, E. (2018). The making of violent extremists. *Review of General Psychology*, 22(1), 107–120. <https://doi.org/10.1037/gpr0000144>
- Kruglanski, A. W., & Fishman, S. (2009). The need for cognitive closure. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 343–353). New York, NY: The Guilford Press.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108, 480–498.
- Lancer, D. (2018, October 8). Donald Trump and the narcissistic illusion of grandiosity. *Psych Central*. Retrieved from <https://psychcentral.com/lib/donald-trump-and-the-narcissistic-illusion-of-grandiosity/>
- Lee, B. X. (Ed.). (2017). *The dangerous case of Donald Trump: 27 psychiatrists and mental health experts assess a president*. New York, NY: St. Martin's Press.
- Levin, B. (2019, March 21). Why White Supremacist attacks are on the rise, even in surprising places. *Time*. Retrieved from <https://time.com/5555396/white-supremacist-attacks-rise-new-zealand/>
- Levitin, D. J. (2014). *The organized mind: Thinking straight in the age of information overload*. New York, NY: Penguin Random House.
- Levitin, D. J. (2016). *Weaponized lies: How to think critically in the post-truth era*. New York, NY: Penguin Random House.
- Lipman-Blumen, J. (2005). *The allure of toxic leaders*. New York, NY: Oxford University Press.
- Lipstadt, D. E. (2019). *Antisemitism*. New York, NY: Schocken Books.
- Liptak, A. (2018, June 4). In narrow decision, Supreme Court sides with baker who turned away gay couple. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/06/04/us/politics/supreme-court-sides-with-baker-who-turned-away-gay-couple.html>
- Lopez, G. (2019, July 15). Donald Trump's long history of racism, from the 1970s to 2019. *Vox*. Retrieved from <https://www.vox.com/donald-trump-racist-racism-history>
- MacWilliams, M. (2016, January 17). The one weird trait that predicts whether you're a Trump supporter. *Politico*. Retrieved from <https://www.politico.com/magazine/story/2016/01/donald-trump-2016-authoritarian-213533>
- Mahler, J., & Rutenberg, J. (2019, April 7). How Rupert Murdoch's empire of influence remade the world, part 3: The new Fox weapon. *The New York Times Magazine*. Retrieved from <https://www.nytimes.com/interactive/2019/04/03/magazine/rupert-murdoch-fox-news-trump.html>
- Marcuse, H. (2016). The origin and reception of Martin Niemöller's quotation, "First they came for the communists ...". In M. Berenbaum, R. Libowitz, & M. S. Littell (Eds.), *Remembering for the future: Armenia, Auschwitz, and beyond* (pp. 173–200). Saint Paul, MN: Paragon House.
- Marks, J. (2019, September 9). The cybersecurity 202: Here's why Mitch McConnell is blocking election security bills. *The New York Times*. Retrieved from <https://www.washingtonpost.com/news/powerpost/paloma/the-cybersecurity-202/2019/09/09/the-cybersecurity-202-here->

- s-why-mitch-mcconnell-s-blocking-election-security-bills/5d758b86602ff171a5d734b6/
- Martin, L. L., Horton, H. D., & Booker, T. A. (2015). *Lessons from the black working class: Foreshadowing America's economic health*. Westport, CT: Praeger Publishers.
- Massing, M. (2020, January 24). Most political unrest has one big root cause: Soaring inequality. *The Guardian*. Retrieved from <https://www.theguardian.com/commentisfree/2020/jan/24/most-political-unrest-has-one-big-root-cause-soaring-inequality>
- Mattison, K. (2016, April 21). Donald Trump, American narcissist: For Donald Trump, narcissism takes precedence over fascism. *Democracy. A Journal of Ideas*. Retrieved from <https://democracyjournal.org/arguments/donald-trump-american-narcissist/>
- Mayer, J. (2018, September 24). How Russia helped swing the election for Trump. *The New Yorker*. Retrieved from <https://www.newyorker.com/magazine/2018/10/01/how-russia-helped-to-swing-the-election-for-trump>
- Mayer, J. (2019, March 4). The making of the Fox news White House. *The New Yorker*. Retrieved from <https://www.newyorker.com/magazine/2019/03/11/the-making-of-the-fox-news-white-house>
- McIntyre, L. (2018). *Post-truth*. Cambridge, MA: MIT Press.
- Meatto, K. (2019, May 2). Still separate, still unequal: Teaching about school segregation and educational inequality. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/05/02/learning/lesson-plans/still-separate-still-unequal-teaching-about-school-segregation-and-educational-inequality.html>
- Milgram, S. (1963). Behavioral study of obedience. *The Journal of Abnormal and Social Psychology*, 67(4), 371–378. <https://doi.org/10.1037/h0040525>
- Mitroff, S. (2016, May 5). What is a bot? Here's everything you need to know. *CNET*. Retrieved from <https://www.cnet.com/how-to/what-is-a-bot/>
- Mordock, J. (2020, February 4). Arizona man accused of trying to kill Adam Schiff. *The Washington Times*. Retrieved from <https://www.washingtontimes.com/news/2020/feb/4/jan-peter-meister-indicted-threatening-kill-adam-s/>
- Morganson, E. (2017, February 3). The decline of Jewish whiteness in the age of Trump. *The Activist History Review*. Retrieved from <https://activisthistory.com/2017/02/03/the-decline-of-jewish-whiteness-in-the-age-of-trump/>
- Mukunda, G. (2018, September 5). The social and political costs of the financial crisis, 10 years later. *Harvard Business Review*. Retrieved from <https://hbr.org/2018/09/the-social-and-political-costs-of-the-financial-crisis-10-years-later>
- Murphy, H. (2019, March 27). Support of L.G.B.T. rights drops among Republicans under 30, a survey finds. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/03/26/us/lgbt-rights-young-republicans.html>
- Murphy, M. (2020, July 24). Black women are the victims of police violence, too. Breonna Taylor's case isn't unusual. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/outlook/2020/07/24/police-violence-happens-against-women-too/>
- Nalewicki, J. (2016, November 21). The Electoral College has been divisive since day one. *Smithsonian.com*. Retrieved from <https://www.smithsonianmag.com/history/electoral-college-has-been-divisive-day-one-180961171/>
- Ngun, T. C., & Vilain, E. (2014). The biological basis of human sexual orientation: Is there a role for epigenetics? In D. Yamamoto (Ed.), *Epigenetic shaping of sociosexual interactions: From plants to humans* (pp. 167–184). Cambridge, MA: Elsevier.
- Nirkin, Y., Keller, Y., & Hassner, T. (2019, August 16). FSGAN: Subject agnostic face swapping and reenactment. *GroundAI*. Retrieved from <https://www.groundai.com/project/fsgan-subject-agnostic-face-swapping-and-reenactment/1>
- Nossiter, A. (2018, July 27). 'They spit when I walked in the street': The 'new anti-semitism' in France. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/07/27/world/europe/france-new-anti-semitism.html>

- Obeidallah, D. (2020, January 25). Trump's still normalizing anti-semitism, and it's only going to get worse. *The Daily Beast*. Retrieved from <https://www.thedailybeast.com/trumps-still-normalizing-anti-semitism-and-its-only-going-to-get-worse>
- Onraet, E., Van Hiel, A., Roets, A., & Cornelis, I. (2011). The closed mind: 'Experience' and 'cognition' aspects of openness to experience and need for closure as psychological bases for right-wing attitudes. *European Journal of Personality*, 25, 184–197. <https://doi.org/10.1002/per.775>
- Parker, A. (2020, January 29). All the president's disloyal men: Trump demands fealty but inspires very little. *The Washington Post*. Retrieved from https://www.washingtonpost.com/politics/all-the-presidents-disloyal-men-trump-demands-loyalty-but-inspires-very-little/2020/01/29/2d5eb2ec-4206-11ea-b503-2b077c436617_story.html
- Parker, A., Dawsey, J., & Abutaleb, Y. (2020, March 30). Both public health and politics played a role in Trump's coronavirus decision. *The Washington Post*. https://www.washingtonpost.com/politics/both-public-health-and-politics-played-a-role-in-trumps-coronavirus-decision/2020/03/30/f2912acc-729e-11ea-a9bd-9f8b593300d0_story.html
- Paz, C. (2020, August 30). All the president's lies about the Coronavirus: An unfinished compendium of Trump's overwhelming dishonesty during a national emergency. *The Atlantic*. <https://www.theatlantic.com/politics/archive/2020/08/trumps-lies-about-coronavirus/608647/>
- Pettigrew, T. F. (2017). Social psychological perspectives on Trump supporters. *Journal of Social and Political Psychology*, 5(1), 107–116. <https://doi.org/10.5964/jssp.v5i1.750>
- Pew Research Center. (2016). On views of race and inequality, blacks and whites are worlds apart. *Pew Social Trends*. Retrieved from <https://www.pewsocialtrends.org/2016/06/27/on-views-of-race-and-inequality-blacks-and-whites-are-worlds-apart/>
- Poole, S. (2018, February 23). What's the difference between a troll and a sockpuppet? *The Guardian*. Retrieved from <https://www.theguardian.com/books/2018/feb/23/troll-steven-poole-word-of-week>
- Posner, E. A. (2018). The dictator's handbook, US edition. In C. Sunstein (Ed.), *Can it happen here? Authoritarianism in America*. New York, NY: HarperCollins.
- Powell, J. (2017, November 8). Us vs. them: The sinister techniques of 'Othering' – And how to avoid them. *The Guardian*. Retrieved from <https://www.theguardian.com/inequality/2017/nov/08/us-vs-them-the-sinister-techniques-of-othering-and-how-to-avoid-them>
- Rhetorica. (n.d.). Tropes and schemes. *Rhetorica*. Retrieved from <http://rhetorica.net/tropes.htm>
- Rice, W. R., Friberg, U., & Gavrilets, S. (2012). Homosexuality as a consequence of epigenetically canalized sexual development. *Quarterly Review of Biology*, 87(4), 343–368. Retrieved from <http://www.jstor.org/stable/10.1086/668167>
- Robison, S. K. (2016). The political implications of epigenetics: Emerging narratives and ideologies. *Politics and the Life Sciences*, 35(2), 30–53. <https://doi.org/10.1017/pls.2016.14>
- Roets, A., & Van Hiel, A. (2006). Need for closure relations with authoritarianism, conservative beliefs and racism: The impact of urgency and permanence tendencies. *Psychologica Belgica*, 46, 235–252. <https://doi.org/10.5334/pb-46-3-235>
- Rose, M., & Soufan, A. H. (2020, February 20). The white supremacist threat that is real. *The New York Times*, A27. Retrieved from <https://www.nytimes.com/2020/02/11/opinion/politics/white-supremacist-terrorism.html>
- Ross, J. (2020, February 3). 'Tidal wave of voter suppression' washes over states, lawyer says. *NBC News*. Retrieved from <https://www.nbcnews.com/news/nbcblk/presidential-voting-season-tidal-wave-voter-suppression-washing-over-multiple-n1128041>
- Rothstein, B. (2018). Politics of fear versus politics of hope. *Social Europe*. Retrieved from <https://www.socialeurope.eu/politics-of-fear-versus-politics-of-hope>
- Rubin, J. (2019, August 1). Just how big a problem is voter suppression? *The Washington Post*. <https://www.washingtonpost.com/opinions/2019/08/01/just-how-big-problem-is-voter-suppression/>. <https://www.washingtonpost.com/opinions/2019/08/01/just-how-big-problem-is-voter-suppression/>

- Ruttenberg, D. (2018, October 28). The victims of the Tree of Life synagogue massacre are martyrs. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/outlook/2018/10/28/victims-tree-life-synagogue-massacre-are-martyrs/>
- Ryckaert, V. (2019, February 18). An Indiana tax service turned away a gay couple. Both sides claim discrimination. *Indianapolis Star*. Retrieved from <https://www.indystar.com/story/news/2019/02/18/rfra-same-sex-marriage-indiana-discrimination-russiaville-mike-pence/2903487002/>
- Salsberg, B., & Kastanis, A. (2018, April 2). Analysis: Blacks largely left out of high-paying jobs, government data shows. *USA Today*. Retrieved from <https://www.usatoday.com/story/money/2018/04/02/analysis-blacks-largely-left-out-high-paying-jobs-government-data-shows/477845002/>
- Sandoval, S. (2019, July 25). Senate republicans block 5 election security bills in 2 days. *Newsy*. Retrieved from <https://www.newsy.com/stories/senate-republicans-block-5-election-security-bills-in-2-days/>
- Saramo, S. (2017). The meta-violence of trumpism. *European Journal of American Studies*, 12(2). Retrieved from <https://journals.openedition.org/ejas/12129>
- Sarkis, S. (2018, October 3). Donald Trump is a classic gaslighter in an abusive relationship with America. *USA Today*. Retrieved from <https://www.usatoday.com/story/opinion/2018/10/03/trump-classic-gaslighter-abusive-relationship-america-column/1445050002/>
- Sarkis, S. (2020, March 12). COVID-19: It's not about Europe, it's about incompetence. *Forbes*. Retrieved from <https://www.forbes.com/sites/stephaniesarkis/2020/03/12/covid-19-its-not-about-europe-its-about-incompetence/#62bb1cb0122e>
- Schneider, B. (2015, October 28). The rise of political doxing. *Vice*. Retrieved from https://www.vice.com/en_us/article/z43bm8/the-rise-of-political-doxing
- Scott, E. (2018, November 14). The year of dog whistle politics. *The Washington Post*.
- Sharif, D. (2019, July 19). A return to old tricks and tropes for Trump. *The Root*. Retrieved from <https://www.theroot.com/a-return-to-old-tricks-and-tropes-for-trump-1836550263>
- Skelly, G. (2020, September 4). Trump's law and order message isn't resonating with most Americans. *FiveThirtyEight*. <https://fivethirtyeight.com/features/trumps-law-and-order-message-isnt-resonating-with-most-americans/>
- Snyder, T. (2017). *On tyranny: Twenty lessons from the twentieth century*. New York, NY: Tim Duggin Books.
- Solomon, S., Greenberg, J., & Pyszcznski, T. (2015). *The worm at the core: On the role of death in life*. New York, NY: Random House.
- Sonmez, F., & DeBonis, M. (2019, July 14). Trump tells four liberal congresswomen to 'go back' to their countries, prompting Pelosi to defend them. *The Washington Post*. <https://doi.org/10.1371/journal.pone.0077041>. Retrieved from https://www.washingtonpost.com/politics/trump-says-four-liberal-congresswomen-should-go-back-to-the-crime-infested-places-from-which-they-came/2019/07/14/b8bf140e-a638-11e9-a3a6-ab670962db05_story.html
- Southern Poverty Law Center. (2020). The year in hate and extremism 2019: Extremist hate threatens pluralistic democracy. *Southern Poverty Law Center Report*, 5–14. Retrieved from https://www.splcenter.org/sites/default/files/yih_2020_final.pdf
- Southern Poverty Law Center. (2017). Alt-Right. *Southern Poverty Law Center*. Retrieved from <https://www.splcenter.org/fighting-hate/extremist-files/ideology/alt-right>
- Stanley, J. (2018). *How fascism works: The politics of us and them*. New York, NY: Random House.
- Stember, C. H. (1966). *Jews in the mind of America*. New York, NY: Basic Books.
- Stephens, B. (2017, February 26). Don't dismiss president Trump's attacks on the media as mere stupidity. Daniel Pearl Memorial Lecture, University of California, Los Angeles. *Time*. Retrieved from <https://time.com/4675860/donald-trump-fake-news-attacks/>
- Stephens, B. (2019, February 3). An ancient and abiding hatred. *The New York Times Book Review*, 8.
- Stoll, I. (2009, April 7). Anti-semitism and the economic crisis. Many people still blame Jews for capitalism's faults. *The Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/SB123906114937094859>

- Sullivan, M. (2019a May 1). Fact-checking President Trump isn't enough. *The Washington Post*. Retrieved from https://www.washingtonpost.com/lifestyle/style/with-trump-on-pace-for-22500-lies-before-election-day-fact-checking-isnt-enough/2019/04/30/f54bb35e-6b6a-11e9-8f44-e8d8bb1df986_story.html
- Sullivan, M. (2019b, May 17). Trump won't stop coining nasty nicknames for his foes, but the media must stop amplifying them. *The Salt Lake Tribune*. Retrieved from https://www.washingtonpost.com/lifestyle/style/trump-wont-stop-coining-nasty-nicknames-for-his-foes%2D%2Dbut-the-media-must-stop-amplifying-them/2019/05/15/fa49cb52-7727-11e9-b3f5-5673edf2d127_story.html
- Sunstein, C. R. (2018). *Can it happen here? Authoritarianism in America*. New York, NY: Cambridge University Press.
- Sunstein, C. R. (2019). *On freedom*. Princeton, NJ: Princeton University Press.
- Sykes, C. J. (2017). *How the right lost its mind*. New York, NY: St. Martin's Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks/Cole.
- Tatem, S., & Acosta, J. (2017, November 29). Report: Trump continues to question Obama's birth certificate. *CNN*. Retrieved from <https://edition.cnn.com/2017/11/28/politics/donald-trump-barack-obama-birth-certificate-nyt/index.html>
- The Times Editorial Board (2020, June 4). Editorial: A very abbreviated history of police officers killing Black people. *Los Angeles Times*. Retrieved from <https://www.latimes.com/opinion/story/2020-06-04/police-killings-black-victims>
- Thompson, D. (2008). *Counterknowledge: How we surrendered to conspiracy theories, quack medicine, bogus science and fake history*. New York, NY: Norton.
- Toffler, A. (1970). *Future shock*. New York, NY: Bantam Books.
- Trewnnard, T. (2016, February 4). Sockpuppets and spambots: How states manipulate social networks. *Meedan Updates*. Retrieved from <https://medium.com/meedan-updates/sockpuppets-and-spambots-how-states-manipulate-social-networks-c77ecdc46e0a>
- Umbach, M. (2016, September 21). Just how similar is Donald Trump to Adolf Hitler? *Newsweek*. Retrieved from <https://www.newsweek.com>
- van der Toorn, J., Jost, J. T., Packer, D. J., Noorbaloochi, S., & Van Bavel, J. J. (2017). In defense of tradition: Religiosity, conservatism, and opposition to same-sex marriage in North America. *Personality & Social Psychology Bulletin*, 43(10), 1455–1468. <https://doi.org/10.1177/0146167217718523>
- Vasilopoulos, P., Marcus, G. E., Valentino, N. A., & Foucault, M. (2019). Fear, anger, and voting for the far right: Evidence from the November 13, 2015 Paris terror attacks. *Political Psychology*, 40(4), 679–704. <https://doi.org/10.1111/pops.12513>
- Vincent, A. (2017). Spambots: Why they're more serious than you think. *ITProPortal*. Retrieved from <https://www.itproportal.com/features/spambots-why-theyre-more-serious-thanyou-think/>
- Vock, D. C., Charles, J. B., & Maciag, M. (2019, January 23). How housing policies keep white neighborhoods so white: Broken homes. *Governing*. Retrieved from <https://www.governing.com/topics/health-human-services/gov-segregation-housing.html>
- Waldman, P. (2019, July 30). Where Trump's racist rants come from. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/opinions/2019/07/30/where-trumps-racist-rants-come/>
- Walters, J. (2020, January 20). What are the articles of impeachment against Donald Trump? *The Guardian*. Retrieved from <https://www.theguardian.com/us-news/2020/jan/20/what-are-trump-articles-of-impeachment>
- Warzel, C. (2019, August 18). Gamergate gave us the post-truth information war. *The New York Times*, 6–7SR.
- Wedge, M. (2017, January 23). The historical origin of “alternative facts”. *Psychology Today*.
- Whatis.com. (2020). TechTarget. Definition spambot. *Whatis.com*. Retrieved February 13, 2020, from <https://whatis.techtarget.com/definition/spambot>

- White, A. I. R., & King, K. Q. (2020, March 24). The U.S. has an ugly history of blaming ‘foreigners’ for disease. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/politics/2020/03/24/us-has-an-ugly-history-blaming-foreigners-disease/>
- Whitehead, A. L. (2014). Politics, religion, attribution theory, and attitudes toward same-sex unions. *Social Science Quarterly*, 95(3), 701–718. <https://doi.org/10.1111/ssqu.12085>
- Wilson, R. (2018). *Everything Trump touches dies: A republican strategist gets real about the worst president ever*. New York, NY: Simon & Schuster, Inc..
- Wolff, M. (2018). *Fire and fury: Inside the Trump White House*. New York, NY: Henry Holt.
- Wood, P., & Bartkowski, J. (2004). Attribution style and public policy attitudes toward gay rights. *Social Science Quarterly*, 85(1), 58–74. Retrieved from <http://www.jstor.org/stable/42955927>
- Woodward, B. (2018). *Fear: Trump in the White House*. New York, NY: Simon & Shuster.
- Wright, J. D., & Esses, V. M. (2018). It’s security, stupid! Voters’ perceptions of immigrants as a security risk predicted support for Donald Trump in the 2016 US presidential election. *Journal of Applied Social Psychology*, 49(1), 36–49. <https://doi.org/10.1111/jasp.12563>
- Zimbardo, P. (1969). *The cognitive control of motivation*. Glenview, IL: Scott/Foresman.

Psychological Mechanisms Underlying the Populist Threat to Democracy



Joan S. Rabin

Authoritarian populism is spreading through the United States, Western and Eastern Europe, threatening long existing democracies. This is a response to social change and to the economic consequences of the 2008 recession. Donald Trump is riding the crest of this social movement and undermining American democracy in profoundly disturbing ways. His relentless use of fear, anger, lies, and intimidation places him very much in the mode of Adolph Hitler.

While it is important to document the damage that Trump is doing, it is equally vital to understand the psychological basis of his support. Trump core followers exhibit a constellation of traits and are influenced by specific psychological factors. Not all of Trump's supporters are authoritarian. Understanding the full range of Trump supporters and what human needs Trump support fills, brings critical insight into the political power of demagoguery.

Populism Threatens Democracy

There are many definitions of populism, extending from positive to negative. Political philosophy currently centers on the work of Ernesto Laclau and Chantal Mouffe wherein populism is seen as the essence of politics and a liberating force, by mobilizing groups excluded from power. The popular agency perspective reflects the way past populist movements in America tend to be treated by historians. Populism is seen as functional democracy built on the foundation of popular participation in politics (Mudde & Kaltwasser, 2017).

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Folkloric Style Populism

Barry Eichengreen (2018, p. 1) views populism as “a political movement with anti-elite, authoritarian, and nativist tendencies”. This view meshes well with the folkloric style of politics used by leaders and or political parties to engage the masses to their cause. In the folkloric style,

populism alludes to amateurish and unprofessional political behavior that aims to maximize media attention and popular support. By disrespecting the dress code and language manners, populist actors are able to present themselves not only as different and novel, but also as courageous leaders who stand with ‘the people’ in opposition to “the elite”. (Mudde & Kaltwasser, 2017, p. 4)

The folkloric style completely characterizes Donald Trump from his ridiculously long ties to his characteristically outrageous language (Blow, 2019; Davis & Rogers, 2018). Over the three years of his presidency Donald Trump has normalized extreme behavior and rhetoric previously condemned by society. By sheer repetition he has normalized lying, (Urban, 2019), sexism (Baird, 2019), irrationality (Smith, 2019), disjointed language (Wehner, 2019), and most of all, corruption/abuse of power (Gerson, 2020).

Michael Massing calls Trump’s populism both odd and ever-changing, as well as challenging to analyze and explain. “It’s a strange mix of economic nationalism and cultural nativism, deregulatory zeal and protectionist impulses, common-man fanfare and plutocratic pomp, patriotic support for the military and isolationist antipathy to interventionism, inflammatory demagoguery, raucous rallies, unapologetic vulgarity, and racist inflections” (Massing, 2018a, 2018b, para. 19). Trump adds his own chaotic style to folkloric populism. Massing argues that journalists and educated “elites” have been overwhelmed with the complexities of Trumpian populism.

Populism and the Elite

The elite is a term that is central to populist discontent. What the term functionally represents to populists is power. Those who have power are the elite, which by definition is what populists do not have. Populists fume over their powerless victimhood.

Most populists not only detest the political establishment, but they also critique the economic elite, the cultural elite, and the media elite. All of these are portrayed as one homogeneous corrupt group that works against the “general will” of the people. (Mudde & Kaltwasser, 2017, p. 12)

Populist Rage

Populism as it appears to function in the current American political situation is largely premised on social grievance that is not being addressed by those in power. Part of that sense of grievance may stem from anger at those in power for protecting minorities. Steven Hahn (2019, p. 27) sees populism as encapsulating the “rage often found among white and native-born voters across Europe and parts of the Western Hemisphere, who regard themselves as victimized by established political institutions, the corrupt practices of politicians, and the influx of migrants from afar.” Currently, populism in both the United States, Great Britain, and Europe is often based on nativism and ethnocracy (Mudde & Kaltwasser, 2017). The pervasive sense of victimhood among populists, fuels potential violence. Populist irrational rage represents a direct threat to liberal democracy (Galston, 2018; Hahn, 2019; Levin, 2019; Mounk, 2018).

Populist Nativism and Immigrant Dehumanization

Donald Trump is clearly waging his 2020 presidential re-election bid as an appeal to the populist nativism and ethnocracy currently rampant in the United States. The power of the non-native trope remains the same and survives beyond any actual facts. His constant anti-immigrant rantings are dehumanizing toward immigrants (Davis, 2018). When you take away people’s humanity, fascism is rampant. Philip Zimbardo (2007) wrote *The Lucifer Effect. Understanding How Good People Turn Evil*. A key dynamic for inducing evil is to dehumanize the other, the one who is not part of your identity group. Dehumanization occurs in the context of situational influences of power, conformity, and obedience. Situational influences explain much of human behavior. Different situations bring out different behaviors. Behavior has a context. Dehumanization occurs in the context of social situations which give the individual power over others. If one’s identity group is behaving badly, the need for social acceptance provides a powerful incentive for conformity. Obedience to those in power is a vital part of the process.

Economic Grievance vs. Economic Inequality in Populism

Economic grievance is a major source driving populism, but income inequality is not the same as the psychological dynamic of economic grievance (Eichengreen, 2018; Hinsliff, 2019; Solt, 2015). Historically, populism is more likely to arise during times of major income inequality (Antonio, 2019; Eichengreen, 2018). However, if a sense of economic grievance is not present, income inequality by itself does not

produce populism. Economic grievance includes expectations for the future not just the impact of present circumstances. Economic grievance is about loss or anticipated loss or fear of possible loss (Eichengreen, 2018). It is about a powerful sense of insecurity and about being left behind.

Economic grievance is isn't necessarily about money, it is mostly psychological (Schneider, 2019). Income inequality that is perceived as a loss of social status produces the most dissatisfaction and therefore fosters a formidable sense of grievance. "Populist grievances, if left unaddressed, can descend into something worse" (Eichengreen, 2018, p. 9). This is how we got Donald Trump as president of the United States of America, despite the facts that he has no political experience, is largely a failed businessman, lives on inherited wealth, is morally corrupt, lies constantly, doesn't read much, doesn't listen at high-level briefings, is ignorant of geopolitics and geography, is a racist, is homophobic, encourages violence among his followers, and is a demagogue who threatens American democracy (Stevens, 2020; Blake, 2019; Chibbaro Jr., 2019; R. Cohen, 2019; Goldberg, 2019; Leonhardt, 2019; Ravani, 2019; Sarkis, 2018; Wilson, 2018; Wolff, 2018).

The Politics of Resentment

Katherine Cramer (2016) studied political perspectives in working class and lower middle class rural white people with regard to the Wisconsin election of right-wing conservative, Scott Walker for governor. She found that economic dispossession had created both economic and cultural insecurity. A pervasive sense of being overlooked and culturally disdained by the power establishment was evident for most rural voters. This resulted in a high level of resentment which was effectively exploited by conservative and right-wing political operatives in the Republican party. Cramer (2016) summarized the politics of resentment in an interview.

So the politics of resentment, then, involves political actors generating support by tapping into intergroup divides fueled by perceptions of distributive injustice. There are two main parts to this: the existence of perspectives of resentment and the actions of political elites that exploit those perspectives. When a substantial portion of the population perceives that they are not getting their fair share, and that this is the result of people in power giving their share to those who are less deserving, we are on fertile ground for a politics of "us versus them." (Shenck, 2017, para. 3)

The Demand for Dignity and Respect

Human beings are complex creatures indeed. So often human motivation is narrowed by political analysts to economic well-being and economic grievance. Humans, however, are highly motivated to meet certain psychological needs,

primary among them the need for dignity and respect. Human identity is predicated on social feedback. Identity is threatened by disrespect. Francis Fukuyama (2018) in describing threats to democracy around the world and in the United States, points out that political leaders in the populist mold reach out to marginalized groups to benefit from the politics of resentment. “In a wide variety of cases, a political leader has mobilized followers around the perception that the group’s dignity has been affronted, disparaged, or otherwise, disregarded” (Fukuyama, 2018, p. 7).

Democracies Are Messy

Autocracies are much more orderly than democracies. Mussolini made the trains run on time. The democratic process is often slow to meet the needs of a society because of the span of viewpoints represented in the government (Stavridis, 2018). Building consensus on anything takes time and effort. When people feel that the government doesn’t care about them and doesn’t meet their needs, citizens can turn away from the cumbersomeness of democracy and toward the power and authority of the autocrat who promises to bring order and fix everything. Order is the primary attraction for conservatives whose psychological make-up demands structure to maintain a sense of safety and security.

How to Kill Democracy

Donald Trump began his assault on democracy with his 2016 campaign in which he showed utter disdain for the democratic process by saying he would not accept the electoral victory of his opponent. The Republican party was complicit in this undermining of the key principle of a democratic election by supporting Trump, no matter what (Holmes, 2018). It has continued to do so. Only two Republican senators voted to have witnesses at Trump’s impeachment trial in the Senate (January, 2020), and only one Republican (Mitt Romney, Utah) voted to impeach president Trump.

To kill a democracy, journalism and journalists need to be destroyed. A free press is the foundation of democracy. “The President routinely describes reporting he dislikes as FAKE NEWS. The Administration calls the press ‘the opposition party’, ridicules news organizations it doesn’t like as business failures, and calls for journalists to be fired” (Stephens, 2017, para. 10). In addition to directly attacking journalists and journalism, Trump has dignified hundreds of online smear campaigners who disseminate conspiracy theories and other false information, and create memes favorable to the president (Rogers, 2019). By holding a “Social Media Summit” for conservative media supporters who thrive on subverting norms and bending the rules, just like Trump himself, the president was openly supporting the “alternative truths” that he relies on. Ostensibly the president was countering the censorship of

these very same online troublemakers because Facebook, Twitter, and other media sites have anti-hate language policies which these conservative social media people violated. Supporting hate-mongering from the White House along with alternative truth is yet another direct assault on democracy which updates the Hitler playbook to accomplish the same ends.

Mainstream Journalism Fights Back

On July 27, 2019 the president of the United States of America described Maryland's 7th congressional district as unlivable, rat infested, dangerous, filthy, and the "worst in the USA". It doesn't really matter that in the real world the 7th congressional district includes world famous Johns Hopkins Hospital, the Social Security Administration, and Fort McHenry for which the star-spangled banner was written. Nor does it matter that the median income for residents of the 7th district is above the national average. Because the district is majority black, Donald Trump hurled every anti-black stereotype he could think of in deriding the 7th. The reason for this assault was that Congressman Elijah Cummings represents the 7th district and has been actively pursuing the president's potentially illegal and even treasonous activities. Thankfully, a free press still exists in America and the editorial board of the *Baltimore Sun* fought back.

It's not hard to see what's going on here. The congressman has been a thorn in this president's side, and Mr. Trump sees attacking African American members of Congress as good politics, as it both warms the cockles of the white supremacists who love him and causes so many of the thoughtful people who don't to scream.

We would tell the most dishonest man to ever occupy the Oval Office, the mocker of war heroes, the gleeful grabber of women's private parts, the serial bankrupter of businesses, the useful idiot of Vladimir Putin and the guy who insisted there are "good people" among murderous neo-Nazis that he's still not fooling most Americans into believing he's even slightly competent in his current post. Or that he possesses a scintilla of integrity. Better to have some vermin living in your neighborhood than to be one. (Baltimore Sun Editorial Board, 2019).

As a 40-year resident of the Baltimore metropolitan area, I can't help but cheer for the *Baltimore Sun*. I personally witnessed so much positive growth in Baltimore city and so many caring people trying to make things better.

American Democracy Is not Democratically Structured

As the only democracy in the world that doesn't abide by the will of the people in the popular vote but instead uses an archaic Electoral College system which ironically was designed to thwart populist presidential candidates (Beinart, 2016), we

are stuck with a president who was allowed to win despite almost three million more votes cast for the opposition candidate who got 48% of the vote compared to 45.9% for the winner (The New York Times, 2017). The complete failure of the electoral college system to stop an authoritarian takeover shows how ineffective it is at fulfilling its original purpose.

It is “desirable,” Alexander Hamilton wrote in Federalist 68, “that the sense of the people should operate in the choice of” president. But is “equally desirable, that the immediate election should be made by men most capable of analyzing the qualities adapted to the station.” These “men”—the electors—would be “most likely to possess the information and discernment requisite to such complicated investigations.” And because of their discernment—because they possessed wisdom that the people as a whole might not—“the office of President will never fall to the lot of any man who is not in an eminent degree endowed with the requisite qualifications.” (Beinart, 2016, para. 9).

Impediments to Democracy: The Electoral College

“Five times in history, presidential candidates have won the popular vote but lost the Electoral College” (Roos, 2019, para 1). The Electoral College brought on partisan division as soon as it was proposed (Nalewicki, 2016). Beyond any philosophical concerns about populism, the pragmatic ploy was to give more political power to the Southern rural slave holding states, so that they would ratify the Constitution. The Electoral College was one of the many compromises that got the American Constitution passed (Roos, 2019). “The past 200 years have brought more than 700 proposed Constitutional amendments to either ‘reform or eliminate’ the Electoral College” (Nalewicki, 2016, para. 7). The Electoral College is in the Constitution, therefore, to remove it requires two-thirds majorities in both the House and Senate, followed by ratification of three-quarters of the states within 7 years. This is unlikely to happen as the low population states and the Republican party are in favor of the Electoral College over the popular vote (Cillizza, 2017).

There is a possible end-around to the Constitutional blockade. As of August 2019, 15 states and the District of Columbia have joined the National Popular Vote Interstate Compact (NPVIC) which would give all of their states’ Electoral College votes to the popular vote winner, but only when enough states join that a minimum of 270 Electoral College votes would be reached. This number is enough to elect the president. The states that have already joined are the blue states (majority Democratic), mostly on the West and Northeast coasts. (WA, OR, CA, NY, VT, MA, RI, CT, NJ, DE, MD) joined by CO, NM, IL, and HI. This represents 196 votes or 72.6% of the 270 votes needed (Ballotpedia, 2019).

Impediments to Democracy: The Senate

Some people in the United States have 3.6 times the voting power of others. This imbalance in democratic representation comes about because every state gets two senators. The Constitution gives the same two senators to Wyoming with a 2018 population of 577,737 and California with a 2018 population of 39,557,045 (U.S. Census Bureau QuickFacts, [n.d.](#)). Small population states have enormous power in the Senate with most of that going to Republicans since small population states tend to be rural and conservative. Of the 20 lowest population states, 15 are typically Republican (<http://www.theus50.com/fastfacts/population.php>). The 20 lowest population states represent 10% of the total American population. These same states control 40% of the United States Senate (Peçanha, [2020](#)).

Impediments to Democracy: Gerrymandering

“If there is one silver bullet that could fix American democracy, it’s getting rid of gerrymandering—the now commonplace practice of drawing electoral districts in a distorted way for partisan gain” (Klaas, [2017](#), para. 2). In 2014, 80% of the ten most gerrymandered districts were Republican. By creating partisan safe districts gerrymandering distorts representative democracy. “At some point or another over the last decade, Democrats have won the most votes but lost national elections for the presidency, the House and the Senate” (Cohn, [2019](#), para. 1). This means that the party getting fewer votes nevertheless claims control of the country.

Impediments to Democracy: Voter Suppression

When the Supreme Court destroyed the Voting Rights Act in 2010, counties with past histories of racial discrimination were let loose to disproportionately purge people of color from their voter lists. “Since Trump was elected 17 million people have been thrown off the voting rolls” (Rubin, [2019](#), para. 4).

Many other tactics have been used to limit the votes of racial minorities. Voting machine breakdowns are common in racial minority districts, along with insufficient voting machines (Levy, [2018](#)).

Voter purges are only one means of suppressing nonwhite and poor voters. Insufficient polling places (contributing to long lines and great travel distances to voting places), reduction in early-voting times, voter-ID laws and a host of other tactics like those we saw in Georgia’s governor race in 2018 suggest purges are part of a larger, deliberate plan that—oh look!—just happens to adversely affect voters you’d expect to vote for Democrats. (Rubin, [2019](#), para. 6)

Impediments to Democracy: The Presidential Primary Schedule

For the Democratic party the primary schedule which places the two predominantly white states of Iowa and New Hampshire first in line defeats diversity. Political power is taken away from racial minorities who are the heart of the Democratic party. Charles Blow (2020) has a simple solution. Have the first primary occur on the same date for Iowa, New Hampshire, South Carolina and Nevada. All four geographic areas of the country would be represented and African Americans and Hispanic, Latino/Latina would have meaningful input.

Impediments to Democracy: Citizens United

The Supreme Court ruling that corporations are citizens and therefore can contribute virtually unlimited amounts of money to political campaigns is one of the greatest threats to democracy in the modern era. The ruling opened the floodgates of political influence by the ultra-wealthy. Former Supreme Court Justice Louis Brandeis wrote “We can have a democratic society, or we can concentrate great wealth in the hands of a few. We cannot have both” (Lonegan, 1941, p. 42).

In the 2008 election between Barack Obama and Mitt Romney, David and Charles Koch spent \$100 million to support Republican candidates. After the Citizens United ruling in 2010, the Koch brothers donated \$750 million to the 2016 campaign that Donald Trump and many other Republicans won (Mayer, 2017). Republican majorities in the House and Senate were sustained. For Republicans, it was the best Congress that money can buy.

Impediments to Democracy: Dark Money

Jane Mayer (2017) has exposed the degree to which ultra-rich billionaires control American democracy through the molding of the American rightwing. Training grounds are provided through various foundations, such as the Koch brothers’ Americans for Prosperity. Elaborate gatherings are hosted by these foundations. Mayer coined the term “Kochtopus” to describe the tentacles that the Koch brothers have extended in support of the free market economy, free of regulation. Koch industries is heavily invested in oil and the Kochs have invested in (given huge political donations to) Republican politicians who will fight fuel economy standards and anti-pollution measures. In the United States, the Koch brothers and their billionaire associates are interested in a specific agenda which they actively promote: “low taxation, less regulation (especially on polluters), reduced entitlement spending, lower social-welfare spending, and anything that will help cripple unions” (Tomasky, 2019, p. 181).

Political scientist and journalist, Rachel Maddow (2019) has examined the research and journalistic reports on the relationship between geopolitics and the oil and gas industries. The greed, power, and corruption of the fossil fuel industries has undermined democracy everywhere that oil and gas are found worldwide. The political power of oil and gas magnates is almost unimaginable.

Billionaires brought unprecedented support to Donald Trump during his 2016 presidential campaign. Trump was able to bring reclusive billionaire, Robert Mercer (Renaissance Technologies, Cambridge Analytica) on board after Steve Bannon seduced him to Trump's camp during the 2016 election campaign (Green, 2017/2018). Mercer talked Trump into using Cambridge Analytica to tilt the election in his direction (Boag, 2018). Even though Mercer is more of a libertarian who wants to see government shrink to as tiny a mass as possible, he still backed Trump as a political investment. "Mercer has surrounded our President with his people, and his people have an outsized influence over the running of our country, simply because Robert Mercer paid for their seats" (Magerman, 2017, para. 11).

Robert Hackett (2016) writing in *Fortune* magazine delineated Trump's major billionaire supporters. They include a casino tycoon, a real estate speculator (who made his fortune betting against the real estate market just before the 2008 collapse), a football team owner, a CEO of a gasoline corporation, a bank owner, a media magnate with his own broadcasting network, and various financial management and hedge fund company owners. This is the kind of financial foundation that moneyed power brokers provide for a politician who they believe will advance their agendas, which have to do with money and power, not democracy. "When the government becomes more like a corporation, with the richest 0.001% buying shares and demanding board seats, then we cease to be a representative democracy and become an oligarchy instead" (Magerman, 2017, para. 3).

The financial core of the Republican Party: the wealthiest 1%, most industries, manufacturing, corporate agriculture, the NRA and other groups captured by the 1% are all in it for the money and power. They will support anyone who will do their bidding; they finance often bigoted candidates that cater to Trump's core of supporters. These politicians then pander to these people's emotional values to the detriment of their economic and physical needs (Cristdahl, 2019, para. 11).

Impediments to Democracy: Russian Internet Hacking

Russia was successful in undermining the 2016 presidential election (Shane & Marzetti, 2018) and is set to do the same in 2020 (Barnes & Goldman, 2019). The Republican controlled U. S. Senate refuses to pass election security measures to try to safeguard the 2020 election (Barrett & Collier, 2019). The Russian government created 24-h troll farms that infiltrated the American internet system with bots that pretended to be Americans (MacFarquhar, 2018). If anything, the Russians have gotten even more sophisticated in hacking the internet.

Characteristics of Trump Supporters

Considerable research has been done in an attempt to understand why so many people were motivated to vote for Donald Trump in 2016. The outcome has been the identification of key factors that explain what makes a core Trump supporter, but also what characterizes a wider group of less deeply devoted supporters. The identifying characteristics of the core Trump supporter are: authoritarianism, foundational racial prejudice, and vehement prejudice against immigrants, liberals, feminists, and minorities. Profound hostility toward women is a key identifier. The wider group of Trump voters can best be understood by their devotion to a common system of traditional shared values, attitudes and worldviews. This latter conservative orientation characterizes most Trump voters, including the core group.

Not all Trump supporters are motivated by pure racial prejudice and deep hostility toward women. Not all Trump supporters are profoundly authoritarian. The dynamic underlying support for Donald Trump can be much more complex and far less venal for some people.

Line Cutters and Fairness

Arlie Russell Hochschild captures the emotions of white people who feel they have played by the rules but whose lives are not improving, and often getting worse. They feel that the system is rigged to help those who cut in line in front of those patiently waiting to get to the good life, to achieve the American Dream. “As they cut in it feels like you are being moved back” (Hochschild, 2016/2018, p. 137). This sense of being held back “leads people of the right to feel frustrated, angry, and betrayed by the government” (Hochschild, 2016/2018, p. 146).

Most of the people Hochschild interviewed didn’t feel that they were racially prejudiced. They believed that racism was using the “N” word or hating black people. By their definition of racism, they were clearly not prejudiced and were furious at northern liberals who called them racists. They certainly were not virulent racists openly antagonistic toward African-Americans (Hochschild, 2016/2018).

Fairness is tremendously important to human beings. Many white people feel that it is not fair that other groups are getting things that were denied to them: a good education, an apprenticeship or job through affirmative action that helps people of color and women. They feel that everyone else is getting help: immigrants, refugees, the (undeserving and lazy) poor. They are even expected to feel sorry for these people.

The Louisiana people Hochschild studied were conservatives and many were even Tea Partiers. They relied on traditional values of conformity, consistency and structure. Their moral foundation was based on following the rules. They felt a sense of moral outrage (Haidt, 2012) at line cutting. They were attracted to Trump

as someone who understood them and would protect them from the whole affirmative action system that gave rise to line cutters.

Shared Values Elected Trump

In the 2016 election, Donald Trump received votes from people who had previously voted for Barack Obama. He got votes from people who had traditionally been Democrats. How could this happen. Ryne Sherman may have found the answer; “shared personal values were a key driver of support for Donald Trump” (Sherman, 2018, p. 33).

Values are deeply embedded in human evolutionary history. Hominids lived in small groups where sharing the same values was likely to increase group cohesiveness, cooperation and survival (Christakis, 2019). Cultural evolution would allow values to be passed on intergenerationally (Creanza, Kolodny, & Feldman, 2017). Psychological traits such as values can be inherited to a large extent. In a twin study of how values are passed on from parents to children Kandler, Gottschling, and Spinath (2016) found a strong role for heredity; “Parent–child similarity in value priorities is primarily due to their shared genetic makeup instead of environmental parent–child transmission” (p. 278). It is also the case that strong environmental factors can overcome the genetic predisposition toward similarity in personal values and engender different values in children. However, the typical pattern is for parents to provide an environment that epigenetically triggers the potentially inheritable values.

It has become a principle of social psychology that sharing the same values fosters attraction between people. Sherman (2018) found a specific set of values that were predictive of support for Trump: low levels of Altruism (helping others, especially the less well-off), high Power dynamics (taking charge, competing, winning), Commerce (wanting to become wealthy), and Tradition (need for conformity, consistency and structure). Sherman found that political attitudes did not predict support for Trump as well as personal values, but both were strong predictors. Personal values can propel a person who is neither strongly racist nor sexist to vote for Trump.

Attitudes

“In all, eight attitudes predict Trump support: conservative identification; support for domineering leaders; fundamentalism; prejudice against immigrants, African Americans, Muslims, and women; and pessimism about the economy” (Smith & Hanley, 2018, p. 206). Many Trump followers are Christian fundamentalists despite the despicable behavior of Trump as a person. Religious fundamentalists bypass Trump’s personal history because he is bringing about the world that they strive for: anti-abortion policies, conservative judges, religious exemptions for discrimination,

anti-science, gun ownership, wealth accumulation (prosperity gospel) and overall protection for their way of life.

“In this specific election, negative attitudes toward ethnic minorities and immigrants swayed independents and some Democrats to opt for candidate Trump, thereby considerably strengthening his electoral-support base” (Hooghe & Dassonneville, 2018, p. 532). Racism and anti-immigration attitudes were more powerful than party affiliation in support of Trump (Wright & Esses, 2018).

Worldview and Strict Father Morality

George Lakoff (2016) has examined the nature of liberal-conservative differences. Conservatives and liberals operate within entirely disparate moral systems. They have contrasting worldviews. Lakoff described the core of these differences as based on Strict Father Morality as opposed to Nurturant Parent Morality.

Liberals are associated with a morality system based on nurturant parenting. Children experience empathy from their parents and see the world as a safe, loving, kind, and protected place.

Conservatism is founded on the Strict Father moral model. The worldview underlying this model is that the world is a dangerous place and survival requires stringent measures. The Strict Father model has the father as the source of family support and protection, but also authority. This is seen as a moral imperative in a just world. Strict rules must be followed by children who are rewarded or punished accordingly, with corporal punishment the most common form. “Children must respect and obey their parents, partly for their own safety and partly because by doing so they build character, that is, self-discipline and self-reliance” (Lakoff, 2016, p. 66). Parental authority is uppermost in the family, with nurturance and love being an expression of that authority. “Tough love” is not uncommon.

A major derivative of Strict Father morality is that the poor deserve their poverty and the rich deserve their wealth. “The rich are just better people than the poor: they have earned their money through hard work; the poor just haven’t worked hard enough and so deserve to be poor” (Lakoff, 2016, p. 435).

Evangelicals: Martin Luther, and Donald Trump

Evangelicals are highly likely to adhere to Strict Father morality and the social hierarchy that it is part of. Michael Massing (2018) reveals the character and writings of Martin Luther to explain how Protestants can easily fall into absolutism and complete rigid certitude. Although Trump reflects none of the religious character of evangelicals, he perfectly reflects the social hierarchy of evangelicals.

Trump personifies the essence of the Strict Father model based on the authoritarian power of dominance hierarchy, demanding obedience and loyalty. The vision of

Trump as the ultimate “Strongman” fits comfortably within the Strict Father model. “The decisive reason that white, male, older and less educated voters were disproportionately pro-Trump is that they shared his prejudices and wanted domineering, aggressive leaders more often than other voters did” (Smith & Hanley, 2018, p. 198).

Racial Prejudice Elected Trump

There is agreement across research studies analyzing the Trump 2016 election that racism was the driving force behind Trump’s victory (Bobo, 2017; Hooghe & Dassonneville, 2018; Reny, Collingwood, & Valenzuela, 2019). “Trump did not do especially well with non-college-educated whites, compared to other Republicans. He did especially well with white people who express sexist views about women and who deny racism exists” (Williamson & Gelfand, 2019). Republican political operative, Stuart Stevens (2020) has traced the history of the modern Republican party and found that racism has been the underlying credo since the Civil Rights movement of the 1960s. Not just Trump, but the entire Republican party establishment utilized racism in the 2016 election, and will do so again in 2020. While individual Democrats may be racist, “in modern America, only one political party is devoted to stoking white resentment for political gain” (Boot, 2020, para. 6).

Vehement Prejudice Against Immigrants, Feminists, Liberals, and Minorities

“What typified Trump partisans was the vehemence of their prejudices—for a domineering leader who would ‘crush evil’ and ‘get rid of rotten apples’ and against feminists, liberals, immigrants, and minorities” (Smith, 2019, p. 195). Core Trump supporters are driven by deep anger in their degree of prejudice. They are easily urged toward violence (Feinberg, Branton, & Martinez-Ebers, 2019). Trump’s core fan-base is flat out authoritarian (Dean & Altemeyer, 2019).

Psychological Explanations of Trump Supporters

Many people were shocked by the election of Donald Trump. Ever since, researchers have been exploring the reasons that might explain the Trump voter. This research strongly overlaps the study of both conservatism and authoritarianism. Even though right-wing authoritarianism and religious fundamentalism are associated with Republican voters in general (Altemeyer, 1996; Bouchard, 2009; Hedges,

2008; Ludeke, Johnson, & Bouchard Jr., 2013), Trump voters have been differentiated from other conservatives in important ways.

Financial Distress, External Locus of Control (eLOC), and Authoritarianism

Galen Buckwalter is a research psychologist in the areas of cognition and neuroscience, and CEO of the consulting firm psyML. The firm researches peoples' online behaviors and their psychological functioning while online. Buckwalter and his research team examined the question of what makes white Trump supporters different psychologically. Buckwalter (2016) and his colleagues conclude that it is their unsuccessful adaptation to financial stress which pitches people into a pattern of authoritarian Trump support. Buckwalter defines financial stress as not being able to pay all of the monthly bills. Many people in this kind of financial trouble may well appear to be part of a financially secure middle class and therefore are not recognized as suffering from serious financial stress. Buckwalter (2016) maintains that financial insecurity fosters a response similar to post-traumatic stress disorder (PTSD), which he calls acute financial stress (AFS). Research done by psyML indicates that over 23% of Americans older than 17 experience AFS and that this traumatic stress "results in cognitive, emotional and behavioral/relational disorders" (Buckwalter, 2016, para. 8). The essence of unsuccessful adaptation to financial stress is operating with an External Locus of Control (eLOC) where a person feels a lack of control over the environment in which they exist. All financial troubles are blamed on sources outside of the person: the government, the bank, immigrants, racial minorities, etc. The person feels controlled by outside forces. The psychological fragility created by the eLOC pattern is problematic. "The path from vulnerabilities to an authoritarian mindset is exacerbated not only by financial stress but stress of other varieties, including the stress associated with the perceived loss of entitlements and status" (Buckwalter, 2018, para. 13). Chronic stress damages the body as well as the mind, increasing the sense of being unprotected. Authoritarian leaders offer the illusion of protection through identification with power. People want to feel powerful again, even if only by association.

Motivated Social Cognition

An ideology is endorsed if it meets an individual's psychological needs, a process that the person may not even be aware of. Social judgments are not purely rational, in fact, motivation and emotion play a large role in our cognitions. Motivated social cognition touches on the vulnerability of people to believe what they want to believe (Shermer, 2011).

The theory of motivated social cognition has been used to understand political conservatism, right-wing authoritarianism (RWA) and social dominance orientation (SDO) by a group of researchers (Jost, Glaser, Kruglanski, & Sulloway, 2003) who carried out a meta-analysis of the traits that past theories and research have associated with conservative orientations. They found that the highest predictors of political conservatism are death anxiety (terror management), system instability, dogmatism-intolerance of ambiguity, low openness to experience, low uncertainty tolerance, motivational needs for order, structure, and closure, difficulty dealing with integrative complexity, fear of loss and fear of threat, and more fragile self-esteem. “We regard political conservatism as an ideological belief system that is significantly (but not completely) related to motivational concerns having to do with the psychological management of uncertainty and fear” (Jost et al., 2003, p. 369).

Terror Management

Sheldon Solomon’s theory of terror management (TMT) concerns the unique human problem that we know of our own death and therefore need to find meaning in life. Solomon believes that this existential dilemma of our imminent death terrifies many people. All cultures have ways of managing this existential terror by providing various avenues to finding meaning in life. Religious beliefs in some form of immortality pervades many cultures. “Our cultures also offer hope of symbolic immortality, the sense that we are part of something greater than ourselves that will continue long after we die” (Solomon, Greenberg, & Pyszcznski, 2015, p. 8).

The key feature of terror management is that only those who live up to the social values and standards of the their cultural and/or religious identities have some degree of protection from insignificance.

In Terror Management Theory, world views are adopted that protect self-esteem, worthiness, and sustainability. This allows the belief that people play an important role in a meaningful world. Prejudices and superiority over others are survival instincts that insulate these people from the deep fear of living an insignificant life and the need to reinforce cultural significance in the face of their death (Cristdahl, 2019, para. 5).

Bouchard (2009) maintains that there is a Traditional Moral Values Triad, consisting of authoritarianism, conservatism, and religiousness. Adherence to any, or all of these systems provides effective terror management strategies.

Traditional Moral Values Triad: Obedience

The Triad of Traditional Moral Values (authoritarianism, conservatism, and religiousness) is highly inter-correlated. Koenig and Bouchard Jr. (2006) hypothesize that a single underlying trait of a tendency to obey traditional-style authorities, explains this strong correlation.

The Traditional Moral Values Triad ... can be interpreted as representing a single factor of Traditionalism. At the heart of this conception of Traditionalism is an individual's orientation towards socially established authorities, with highly traditional individuals responding positively and with obedience to such authorities and their symbols. Traditionalism is thus conceived as a dispositional feature at the foundation of attitudes towards a range of established authorities, whether political, religious, social or familial. (Ludeke et al., 2013, p. 375)

Traditionalism and the obedience factor embedded within, were found to be strongly related to right-wing authoritarianism, along with political conservatism and religiosity (Ludeke et al., 2013). Jonathan Haidt's (2012) evolutionary theory of morality converges on traditionalism and obedience as core social factors.

Obedience to Authority/Traditionalism: Nature via Nurture

There is substantial evidence of a genetic/epigenetic basis for obedience to authority/traditionalism (Hatemi et al., 2014; Hatemi & McDermott, 2011). But as genetic epidemiologist, Tim Spector points out "It's nature via nurture; it's a clear interaction" (Johnson, 2019, para. 8). Since children with the genetic predisposition for obedience are likely to be raised by parents who provide an environment where obedience is encouraged the epigenetic interaction is likely to produce a strong propensity for obedience.

Right-Wing Authoritarianism Protects Against the Fear of Death

Both existential meaning and existential buffering against the terror of death can be obtained by full immersion within a powerful identity and belief system. Right-wing authoritarianism offers just such an identity and belief structure. Right-wing authoritarianism can effectively provide existential meaning and existential buffering against the terror of death (Routledge & Vess, 2019; Womick, Ward, Heintzelman, Woody, & King, 2019). Ernest Becker (1973) concluded that whenever a crisis arises, arousing fear of death, people are easily swayed by a leader who conveys a measure of psychological security, convincing them that they are a valuable part of a great enterprise. "It was a great feeling," recalled former Hitler Youth member Henry Metelmann. "You felt you belonged to a great nation ... I was going to help and build a strong Germany." (Solomon et al., 2015, p. 223). The politics of terror management are simple. Align with the powerful, be part of something grand, surround yourself with right-wing authoritarianism (Solomon, 2008).

Mortality Salience

Not only do we experience terror when directly threatened but also in the absence of threat, just by being reminded about danger. Mortality salience is about how focused on death a person is. By making death salient people can be motivated to protect their worldviews and their self-esteem. Mortality salience makes people bond more strongly with those who share their values and cultural worldview. People who are different and/or violate cultural values are perceived negatively.

Terrorist attacks in 2015 increased support for Trump (Cohen, Solomon, & Kaplin, 2017). Crisis activates fear of death. Trump came across as offering security and a safe haven. His fear-mongering worked well to motivate people to seek safety. He also made people feel like they were part of a crusade against Islam. “People identify with leaders who provide the possibility of being a valued part of a righteous and powerful tribe or nation on the right side of a cosmic battle between ‘good’ and ‘evil’” (Cohen et al., 2017, p. 4).

Anthropologist Ernest Becker (1973) linked fear of death in times of threat, with attachment to a powerful and charismatic leader. Fearful people are attracted to someone who is supremely confident and acts boldly. Personal self-worth and meaning in life can be boosted by psychological attachment to a dominant and leader who fiercely disparages opponents. Right-wing authoritarianism can provide existential meaning and existential buffering against the terror of death. “Regardless of one’s political preferences, this psychological state of affairs has ominous implications for democracy, where public policy and electoral outcomes should ideally result from rational deliberations rather than unreflective defensive reactions to mortal terror” (Cohen et al., 2017, p. 355).

Open Versus Closed Personality

Voters are much more influenced by their personality and identity structure than by their own financial well-being. Christopher Johnson, Howard Lavine, and Christopher Federico (2017) examined human personality and identity in depth. They concluded that personality divides into two dimensions, open and closed. Citizens high in openness value independence, self-direction, and novelty, while those low in openness value social cohesion, certainty, and security. Closed personality types will vote against their own economic interest in order to maintain social cohesion, security, and certainty. Closed personality types are the most likely to fall under Trump’s sway, especially when faced with threat.

Compensatory Control

Aaron Kay is the primary theorist behind the idea of compensatory control. Humans have a cognitive-emotional need to feel a degree of control over their lives. This need for personal control requires a concomitant belief in a controlled, nonrandom world. Humans then protect this belief “by imbuing their social, physical, and meta-physical environments with order and structure when their sense of personal control is threatened” (Kay, Whitson, Gaucher, & Galinsky, 2009, abstract).

A key aspect of the compensatory control dynamic is how the individual perceives the degree of control in their lives. Perceived control has been defined “as the person’s belief that he or she is capable of obtaining desired outcomes, avoiding undesired outcomes, and achieving goals” (Landau, Kay, & Whitson, 2015, p. 695). When an individual perceives a diminution of control various strategies can be employed. Establishing order leads to a better sense of control for many people. Many humans need to feel that they are surrounded by an ordered society to which they belong and from which they benefit (Rutjens & Kay, 2017). Republicans offer order even at the diminution of freedom.

A major strategy within compensatory control is to believe that a powerful entity will operate on behalf of those with diminished control over their lives. This strategy was triggered by Donald Trump’s many empty promises to use his “huge” power on behalf of his followers. The more powerless people feel, the more likely they will compensate by believing in Trump as a savior.

A common strategy in support of compensatory control is to interpret the social and physical environment as being basically simple, clear, consistent, stable and coherent. Complexity, ambiguity, instability, and chaos represent both cognitive and emotional threats to the need for control (Landau et al., 2015).

This desire for simplicity, clarity, consistency, and coherence can easily lead to an alternative reality which allows the person to feel in control. It also makes them vulnerable to the political messaging of most Republicans, especially Trump, who steer away from the complex, ambiguous, inconsistent, and incoherent aspects of the modern, rapidly changing, technological, ecological and social world.

System Justification: The Conservative Advantage

From a system justification perspective, we propose that people are motivated to defend the social systems on which they depend, and this confers a psychological advantage to conservative ideology. Providing ideological support for the status quo serves epistemic motives to reduce uncertainty, existential motives to reduce threat, and relational motives to share reality with members of mainstream society. (Jost et al., 2017, abstract).

Many people have a strong tendency “to see the way things are as the way they should be” (Kay et al., 2009, title). This is highly problematic for dealing with issues of dramatic social and economic inequality. The psychological inertia of the status quo keeps many people from finding better ways to meet society’s needs.

“Republican identifiers have grown more likely to self-identify as conservatives. Democrats, however, have been slow to embrace the liberal label” (Neiheisel, 2016, p. 418). People tend to be more conservative than liberal, especially when feeling threatened. This helps to explain why so many poorer people do not vote for their own economic advantage. Some poorer people share the same system justification belief systems, especially about pro-capitalism and anti-socialism, as wealthy people. Conservative ideologies may well provide better for people’s motivational needs (subjectively, if not objectively). Conservative ideology provides simple answers for difficult questions fulfilling people’s epistemic needs for understanding. Existentially, conservatives use a combination of divine imagery and power to make people feel protected. Relational needs are easily met under conservative ideology because social conformity is foundational to conservative ideology. “In other words, system justification theory helps to explain the psychological appeal of conservative ideology” (Jost et al., 2017, p. e19).

Emotion, Motivation, Cognition and Politics

The story of political behavior is based on emotion to an extraordinary extent. Unfortunately, both laypeople and professionals often hesitate to embrace a story which takes away the rational foundation of human behavior.

The Emotion Problem

Emotion has rarely been given central concern in studies of human and animal motivation. The main direction of Psychology during the twentieth century was an emphasis on learning and behavior. The infamous rat anchored animal study in psychology for much of this time. In 1942 Leo Crespi bucked this trend by focusing on emotion in the rat. He found that when a rat is trained on a low reward and then switched to a high reward it runs faster than rats trained on the high reward from the beginning. Crespi named this phenomenon the “elation effect” (Crespi, 1942, 1944; Rabin, 1975). When a rat is trained on a high reward and then shifted to a low reward it runs much more slowly than rats trained on the low reward. Crespi designated this the “depression effect”. Mainstream Psychology was so shocked at the notion of emotion in rats that the nomenclature was changed from elation to “positive contrast effect” and depression to “negative contrast effect” by David Zeaman (1949) and universally adopted. The issue of emotion in rats was finally settled when rats given amobarbital sodium (an emotion neutralizer) failed to show an elation effect (compared to un-drugged controls), despite a dramatic increase in reward (Rabin, 1975). The study was largely ignored and only relatively recently has the power of emotion in the lives of animals (and humans) been widely documented

(Bekoff, 2008; Brader & Marcus, 2013; de Waal, 2019; Panksepp, 1998) and largely accepted in mainstream Psychology.

The power of emotion to influence decision-making is now well documented (Lerner & Tiedens, 2006; Lowenstein & Lerner, 2003; Pfister & Böhm, 2008) but rarely does the anatomical and physiological embeddedness of emotion get sufficient attention. On the whole, people want to believe that they are rational creatures. Accepting the power of emotion over our decision-making destroys our sense of rational control.

Ironically, Crespi's work lends insight to the motivation of just those people who supported Donald Trump against their own economic interests. Crespi's depression effect speaks to the way many of the "left behind" people hurt by the changing global economy feel. The rewards are less than they have come to expect and are therefore especially frustrating. It is the decline from a higher reward system to a lower one which triggers depression and often anger. These powerful emotions override rational solutions to the situation.

Motivated Reasoning

Motivation and emotion are closely linked together operationally. Motives provide the reasons for doing things. They are the movers toward action. Action requires arousal and emotion often provides that arousal. Motivation and emotion activate behavior (Buck, 1988).

Ziva Kunda (1990) reviewed the relevant research and concluded that motivated reasoning is largely biased by emotion. Rather than evidence-based critical thinking, which is neutral, motivated reasoning produces a desired conclusion or justification that meets cognitive and emotional needs while still avoiding cognitive dissonance. These self-serving biases are not due to cognitive processes alone but are anchored in emotion and motivation. "People are more likely to arrive at those conclusions that they want to arrive at" (Kunda, 1990, p. 495).

Emotion Rules Politics

Drew Westen and his colleagues were the first to study how the brain reacts to political information, providing an understanding of the neurological basis of motivated reasoning. Rational judgment is greatly limited if emotion is triggered. "Motivated reasoning can be viewed as a form of implicit affect regulation in which the brain converges on solutions that minimize negative and maximize positive affect states" (Westen, Blagov, Harenski, Kilts, & Hamann, 2006, p. 1947). During the process of political decision-making and political judgment the brain shuts down information pathways that challenge political beliefs and enhances pathways that bring information corroborating those beliefs.

Motivated reasoning was associated with activations of the ventromedial prefrontal cortex, anterior cingulate cortex, posterior cingulate cortex, insular cortex, and lateral orbital cortex. The combination of reduced negative affect (absence of activity in the insula and lateral orbital cortex) and increased positive affect or reward (ventral striatum activation) once subjects had ample time to reach biased conclusions suggests why motivated judgments may be so difficult to change (i.e., they are doubly reinforcing). (Westen et al., 2006, p. 1956)

The neurological pattern set off by motivated reasoning activates two different reward systems, negative reinforcement where a bad thing is removed (negative emotion) and positive reinforcement where a good thing happens (positive emotion). The dual reinforcement system makes it especially difficult to change emotional reasoning. Westen went on to write a game-changing book: *The political brain: The role of emotion in deciding the fate of the nation* (2008). A revised edition is expected in December 2020.

From a psychological perspective, Jonathan Haidt (2012) argues that emotion rules the human brain. He argues that people are basically intuitive not rational. Reason is put in service to defend the “underlying moral intuitions” humans rely on. The successful exchange of political ideas requires understanding the emotional basis underlying those perspectives.

Morality, Emotion and Politics

From a psychological perspective, Jonathan Haidt (2012) argues that emotion rules the human brain. People are basically intuitive not rational. Reason is put in service to defend the “underlying moral intuitions” humans rely on. Political persuasion requires connecting to a person’s emotionally-based belief system.

The problem isn’t that people don’t reason. They do reason. But their arguments aim to support their conclusions, not yours. Reason doesn’t work like a judge or teacher, impartially weighing evidence or guiding us to wisdom. It works more like a lawyer or press secretary, justifying our acts and judgments to others. (Saletan, 2012, para. 5)

Haidt (2012) expounds on the power of foundational morality factors in determining a person’s worldview. Along with his colleagues, Haidt identified five moral foundations and later added a sixth: care, fairness, loyalty, authority, sanctity (purity) and liberty. It is these moral foundations that people will defend intuitively, giving immense power to emotion over reason.

Haidt (2012) contends that the two major political parties in the United States are based on very different patterns of morality anchors. The Republican party and social conservatives in general are strongly connected to all six moral foundations. They see Care as taking care of your own, Fairness as getting back what you put in, Loyalty as critical to maintaining Authority, and Authority as maintaining order in society and in the family, Sanctity and purity as godly, and Liberty as upholding individualism against group oppression. Republicans and social conservatives see welfare and feminism as threats to personal responsibility and family stability.

According to Haidt, Democrats and liberals are much more concerned with the morality of care and fairness. Care is viewed as extending to humankind, not just one's own group. Fairness is based on equality. Oppression must be actively countered to achieve fairness. Unfortunately for Democrats and liberals in general, Republicans and social conservatives are in a stronger position because they actively connect to all six moral foundations, speaking to people's emotions in powerful ways.

Deep Story

Arlie Hochschild (2016/2018) studied Tea Party and other conservative Republican white working-class people in Louisiana. She asked them why they hate the government so much. The answer was more about the "deep story" than the facts. The deep story is the one that resonates deep down, the one that rings true. The deep story is the emotional truth. Conservative white working-class people that Hochschild interviewed very often "felt" that the government wasn't fair and didn't care about them. The fact that only Mississippi relies more on federal aid than Louisiana isn't important. It's just a fact. The feeling is that government works for the poor and the rich. Welfare, food stamps, subsidized housing, and Medicare go to the lazy, morally questionable, unmeritorious poor while hard working, good, diligent Christian people have to struggle alone. The deep story about who benefits from government programs produces conservative political beliefs.

Belief-Dependent Realism

Belief is a deeply human trait. Michael Shermer (2011, p. 5) refers to belief-dependent realism which he uses to describe the process by which "beliefs come first, explanations for beliefs follow." He maintains that our deepest beliefs are invulnerable to educational information in schools (K-12) and colleges. After over 30 years of research on the human belief system Shermer explains why people believe. Our beliefs are formed for over time "for a variety of subjective, personal, emotional, and psychological reasons in the context of environments created by family, friends, colleagues, culture, and society at large; after forming our beliefs we then defend, justify, and rationalize them" (Shermer, 2011, p. 5).

There is considerable cross-over between Hochschild's deep story and Shermer's belief-dependent realism. Educators have struggled against students' belief systems which often act as an impediment to actual learning of information based on research and verification. John Jost (2017) emphasizes that we do not fall into our beliefs merely by exposure. We actively seek out beliefs that will meet our psychological needs. It is difficult to challenge beliefs with science-based information if that knowledge does not meet our needs.

Individuals are not merely passive vessels of whatever beliefs and opinions they have been exposed to; rather, they are attracted to belief systems that resonate with their own psychological needs and interests, including epistemic, existential, and relational needs to attain certainty, security, and social belongingness (Jost et al., 2017, abstract).

Critical Thinking

Levitin (2014, 2016) and Shermer (2011) agree that critical thinking is the most difficult challenge for humans because objective cognition is undermined by belief systems. Levitin argues that a massive failure in critical thinking is undermining our democracy as we become seduced by emotional appeals to our existing belief systems and urged to ignore salient realities (such as global warming, water pollution, corporate cronyism, inordinate corporate influence on government, problems in government regulation, and ever onward).

The American school system has systematically declined in producing students capable of critical thinking. The reason is that critical thinking is context dependent and knowledge based. With the shift toward math and reading in elementary school the study areas most likely to invoke critical thinking are de-emphasized. History, science, and the arts produce the knowledge base that critical thinking can develop from (Hendrick, 2016; Holstein, 2018; Wexler, 2018). Delaying knowledge-based subjects until middle or high school undermines critical thinking skills in the growing brain. “If we want to maximize the chances of producing responsible voters, critical thinking needs to be woven through every aspect of the curriculum, beginning in the early grades” (Wexler, 2018, para. 10).

Democracy is based on an educated, knowledgeable populace. The American school system is failing to educate vast numbers of graduates. There are “alarming gaps in Americans’ knowledge and understanding of political issues, scientific phenomena, historical events, literary allusions, and almost everything else one needs to know to make sense of the world” (Ravitch, 2010, p. 223). Rick Shenckman (2008) makes the link between education and voters: *Just How Stupid Are We? Facing the Truth About the American Voter*. It is not hyperbole to state that American democracy is currently under threat from ignorance and the emotional override of rational thinking.

Confirmation Bias

According to Shermer (2011) confirmation bias is the primary cognitive bias from which all others flow. People actively seek out evidence that supports their beliefs. They watch certain TV channels, read certain magazines, follow certain bloggers and internet sites, all of which confirm what they already believe. At the same time

confirmation bias leads people to “ignore or reinterpret disconfirming evidence” (Shermer, 2011, p. 259). This is why it is so hard to change people’s minds by presenting highly accurate data. If these data threaten people’s beliefs it doesn’t matter about the reality that data represent.

Cognitive Dissonance and Political Polarization

We will fight hard to protect our identity. This is where cognitive dissonance comes in. Humans are happiest when all their cognitions and beliefs match up with their experiences in the outside world and their own behaviors (Festinger, 1957). Cognitive dissonance occurs when our existing belief or attitude is challenged by contradictory information. This situation threatens to unbalance our cognitions resulting in cognitive dissonance. We can reduce dissonance either by changing a behavior or by changing an attitude to achieve a new balance.

Cognitive consonance is highly motivating, and people will work hard to keep their cognitive world in balance. The opposite of consonance is dissonance. People will work hard to avoid cognitive dissonance because it is so psychologically disturbing, disconcerting and destabilizing. Cognitive dissonance can be damaging to one’s sense of self and identity.

One strategy for reducing or even avoiding dissonance is to never view a television channel that is associated with political beliefs that are the opposite of your beliefs (MSNBC vs. Fox News). This is closely related to confirmation bias. A way to maintain cognitive consistency is to actively seek out information that is consistent with your political beliefs. This influences the newspapers and magazines you read, the blogs you follow, and even the friends you choose in to connect with, in person and on media sources such as Facebook, Twitter, Instagram, Snapchat, and YouTube. The overall outcome is an increase in political polarization.

Some people are so distressed by the prospect of cognitive dissonance that they become negatively motivated to avoid making decisions that might prove dissonant in the future (Zimbardo, 1969). This is why some people will never sign petitions. No matter what the issue underlying the petition, they say, “I don’t do that”. Negative motivation is far more common than expected and is a great frustration to community organizers and activists.

People differ greatly in how much dissonance they can tolerate. One of the great purposes behind a college education is to build a higher tolerance for dissonance. This allows students to engage in open exposure to news ideas and perspectives. The mark of a truly educated person can be ascertained by the degree of dissonance tolerance they have achieved.

Emotionally Driven Perceptions

In explaining why so many white working-class people vote against their own economic interests, Catherine Rampell (2016, para. 18) points out that “Americans (A) generally associate government spending with undeserving, nonworking, nonwhite people; and (B) are really bad at recognizing when they personally benefit from government programs.” Rural white people are typically highly motivated to stop the perceived torrent of government support for those they deem “undeserving”. Since they are often unaware of the government support that they receive (such as farm subsidies, health insurance subsidies, Medicare, and tax money from wealthier states directed to poorer states), they oppose many government programs even though they would actually benefit from them.

Most working-class white people believe in hard work and dedication as the way to achieve the American dream of economic well-being. It is easy to feel that the tax and spend government doesn’t play fair since despite all the dedication and hard work, few people are achieving economic security.

The real problem is that the working-class and the middle class have progressively lost economic traction over the past 40 years and more (Schmitt, Gould, & Bivens, 2018). As bad as the overall economic picture is, racial minorities have made economic gains even though they remain dramatically below white pay levels. Even though whites do much better in relative pay they have still lost the most compared to how they were doing 40 years ago. Susan Faludi (1999) writes about the American man being “stiffed” and betrayed by destabilizing cultural shifts of massive social and economic changes. It’s about feelings and personal perceptions, not about actual statistical data. Identity is threatened by so much economic and social dislocation and makes people feel vulnerable. Trump makes many people feel stronger, safer, more respected, more important, and engaged. The facts about Trump are often irrelevant, it is how Trump makes people feel that matters.

Fear and Anger

Emotion can work in very subtle ways in politics but there is nothing indirect or elusive about the influence of fear and anger on political dynamics. Arash Javanbakht (2019) has used his training as a neurologist and trauma physician to analyze “the politics of fear”. Fear can be exploited to push people into tribalism.

Tribalism is the biological loophole that many politicians have banked on for a long time: tapping into our fears and tribal instincts. Some examples are Nazism, the Ku Klux Klan, religious wars and the Dark Ages. The typical pattern is to give the other humans a different label than us, and say they are going to harm us or our resources, and to turn the other group into a concept. (Javanbakht, 2019, We learn fear, para. 5)

The extreme partisan divide in American politics has facilitated the political use of tribalism. This is particularly notable in the Republican party whose tribalism often centers around support for and identifying with Trump (Blake, 2018).

Politicians and the media very often use fear to circumvent our logic. I always say the U.S. media are disaster pornographers—they work too much on triggering their audiences’ emotions. They are kind of political reality shows, surprising to many from outside the U.S. (Javanbakht, 2019, Fear is illogical, para. 2)

Logic is slow. Emotion is fast. Both politicians and the media get more attention by focusing on emotion.

Fear can be a factor in politics in an unexpected manner. Geographic areas in the United States and Great Britain that contained high numbers of neurotic people voted more strongly for Donald Trump and for Brexit (Obschonka et al., 2018). Neurosis was identified from online surveys given to over 3 million people in the United States and over 417,000 people in Great Britain. Lead author, Martin Obschonka, indicated that the results of both votes was based on irrational motivation and therefore neither election was predicted by polls based on rational voting. “The Trump and Brexit campaigns both promoted themes of fear and lost pride, which are related to neurotic personality traits that include persistent feelings of fear, anxiety, depression, envy or jealousy” (Society for Personality and Social Psychology, 2018, para. 5).

Trump generates fear as a constant. It is his signature style (Woodward, 2018). However, he also is highly proficient at generating anger. Perhaps too much attention has been paid to the consequences of engendering fear and not enough to provoking anger.

Many political observers have assumed that fear—of changing demographics and declining economic conditions—are motivating support for Trump, especially among those with less favorable views of certain groups. But our research suggests that the role of racial prejudice or sexism may be catalyzed more by anger. (Wayne, Valentino, & Oceno, 2016, How anger—not fear, para. 5)

Trump incites anger and encourages violence in his followers (Wright, 2018). “The best predictor of future violence is past violence. And the best-known cause of both is unregulated anger” (Matthews, 2019, para. 5).

That anger has a unique effect on cognition and decision making has been known since Aristotle’s writings 2000 years ago. Anger is so powerful “because it influences the situational construals most basic to judgment and decision making—perceptions of control, responsibility, and certainty—and because it lingers after the triggering events” (Lerner & Tiedens, 2006, p. 116).

Jennifer Lerner and Larissa Tiedens conducted a major review of how anger impacts on judgment and decision making. They found that angry people are “eager to make decisions and are unlikely to stop and ponder or carefully analyze. This too derives primarily from the sense of certainty associated with anger” (2006, p. 132).

A major factor behind the emotional energy that fuels motivated reasoning is anger. Anger triggers bias. Elizabeth Suhay and Cendiz Erisen (2018) concluded that “anger likely plays a major role in motivating individuals to engage in the

biased assimilation of political information—an evaluative bias in favor of information that bolsters one’s views and against information that undercuts them” (abstract).

Authoritarian Voters and Trump

A significant number of research studies conducted during and after the 2016 presidential campaign have confirmed strong authoritarian traits among many Trump supporters. Matthew MacWilliams (2016a, 2016b) found that one single trait was the most powerful in predicting Trump support: Authoritarianism. Right-wing authoritarianism (RWA) has been considered both a personality trait (Altemeyer, 1996, 2006) and an ideological belief (Duckitt, 2001). Social dominance orientation (SDO) is an ideological belief that some groups are better than others and deserve to have more power and influence (Pratto, Sidanius, & Levin, 2006).

Greater endorsement of RWA (the aspect of authoritarianism specific to obedience and respect of authorities and punishment of those who violate social conventions) and SDO (the aspect of authoritarianism specific to preferring hierarchical intergroup relations) uniquely predicted more positive evaluations of Trump and a greater desire to vote for him (Choma & Hanoch, 2017, p. 5).

Authoritarian Seduction Amid Flawed Humans

Sinclair Lewis (1935) wrote a novel which captured the ease with which upstanding citizens can come to embrace authoritarianism in America. Cass Sunstein (2018) has shown that not only can it happen here, it actually is beginning to happen here. Freedom can be chaotic and difficult to navigate. “Human beings often lack important information, have limited attention, face self-control problems and suffer from behavioral biases” (Sunstein, 2019, p. 15). People tend to live in the present, failing to take in the future consequences of their choices. Sunstein (2019) speaks of the “present bias” which leaves people susceptible to decision making based on short-term pleasure and the avoidance of short-term pain. Taken all together, many people have come under the sway of Donald Trump’s message to “Make America Great Again” because it makes them feel good.

Authoritarianism Among Republicans in General

The Republican party has shifted dramatically toward authoritarianism in its unconditional support of Donald Trump as president, no matter what violations of the Constitution he perpetrates (Klass, 2020). The lure of power by association has

seduced Republican senators into ignoring the arguments for the impeachment of President Trump, making it clear that they are not interested in the damning facts but only in their only power. This is the essence of authoritarianism. Cameron Mackey and Heidi Dempsey (2018) examined the candidate preferences of students at an Alabama college during the 2015 presidential primary. They wanted to see how students in the Deep South responded to the various candidates, both Democratic and Republican. Personality characteristics were tested using standard measures of disgust sensitivity (DS), right-wing authoritarianism (RWA), religious fundamentalism (RF), belief in a just world (BJW) and religious questioning (QUEST). All of the measures except QUEST were linked with conservatism. QUEST is an indicator of social liberalism in a religious context (Batson, 1976). None of the tests differentiated between Trump voters and those who voted for other Republicans running in the primary. “This suggests that those who voted for Trump do not differ in ideology and personality from the traditional Republican voters” (Mackey & Dempsey, 2018, p. 15). They did find that “consistent with previous research, those who support Republican candidates in general are higher on RWA and RF and lower on QUEST” (p. 15). Even though right-wing authoritarianism and religious fundamentalism are associated with Republican voters in general (Altemeyer, 1996; Bouchard, 2009; Hedges, 2008; Ludeke et al., 2013), Trump voters have been differentiated from other conservatives in important ways.

How Trump Supporters Differ from Republican Supporters Overall

Trump supporters do share many traits in common with Republicans in general. They are against egalitarianism, are obedient to and respectful of authority, and believe in acting in accordance with social norms and the status quo. “What distinguished Trump supporters from other Republican supporters in the primary was a predilection for authoritarian aggression and group-based dominance” (Womick, Rothmund, Azevedo, King, & Jost, 2019, abstract). While Mackey and Dempsey (2018) found no difference between Trump supporters and Republicans overall, they failed to test for social dominance orientation (SDO) and aggression. Sadly, a key factor distinguishing many Trump supporters from Republicans in general, is adherence to social hierarchy and violence.

Authoritarian Trump Supporters and Violence

Samira Saramo (2017) speaks of the “meta-violence” of Trumpism. “The rise of Donald Trump and the popular movement that surrounds him has relied on emotional evocations of violence—fear, threats, aggression, hatred, and division” (p. 1).

Threats and bullying have become normalized. The number of hate crimes committed in the United States in the year after Trump's election surged dramatically (Ravani, 2019; Sun Editorial, 2018).

The increase in the number of active hate groups in America since the election of Donald Trump is staggering. Authoritarian white supremacy is rising rapidly everywhere in the country according to the Intelligence Report of the Southern Poverty Law Center (2019). The increase in violence across the country is significant. Prominent liberals have been targeted by bombs sent to their homes (Lach, 2018; Rashbaum, 2018). A portion of that violence is directly aimed at supporting Donald Trump against critics.

Epigenetics of Authoritarianism

In studying authoritarianism, Bob Altemeyer (1996, 2006) has focused on specific traits which he believes to be part of an individual's personality. The key factors in RWA are fear, aggressiveness, obedience to authority figures, and adherence to a specific culturally based social structure. Support for his theory of RWA as a part of human personality comes from research showing close relationships between RWA scores for parents and their children (Dhont, Roets, & Van Hiel, 2013). The epigenetics of how the social environment triggers genetic potential has been well established (Boardman, 2011; Champagne, 2010), supporting Altemeyer's personality construct in a developmental interactionist paradigm.

The capacity for openness has a well-established genetic contribution which affects the transmission of dopamine in the prefrontal cortex of the brain (DeYoung et al., 2011). A feature of the authoritarian personality noted by Altemeyer (2006) is the need for a hierarchical social structure, which is associated with a closed personality type (Johnson et al., 2017). The epigenetics of dopamine transmission in the prefrontal cortex may well be a factor in authoritarianism.

Extremists and Over-Confidence

True believers on either the extreme right or the extreme left show a strong tendency to consider their beliefs to be absolutely correct. This over-confidence in their cognitive abilities makes them unlikely to revise their beliefs in light of new information. "Our results show that radicalism is associated with reductions in metacognitive sensitivity, i.e., the reliability with which subjects distinguish between their correct and incorrect beliefs" (Rollwage, Dolan, & Fleming, 2018, p. 4018). When the Dunning-Kruger effect, where some people are not aware of their lack of ability and therefore have an over-inflated belief in themselves (Kruger & Dunning, 1999), is combined with the metacognitive inability to recognize false beliefs, an

authoritarian foundation is facilitated. This can also apply to religious fundamentalism (Hedges, 2008).

Low Information Voters

Many Americans have scant political knowledge (Shenckman, 2008). “A lack of political knowledge and a de-emphasis on cognitive processing create an opening for emotions to predominate in the decision-making process” (Fording & Schram, 2017, p. 675). The fear and hatred generated by Trump seduced considerably more low information voters than knowledgeable voters. Trump is an extreme practitioner of the paranoid style of politics which utilizes conspiracy theories and fear. “Anti-intellectualism can slide into know-nothingism.... A manipulated populism replaces democracy” (Fording & Schram, 2017, p. 685).

Political Knowledge and the Dunning-Kruger Effect

Voters are largely ignorant of political information (Brennan, 2016). What information most people have is politically partisan. The larger problem is that many voters are “ignorant of their ignorance,” what Kruger and Dunning (1999) famously called the “double burden of incompetence.” Based on his research on political partisanship and the Dunning-Kruger effect, Ian Anson (2018, p. 1185) notes that

Republicans use partisan cues to judge peers’ political knowledge to a greater extent than do Democrats. Such a thesis speaks to the burgeoning literature on ‘asymmetric polarization’, which finds that Republicans have become more committed ideologues than Democrats in recent years (Grossmann & Hopkins, 2016).

Given that the Republican Party is almost wholly behind Trump, the direct route to authoritarianism in American is being driven by the lock-step support of ideologues driven to win at all costs. All the warnings of history are lost on those who do not know history and those that ignore it in their quest for continuing power.

Intelligence Factors

Conservatives score lower than liberals on SAT tests of vocabulary and analogy (Stankov, 2009). The average conservative is not very well educated. According to Lazar Stankov this is partially explained by statistics indicating that Red states tend to have poorer educational systems and are frequently low in economic resources. There may be a tendency toward lower intelligence associated with far-right authoritarians. “The present meta-analysis reveals relationships of small-to-moderate

strength between (lower) cognitive ability and right-wing ideology and prejudice” (Onraet et al., 2015, p. 618).

Liberals typically have higher verbal intelligence than conservatives (Carl, 2014, 2015). When it comes to more extreme conservatism, “support for Trump was better predicted by lower verbal ability than education or income” (Ganzach, Hanoch, & Choma, 2018, p. 924). The fact that socioeconomic factors were less relevant than intellectual ones in determining support for Donald Trump is of great consequence (Ganzach, 2018). It explains how many well-off people were still lured by Trump.

Numeracy and Authoritarianism

A relationship between numerical ability and political orientation has recently been established. “Those who performed worse on objective numeracy tasks were higher in right-wing ideology or identified as socially conservative” (Choma, Sumantry, & Yaniv, 2019, p. 420). Additionally, support for the over-confidence link to authoritarians as well as the Dunning-Kruger effect of believing one knows more than one does, was evident: “those who strongly (vs. weakly) endorsed right-wing ideologies believed they are good with numbers yet performed worse on numeracy tasks” (Choma et al., 2019, p. 412).

Education and Authoritarianism

The white working-class has been identified as more authoritarian than other groups by Seymour Lipset (1959). More recent examinations of this premise have refined the relationship between class and authoritarianism. “The more the operationalization of class is based upon differences in education, the stronger the observed relation between class and authoritarianism. In fact, it is mainly the poorly educated who are authoritarian” (Houtman, 2003, p. 86). The uniformity with which lesser educated voters supported Trump is revealing (Brennan, 2016).

Anti-intellectualism

There is a long history of anti-intellectualism in American culture. Hostility toward intellectuals has been used by politicians from George Wallace, Richard Nixon, Ronald Reagan, and Spiro Agnew to Mitt Romney, all Republicans but for Lyndon Johnson who was no fan of intellectuals (Roller, 2012).

Donald Trump has taken anti-intellectualism to a new level. This is not surprising for a man who hardly reads and doesn’t listen to advisors when being briefed (Levin, 2018). There are profound political implications for this culture of anti-intellectualism

in the United States (Motta, 2017). People who do not trust information from the “intellectual elites” were more likely to vote for Trump. Anti-intellectuals disagree with scientific consensus on global warming because they don’t trust “experts”. Low verbal intelligence is linked to anti-intellectualism, making it likely that people in this category have difficulty following scientific explanations.

Anti-intellectualism discourages citizens from siding with experts on matters of scientific consensus and can more broadly help explain why voters support candidates who criticize and denigrate scientists and experts. In most cases, these effects were substantively large and statistically significant; even when assessing the effect of anti-intellectualism alongside a number of other powerful determinants of voter behavior in 2016. (Motta, 2017, p. 32)

Racial Resentment and the Trump Voter

Smith and Hanley (2018) argue that racial resentment and prejudice in authoritarians is based on aggressiveness not submission to authority. The desire is for a dominating leader who will penalize the “undeserving”. It is therefore necessary for authoritarian leaders to be both intolerant and also punitive. Authoritarians take great satisfaction in watching moral outsiders being aggressively forced to submit to the will of the leader.

Authoritarianism is not the wish to follow any and every authority but, rather, the wish to support a strong and determined authority who will ‘crush evil and take us back to our true path’ (Smith & Hanley, 2018, p. 196).

Male Status and Support for Trump

“American men today earn about 20% more than their female counterparts and hold 96% of Fortune 500 CEO positions. They constitute more than 80% of the House and the Senate, and have an unrivaled 44-0 streak in winning the presidency” (Cassino, 2016, para. 1). Nevertheless, men who feel that they are losing their place in society view Trump as an advocate for dominant male status (Cassino, 2016). The Atlantic magazine conducted a poll in October, 2016, asking for degrees of agreement or disagreement with the statement: “These days society seems to punish men just for acting like men”. Republicans or conservatives were more likely than Democrats or liberals to support the notion that men are being discriminated against just for being men (Khazan, 2016).

A major problem for achieving gender equality is that many men have a zero-sum perspective on discrimination where a decrease in anti-women bias automatically triggers an increase in anti-male bias. In a zero-sum world, if one group advances another group falls back. “The historically dominant social group (older men in this case) perceive any status gained by a socially subordinate group (women) as coming at the dominant group’s expense” (Kehn & Ruthig, 2013, abstract). These

findings support social dominance orientation (SDO) theory (Pratto et al., 2006), “involving individuals’ tendency to view people in terms of social hierarchies with the socially dominant group promoting hierarchy maintenance” (Kehn & Ruthig, 2013, p. 294). The same dynamic holds true for racial discrimination (Norton & Sommers, 2011). If African Americans achieve a better quality of life, believers in social dominance feel that their own status is threatened.

Andre Kehn and Joelle Ruthig (2013) found a significant difference in zero-sum thinking between older men and younger men, with only older men believing in a zero-sum gender hierarchy. However, Dan Cassino (2016) found that younger men now also engage in zero-sum thinking and 41% of Republican men of all ages believe that they are being discriminated against (an idea which Donald Trump frequently expounds upon). The percentage of men believing that they are discriminated against is much lower for Democrats (10%).

Feeling discriminated against is all about perception, which may or may not align with reality. Kobrynowicz and Branscombe (1997) found that perceived discrimination was higher in men who experienced low self-esteem but who also had a high degree of personal assertiveness. Personality factors interact with the perception of discrimination.

Hostility Toward Women

The feminist movement has been perceived as an ongoing threat by many conservatives, and most certainly by authoritarians. Trump supporters in the 2016 election were much more likely to express hostile sexism, and the greater the degree of hostile sexism the stronger the support for Trump (Ratliff, Redford, Conway, & Smith, 2019). Mischa Haider (2018) argues that the political persecution of transgender people by Trump and other Republicans is not really about transphobia at all.

Women’s liberation is what autocrats are attempting to quell with anti-trans measures. Strongmen have made their hostility and contempt for women clear, whether it is through promotion of rape as was done by the Filipino leader Rodrigo Duterte, or pushing a US supreme court nominee credibly accused of sexual assault while insulting his accusers, in the case of Donald Trump.

Substantial evidence exists showing that gender equality and greater participation of women in the democratic process leads to more inclusive and socially oriented forms of government. Autocrats rely heavily on the “might is right” model and perpetuation of socially constructed violent models of misogyny in order to exert power, and women’s equality and liberation challenges basic tenets of totalitarianism. It is not a coincidence that with increasing pushes towards gender equality and justice across the globe, patriarchal forces are striking back violently and propelling anti-women leaders such as Brazil’s Jair Bolsonaro towards power. (Haider, 2018, para. 3, 4)

Many educated Republican women are starting to notice. The 2018 Congressional election saw a dramatic shift to Democrats in voting for the House of Representatives (Jordan & Balz, 2018).

Mass Murder and Anger/Hatred Toward Women

President Trump has unleashed the worst impulses harbored by angry men who have long simmered in their resentment of women's ascendance, slow and painful as that ascendance has been. Trump's flagrant sexism and open disparagement of women, while role-modeling toxic masculinity, has helped to turn resentment into action for vulnerable men.

There is a robust symbiosis between misogyny and white supremacy; the two ideologies are powerfully intertwined. While not all misogynists are racists, and not every white supremacist is a misogynist, a deep-seated loathing of women acts as a connective tissue between many white supremacists, especially those in the alt right, and their lesser-known brothers in hate like incels (involuntary celibates), MRAs (Men's Rights Activists) and PUAs (Pick Up Artists). ADL considers misogyny a dangerous and underestimated component of extremism, and this report marks the start of an ongoing effort to investigate the ways in which people in the white supremacist, incel and MRA orbits feed and inform one another's poisonous hatred of women. (Anti-Defamation League Report, 2018, p. 5).

Mother Jones magazine is known for tenacious reporting and excellent research. The staff have created a detailed database pertaining to the ever-increasing number of mass shootings. The data reveal

a stark pattern of misogyny and domestic violence among many attackers There is also a strong overlap between toxic masculinity and public mass shootings, according to our latest investigation Two of the shooters bore the hallmarks of so-called "incels"—a subculture of virulent misogynists who self-identify as "involuntarily celibate" and voice their rage and revenge fantasies against women online. (Follman, 2019, para. 1, 2, 3)

In the 2016 primary elections, hostility towards women was a significant predictor of support for Trump (Wayne et al., 2016). The more that an individual was hostile toward women the more likely that person was to vote for Trump (over far more qualified Republicans).

Anti-gay

In general, conservatives have a much greater disgust sensitivity than liberals (Inbar, Pizarro, Iyer, & Haidt, 2012; Xu, Karinen, Chapman, Peterson, & Plaks, 2020). The degree of disgust sensitivity shown by conservatives predicts the degree of dislike exhibited toward gay people (Inbar, Pizzarro, Knobe, & Bloom, 2009; Terrizzi Jr., Shooka, & Ventis, 2010). Authoritarians have an especially high degree of disgust sensitivity. Body odor disgust sensitivity (BODS) was measured by Liuzza et al. (2018) who found that "authoritarianism fully explained the positive association between BODS and support for Donald Trump" (abstract). The higher the degree of sensitivity to body odor the greater the likelihood of voting for Trump. The researchers specifically pointed out that "high levels of disgust sensitivity for body odours

predicts authoritarian attitudes that imply resistance to social change and motivates separation of groups and individuals” (Liuzza et al., 2018, Discussion, para. 2). This philosophy of separation targets gay men and lesbians in particular. Scoring high on tests of authoritarianism predicts a high degree of prejudice towards gay men and lesbians (Crawford, Brandt, Inbar, & Mallinas, 2016).

Anti-Semitism, Nativism, and Authoritarianism

There is a profound link between anti-Semitism and authoritarianism, both historical and contemporary. “Individuals with extreme anti-Semitic attitudes differ significantly from those without anti-Semitic attitudes with regard to the extent of authoritarianism, readiness for violence, approval of the repetition of National Socialism, and political orientation” (Frindte, Wettig, & Wammetsberger, 2005, abstract). This research was done in Germany where the Nazi (National Socialism) attraction still simmers despite vigorous efforts on the part of the government to repress it.

James Ron and Howard Lavine (2019) have examined nativist authoritarianism in the United States. “Our survey research ... indicates that the biggest threat to the rights of the Jewish people comes from homegrown American nativists. These people dislike all manner of groups they view as foreign to this country ...” (para. 2). Similar findings were reported in a comparison of American and Czech nationals regarding anti-Semitism and nativist authoritarianism (Dunbar & Simonova, 2003). A high score on Altemeyer’s authoritarianism scale predicted both anti-Semitism and anti-Black racism in the United States and anti-Semitism and anti-Roma (Gypsy) racism in the Czech Republic.

Anti-immigrant Nativism

A major factor driving Trump support in the 2016 election was anti-immigrant nativism (Young, 2017). The Trump slogan, “Make America Great Again”, is all about going back to an earlier time when America was more white. The slogan is deeply anti-immigrant in the modern era when the majority of immigrants to the United States are people of color. Immigrants are viewed by nativists as “an existential threat to culture and national identity” (Stenner & Haidt, 2018, p. 176). Because of the strong relationship between authoritarianism and nativism (Dunbar & Simonova, 2003; Ron & Lavine, 2019) being strongly anti-immigrant is a likely indicator of authoritarianism.

Belief in Anti-White Discrimination

Many white people feel that discrimination against them is increasing as a direct result of discrimination against people of color decreasing (zero-sum thinking). “These changes in Whites’ conceptions of racism are extreme enough that Whites have now come to view anti-White bias as a bigger societal problem than anti-Black bias” (Norton & Sommers, 2011, p. 215). This zero-sum approach to available resources by whites is not supported by the research data (Payne, 2019). Whites still receive disproportionate benefits from the system.

Perception is more powerful than statistics: “polls show that a substantial number of white voters believe they face discrimination. They appear to be concerned that employers and schools may give preference to nonwhite candidates” (Badger & Cohn, 2019, para. 20). Republicans in general feel more threatened by anti-white discrimination. Trump supporters are more likely to feel that they have personally experienced anti-white discrimination.

The specter of America becoming majority non-white heightens the concern over anti-white discrimination. “A large if not majority share of white voters, and a majority of Republicans, say this change will threaten American customs and values—a prospect that they say makes them anxious, even angry” (Badger & Cohn, 2019, para. 3). People who are strong Trump supporters are more likely to believe in the existence of anti-white discrimination.

Democracy Can Prevail

Maintaining democracy has always been a struggle. Many books have been written over the centuries about threats to democracy and strategies for saving democracy. Senator and 2020 presidential candidate, Bernie Sanders (2018) sees similarities in the growth of authoritarianism worldwide. “We need to understand that the struggle for democracy is bound up with the struggle against kleptocracy and corruption. That is true here in the United States as well as abroad” (Sanders, 2018, para. 27). Authoritarianism is a response to failed economic policies which have concentrated wealth and power for the few and left little for the many. Bernie Sanders believes that personal engagement can save democracy. “In a time of exploding wealth and technology, we have the potential to create a decent life for all people. Our job is to build on our common humanity and do everything that we can to oppose all of the forces, whether unaccountable government power or unaccountable corporate power, who try to divide us up and set us against each other” (para. 44).

In response to the 2016 election of Donald Trump, Timothy Snyder has written a book on surviving and resisting tyranny. “Americans today are no wiser than the Europeans who saw democracy yield to fascism, Nazism, or communism in the twentieth century” (Snyder, 2017, p. 13). One strategy for fighting tyranny is

supporting key institutions in a free society: newspapers, labor unions, public radio, public television, public education, etc. Snyder urges us to believe in truth. Today, there are real heroes worldwide, in the fight against fascism and the desire to maintain democracy. Samantha Power (2019), ambassador to the United Nations under Barack Obama, has created the term “upstanders” to designate those who fight against authoritarian genocide. In contrast to bystanders, upstanders do not watch passively as horrible wrongs are done. Today, there are real heroes worldwide, upstanders in the fight against authoritarianism, fascism, and totalitarianism. These upstanders are actively trying to make democracy work.

Austrian Grandmothers

Austria’s government has become much more right of center since 2000. Push back is coming against the right wing fascist party and the very conservative government in Austria by grandmothers who, as children, lived through the aftermath of WWII (Eddy, 2019). “Grannies Against the Right” protest march every Thursday. “Precisely because of their age, their presence serves as a reminder of past horrors born of intolerance and of the democratic gains that the Grannies want to preserve” (Eddy, 2019, p. A4). They are working on an international resistance system against the right wing and extremists from Europe and even beyond Europe. Grannies Against the Right was founded by a single woman, Monika Salzer, 71, who created the group on Facebook late in 2017.

Hong Kong Protesters

Hong Kong residents (especially young people and students), have been fighting the crack-down on democracy with months of street protests starting in June 2019 and continuing into 2020 (Associated Press, 2020; Beech, 2020). Despite violent police reactions, protesters continue to flock to the streets. Their courage is a lesson to the world. They very well may not succeed this time, especially since the Trump government has done nothing to directly support them, but they refuse to give up.

While the Hong Kong protests have been fed by many grievances, including income gaps and shortages of affordable housing, the hot molten lava of this volcano is that many Hong Kongers self-identify as free men and women and they viscerally reject the ruling bargain the Communist Party has imposed on mainland China and would like to impose on Hong Kong: To get rich is glorious, but to speak your mind is dangerous. (Friedman, 2019, para. 3)

David Magerman

David Magerman is an American computer scientist, philanthropist, and current managing partner in Differential Ventures of Philadelphia. He was formerly with Renaissance Technologies until he was fired for speaking out against the criminal activities of Robert Mercer's Cambridge Analytica company which illegally helped to elect Trump (Baram, 2018). Magerman gave up a powerful and lucrative position with Renaissance Technologies (which he had helped build) to stand up against anti-democratic political practices being undertaken by the company. By speaking out, Magerman helped to make visible the dark influence of Robert Mercer, a strong force for anti-democracy in America today (Baram, 2018).

Madeleine Albright

Former Secretary of State, Madeline Albright (2018), lived through fascism. She recognizes the threat and is raising the alarm in defense of democracy:

First Even among the most ardent and extreme people I met over five years of research in Louisiana, I found specific issues on which there was potential for coalition—for example, safeguarding children on the Internet, reducing prison populations for non-violent offenders, protecting against commercialization of the human genome, pushing for good jobs and re-building our rail system, roads, bridges—America's infrastructure. In fact, most of my Louisiana Trump supporters wanted to mend its social infrastructure too. Of all, we need to defend a free press. We need to understand the importance of a judicial branch, and we need to call out the president when he doesn't obey the law. It's important for people to run for office and for those of us who don't run to support them and explain the importance of voting. We need to talk to people we disagree with and listen to opinions we don't agree with. We need to respect people's opinions. And, listen to millennials. (Lutz, 2017, para, 12).

Jane Goodall

Any world with Jane Goodall in it has hope. Her book *Reason for Hope* (Goodall, 2000) is an extraordinary revelation of human resilience. The example she sets makes her the logical choice for the Nobel Peace Prize. Jane Goodall has not spent her life studying and then saving the chimpanzees, she has also devoted herself to helping the villagers of Africa survive and adapt to a changing world. Jane Goodall became a citizen of Tanzania and continues to advocate for everything that is diametrically opposed to authoritarianism in this world.

Joining the Political Process

Many other examples of fighting for democracy exist. The result of the 2016 election was to energize women to get involved in politics and even to run for office (Hayes, 2018). A record number of female Democrats were elected. The voter turnout in the 2018 mid-term elections was record-setting (Krogstad, Noe-Bustamente, & Flores, 2019).

Working on the Partisan Divide Problem

The partisan split dividing America is not a new phenomenon. “The battles between the blue staters and the red staters are close in spirit to the feuding between Hamiltonians and Jeffersonians in our country’s first days” (Tomasky, 2019, p. 189). Political polarization may be nothing new, but democracy cannot function when one group experiences an existential crisis when the other group has won. Polarization needs to be manageable (Tomasky, 2019). Journalist Ezra Klein (2020) accepts that extreme partisanship is going to be around for quite a while and suggests ways to manage government despite political polarization.

Recently, books have emerged on healing the partisan split (Gerzon, 2016; Lee, 2018). There are many grassroot groups reaching out to bridge the partisan divide. The *Bridge Alliance* (https://www.bridgealliance.us/all_members) co-founded by Debilyn Molineaux and David Nevins, connects grassroot groups all over the country. The Bridge Alliance exists to “upgrade our democratic republic”. Members have to agree to the Four Principles:

1. Alliance members believe that our country is stronger when our leaders work together constructively to meet the challenges we face.
2. Alliance members advocate a stronger voice for citizens in the political and social process.
3. Alliance members believe that respectful, civil discourse is necessary for genuine problem-solving to address our great challenges.
4. Alliance members learn from each other and align efforts in mutual support to raise the collective visibility and impact of all member organizations. The Bridge Alliance currently has 100 members across the country, including such diverse groups as LivingRoom Conversations, The Coffee Party USA, Democracy Works, Digital Citizen, Kitchen Table Democracy, Everyday Democracy, and the 92nd St. Y.

A dramatic example of profound change that can happen when going outside of one’s own social circle is the turn-around on abortion by evangelical minister, Rob Schenck (2019). For 30 years Schenck led a crusade against *Roe v Wade*. But in the last decade his experience of human diversity has altered. “I have witnessed first-hand and now appreciate the full significance of the terrible poverty, social

marginalization and baldfaced racism that persists in many of the states whose legislators are now essentially banning abortion” (Schenck, 2019, para. 4).

Law professor, John A. Powell (director of the Haas Institute for a Fair and Inclusive Society at the University of California at Berkeley) focuses on the practice of Othering which divides people into us and them. “The opposite of Othering is not “saming”, it is belonging. And belonging does not insist that we are all the same. It means we recognise and celebrate our differences, in a society where ‘we the people’ includes all the people” (Powell, 2017, para. 20). Powell speaks of bridging as the dynamic that is needed to counter Othering.

Arlie Hochschild has remained connected to many of the people she studied. She found that considerable common ground exists between her liberal orientation and their conservative worldview.

Even among the most ardent and extreme people I met over five years of research in Louisiana, I found specific issues on which there was potential for coalition—for example, safeguarding children on the Internet, reducing prison populations for non-violent offenders, protecting against commercialization of the human genome, pushing for good jobs and re-building our rail system, roads, bridges—America’s infrastructure. In fact, most of my Louisiana Trump supporters wanted to mend its social infrastructure too. (Hochschild, 2018, para. 6)

Alice Rivlin, former director of the Congressional Budget Office and vice chair of the Federal Reserve, died while writing (Rivlin, 2020) *Divided we fall: Why consensus matters*. “This book is a practical guide for Americans across the political spectrum who are agonizing over partisan warfare, incivility, and policy gridlock and looking for ways they can help to get our democratic policy process back on a constructive track before it is too late” (Brookings Institution Press, 2020, para. 4).

Before dying, Rivlin (with help from her son and daughter-in-law) finished an article titled, “My final thoughts on how to heal divisions in America.”

The rise of “red state” versus “blue state” hyperpartisanship has now metastasized into increased racism, nationalism, xenophobia, and homophobia that are far too often expressed through violent attacks. A truly great country worthy of a modern exceptionalism would rise to the challenge to heal the wounds of hate and division by giving all Americans opportunities to participate in a growing economy that offers them shared prosperity. (Rivlin, Rivlin, & Rivlin, 2019, para. 2)

Rivlin offers the perspective of an economist on the devastating consequences of the extreme income inequality in America. “Stark differences in current economic security and future prospects bring fear, distrust, and resentment” (Rivlin et al., 2019, para. 3). She demonstrates how attention to both vertical and horizontal income inequality can stimulate the healing process. Vertical inequality in cities is visible, horizontal (geographic) inequality is less salient. Horizontal inequality appears in the vast parts of the non-coastal United States suffering from the continuing decline in agriculture and the loss of an industrial base.

The best approach in a country where the federal government is debilitated by partisan strife, is joining together to solve problems at the regional level. Some larger and smaller non-coastal cities are leading the way, with local leaders connecting with groups that include business, labor, educators, law enforcement, and

community representatives. Regional economic plans reflect the input of these diverse groups that work together to make better paying jobs possible. “Regional economic strategies generally involve investment in education, innovation, infrastructure, and healthy communities” (Rivlin et al., 2019, para. 9).

Democracy Will Prevail

Michael Tomasky (2019) examines American democracy from its inception, details its flaws, and offers ideas for its salvation. He has a 14-point agenda to reduce polarization and save democracy. His points include fixes to the political system (end gerrymandering, introduce ranked-choice voting, revive moderate Republicanism, etc.), changing college to include a year of national service, greatly expanding civics education, and demanding that corporate and business leaders make a commitment to social responsibility.

The Democracy Fix

To make Tomasky’s agenda possible it will be necessary to bring like-minded people to power. In *The Democracy Fix*, Caroline Fredrickson (2019) details how right-wing conservatives laid the framework for endless power, despite being a statistical minority in the United States. She then lays out a plan for undoing the rigged system, establishing democratic systems of representation and governance, and giving “power back to the people.” Progressives don’t have the money, media power and institutions that right-wing conservatives rely on. A singular strength of progressives is the number of artists and entertainers who support democracy and can produce effective means to engage the interest of diverse groups in empowering ways. Fredrickson shows where to fight and how to fight to achieve a more democratic society. Despite authoritarian threats “democracies can renew themselves. American politics was coming apart in the era of the Weathermen and Watergate, but returned to health in the 1980’s” (The Economist, 2019, p. 9). Former Commander of NATO, Retired Admiral James Stavridis (2018) argues that democracy will prevail despite the authoritarian populism overtaking the world at this point in time.

The disorienting speed of change has provided an opening for authoritarian leaders, who tout their ability to respond rapidly to shifting events. Faster communication, the ability of computers to solve problems that once took weeks or months to crack and the shrinking news cycle are changing the environment in which government does business. That can give the advantage to one strong voice over the kinds of deliberative committees and blue-ribbon panels that are a mainstay of Western government decision making. (Stavridis, 2018, p. 33)

Adaptation to the rapid cycle of change is already beginning to happen. The declarations of the demagogue typically do not solve real problems that continue to haunt humanity. Climate change has become climate crisis while right-wing conservatives

and the American president continue to deny the existence of the problem (Leonard, 2019). Devastating floods, frequent and widespread wildfires, and extended droughts have a way of getting people's attention. Complex, long-term solutions are starting to look better than the demagogic quick fixes that fail just as quickly.

The devastating COVID-19 pandemic has made bitterly clear the price that is paid in sickness and death by having an incompetent demagogue as leader of the United States. By May 27, 2020, just 4 months into the epidemic, the death toll in the U. S. reached 100,000 (Fisher, 2020). "There's really no other way to say this: When it comes to his response to the spread of COVID-19 in the United States, the combination of President Donald Trump's arrogance and sheer incompetence is killing people" (Garcia, 2020, para 1). Trump's denials of the seriousness of the virus made his failures glaringly visible on the full range of media platforms (Lipton et al., 2020, para. 1). Trump's anti-science stance not only damaged the government's medical response to the virus, but also added a bizarre advocacy of suspect treatments such as ingesting bleach (Hyde, 2020). The world has reacted with shock at Trump's behavior and pity for the U.S. (Borger et al., 2020).

Resilience of Democracies

Democracy has many disadvantages compared to authoritarianism (Mussolini did make the trains run on time). With both China and Russia are mired in extreme totalitarianism, populist movements flaring up in both Eastern and Western Europe, and Trump undermining the very tenets of democracy in America, things do look grim at the moment. However, democracies have proven resilient. At the beginning of the twentieth century there were 24 democracies in the world. Now there are over 100. Even extreme authoritarian president Recep Erdogan in Turkey has recently (June 23, 2019) suffered a setback as democracy prevailed in the election of the mayor of Istanbul, where an opposition candidate succeeded over Erdogan's hand-picked candidate (Gall, 2019).

Another boon for democracy is the growing role of women in governance. Powerful female champions of democracy and civil rights have emerged around the world, from Michelle Bachelet of Chile to Jacinda Ardern of New Zealand and Ellen Johnson Sirleaf of Liberia, the first elected female head of state in Africa. Female representation has increased in national parliaments, from 15% in 2002 to 19.8% in 2012, the most recent year available.

The rise to power of those representing 50% of the world's population can only be good for the legitimacy and durability of democracy. Moreover, countries with higher levels of gender equality are less likely to engage in internal or external conflict, according to the World Bank. Women's participation in conflict prevention and resolution often helps ensure success; agreements that include women and civil-society groups are 64% less likely to fail than those that do not, according to a U.N.-sponsored study. (Stavridis, 2018, p. 37)

I'm a liberal and an optimist. I believe that democracy will prevail because people like Diet Eman display the extraordinary courage that our species is capable of. Her obituary in the New York Times (September 12, 2019), celebrates a life of 99 years

that included risking her life to save Dutch Jews during the Nazi occupation of The Netherlands in WWII (Roberts, 2019). I grew up with the history of my own Mother's courage in fighting totalitarianism (Rabin, 2009). I can't help believing that the human response to oppression is ultimately stronger than the forces of authoritarianism.

American democracy was once a beacon onto the world but the oppression of people of color, LGBT people, women, and many others typified American society. The hope is that we will come out of this authoritarian nightmare a more equal, more fair, more cohesive democracy, and that the fight against tyranny will propel us forward to a better society.

References

- Albright, M. (2018). *Fascism: A warning*. New York, NY: HarperCollins Publishers.
- Altemeyer, B. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Altemeyer, B. (2006). *The authoritarians*. Ramona, CA: Cherry Hill Publishing.
- Anson, I. G. (2018). Partisanship, political knowledge, and the Dunning-Kruger Effect. *Political Psychology*, 39(5), 1173–1192. <https://doi.org/10.1111/pops.12490>
- Anti-Defamation League Report. (2018). *When women are the enemy: The intersection of misogyny and white supremacy*. Retrieved from <https://www.adl.org/resources/reports/when-women-are-the-enemy-the-intersection-of-misogyny-and-white-supremacy>
- Antonio, R. J. (2019). Reactionary tribalism redux: Right-wing populism and de-Democratization. *The Sociological Quarterly*, 60(2), 201–209. <https://doi.org/10.1080/00380253.2019.1593062>
- Associated Press. (2020, January 19). Clashes cut short Hong Kong protest. *Politico*. <https://www.politico.com/news/2020/01/19/clashes-cut-short-hong-kong-protest-100878>
- Badger, E., & Cohn, N. (2019, July 20). White anxiety, and a president ready to address it. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/07/20/upshot/white-anxiety-trump.html>
- Baird, J. P. (2019, July 25). Normalizing sexism. *Concord Monitor*. <https://www.concordmonitor.com/Normalizing-sexism-26834862>
- Ballotpedia. (2019, August). *National Popular Vote Interstate Compact*. Retrieved from https://ballotpedia.org/National_Popular_Vote_Interstate_Compact
- Baltimore Sun Editorial Board (2019, July 27). Better to have a few rats than to be one. *Baltimore Sun*. Retrieved from <https://www.baltimoresun.com/opinion/editorial/bs-ed-0728-trump-baltimore-20190727-k6ac4yvnpvczlaexdfglifada-story.html>
- Baram, M. (2018). The millionaire critic who scared Facebook now wants to help “fix the internet”. *Fast Company*. Retrieved from <https://www.fastcompany.com/90279134/the-millionaire-critic-who-scared-facebook-wants-to-help-fix-the-internet>
- Barnes, J. E., & Goldman, A. (2019, April 26). F.B.I. warns of Russian interference in 2020 race and boosts counterintelligence operations. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/04/26/us/politics/fbi-russian-election-interference.html>
- Barrett, T., & Collier, K. (2019, July 25). GOP senators block election security legislation hours after Mueller warns of Russian interference. *CNN*. Retrieved from <https://www.cnn.com/2019/07/25/politics/republican-senators-block-election-security-legislation/index.html>
- Batson, C. D. (1976). Religion as prosocial: Agent or double agent? *Journal for the Scientific Study of Religion*, 15(1), 29–45. <https://doi.org/10.2307/1384312>
- Becker, E. (1973). *The denial of death*. New York, NY: The Free Press.

- Beech, H. (2020, January 19). Yellow or blue? In Hong Kong, businesses choose political sides. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/01/19/world/asia/hong-kong-protests-yellow-blue.html>
- Beinart, P. (2016, November 21). The Electoral College was meant to stop men like Trump from being president. The founders envisioned electors as people who could prevent an irresponsible demagogue from taking office. *The Atlantic*. Retrieved from <https://www.theatlantic.com/politics/archive/2016/11/the-electoral-college-was-meant-to-stop-men-like-trump-from-being-president/508310/>
- Bekoff, M. (2008). *The emotional lives of animals: A leading scientist explores animal joy, sorrow, and empathy—And why they matter*. Novato, CA: New World Library.
- Blake, A. (2018, April 3). The all-consuming tribalism of Trump’s Republican party, in one 30-second ad. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/the-fix/wp/2018/04/03/the-all-consuming-tribalism-of-trumps-republican-party-in-one-30-second-ad/>
- Blake, A. (2019, April 2). Trump wrongly claims his dad was born in Germany—For the third time. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/.../trump-wrongly-claims-his-dad-was-born-germany-t>
- Blow, C. M. (2019, April 8). Trumpism extols its folk hero. *The New York Times*, A21.
- Blow, C. M. (2020, February 10). A solution to the D.N.C.’s Iowa problem. *The New York Times*, A27. Retrieved from www.nytimes.com/2020/02/09/opinion/democratic-primaries-iowa
- Boag, K. (2018, January 19). *Money man: Reclusive U.S. billionaire Robert Mercer helped Donald Trump win the presidency. But what is his ultimate goal?* Retrieved from <https://www.cbc.ca/news/2/interactives/sh/wex94ODaUs/trump-robert-mercer-billionaire/>
- Boardman, J. D. (2011). Gene-environment interplay for the study of political behaviors. In P. K. Hatemi & R. McDermott (Eds.), *Man is by nature a political animal: Evolution, biology, and politics* (pp. 185–206). Chicago, IL: The University of Chicago Press.
- Bobo, L. D. (2017). Racism in Trump’s America: Reflections on culture, sociology, and the 2016 US presidential election. *British Journal of Sociology*, 68(1), S85–S104. <https://doi.org/10.1111/1468-4446.12324>
- Boot, M. (2020, May 27). Trump’s Republican Party is defined by anti- anti-racism. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/opinions/2020/05/27/racism-isnt-confined-one-party-only-gop-stokes-white-resentment/>
- Borger, J., Davidson, H., Cecco, L., Boffey, D., Oltermann, P., Giuffrida, A. ..., Akinwotu, E. (2020, May 15). The president’s outlandish behavior as Americans suffer has inspired horror and confusion while alienating allies. *The Guardian*. Retrieved from <https://www.theguardian.com/us-news/2020/may/15/donald-trump-coronavirus-response-world-leaders>
- Bouchard, T. J. (2009). Authoritarianism, religiousness, and conservatism: Is “obedience to authority” the explanation for their clustering, universality, and evolution? In E. Voland & W. Schiefenhover (Eds.), *The biological evolution of religious mind and behavior* (pp. 165–180). New York, NY: Springer.
- Brader, T., & Marcus, G. E. (2013). Emotion and political psychology. In L. Huddy, D. O. Sears, & J. S. Levy (Eds.), *The Oxford handbook of political psychology* (pp. 237–261). New York, NY: Oxford University Press.
- Brennan, J. (2016). Trump won because voters are ignorant, literally. *Foreign Policy (FP)*. Retrieved from <https://foreignpolicy.com/2016/11/10/the-dance-of-the-dunces-trump-clinton-election-republican-democrat/>
- Buck, R. (1988). *Human motivation and emotion*. Hoboken, NJ: Wiley.
- Buckwalter, J. G. (2016, August 26). *Financial and emotional suffering is pushing white Americans towards Trump*. Retrieved from <https://teconomy.com/2016/08/buckwalter-financial-suffering-pushing-white-americans-toward-trump/>
- Buckwalter, J. G. (2018). Why white Americans voted for Trump—A research psychologist’s analysis. *Teconomy*. Retrieved from <https://teconomy.com/2018/02/white-americans-voted-trump-research-psychologists-analysis/>

- Carl, N. (2014). Verbal intelligence is correlated with socially and economically liberal beliefs. *Intelligence*, *44*, 142–148. <https://doi.org/10.1016/j.intell.2014.03.005>
- Carl, N. (2015). Cognitive ability and political beliefs in the United States. *Personality and Individual Differences*, *83*, 245–248. <https://doi.org/10.1016/j.paid.2015.04.029>
- Cassino, D. (2016, September 29). Why more American men feel discriminated against. *Harvard Business Review*. Retrieved from <https://hbr.org/2016/09/why-more-american-men-feel-discriminated-against>
- Champagne, F. A. (2010). Epigenetic influence of social experiences across the lifespan. *Developmental Psychobiology*, *52*(4), 299–311. <https://doi.org/10.1002/dev.20436>
- Chibbaro, L., Jr. (2019, February 6). D.C. sees alarming increase in anti-LGBT hate crimes in 2018. *Washington Blade*. Retrieved from <https://www.washingtonblade.com/2019/02/06/d-c-sees-alarming-increase-in-anti-lgbt-hate-crimes-in-2018/>
- Choma, B. L., & Hanoch, Y. (2017). Cognitive ability and authoritarianism: Understanding support for Trump and Clinton. *Personality and Individual Differences*, *106*, 287–291. <https://doi.org/10.1016/j.paid.2016.10.054>
- Choma, B. L., Sumantry, D., & Yaniv, H. (2019). Right-wing ideology and numeracy: A perception of greater ability, but poorer performance. *Judgment and Decision making*, *14*(4), 412–422. Retrieved from <http://journal.sjdm.org/19/190305/jdm190305.html>
- Christakis, N. A. (2019). *Blueprint: The evolutionary origins of a good society*. New York, NY: Little, Brown Spark.
- Cillizza, C. (2017, September 14). Sorry, Hillary Clinton. The Electoral College isn't going anywhere. *CNN*. Retrieved from <https://edition.cnn.com/2017/09/14/politics/electoral-college/index.html>
- Cohen, F., Solomon, S., & Kaplin, D. (2017). You're hired! Mortality salience increases Americans' support for Donald Trump. *Analyses of Social Issues and Public Policy*, *17*(1), 339–357. <https://doi.org/10.1111/asap.12143>
- Cohen, R. (2019, March 22). Trump and conscience in the age of demagogues. *The New York Times*.
- Cohn, N. (2019, June 28). Gerrymandering and the rising risk of a monopoly on power. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/06/28/upshot/the-gerrymandering-ruling-and-the-risk-of-a-monopoly-on-power.html>
- Cramer, K. J. (2016). *The politics of resentment: Rural consciousness in Wisconsin and the rise of Scott Walker (Chicago studies in American Politics)*. Chicago, IL: University of Chicago Press.
- Crawford, J. T., Brandt, M. J., Inbar, Y., & Mallinas, S. R. (2016). Right-wing authoritarianism predicts prejudice equally toward “gay men and lesbians” and “homosexuals”. *Journal of Personality and Social Psychology*, *111*(2), e31–e45. <https://doi.org/10.1037/pspp0000070>
- Creanza, N., Kolodny, O., & Feldman, M. W. (2017). How culture evolves and why it matters. *Proceedings of the National Academy of Sciences*, *114*(30), 7782–7789. <https://doi.org/10.1073/pnas.1620732114>
- Crespi, L. P. (1942). Quantitative variation of incentive and performance in the white rat. *American Journal of Psychology*, *55*(4), 467–517.
- Crespi, L. P. (1944). Amount of reinforcement and level of performance. *Psychological Review*, *51*, 341–357.
- Cristdahl, R. (2019, March 8). How did Trump happen? *TheUnion.com*. Retrieved from <https://www.theunion.com/opinion/columns/richard-cristdahl-how-did-trump-happen/>
- Davis, J. H. (2018, May 16). Trump calls some unauthorized immigrants ‘animals’ in rant. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/05/16/us/politics/trump-unauthorized-immigrants-animals.html>
- Davis, J. H., & Rogers, K. (2018, November 4). At Trump's rallies, women see a hero protecting their way of life. *The New York Times*, 27.
- de Waal, F. (2019). *Mama's last hug: Animal emotions and what they tell us about ourselves*. New York, NY: Norton.
- Dean, J., & Altemeyer, B. (2019, March 20). Why do so many Americans continue to support Donald Trump? In a word: Authoritarianism. *Verdict Justica*. Retrieved from <https://verdict.com>

- justia.com/2019/03/20/why-do-so-many-americans-continue-to-support-donald-trump-in-a-word-authoritarianism
- DeYoung, C. G., Cicchetti, D., Rogosch, F. A., Gray, J. R., Eastman, M., & Grigorenko, E. L. (2011). Sources of cognitive exploration: Genetic variation in the prefrontal dopamine system predicts openness/intellect. *Journal of Research in Personality, 45*, 364–371. <https://doi.org/10.1016/j.jrp.2011.04.002>
- Dhont, K., Roets, A., & Van Hiel, A. (2013). The intergenerational transmission of need for closure underlies the transmission of authoritarianism and anti-immigrant prejudice. *Personality and Individual Differences, 54*, 779–784. <https://doi.org/10.1016/j.paid.2012.12.016>
- Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 33, pp. 41–113). San Diego, CA: Academic Press.
- Dunbar, E., & Simonova, L. (2003). Individual difference and social status predictors of anti-Semitism and racism US and Czech findings with the prejudice/tolerance and right wing authoritarianism scales. *International Journal of Intercultural Relations, 27*(5), 507–523. [https://doi.org/10.1016/S0147-1767\(03\)00051-8](https://doi.org/10.1016/S0147-1767(03)00051-8)
- Eddy, M. (2019, April 29). In Vienna, “grannies” march to protest an age of populists. *The New York Times*, A4.
- Eichengreen, B. (2018). *Economic grievance and political reaction in the modern era*. New York, NY: Oxford University Press.
- Faludi, S. (1999). *Stiffed: The betrayal of the American man*. New York, NY: HarperCollins.
- Feinberg, A., Branton, R., & Martinez-Ebers, V. (2019, March 22). Counties that hosted a 2016 Trump rally saw a 226 percent increase in hate crimes. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/politics/2019/03/22/trumps-rhetoric-does-inspire-more-hate-crimes/>
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fisher, M. (2020, May 27). The U.S. death toll has reach 100,000. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/graphics/2020/national/100000-deaths-american-coronavirus/>
- Follman, M. (2019, May–June). Armed and misogynist: How toxic masculinity fuels mass shootings. *Mother Jones*. Retrieved from <https://www.motherjones.com/crime-justice/2019/06/domestic-violence-misogyny-incels-mass-shootings/>
- Fording, R., & Schram, S. (2017). The cognitive and emotional sources of Trump support: The case of low-information voters. *New Political Science, 39*(4), 670–686. <https://doi.org/10.1080/007393148.2017.1378295>
- Fredrickson, C. (2019). *The democracy fix: How to win the fight for fair rules, fair courts, and fair elections*. New York, NY: The New Press.
- Friedman, T. L. (2019, September 17). Hong Kong’s protests could be another social media revolution that ends in failure. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/09/17/opinion/hong-kong-protest.html>
- Frindte, W., Wettig, S., & Wammetsberger, D. (2005). Old and new anti-Semitic attitudes in the context of authoritarianism and social dominance orientation—Two studies in Germany. *Peace and Conflict Journal of Peace Psychology, 11*(3), 239–266. https://doi.org/10.1207/s15327949pac1103_3
- Fukuyama, F. (2018). *Identity: The demand for dignity and the politics of resentment*. New York, NY: Farrar, Straus and Giroux.
- Gall, C. (2019, June 23). Turkey’s president suffers stinging defeat in Istanbul election redo. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/06/23/world/europe/istanbul-mayor-election-erdogan.html>
- Galston, W. (2018). *The populist threat to liberal democracy*. New Haven, CT: Yale University Press.
- Ganzach, Y. (2018). Intelligence and the rationality of political preferences. *Intelligence, 69*, 59–70. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0160289617303392>

- Ganzach, Y., Hanoch, Y., & Choma, B. L. (2018). Attitudes toward presidential candidates in the 2012 and 2016 American elections: Cognitive ability and support for Trump. *Social Psychological and Personality Science*, 10(7), 924–934. <https://doi.org/10.1177/1948550618800494>
- Garcia, J. E. (2020, May 14). 85,000 dead and counting from COVID-19. Imagine if Trump gets re-elected. *AZMIRROR*. Retrieved from <https://www.azmirror.com/2020/05/14/covid-19-trump-85000-dead-imagine-if-reelected/>
- Gerson, M. (2020, January 20). Trump pushes his party to normalize corruption. *The Washington Post*. Retrieved from https://www.washingtonpost.com/opinions/trump-pushes-his-party-to-normalize-corruption/2020/01/20/0922102c-3bc1-11ea-b90d-5652806c3b3a_story.html
- Gerzon, M. (2016). *The reunited states of America: How we can bridge the partisan divide*. Oakland, CA: Berrett-Koehler Publishers.
- Goldberg, M. (2019, April 30). Trump's anti-abortion incitement. *The New York Times*, A20.
- Goodall, J. (2000). *A reason for hope: A spiritual journey*. New York, NY: Warner Books.
- Green, J. (2017/2018). *Devil's bargain: Steve Bannon, Donald Trump, and the nationalist uprising*. New York, NY: Penguin Random House.
- Grossmann, M., & Hopkins, D. A. (2016). *Asymmetric politics: Ideological Republicans and group interest Democrats*. Oxford: Oxford University Press.
- Hackett, R. (2016, August 3). Here are all the billionaires backing Donald Trump. *Fortune*. Retrieved from <https://fortune.com/2016/08/03/trump-billionaire-backers-list/>
- Hahn, S. (2019). The populist specter. *The Nation*, 308(3), 27–31.
- Haider, M. (2018, October 22). Authoritarians like Trump target trans people for a reason. *The Guardian*.
- Haidt, J. (2012). *The righteous mind: Why good people are divided by politics and religion*. New York, NY: Vintage Books.
- Hatemi, P. K., & McDermott, R. (2011). *Man is by nature a political animal: Evolution, biology, and politics*. Chicago, IL: University of Chicago Press.
- Hatemi, P. K., Medland, S. E., Klemmensen, R., Oskarsson, S., Littvay, L., Dawes, C. T., ... Martin, N. G. (2014). Genetic influences on political ideologies: Twin analyses of 19 measures of political ideologies from five democracies and genome-wide findings from three populations. *Behavior Genetics*, 44(3), 282–294. <https://doi.org/10.1007/s10519-014-9648-8>
- Hayes, D. (2018, January 19). A year after the Women's March, a record number of women are running for office. Will they win? *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/monkey-cage/wp/2018/01/19/a-year-after-the-womens-march-a-record-number-of-women-are-running-for-office-will-they-win/>
- Hedges, C. (2008). *American fascists: The Christian right and the war on America*. New York, NY: Free Press.
- Hendrick, C. (2016, December 11). Why schools shouldn't teach critical thinking. *The Week*. Retrieved from <https://theweek.com/articles/665551/why-schools-shouldnt-teach-critical-thinking>
- Hinsliff, G. (2019, May 14). Tackling inequality means addressing divisions that go way beyond income. *The Guardian*. Retrieved from <https://www.theguardian.com/commentisfree/2019/may/14/inequality-inquiry-institute-fiscal-studies-grievance>
- Hochschild, A. R. (2016/2018). *Strangers in their own land*. New York, NY: The New Press.
- Hochschild, A. R. (2018, January 19). Trump has divided the country. Some Americans are trying to bring us back together. *Time*. Retrieved from <https://time.com/5109800/political-divide-republicans-donald-trump/>
- Holmes, S. (2018). How democracies perish. In C. R. Sunstein (Ed.), *Can it happen here? Authoritarianism in America*. New York, NY: HarperCollins Publishers.
- Holstein, M. (2018, April 3). 29 ways American schools fail students. *Medium*. Retrieved from <https://medium.com/@meholstein/29-ways-american-schools-fail-students-b0cf3fc805ba>
- Hooghe, M., & Dassonneville, R. (2018). Explaining the Trump vote: The effect of racist resentment and anti-immigrant sentiments. *Political Science Now*. Retrieved from <https://politicalsciencenow.com/explaining-the-trump-vote-the-effect-of-racist-resentment-and-antiimmigrant-sentiments/>

- Houtman, D. (2003). Lipset and “working-class” authoritarianism. *American Sociologist*, *34*(1–2), 85–103. <https://doi.org/10.1007/s12108-003-1008-8>
- Hyde, M. (2020, April 24). Donald Trump’s prescription for coronavirus: quite literally toxic. *The Guardian*. Retrieved from <https://www.theguardian.com/commentisfree/2020/apr/24/donald-trump-coronavirus-president-advice-bleach>.
- Inbar, Y., Pizarro, D., Iyer, R., & Haidt, J. (2012). Disgust sensitivity, political conservatism, and voting. *Social Psychological and Personality Science*, *3*(5), 537–544. <https://doi.org/10.1177/1948550611429024>
- Inbar, Y., Pizzarro, D. A., Knobe, J., & Bloom, P. (2009). Disgust sensitivity predicts intuitive disapproval of gays. *Emotion*, *9*(3), 435–439. <https://doi.org/10.1037/a0015960>
- Javanbakht, A. (2019, March 23). The politics of fear. How it manipulates us into tribalism. *Psychology Today*. Retrieved from <https://www.psychologytoday.com/us/blog/the-many-faces-anxiety-and-trauma/201903/the-politics-fear>
- Johnson, C. D., Lavine, H. G., & Federico, C. M. (2017). *Open versus closed: Personality, identity, and the politics of redistribution*. New York, NY: Cambridge University Press.
- Johnson, C. Y. (2019, January 14). Largest study of American twins traces influence of genes and environment on disease. *The Washington Post*. Retrieved from <https://beta.washingtonpost.com/health/2019/01/14/largest-study-american-twins-traces-influence-genes-environment-disease/>
- Jordan, M., & Balz, D. (2018, November 2). Women will decide the next election. Here’s what they think. *The Washington Post*.
- Jost, J. T. (2017). Ideological asymmetries and the essence of political psychology. *Political Psychology*, *38*(2), 167–208. <https://doi.org/10.1111/pops.12407>
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, *129*(3), 339–375. <https://doi.org/10.1037/0033-2909.129.3.339>
- Jost, J. T., Langer, M., Badaan, V., Azevedo, F., Etchezahar, E., Ungaretti, J., & Hennes, E. P. (2017). Ideology and the limits of self-interest: System justification motivation and conservative advantages in mass politics. *Translational Issues in Psychological Science*, *3*(3), e1–e26. <https://doi.org/10.1037/tps0000127>
- Kandler, C., Gottschling, J., & Spinath, F. M. (2016). Genetic and environmental parent–child transmission of value orientations: An extended twin family study. *Child Development*, *87*, 270–284. <https://doi.org/10.1111/cdev>
- Kay, A. C., Gaucher, D., Peach, J. M., Laurin, K., Friesen, J. P., Zanna, M. P., & Spencer, S. J. (2009). Inequality, discrimination, and the power of the status quo: Direct evidence for a motivation to see the way things are as the way they should be. *Journal of Personality and Social Psychology*, *97*(3), 421–434. <https://doi.org/10.1037/a0015997>
- Kay, A. C., Whitson, J. A., Gaucher, D., & Galinsky, A. D. (2009). Compensatory control: Achieving order through the mind, our institutions, and the heavens. *Current Directions in Psychological Science*, *18*(5), 264–268. <https://doi.org/10.1111/j.1467-8721.2009.01649.x>
- Kehn, A., & Ruthig, J. C. (2013). Perceptions of gender discrimination across six decades: The moderating roles of gender and age. *Sex Roles*, *69*, 289–296. <https://doi.org/10.1007/s11199-013-0303-2>
- Khazan, O. (2016, October 12). The precarious masculinity of 2016 voters. *The Atlantic*. Retrieved from <https://www.theatlantic.com/politics/archive/2016/10/male-trump-voters-masculinity/503741/>
- Klaas, B. (2017, February 10). Gerrymandering is the biggest obstacle to genuine democracy in the United States. So why is no one protesting? *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/democracy-post/wp/2017/02/10/gerrymandering-is-the-biggest-obstacle-to-genuine-democracy-in-the-united-states-so-why-is-no-one-protesting/>
- Klass, B. (2020, February 3). Senate Republicans just paved the road to American authoritarianism. Retrieved from <https://www.washingtonpost.com/opinions/2020/02/03/senate-republicans-just-paved-road-american-authoritarianism/>
- Klein, E. (2020). *Why we’re polarized*. New York, NY: Avid Reader Press.
- Kobrynowicz, D., & Branscombe, N. R. (1997). Who considers themselves victims of discrimination? Individual difference predictors of perceived gender discrimination in women and men.

- Psychology of Women Quarterly*, 21(3), 347–363. <https://doi.org/10.1111/j.1471-6402.1997.tb00118.x>
- Koenig, L. B., & Bouchard, T. J., Jr. (2006). Genetic and environmental influences on the traditional moral values triad—Authoritarianism, conservatism, and religiousness—As assessed by quantitative behavior genetic methods. In P. McNamara (Ed.), *Where god and science meet: How brain and evolutionary studies alter our understanding of religion* (pp. 31–60). Westport, CN: Praeger.
- Krogstad, J. M., Noe-Bustamante, L., & Flores, A. (2019, May 1). *Historic highs in 2018 voter turnout extended across racial and ethnic groups*. Fact Tank|Pew Research Center. Retrieved from <https://www.pewresearch.org/fact-tank/2019/05/01/historic-highs-in-2018-voter-turnout-extended-across-racial-and-ethnic-groups/>
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77(6), 11212–11134. <https://doi.org/10.1037/0022-3514.77.6.1121>
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480–498. <https://doi.org/10.1037/0033-2909.108.3.480>
- Lach, E. (2018, October 24). The bombs addressed to Obama, Clinton, and Soros, and the history of anti-Soros hate-mongering. *The New Yorker*. Retrieved from <https://www.newyorker.com/news/current/the-bombs-addressed-to-obama-clinton-and-soros-and-the-history-of-soros-mongering>
- Lakoff, G. (2016). *Moral politics: How liberals and conservatives think*. Chicago, IL: University of Chicago Press.
- Landau, M., Kay, A. C., & Whitson, J. A. (2015). Compensatory control and the appeal of a structured world. *Psychological Bulletin*, 141(3), 694–722. <https://doi.org/10.1037/a0038703>
- Lee, J. (2018). *Talking across the divide: How to communicate with people you disagree with and maybe even change the world*. New York, NY: Penguin Random House LLC.
- Leonard, C. (2019, August 25). The ultimate climate change denier. *The New York Times*, SR9.
- Leonhardt, D. (2019, March 18). Trump encourages violence. *The New York Times*, A21. Retrieved from <https://www.nytimes.com/2019/03/17/opinion/trump-violence.html>
- Lerner, J. S., & Tiedens, L. Z. (2006). Portrait of the angry decision maker: How appraisal tendencies shape anger's influence on cognition. *Journal of Behavioral Decision Making*, 19, 115–137.
- Levin, B. (2018, June 8). Donald Trump does not read, will not listen, and is ready to rock. *Vanity Fair*. Retrieved from <https://www.vanityfair.com/news/2018/06/trump-hates-complete-sentences>
- Levin, N. (2019, April 27). Can America's bipartisan framework guard against populism? *Democratic Erosion*. Retrieved from <https://www.democratic-erosion.com/2019/04/27/can-americas-bipartisan-framework-guard-against-populism-by-noa-levin/>
- Levitin, D. J. (2014). *The organized mind: Thinking straight in the age of information overload*. New York, NY: Penguin Random House.
- Levitin, D. J. (2016). *Weaponized lies: How to think critically in the post-truth era*. New York, NY: Penguin Random House.
- Levy, P. (2018, November 1). Equipment malfunctions and voting machine shortages bring Long lines in Georgia. Voters are waiting for hours in heavily African American precincts. *Mother Jones*. Retrieved from <https://www.motherjones.com/politics/2018/11/equipment-malfunctions-and-voting-machine-shortages-bring-long-lines-in-georgia/>
- Lewis, S. (1935). *It can't happen here*. New York, NY: Signet Classics.
- Lipset, S. M. (1959). Democracy and working-class authoritarianism. *American Sociological Review*, 24, 482–501.
- Lipton, E., Sanger, D. E., Haberman, M., Shear, M. D., Mazzetti, M., & Barnes, J. E. (2020, April 11, updated May 4). He could have seen what was coming: Behind Trump's failure on the virus. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/04/11/us/politics/coronavirus-trump-response.html>
- Liuzza, M. T., Lindholm, T., Hawley, C. B., Gustafsson Sendén, M., Ekström, I., Olsson, M. J., & Olofsson, J. K. (2018). Body odour disgust sensitivity predicts authoritarian attitudes. *Royal Society Open Science*, 5(2), 171091. <https://doi.org/10.1098/rsos.171091>

- Lonegan, R. (1941). A steadfast friend of labor. In I. Dullard (Ed.), *Mr. Justice Brandeis, great American* (pp. 42–25). St. Louis, MO: Modern View Press.
- Lowenstein, G., & Lerner, J. S. (2003). The role of affect in decision making. In R. Davidson, K. Scherer, & H. Goldsmith (Eds.), *Handbook of affective science* (pp. 619–642). New York, NY: Oxford University Press.
- Ludeke, S., Johnson, W., & Bouchard, T. J., Jr. (2013). “Obedience to traditional authority”: A heritable factor underlying authoritarianism, conservatism and religiousness. *Personality and Individual Differences*, 55, 375–380. <https://doi.org/10.1016/j.paid.2013.03.018>
- Lutz, C. (2017, April 1). *Madeleine Albright on how to fight fascism*. The Aspen Institute. Retrieved from <https://www.aspeninstitute.org/blog-posts/madeleine-albright-how-to-fight-fascism/>
- MacFarquhar, N. (2018, February 18). Inside the Russian troll factory: Zombies and a break-neck pace. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/02/18/world/europe/russia-troll-factory.htm>
- Mackey, C. D., & Dempsey, H. L. (2018). Personality traits, political ideology, and candidate preference in the deep south. *Modern Psychological Studies*, 23(2), 7. Retrieved from <https://scholar.utc.edu/mps/vol23/iss2/7>
- MacWilliams, M. C. (2016a, January 17). The one weird trait that predicts whether you’re a Trump supporter: And it’s not gender, age, income, race or religion. *Politico Magazine*. Retrieved from <http://www.politico.com/magazine/story/2016/01/donald-trump2016-authoritarian-213533>
- MacWilliams, M. C. (2016b). *The rise of Trump: America’s authoritarian spring*. Amherst, MA: Amherst College Press.
- Maddow, R. (2019). *Blowout: Corrupted democracy, rogue state Russia, and the richest, most destructive industry on earth*. New York, NY: Crown.
- Magerman, D. M. (2017, March 1). The oligarchy of the 0.001 percenters. *The Philadelphia Inquirer*. Retrieved from https://www.inquirer.com/philly/blogs/inq-phillydeals/Billionaires_and_Democracy_Magerman_Mercer_Renaissance_Trump_Bannon_Conway.html
- Massing, M. (2018). Journalism in the age of Trump. *The Nation*, 307(4), 3–18.
- Massing, M. (2018a). *Fatal discord: Erasmus, Luther, and the fight for the Western Mind*. New York, NY: Harper.
- Massing, M. (2018b, April 19). How Martin Luther paved the way for Donald Trump. *The Nation*. Retrieved from <https://www.thenation.com/article/archive/how-martin-luther-paved-the-way-for-donald-trump/>
- Matthews, S. (2019, August 23). Anger is what kills people and Trump keeps provoking it. *Slate*. Retrieved from <https://slate.com/technology/2019/08/trump-mental-illness-gun-violence-claims-wrong-anger-mental-health.html>
- Mayer, J. (2017). *Dark money: The hidden history of the billionaires behind the rise of the radical right*. New York, NY: Doubleday.
- Motta, M. (2017). The dynamics and political implications of anti-intellectualism in the United States. *American Politics Research*, 46(3), 1–34. <https://doi.org/10.1177/1532673X17719507>
- Mounk, Y. (2018). *Why our freedom is in danger and how to save it*. Cambridge, MA: Harvard University Press.
- Mudde, C., & Kaltwasser, C. R. (2017). *Populism: A very short introduction*. New York, NY: Oxford University Press.
- Nalewicki, J. (2016, November 21). The Electoral College has been divisive since day one. *Smithsonian.com*. Retrieved from <https://www.smithsonianmag.com/history/electoral-college-has-been-divisive-day-one-180961171/>
- Neiheisel, J. R. (2016). The “L” word: Anti-liberal campaign rhetoric, symbolic ideology, and the electoral fortunes of democratic candidates. *Political Research Quarterly*, 69(3), 418–429. <https://doi.org/10.1177/1065912916648011>
- Norton, M. I., & Sommers, S. R. (2011). Whites see racism as a zero-sum game that they are now losing. *Perspectives on Psychological Science*, 6(3), 215–218. <https://doi.org/10.1177/1745691611406922>
- Obschonka, M., Stuetzer, M., Rentfrow, P., Lee, N., Potter, J., & Gosling, S. (2018). Fear, populism, and the geopolitical landscape: The “sleeping effect” of neurotic personality traits on

- regional voting behavior in the 2016 Brexit and Trump elections. *Social Psychological and Personality Science*, 9(3), 285–298. <https://doi.org/10.1177/1948550618755874>
- Onraet, E., Van Hiel, A., Dhont, K., Hodson, G., Schittekatte, M., & De Pauw, S. (2015). The association of cognitive ability with right-wing ideological attitudes and prejudice: A meta-analytic review. *European Journal of Personality*, 29(6), 599–621. <https://doi.org/10.1002/per.2027>
- Panksepp, J. (1998). *Affective neuroscience: The foundation of human and animal emotions*. New York, NY: Oxford University Press.
- Payne, K. (2019, July 18). The truth about anti-white discrimination. Many white Americans feel that discrimination against whites is on the rise. Experiments suggests otherwise. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/the-truth-about-anti-white-discrimination/>
- Peçanha, S. (2020, January 16). Are cows better represented in the Senate than people? *The Washington Post*. Retrieved from <https://www.washingtonpost.com/opinions/2020/01/16/are-cows-better-represented-senate-than-people/?arc404=true>
- Pfister, H. R., & Böhm, G. (2008). The multiplicity of emotions: A framework of emotional functions in decision making. *Judgment and Decision making*, 3(1), 5–17.
- Powell, J. (2017, November 8). Us vs them: The sinister techniques of ‘Othering’—And how to avoid them. *The Guardian*. Retrieved from <https://www.theguardian.com/inequality/2017/nov/08/us-vs-them-the-sinister-techniques-of-othering-and-how-to-avoid-them>
- Power, S. (2019). *The education of an idealist: A memoir*. New York, NY: Dey St./William Morrow.
- Pratto, F., Sidanius, J., & Levin, S. (2006). Social dominance theory and the dynamics of intergroup relations: Taking stock and looking forward. *European Review of Social Psychology*, 17, 271–320. <https://doi.org/10.1080/10463280601055772>
- Rabin, J. S. (1975). Effects of varying sucrose reinforcers and amobarbital sodium on positive contrast in rats. *Learning and Behavior*, 3(4), 290–294.
- Rabin, J. S. (2009). Survival connections and social change. In R. G. Johnson III (Ed.), *A twenty-first century approach to teaching social justice: Educating for both advocacy and action* (pp. 167–190). New York, NY: Peter Lang.
- Rampell, C. (2016, December 22). Why the white working class votes against itself. *The Washington Post*. Retrieved from https://www.washingtonpost.com/opinions/why-the-white-working-class-votes-against-itself/2016/12/22/3aa65c04-c88b-11e6-8bee-54e800ef2a63_story.html
- Rashbaum, W. K. (2018, October 24). Hillary Clinton, Barack Obama and CNN offices are sent pipe bombs. *New York Times*. Retrieved from <https://www.nytimes.com/2018/10/24/nyregion/clinton-obama-explosive-device.html>
- Ratliff, K. A., Redford, L., Conway, J., & Smith, C. T. (2019). Engendering support: Hostile sexism predicts voting for Donald Trump over Hillary Clinton in the 2016 U.S. presidential election. *Group Processes & Intergroup Relations*, 22(4), 578–593. <https://doi.org/10.1177/1368430217741203>
- Ravani, S. (2019, November 14). FBI: Hate crimes in U.S., CA surge in first year of Trump’s presidency. *San Francisco Chronicle*. Retrieved from <https://www.sfchronicle.com/crime/article/FBI-Hate-crimes-in-U-S-CA-surge-in-first-year-13389522.php>
- Ravitch, D. (2010). *The death and life of the great American school system: How testing and choice are undermining education*. New York, NY: Basic Books.
- Reny, T., Collingwood, L., & Valenzuela, A. A. (2019). Vote switching in the 2016 election: How racial and immigration attitudes, not economics, explain shifts in white voting. *Public Opinion Quarterly*, 83(1), 91–113. <https://doi.org/10.1093/poq/nfz011>
- Rivlin, A. (2020). *Divided we fall. Why consensus matters*. Washington, DC: Brookings Institution Press.
- Rivlin, A., Rivlin, A., & Rivlin, S. (2019, October 10). Alice Rivlin: My final thoughts on how to heal divisions in America. *The Hill*. Retrieved from <https://thehill.com/opinion/finance/465185-alice-rivlin-my-final-thoughts-on-how-to-heal-divisions-in-america>
- Roberts, S. (2019, September 11). Diet Eman, who risked her life to rescue Dutch Jews, dies at 99. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/09/11/obituaries/diet-eman-dies.html>

- Rogers, K. (2019, July 12). In social media summit, Trump praises loyal meme makers. *The New York Times*, A14.
- Roller, E. (2012, February 28). From snobs to ‘Pointy-Headed College Professors’ to ‘Eggheads’. *The Chronicle of Higher Education*. Retrieved from <https://www.chronicle.com/article/From-Snobs-to-Pointy-Headed/130960>
- Rollwage, M., Dolan, R. J., & Fleming, S. M. (2018). Metacognitive failure as a feature of those holding radical beliefs. *Current Biology*, 28(24), 4014–4021.e8. <https://doi.org/10.1016/j.cub.2018.10.053>
- Ron, J., & Lavine, H. (2019, September 24). American Jews and American Muslims have a common antagonist. *The New York Times*. Retrieved from <https://www.nytimes.com/2019/09/24/opinion/anti-semitism-republicans.html>
- Roos, D. (2019, July 15). Why was the Electoral College created? *History*. Retrieved from <https://www.history.com/news/electoral-college-founding-fathers-constitutional-convention>
- Routledge, C., & Vess, M. (2019). *Handbook of terror management theory*. Cambridge, MA: Academic Press.
- Rubin, J. (2019, August 1). Just how big a problem is voter suppression? *The Washington Post*. Retrieved from <https://beta.washingtonpost.com/opinions/2019/08/01/just-how-big-problem-is-voter-suppression/>
- Rutjens, B. T., & Kay, A. C. (2017). Compensatory control theory and the psychological importance of perceiving order. In M. Burkowski, I. Fritsche, A. Guinote, & M. Kofta (Eds.), *Coping with lack of control in a social world*. New York, NY: Routledge.
- Saletan, W. (2012, March 23). Why won’t they listen? *The New York Times*. Retrieved from <https://www.nytimes.com/2012/03/25/books/review/the-righteous-mind-by-jonathan-haidt.html>
- Sanders, B. (2018, October 9). *Building a global democratic movement to counter authoritarianism*. Johns Hopkins School of Advanced International Studies. Audio retrieved from <https://sais.jhu.edu/news-press/building-global-democratic-movement-counter-authoritarianism>. Text retrieved from <https://www.sanders.senate.gov/newsroom/press-releases/sanders-speech-at-sais-building-a-global-democratic-movement-to-counter-authoritarianism>
- Saramo, S. (2017). The meta-violence of Trumpism. *European Journal of American Studies*, 12(2), 1. Retrieved from <https://journals.openedition.org/ejas/12129>
- Sarkis, S. (2018, October 3). Donald Trump is a classic gaslighter in an abusive relationship with America. *USA Today*. Retrieved from <https://www.usatoday.com/story/opinion/2018/10/03/trump-classic-gaslighter-abusive-relationship-america-column/1445050002/>
- Schenck, R. (2019, May 31). My reversal on abortion rights. *New York Times*, A25. Retrieved from <https://www.nytimes.com/2019/05/30/opinion/abortion-schenck.html>
- Schmitt, J., Gould, E., & Bivens, J. (2018, September 13). *America’s slow-motion wage crisis: Four decades of slow and unequal growth*. Economic Policy Institute. Retrieved from <https://www.epi.org/publication/americas-slow-motion-wage-crisis-four-decades-of-slow-and-unequal-growth-2/>
- Schneider, M. (2019). Why income inequality is dissatisfying—Perceptions of social status and the inequality-satisfaction link in Europe. *European Sociological Review*, 35(3), 409–430. <https://doi.org/10.1093/esr/jcz003>
- Shane, S. & Marzetti, M. (2018, September 20). The plot to subvert an election: Unraveling the Russia story so far. *The New York Times*. Retrieved from <https://www.nytimes.com/interactive/2018/09/20/us/politics/russia-interference-election-trump-clinton.html>
- Shenck, T. (2017, February 7). Booked: Capitalizing on rural resentment, with Katherine J. Cramer. *Dissent*. Retrieved from <https://www.dissentmagazine.org/blog/booked-katherine-cramer-politics-resentment-rural-wisconsin-scott-walker-trump>
- Shenckman, R. (2008). *Just how stupid are we? Facing the truth about the American voter*. New York, NY: Basic Books.
- Sherman, R. (2018). Personal values and support for Donald Trump during the 2016 US presidential primary. *Personality and Individual Differences*, 128, 33–38. <https://doi.org/10.1016/j.paid.2018.02.020>

- Shermer, M. (2011). *The believing brain: From ghosts and gods to politics and conspiracies. How we construct beliefs and reinforce them as truths*. New York, NY: St. Martin's Griffin.
- Smith, D. (2019, October 6). 'Peculiar, irrational, self-destructive': Trump's week of impeachment rage. *The Guardian*. Retrieved from <https://www.theguardian.com/us-news/2019/oct/05/trump-impeachment-inquiry-finland-china-tweets>
- Smith, D. N., & Hanley, E. (2018). The anger games: Who voted for Donald Trump in the 2016 election, and why? *Critical Sociology*, 44(2), 195–212. <https://doi.org/10.1177/0896920517740615>
- Snyder, T. (2017). *On tyranny: Twenty lessons from the twentieth century*. New York, NY: Tim Duggin Books.
- Society for Personality and Social Psychology. (2018, March 8). *Neuroticism could be 'Sleeper Effect' in Trump and Brexit campaigns*. Retrieved from <https://www.spsp.org/news-center/press-releases/neuroticism-sleeper-effect>
- Solomon, S. (2008). Fear, death and politics: What your mortality has to do with the upcoming election. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/fear-death-and-politics/>
- Solomon, S., Greenberg, J., & Pyszcznski, T. (2015). *The worm at the core: On the role of death in life*. New York, NY: Random House.
- Solt, F. (2015). Economic inequality and nonviolent protest. *Social Science Quarterly*, 96, 1314–1327. <https://doi.org/10.1111/ssqu.12198>
- Stankov, L. (2009). Conservatism and cognitive ability. *Intelligence*, 37, 294–304. <https://doi.org/10.1016/j.intell.2008.12.007>
- Stavridis, J. (2018). Democracy will prevail. *Time*, 192(3), 32–39. Retrieved from <https://time.com/5336615/democracy-will-prevail/>
- Stenner, K., & Haidt, J. (2018). Authoritarianism is not a momentary madness. In C. R. Sunstein (Ed.), *Can it happen here? Authoritarianism in America*. New York, NY: HarperCollins Publishers.
- Stephens, B. (2017, February 26). Don't dismiss president Trump's attacks on the media as mere stupidity. Daniel Pearl Memorial Lecture, University of California, Los Angeles. *Time*. Retrieved from <https://time.com/4675860/donald-trump-fake-news-attacks/>
- Stevens, S. (2020). *It was all a lie. How the Republican Party became Donald Trump*. New York, NY: Knopf.
- Suhay, E., & Erisen, C. (2018). The role of anger in the biased assimilation of political information. *Political Psychology*, 39(4), 793–810. <https://doi.org/10.1111/pops.12463>
- Sun Editorial. (2018, November 15). Spike in hate crimes in US since the rise of Trump is no coincidence. *Las Vegas Sun*. Retrieved from <https://lasvegassun.com/news/2018/nov/15/spike-in-hate-crimes-in-us-since-the-rise-of-trump/>
- Sunstein, C. R. (2018). *Can it happen here? Authoritarianism in America*. New York, NY: Cambridge University Press.
- Sunstein, C. R. (2019). *On freedom*. Princeton, NJ: Princeton University Press.
- Terrizzi, J. A., Jr., Shooka, N. A., & Ventis, W. L. (2010). Disgust: A predictor of social conservatism and prejudicial attitudes toward homosexuals. *Personality and Individual Differences*, 49(6), 587–592. <https://doi.org/10.1016/j.paid.2010.05.024>
- The Economist. (2019, August 31). Democracy's enemy within. *The Economist*, 432(9158), 9.
- The New York Times. (2017, August 9). Presidential election results: Donald J. Trump wins. *The New York Times*. Retrieved from <https://www.nytimes.com/elections/2016/results/president>
- The Southern Poverty Law Center. (2019, Spring). *The year in hate and extremism* (Intelligence Report No. 166). Retrieved from https://www.splcenter.org/sites/default/files/intelligence_report_166.pdf
- Tomasky, M. (2019). *If we can keep it: How the Republic collapsed and how it might be saved*. New York, NY: Norton.
- U.S. Census Bureau QuickFacts. (n.d.). *U.S. Census Bureau QuickFacts: Wyoming; California*. Retrieved August 22, 2019, from <https://www.census.gov/quickfacts/fact/map/WY,CA/INC110217>

- Urban, D. (2019, December 25). Our republic fails if lying is normalized. *The Day*. Retrieved from <https://www.theday.com/article/20191225/OP03/191229708>
- Wayne, C., Valentino, N., & Oceno, M. (2016, October 23). How sexism drives support for Donald Trump. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/monkey-cage/wp/2016/10/23/how-sexism-drives-support-for-donald-trump/>
- Wehner, P. (2019, June 18). Trump's sinister assault on truth: The president appears committed to destroying the very idea of facts. *The Atlantic*. Retrieved from <https://www.theatlantic.com/ideas/archive/2019/06/donald-trumps-sinister-assault-truth/591925/>
- Westen, D. (2008). *The political brain: The role of emotion in deciding the fate of the nation*. New York, NY: Public Affairs.
- Westen, D., Blagov, P. S., Harenski, K., Kiltz, C., & Hamann, S. (2006). Neural bases of motivated reasoning: An fMRI study of emotional constraints on partisan political judgment in the 2004 U.S. Presidential election. *Journal of Cognitive Neuroscience*, 18, 1947–1958. <https://doi.org/10.1162/jocn.2006.18.11.1947>
- Wexler, N. (2018, November 5). How schools can turn kids into critical thinkers—And voters. *Forbes*. Retrieved from <https://www.forbes.com/sites/nataliewexler/2018/11/05/how-schools->
- Williamson, V., & Gelfand, I. (2019, August 14). Trump and racism: What do the data say? *Brookings*. Retrieved from <https://www.brookings.edu/blog/fixgov/2019/08/14/trump-and-racism-what-do-the-data-say/>
- Wilson, R. (2018). *Everything Trump touches dies: A Republican strategist gets real about the worst president ever*. New York, NY: Simon & Schuster.
- Wolff, M. (2018). *Fire and fury: Inside the Trump White House*. New York, NY: Henry Holt.
- Womick, J., Rothmund, T., Azevedo, F., King, L. A., & Jost, J. (2019). Group-based dominance and authoritarian aggression predict support for Donald Trump in the 2016 U.S. Presidential Election. *Social Psychological and Personality Science*, 10(5), 643–652. <https://doi.org/10.1177/1948550618778290>
- Womick, J., Ward, S. J., Heintzelman, S. J., Woody, B., & King, L. A. (2019). The existential function of right-wing authoritarianism. *Journal of Personality*, 87, 1056–1073. <https://doi.org/10.1111/jopy.12457>
- Woodward, B. (2018). *Fear*. New York, NY: Simon & Shuster.
- Wright, J. (2018, October 30). All the times Trump has incited violence against people he dislikes. *Harpers Bazaar*. Retrieved from <https://www.harpersbazaar.com/culture/politics/a24431408/how-trump-encourages-violence/>
- Wright, J. D., & Esses, V. M. (2018). It's security, stupid! Voters' perceptions of immigrants as a security risk predicted support for Donald Trump in the 2016 US presidential election. *Journal of Applied Social Psychology*, 49(1), 36–49. <https://doi.org/10.1111/jasp.125632>
- Xu, X., Karinen, A. K., Chapman, H. A., Peterson, J. E., & Plaks, J. E. (2020). An orderly personality partially explains the link between trait disgust and political conservatism. *Cognition and Emotion*, 34(2), 302–315. <https://doi.org/10.1080/02699931.2019.1627292>
- Young, J. G. (2017). Making America 1920 again? Nativism and US immigration, past and present. *Journal on Migration and Human Security*, 5(1), 217–235.
- Zeaman, D. (1949). Response latency as a function of the amount of reinforcement. *Journal of Experimental Psychology*, 39, 466–483.
- Zimbardo, P. (1969). *The cognitive control of motivation*. Glenview, IL: Scott/Foresman.
- Zimbardo, P. (2007). *The Lucifer effect: Understanding how good people turn evil*. New York, NY: Random House.

Trumped: Making Sense of the Narcissist-in-Chief



Alfie Kohn

I remember when the initial shock of Trump's victory gave way to a twofold horror. First, there was the unavoidable fact that more than 62 million Americans voted for this man. Most white college graduates preferred him. Most white *women* preferred him. Presumably many of those 62 million aren't bigots or bullies or sexual predators or compulsive liars. But they knowingly voted for someone who is all of those things and more.

And then there were the sickening practical implications. During the campaign, novelist Adam Haslett (2016) remarked that "endless acts of verbal violence shock us into stunned passivity so we no longer register the horror of what we're living through." But that was nothing compared to the horror fatigue that awaited us under a Trump administration. His election—along with Republican control of both Houses of Congress and more than two thirds of state legislatures (Ballotpedia, 2016)—precipitated a predictable assault on civil rights, civil liberties, environmental protections (including a reversal of early, tentative steps to deal with global climate change), consumer protections, reproductive rights, gay rights, workers' rights, prisoners' rights, humane immigration policies, aid to the poor, gun control, antimilitarism, support for public education, and on and on. It has been bad enough for an individual deeply committed to any one of these issues; for those interested in all of them, it is difficult to absorb, let alone summon outrage about and become active in opposing, a tidal wave of reactionary policies on a daily basis.

Copyright 2018 by Alfie Kohn. This essay is adapted from two previously published articles: "Trumped," which appeared in *Salon* on March 28, 2016, and "Narcissist-in Chief," which appeared on the *Psychology Today* blog on December 2, 2016. Kohn is the author of 14 books on education, parenting, and human behavior, including *No Contest: The Case Against Competition* and *Punished by Rewards*. He lives (actually) in the Boston area and (virtually) at www.alfiekohn.org.

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The potential impact on official policy has been staggering. And yet I can't stop thinking about the man himself.

All through the campaign, I found myself looking through a psychological lens at Trump's behavior, not only appalled at the bellicose, racist pronouncements about, say, Mexicans or Muslims, but riveted by the deeply damaged human being who was saying these things. Even before he ran for president, Trump had been Exhibit A for the axiom that it's possible to be rich and famous without being a successful human being, psychologically or morally speaking. To flesh out the details now that we're more familiar with him is to add a layer of disbelief and dismay to the reality that so many people voted for him anyway. This psychological perspective is also critical for trying to understand the damage he has done—and will continue to do—to the country and the world, particularly to those who are most vulnerable.

Donald Trump has distinguished himself as someone who is:

- given to boasting, preening, and swaggering to the point of self-parody;
- not merely thin-skinned and petulant but vindictive when crossed or even criticized;
- restless, with the attention span of a toddler (Mayer, 2016);
- desperately competitive, driven to sort the world into winners and losers, and to regard other people or countries primarily as rivals to be bested (more about which below);
- astonishingly lacking not only in knowledge but in curiosity;
- not merely given to uttering blatant falsehoods on a more or less constant basis but apparently unaware of the extent of his dishonesty, as if the fact that he believes or has said something *makes* it true; and
- possessed of a sense of absolute entitlement—such that if he wants to kiss or grab an attractive woman, for example, he should of course be free to do so—along with a lack of shame, humility, empathy, or capacity for reflection and self-scrutiny.

Even if you set out to consider different sorts of deficits, you're pulled back to the psychological issues. It's not just that he's ignorant or even incurious; it's that he seems incapable of acknowledging that there's something he doesn't know. It's not just that he lacks the cognitive wherewithal to view himself as others view him (or to reflect on his failings) but that his psychological makeup is such that he can't bear to stop and think about who he is; he's like a shark, a blind eating machine that must always move forward or die. Similarly, while his speech rarely ventures beyond elementary-school vocabulary or grammar, what's more alarming than his cognitive limitations is his egocentrism. One careful analysis (Atkin, 2015) found that he inclines not only to the monosyllabic but to the megalomaniacal: The single word he uses more than any other is "I"—and his fourth-favorite word is his own name.

Donald Trump seems to me a textbook illustration of how a lifelong campaign of self-congratulation and self-aggrandizement (acquiring as much as possible and then pasting his name on everything he owns) represents an attempt to compensate for deeply rooted insecurity. He fears being insignificant, worthless. In fact, his

quest to humiliate and conquer, to possess and flaunt, may be strategies to prove to himself that he really *exists*, reflecting a condition that R.D. Laing called “ontological insecurity” (in a chapter of that name in his classic book *The Divided Self*) (1965). He doesn’t even bother—or maybe just lacks the sophistication—to conceal how desperate is his craving for attention and approval, how precarious is his mental state.

Why did Trump first begin to praise—and then ally himself with and ingratiate himself with—Putin? Well, he explained early on, it was simply because Putin “has said nice things about” *him*. And the entire spectacle of his party’s nominating convention was a \$60 million attempt to prove that he personally was well-liked. If you watch the man carefully, before he lashes out at a critic, before the outpouring of blind rage, insults, and threats, there seems to be a moment of genuine perplexity and hurt that anyone could say something about him that isn’t complimentary. The vulnerability, the naked need, would almost occasion our pity were it not for the potentially catastrophic consequences when someone with this profile is in a position of power.

The fact that Trump is basically, in the words of comic commentator Samantha Bee, “an oddly tinted compilation of psychiatric symptoms,” has hardly been a secret. Before the election, psychobiographies were published in *The Atlantic* and at book length. In *Vanity Fair*, the *Washington Post*, and the *Huffington Post*, clinicians and other observers have specifically focused on the extent to which he likely suffers from Narcissistic Personality Disorder (NPD). These pieces are worth reading, but it’s possible just to take a quick look at the official criteria for NPD (Ambaradar, 2018) and come away with the uncanny impression that those who defined the pathology were profiling Trump [although, interestingly, one key definer *demurs* (Frances, 2017)].

This is not someone who is merely narcissistic in the colloquial, casual sense of the term, meaning that he’s selfish or self-centered. This is someone with a psychiatric disorder in all its flagrant, florid particulars. To grasp its seriousness is to be staggered that someone too disordered and rancid to be a trustee of your condo association has been—thanks to the archaic peculiarities of the Electoral College—running our country. How is it possible that almost half the voters, even those who like his values and disliked his (conventional politician of an) opponent, could have listened to him taunt and lie and bully his way through a campaign and then said, “Yep. That’s who should be in charge”?

What is chilling is not just how little he knows but how little that fact bothers him—the overweening arrogance that leads him to believe he has nothing to learn, that he *knows* “more about ISIS than the generals do.” It’s not just that he’s an extreme risk-taker, but that he takes those risks purely in the service of his own wealth and glory. It’s not clear that he has any principles, as such (Nordland, 2017); what he has is an overwhelming need to be the center of attention, to be liked, feared, admired. Apart from considerations of personal profit (Krugman, 2016), his foreign policy is substantially determined by which individuals on the world stage

stroke his ego and which ones criticize him (Rosenmann, 2016)—never mind that despicable leaders tend to do the former and reasonable leaders the latter.

His hunger for approval means that he has surrounded himself with those who tell him what he wants to hear and flatter him—the engine of Shakespearean tragedies. His belligerence and volatility, that hair-trigger temper, are the last qualities you want to see in someone holding a position of power, particularly when they're coupled with a childish us-versus-them view of the world: xenophobic nationalism and compulsive competitiveness. His disorder leaves no room for consensus and collaboration. How can one not tremble at the thought that someone like this commands the military and has access to nuclear weapons?

Is this sort of analysis, focused on psychopathology rather than just politics, just as relevant to a Putin, an Erdogan, a Duterte? Maybe. But those names, and others that come to mind, actually prove the point. A list of narcissistic heads of state, as psychologist Nigel Barber observed (2017), consists mostly, if not exclusively, of dictators. People like that tend to be “screened out by democratic systems of government.”

This, then, is the bottom line: Trump has little understanding of, commitment to, and (psychologically speaking) capacity for democratic decision-making. And that has been clear from the start. In his convention speech, he said, “I alone can fix” our country’s problems. After meeting North Korean dictator Kim Jong Un, Trump admiringly commented (Herbst, 2018) that Kim is the “strong head” of his country, adding, “He speaks and his people sit up at attention. I want my people to do the same.” As author Masha Gessen (2016) put it: “Trump is the first candidate in memory who ran not for president but for autocrat—and won.” He won not in spite of that fact but, frighteningly, because of it. Social scientists discovered (Taub, 2016) that the best predictor of who supported Trump wasn’t economic deprivation (for example, having one’s job shipped overseas) but hostile sexism (Wayne, Valentino, & Ocen, 2016) and a predilection for authoritarianism—that is, an extreme need for order, a fear of the Other, an attraction to strongman leaders that manifests as a willingness to cheer a demagogue who spews venom at those who are Not Like Us—“us” being mostly straight white Christian men. (The academic study of authoritarianism began shortly after World War II in an effort to understand how apparently ordinary individuals in a civilized society could support Fascism [Authoritarian personality, 2019].)

After the election, pundits were reduced to hoping that Trump’s psychological disorder could be manipulated. Maybe rather than being committed to right-wing ideology, he’ll “tilt in whatever direction, and toward whichever constituency, is the surest source of applause,” offered columnist Frank Bruni (2016). Sane people—say, those who would like to save the planet or avoid war—need only clap their hands if Trump should happen to tweet something that isn’t insane. This proved to be wishful thinking, of course, as he surrounded himself with right-wing ideologues and an assortment of con men chosen mostly for their (presumed) loyalty. His conservatism turned out to be more than accidental or incidental, as I argued (Kohn, 2017) a few weeks after his inauguration.

That has pretty much left us relying on legal challenges (until the appellate courts and Supreme Court are repopulated), protests to pressure lawmakers capable of responding to reason, and, should it come to this, [mass civil disobedience](#) and disciplined noncooperation with efforts to round up immigrants, create a registry for people of a disfavored religion, and who knows what else. Have I overlooked other realistic strategies? Lord, I hope so.

Some years ago, I urged my fellow educators to put aside their various pet projects for improving schools and make common cause to challenge high-stakes standardized testing, which threatens all our priorities (Kohn, 2001). Now all of us have been facing a similar challenge, but writ large, well beyond the field of education, and with far higher stakes. People in all fields, with a range of causes (including those listed in the second paragraph of this essay), must join hands to deal with a shared threat.

And we must do so while taking care not to become inured to the magnitude of that threat, determined to resist accepting it as the new normal. On his HBO show, John Oliver (2016) urged us immediately after the election to keep reminding ourselves, “A Klan-backed misogynist Internet troll is going to be delivering the next State of the Union address. This is *not* normal.” Furthermore, what’s *abnormal* here isn’t just a set of positions and policies but the psychological state of the person who will be in charge. The clearer our understanding of that, the better our chances for protecting one another—and our democracy.

But there is one specific lens through which to understand his psychological state that hasn’t received much attention. I would argue that he can be seen as an exaggerated reflection of our culture’s addiction to competition.

Competition exists on two levels at once. On the one hand, it’s a personality feature: a need on the part of certain individuals to defeat others in order to feel good about themselves. On the other hand, it’s a structural arrangement in which some people must fail in order that others can succeed. Such an arrangement is not a fact of life; it’s one possible way to set up a workplace, a classroom, a playing field, or a society. Broadly speaking, there are two alternatives to it: One person’s success can be unrelated to how well others do, with each individual or group pursuing goals independently; or one person’s success can depend on others’ doing well, too, so that everyone must cooperate. In most cases, competition turns out to be the least productive of the three arrangements, particularly on tasks that are challenging or demand creativity—a surprising, if not heretical, conclusion that emerges from decades of research across many disciplines (Kohn, 1986/1992).

But let’s consider the first variation: competition as a personal attribute. When a *New York Times* critic observed, “The prime imperative of Mr. Trump is that he not be made small. He must be yuge!” (Poniewozik, 2016)—it’s important to add that this man is focused on size—and everything else—in relative terms. His buildings must be taller (and of course be emblazoned with his name); he must be richer, have more Twitter followers and higher poll numbers, attract prettier women and more fawning sycophants, be the shrewdest deal-maker and better loved by the masses—compared to everyone else.

For many years, it's been clear that Trump is not only driven by a relentless project of self-aggrandizement but by a furious need to win. More than a quarter-century ago, in a lengthy [interview](#), he sounded those themes repeatedly, insisting that everything he did was the “finest,” “most spectacular,” “number one,” “the best.” You “walk into Mar-a-Lago [his private club in Palm Beach] and see ceilings that rise to heights that nobody's ever seen before.” He also spoke of the need to be “tough,” explaining that “weakness always causes problems,” admitting that he's never satisfied with what he has: “I truly believe that someone successful is never really happy, because dissatisfaction is what drives him.”

In his rambling remarks when he announced his candidacy for President (Time Staff, 2015), Trump's worldview clearly was still all about winning and losing: “We used to have victories, but we don't have them [any more]. When was the last time anybody saw us beating, let's say, China in a trade deal? They kill us. I beat China all the time. All the time.” In fact, he brags tirelessly not merely of his accomplishments but of how he has triumphed over others, and he makes a point of demeaning and debasing his adversaries, which include anyone with the temerity to challenge him. Even when he attempts to sound accommodating, he resorts to competitive language, such as his declaration that sounded like self-parody: “Nobody respects women more than I do.”

When Otto Kernberg, one of the most eminent psychoanalysts of the last 50 years, was asked to explain narcissism, he replied that such an individual “cannot sustain his or her self-regard without having it fed constantly by the attentions of others.” Those others “count only as admirers,” and the narcissist then tends to resent people “because of his dependency on them.” Kernberg's key insight, though, which is widely accepted among mental health experts, is that “it is self-hatred, rather than self-love, that lies at the root of pathological narcissism” (qtd. in Wolfe, 1978). Grandiosity and perpetual self-congratulation don't reflect overly high self-esteem but precisely the opposite: an attempt to overcompensate for deeply rooted self-doubt.

Empirical research has not only borne this out but pointed to similarities with a need to come out on top. Richard Ryckman, professor emeritus of psychology at the University of Maine, and his colleagues discovered in a series of studies that hyper-competitive individuals tend to be “highly narcissistic” and, like other narcissists, “to have low self-esteem” (Ryckman, Thornton, & Butler, 1994). This makes sense when you think about it. A drive to outshine others is completely different from a healthy desire to be good at something. Competitive people are defined by a persistent sense of personal inadequacy. Winning is more a need than a desire; it's something they *have* to do to prove their competence, their value—because their very sense of self is at stake.

The proof lies in the compulsive, repetitive nature of the quest, and also in the anxiety—sometimes expressed as rage—that losing unleashes. One is never secure because one's inadequacy can be exposed at any time. No victory is ever definitive; no fortune or collection of trophies is ever enough. It's like pouring liquid into a

container with a hole in the bottom because winning gets nowhere near the psychological deficits that pushed one to compete in the first place.

Just as brutality is typically a reaction to a fear of weakness—James Gilligan, an expert on criminal violence, once commented that “The most dangerous men on earth are those who are afraid that they are wimps”—so narcissism and competitiveness bespeak profound self-doubt or even self-loathing. The less at ease you are with yourself, the more you need to swagger, to have others pay homage to you—all in a desperate and ultimately futile attempt to prove that you’re not a loser. See? I must be a winner if I can shout “You’re fired!” at all those people, deport millions of immigrants, make Mexico pay for my wall. *I must, right? Right??*

Apart from its causes, there is also a substantial body of research on the *effects* of competition, regardless of whether it’s required by a given environment (in which people are set against one another) or driven by the psychological needs of an individual. Competition tends to breed envy of winners, contempt for losers—that’s one of the ugliest words in the American lexicon—and suspicion of just about everyone. Even if that person over there isn’t your rival today, he might be tomorrow. Competition leaves people in a self-protective crouch, wary and untrusting. As the influential personality theorist Karen Horney (1950) wrote many years ago, “The satisfaction and reassurance which one can get out of human relations are limited and the individual becomes more or less emotionally isolated” as a result of competition.

And that’s not all. A number of studies have shown that the experience of competing makes us less sensitive to others’ needs and less able to imagine how the world looks from points of view other than our own. One experiment found that just growing up with a competitive parent was enough to reduce a child’s generosity; the toxic effects are analogous to secondhand smoke. Social psychologists even had to coin a word to describe an effect they kept finding: Competition breeds “counterempathy”—a tendency to feel elated by other people’s failures and depressed by their successes. And when groups (instead of individuals) compete, there’s a tendency to dehumanize and objectify those in the out group.

To read these accounts of competition’s consequences and causes is to understand more fully what animates a Donald Trump. But in a healthy society, a man like him would be regarded as a cautionary tale or as someone who needs help. In *our* society, by contrast, he is widely admired. His need to be Number One is different not in kind but only in degree from the doubt that drives many people. Put it this way: Each culture offers its own mechanisms for dealing with self-doubt. In ours, which is wedded to the assumption that life is a zero-sum game, one of the chief mechanisms is competition. It is America’s compensatory strategy of choice—indeed, virtually our state religion.

Low self-esteem, then, is a necessary but not sufficient cause of competition. The ingredients include an aching need to prove oneself *and* the approved approach for doing so at other people’s expense. When we have both, we have millions of people who try to feel better by making the next person feel worse. Trump is a poster child for that pathology, indeed someone in whom it takes a particularly ugly form. But

in another sense he is just a symptom of a broader cultural ill that all of us need to acknowledge and address.

References

- Ambardar, S. (2018, May 16). *Narcissistic personality disorder*. Retrieved from <https://emedicine.medscape.com/article/1519417-overview>
- Atkin, E. (2015, September 15). *What language experts find so strange about Donald Trump*. Retrieved from <https://thinkprogress.org/what-language-experts-find-so-strange-about-donald-trump-2f067c20156e/>
- Authoritarian Personality. (2019). *Psychologist world*. Retrieved from <https://www.psychologist-world.com/influence-personality/authoritarian-personality>
- Ballotpedia. (2016). *State legislative elections, 2016*. Retrieved from https://ballotpedia.org/State_legislative_elections,_2016
- Barber, N. (2017, August 10). *Does Trump have narcissistic personality disorder?* Retrieved from https://www.huffpost.com/entry/does-trump-have-narcissis_b_11402754
- Bruni, F. (2016, November 23). Trump's demand for love: Commentary. *New York Times*. Retrieved from <https://ezproxy.aacc.edu/login?url=https://search.proquest.com/docview/1842391889?acountid=40680>
- Frances, A. (2017, February 14). An eminent psychiatrist demurs on Trump's mental state [Letter to the editor]. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/02/14/opinion/an-eminent-psychiatrist-demurs-on-trumps-mental-state.html>
- Gessen, M. (2016, November 10). Autocracy: Rules for survival. *The New York Review of Books*. Retrieved from <https://www.nybooks.com/daily/2016/11/10/trump-election-autocracy-rules-for-survival/>
- Haslett, A. (2016, October 4). Donald Trump, shamer in chief. *The Nation*. Retrieved from <https://www.thenation.com/article/donald-trump-shamer-in-chief/>
- Herbst, D. (2018, June 15). Everything President Trump has said that sounds like he longs to be a dictator (no, really). *People*. Retrieved from <https://people.com/politics/donald-trump-dictator-quotes/>
- Horney, K. (1950). *Neurosis and human growth*. New York, NY: W.W. Norton.
- Kohn, A. (1986, 1992). *No contest*. Boston, MA: Houghton Mifflin.
- Kohn, A. (2001, January). *Fighting the tests* [web log comment]. Retrieved from <https://www.alfiekohn.org/article/fighting-the-tests/>
- Kohn, A. (2017, March 23). *Is Trump a conservative only by accident?* [web log comment]. Retrieved from <https://www.alfiekohn.org/blogs/trump-conservative/>
- Krugman, P. (2016, November 28). Why corruption matters. *The New York Times*. Retrieved from <https://www.nytimes.com/2016/11/28/opinion/why-corruption-matters.html>
- Laing, R. D. (1965). *The divided self*. Middlesex, England: Penguin.
- Mayer, J. (2016, July 18). Donald Trump's ghostwriter tells all. *The New Yorker*. Retrieved from <https://www.newyorker.com/magazine/2016/07/25/donald-trumps-ghostwriter-tells-all>
- Nordland, R. (2017, February 1). Authoritarian leaders greet Trump as one of their own. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/02/01/world/asia/donald-trump-vladimir-putin-rodrigo-dutert-kim-jong-un.html>
- Oliver, J. (2016, November 13). *President-Elect Trump: Last week tonight with John Oliver (HBO)* [Video File]. Retrieved from <https://www.youtube.com/watch?v=-rSDUsMwakI#t=22m12s>
- Poniewozik, J. (2016, March 4). A national descent into Trump's pants. *The New York Times*. Retrieved from <http://www.nytimes.com/2016/03/05/arts/television/a-national-descent-into-trumps-pants.html>

- Rosenmann, A. (2016, December 1). *Wait, what? Trump now thinks country he once maligned is 'fantastic' because its leader flattered him.* Retrieved from <https://www.alternet.org/2016/12/you-wont-believe-what-country-trump-thinks-great-or-how-press-found-out/>
- Ryckman, R. M., Thornton, B., & Butler, J. C. (1994). Personality correlates of the hypercompetitive attitude scale: Validity tests of Horney's theory of neurosis. *Journal of Personality Assessment*, 62(1), 84–94. https://doi.org/10.1207/s15327752jpa6201_8
- Taub, A. (2016, March 1). The rise of American authoritarianism. *Vox*. Retrieved from <https://www.vox.com/2016/3/1/11127424/trump-authoritarianism>
- Time Staff. (2015, June 16). Here's Donald Trump's presidential announcement speech. *Time*. Retrieved from <https://time.com/3923128/donald-trump-announcement-speech/>
- Wayne, C., Valentino, N., & Ocen, M. (2016, October 23). How sexism drives support for Donald Trump. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/monkey-cage/wp/2016/10/23/how-sexism-drives-support-for-donald-trump/?utm_term=.d8ed527f2810
- Wolfe, L. (1978, June). Why some people can't love: An interview with Otto Kernberg. *Psychology Today*, 55–59. Retrieved from <https://planetjan.wordpress.com/2011/06/13/psychology-today-on-narcissism-33-years-ago/>

Psychological Reactions to House of Cards: The Role of Transportation and Identification



Alexandra Manoliu

Introduction

The question of the influence of fictional stories has preoccupied researchers, interested in how stories about fictional characters and events could influence people's judgments and behaviors (Sestir & Green, 2010; Strange, 2002). Previous studies have indicated that fiction can influence people's perceptions in areas like health, social and political issues. Dieckman, McDonald, and Gardner examine how romance novels, an "ostensibly harmless form of media" (2000, p. 179) may influence their readers' sexual health behavior. Murphy, Frank, Moran, Patnoe-Woodley (2011) test the effects of a popular soap-opera on viewers' attitudes, behavior and knowledge, which are influenced by identification with a fictional character suffering from cancer. After exposure to a fictional scenario (in which an expert in body language solves different cases by reading people's expressions), participants in an experiment become more suspicious of people around them and the information they receive (Levine, Serota, & Shulman, 2010). Other people start believing in government conspiracies (Mulligan & Habel, 2011), increase or decrease their trust in government, change their political intentions in terms of vote, political contributions and volunteering (Butler, Koopman, & Zimbardo, 1995), or had their opinions affected on specific policies like death penalty or same sex marriage (Slater, Rouner, & Long, 2006). An interesting study by Holbert et al. (2003) shows that after watching the TV series *The West Wing*, people had a more positive image about real presidents (Bush and Clinton), after forming a good impression of the fictional president Josiah Bartlet.

To better understand the effects of fiction, we need to look at the psychological process of narrative persuasion. The persuasive effects may occur when receivers

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“engage” with the narrative through two main mechanisms: transportation and identification. Transportation into a narrative world is a complex psychological act, “an integrative melding of cognitive, emotional and imagery engagement in a story” (Green & Sestir, 2017, p. 1). Transportation is usually linked to identification, which can be described as the state where “a reader or audience member becomes one with the character in a story or a play” (Oatley, 2002, p. 61).

The goal of this study is twofold. First, we want to see if political TV series transport their audience into a fictional world and make them identify with its characters. Does *House of Cards* create the experience of transportation and identification among its viewers? Secondly, what are the effects of transportation and identification upon people’s impressions of political TV series? We wish to determine whether, after watching *House of Cards*, people have the impression it impacted them in a positive way, making them more knowledgeable and capable of understanding politics, or increasing their interest in politics. In this case transportation and identification are not only simple psychological mechanisms of narrative persuasion, but they double their psychological significance by linking fictional representations with changes in people’s real beliefs and perceptions. Political fiction may affect the political reality and the way those who are exposed to it chose to interact with it. In the *International Encyclopedia of Media effects* transportation theory (Green & Sestir, 2017) appears in the section devoted to “Psychological Approaches to Media Effects” along affective disposition theory, social comparison theory or presence theory. But if other theories have received greater attention due to their psychological effects, the implications of transportation in the political field remained mostly unnoticed.

Engaging with a Story

The persuasion of a narrative (story) is mainly achieved through two psychological mechanisms: transportation and identification. This section reviews the various definitions that have been proposed for the two concepts and discusses the difficulties created by the fluidity of the definitions and multiple measurements. Secondly, it presents some of the studies that have examined the effects of transportation and identification on people’s beliefs and attitudes.

Defining Transportation and Identification

Gerrig (1992) was among the first to draw the attention to the idea of transportation, an experience which used “as means of travel novels, anecdotes, movies” (1993, p. 12) and imposed a certain distance from reality. The person who was transported

returned “somewhat changed by the journey” (1993, p. 11), after “experiencing” another world. Following Gerrig’s steps, Green and Brock (2000, p. 701) define transportation as “a convergent process, where all mental systems and capacities become focused on events occurring in the narrative”. Attention, imagery and feelings are dimensions involved in the process of transportation. For Busselle & Bilandzic (2008, p. 262), transportation is a type of shift, carrying away “viewers and readers from their current location into the narrative, so they can understand what the statements of the characters mean and to which person or location they refer”. Green and Brock (2002, p. 324) also look at transportation as a mental process “which may mediate the impact of narratives on beliefs (...). Individuals are swept away by a story, and thus come to believe in ideas suggested by the narrative”.

Identification is the “ease with which one can experience the tale through the eyes and ears of the key characters” (Slater, 2002, p. 172). This is in line with De Graaf, Hoeken, Sanders, & Beentjes’s definition, who believe that identification occurs when “readers adopt the perspective of a character and see the narrative events through the character’s eyes” (2012, p. 804). This is the definition which we find most clear and that we adopt for our study.

For Sestir and Green (2010, p. 274) identification is a “slippery term” because “while it is self-evident that identification involves a perceived connection between viewer and character, the actual definition of the term varies across researchers”. Various definitions refer to the level of (perceived) similarity between an audience member and the fictional character, to liking the character, as well as to emotional and cognitive dimensions through which one adopts the perspective of the character (Murphy et al., 2011, p. 409). Due to the multitude of elements associated with identification (which creates a problem in defining the concept), some researchers (Moyer-Gusé, 2008; Murphy et al., 2011) prefer the term involvement with the character instead of identification. Cohen (2001) specifies that identification with a character involves four dimensions: empathic (shared feelings with the character), cognitive (sharing the character’s perspective), motivational (internalizing the character’s goals) and absorption (the loss of self-awareness during exposure). The two concepts are closely related because transportation can lead to identification (Green & Sestir, 2017), although it is unclear if in order to be transported one needs first to identify with the character (De Graaf, Hoeken, Sanders, & Beentjes, 2009, p. 38). Sestir and Green raise the same question: “Theoretically, transportation can occur without identification, and identification can occur in the absence of transportation, although the latter is less likely” (2010, p. 276).

The two concepts are therefore very similar in some respects, making it hard to clearly distinguish them (De Graaf et al., 2012; Moyer-Gusé, 2008). This conceptual confusion creates empirical problems, as different scales are used in different studies. It is still possible to distinguish them, however, since “while identification describes a relationship with a specific character, transportation is a more general experience created by the narrative as a whole” (Tal-Or & Cohen, 2010, p. 404).

Effects of Transportation and Identification

Several studies have examined the effects of transportation and identification. We review them briefly here, paying particular attention to the nature of the stories whose effects are being studied and the participants involved in the research. Most of these studies use narratives (written or visual) that facilitate people's emotional reactions, and that emphasize a common fictional world, close to everyday reality. The fictional characters are also regular people, with typical jobs, lives and problems, making identification easier for those exposed to the story. People participating in these studies are exposed to a short narrative for the first time. With these two features in mind, we propose to introduce political TV series as a case study for transportation and identification theories. This entails a different type of narrative, as well as a special kind of character with whom audiences are exposed over a long period of time.

In the field of transportation studies, Green and Brock's (2000) experiments became very popular and their 15-question transportation scale—covering the dimensions of cognition, emotion, and imagery—was replicated in its exact form or adapted by other researchers interested in the same subject. “Murder at the Mall”—a story about a little girl who, during a visit to the mall with her big sister, was murdered by a psychiatric patient who had escaped from his institution—became the story that many other researchers “borrowed” for their studies. In one of their experiments, the story was manipulated as a fiction (extract from a literary magazine) or non-fiction (resembling a real article in a newspaper). Results reveal that participants were equally transported in the fictional and non-fictional stories and that highly transported participants' beliefs became consistent with the story (they agreed with restrictions on the freedom of psychiatric patients and believed that attacks in public places like the mall were very frequent).

Appel, Gnambs, Richter, and Green (2015) tried to improve the transportation scale constructed by Green and Brock (2000). They used an online study ($N = 179$) in which participants were randomly assigned to read one of two stories: “Murder at the Mall” or “Christmas Carol”—the story of a man with cancer, spending his last Christmas with his family. Transportation was measured using the exact 15 items from Green and Brock's scale. Results show that only 20% of the variation was due to the three factors proposed by Green and Brock (cognition, emotion, imagination). Therefore, they designed a second study (using stories about organ donation and fables) and tested for a shorter form of transportation scale (only six items), which proved reliable and similar to the original one.

Tal-Or and Cohen (2010) designed an experiment manipulating a story (15 min video from the movie “The Brothers McMullen”) about the dilemma faced by a married man attracted to a friend of his wife. Their analyses show that transportation and identification are two distinct concepts; a factor analysis enabling them to use two different scales for transportation (experience and attention subdimension scales). The study shows that participants identified more with the positive character

than with the negative one and that transportation was a significant predictor of enjoyment (but not identification).

Other researchers using the “traditional” narrative (Murder at the Mall) are Appel and Richter (2007), who propose a mediated moderation model. They find that people’s need for affect determines the intensity of the degree of transportation in a narrative experiment. Those reading “Murder at the Mall” scored higher in believing that psychiatric patients are dangerous, transportation having a positive effect on beliefs about the danger, while those scoring lower on transportation did not change their beliefs.

Basil (1996) used a survey to test if identification mediates message effects of a true story about a celebrity who contracted HIV. Identifying with the celebrity “mediated people’s perception of their own risk and behavioral intentions”, making them more aware of the risks involved and of the consequences for their own health. De Graaf et al. (2012) looked at how identification can act as a mechanism of narrative persuasion. They designed two experiments (using two different stories: a job interview for a man in a wheelchair and a story about two sisters with opposite views about euthanizing their mother who is in a coma). Participants read the story from the perspective of one character. The results indicate that identifying with a character made participants also identify with her position (e.g. those reading the story where the character was in favor of euthanasia, were also more in favor) and changed their beliefs/attitudes according to the story. Therefore, identification works as a mediating mechanism of narrative persuasion.

Murphy et al. (2011) designed a pretest/posttest survey using a story about how cancer affected one of the main characters in a popular soap-opera, *Desperate Housewives*. Their results show that those highly transported into the story became more willing to know more about cancer and changed their attitudes, by becoming more aware of the risks. Identification with the main character, suffering from cancer, did not have a direct impact on the attitudes, but it did mediate transportation.

de Graaf et al. (2009) designed an experiment using multiple stories about asylum seekers in the Netherlands. The results indicate that people can feel empathy for a fictional character, but not identify with her, especially when that character is very different from them (people felt sorry for the Turkish woman living an injustice, but that did not lead to identification, as they were not familiar with the situation of an asylum seeker).

This short review of prior research allows us to draw the following conclusions. Most studies use stories that are based on everyday experiences, which people have either lived themselves or heard about around them. The fictional character (to whom people connect to) is usually a common man/woman, with an ordinary life and profession. These narratives emphasize the emotional aspect, testing for changes in beliefs and attitudes areas related to social or health issues. To our knowledge, there is no test trying to link transportation and identification to political perceptions.

Therefore, the present study proposes a test of transportation and identification “beyond the mall,” that is, leaving aside the emotional and common nature of the narratives used until now. We propose to examine the case of political TV series (one in particular: *House of Cards*), where the story and the characters are

extraordinary in many respects. People need to be transported in a political world, which is relatively unknown. Identification needs to be made with a character representing a political figure (and not even an ordinary politician, but the President of U.S.A.). Identification should be harder in this case for two reasons. First, there are studies showing that people usually identify with the positive characters (Sestir & Green, 2010; Tal-Or & Cohen, 2010), and the main character of the present study, Frank Underwood, is without any doubt a villain. The second reason is his position: how can viewers identify with a president; whose job is clearly most exceptional? Therefore, political series would be a harder test for the two psychological mechanisms involved (transportation and identification).

Why *House of Cards*? Besides its popularity and world-wide recognition, the series portrays politics in a negative way, displaying a world where politicians' self-interests prevail and the fight for power corrupts easily and wins over moral values. Therefore, if people who watch it get transported into this world and identify with its negative characters, the results on their beliefs should worry us. Previous studies (Manoliu & Bastien, [forthcoming](#)) found the harming potential of *House of Cards* on people's cynicism. The series confirms the existence of the negativity bias, where people liked what they saw, retained more information and details about the events and characters (compared to a positive series like *The West Wing*) and even reflected upon the realism behind it (Manoliu, 2017).

Almost all the studies that are reviewed above are experiments, where different beliefs and opinions are measured before and after first-time exposure to a fictional narrative. This design is certainly valuable, but it raises questions about what happens when people view a fictional content over a long period, as is the case for the series that we are interested in. Our research is a departure from previous studies as it surveys viewers who have watched a program over a long time. They have had the time to internalize, think of the events, at how they could have turned out differently, they have had time to establish a relationship with the characters, get to know them well, and thus are more prone to be transported and identify with the fictional characters. This category of viewers is different than unregular ones, or those who watched just a few episodes, because they are more capable of judging the quality of the series. As regular viewers (fans) they are more critical when evaluating the series and they are the first to notice "realism ruptures" (Baym, 2000, p. 99). What is particular in the case of fans is that "the individual changes how they see their identity" and goes through a process of "affective change" (Duffet, 2013, p. 155). People start to report themselves to the fictional characters, wanting to be more like them, adopting their way of talking or the way they look (Russell, Norman, & Heckler, 2004, p. 276). Fans are experiencing a psychological transformation, sometimes resulting in a change in their own way of living or a shift in their personality, transformation explained mostly by the "affective relations" (Bury, 2017, p. 88) they create with fictional characters.

The primary goal of this study is to examine how transportation and identification work in the case of political TV series, represented by *House of Cards*. The method employed will not be an experiment measuring a shift on a particular attitude, but an online survey capturing some consequences (through transportation and

identification) of watching the series on people's attitudes. Are these audiences under the impression that watching the series has a positive influence on them, by making them more capable of understanding politics, providing useful political information, even increasing their political interest?

An important aspect of the study is the sample employed, consisting of fans of *House of Cards*, who have seen at least half of the seasons, who therefore are likely to live a true experience of transportation. At the same time, the character and the situation are highly unusual, which complicates the process of transportation and identification.

Our three main research questions are therefore:

Q1. Are *House of Cards* fans transported into the story?

Q2. Do *House of Cards* fans identify with the main character, the 'bad' Frank Underwood?

Q3. Do transportation and identification foster the belief that the series made them (a) better understand politics, (b) provided them with useful political information and (c) increased their interest in politics?

To get informed about a political matter (and in general also) people usually appeal to reliable sources, such as news (in its traditional and new media formats), opinion leaders, family and friends. Therefore, identifying a potential link between political series and the benefits people associate with their viewing will cast light to the value of these series, which unintentionally may have become a source of political information for a part of the population.

Methodology

The data were gathered through an online survey advertised on Reddit, an online platform mostly known for its "forum" feature. Registered members can post information and questions in a variety of "subreddits", covering a wide range of subjects, from popular news to music, films, and politics. These posts are voted by other members, increasing their visibility in order to remain on the first page of the subreddit. Reddit was chosen because it provided many advantages. First, Reddit has gained the attention of researchers (Haralabopoulos, Anagnostopoulos, & Zeadally, 2015), who analysed the advantages and limits of participants recruitment on the platform (Shatz, 2016), and there are already studies whose data gathered on Reddit (Wang et al., 2015), which made possible the creation of a subreddit named Sample Size, a category for research purposes. Second, Reddit already featured subreddits, or channels, dedicated to the series. The *House of Cards* subreddit was one of the most active, posting different questions everyday and engaging in different conversations and reflections on the topics and characters of the series. The link to an online survey was posted in different subreddits (HouseofCards, SampleSize, NetflixBestOf, Netflix, Television). The online survey was posted on

June 6th, 2017 and most of the respondents filled it in the same day or the next one, but we received questionnaires until June 14th.

The official release date of season 5 of *House of Cards* was May 30, 2017. The survey was posted 1 week later, to allow people time to at least start watching the new season (if not binge-watch it). The release was expected with great excitement by the fans. On the series official subreddit, there were already many posts about the upcoming season, predictions about what would happen people making plans of binge-watch the entire season in 1 week, asking for no spoilers.

We received 86 responses to the survey, on a volunteer basis (the mean age was 27 years, in terms of gender 35% were female and 48% were American). Even if it is non-probabilistic, this type of sampling is often used when working with “hard-to-reach” populations. The eligibility condition was for them to be regular viewers of *House of Cards* (having seen at least two seasons), so they were familiar with the plot, the events and the characters. Asked how many seasons they had watched so far, 71% of the participants reported watching all five seasons (heavy watchers), while 21% watched four of the previous seasons. We were particularly interested in this community, which we can classify as fans, because “nowadays the emotional relationship between the spectator and a TV series can extend itself through emotional communities which are created around blogs, wikis and other cross-media extensions by the community of fans” (Garcia, 2016, p. 6).

The online survey consisted of 34 questions in total, covering basic demographics, measures for transportation (seven items), identification (six items), and a particular dimension of realism—perceived plausibility (seven items). Other questions, used as dependent variables were asking them if they have a better understanding of politics, if they have gained political information and if their political interest has grown because of the series (see Appendix).

To measure transportation, we adapted seven items from the original scale of Green and Brock (2000), with two questions about the cognitive dimension, two about the emotional one, two from the unaccounted category and an additional question asking respondents if they felt part of the action.

For identification, the task was harder. Measurement of identification varies from one study to another: Slater et al. (2006) asked directly how much the respondents identify with the respective characters; de Graaf et al. (2012) asked if people empathised with the characters in the story and if they imagined they were in their position; Basil (1996) measured identification by asking if the respondents saw the characters in the story as friends, if they had feelings for them, if they could work with them, or if they saw them as a role model. We believe some of these measures do not capture identification as such (e.g. Basil, 1996), therefore we have adapted Cohen (2001) and Tal-Or and Cohen (2010) scale, which asks about the respondent’s ability to connect with and understand the events through the character’s perspective.

We have also included a measure of the degree of realism people perceive in the series, as it was previously shown that realism facilitates the narrative experience and predicts transportation (Bilandzic & Busselle, 2011; Van Laer, De Ruyter, Visconti, & Wetzels, 2013). Realism was measured with a set of seven questions, replicated from Green, Garst, and Brock (2004), which adapted them from the scale

used by Elliot et al. (1983). Questions asked respondents (among others) if the dialogue in the narrative was realistic and believable or if people in the narrative are like people they might actually know.

Results

As a first step we examined the reliability of the scales we employed, which allows us to test the distinction between transportation and identification. Therefore, we conducted a factor analysis on all the items measuring transportation, identification and realism. This analysis revealed four main factors: two for transportation, one for identification, and one for realism.

One transportation factor refers to a mental/emotional sub-dimension, consisting of three items (t2, 3, 4) asking the viewer if she was mentally involved in the show, if it was hard for her to put the series out of her mind and if she was affected emotionally. The second subdimension is a cognitive factor, consisting of four items (t1, 5, 6, 7) related to a “physical” experience: it asks the viewer whether she could picture herself in the scenes and events, if she thought of ways in which the episode/season could have turned out differently, if the events are relevant to her everyday life and if she felt part of the action. Basically, two out of the four items demanded her to picture herself directly in the middle of the action. The Cronbach’s alpha for the two scales is satisfactory (0.71 and 0.63). We are not the first to divide the transportation scale into two different dimensions. Tal-Or and Cohen (2010) also found that the factors loaded for the general transportation scale led to two different sub-scales (which they named the “experience” and “attention” subscales) (Table 1).

On a scale from 0 to 7, the means for mental transportation and identification are the highest, (suggesting that transportation is higher on the mental/emotional dimension than on the cognitive one). Viewers are transported by involving themselves mentally in the series, having a hard time stopping thinking about it. The second dimension of transportation, the cognitive one, is much lower (3.14), with people having more of a hard time imagining themselves in the middle of the fictional events and considering the events are not very relevant to their everyday lives. Identification was also present, (mean of 4.66 on a scale from 0 to 7), suggesting a relatively high connection to the fictional character Frank Underwood, with respondents declaring they have a good understanding of him or that they felt exactly what he was going through.

	Mean	Standard deviation
Mental transportation	4.53	1.31
Cognitive transportation	3.14	1.38
Identification	4.66	1.27
Realism	3.93	1.42

Table 1 Results of exploratory factor analysis^a of transportation, identification and realism

Items	
<i>Mental transportation</i>	<i>Alpha = 0.71</i>
T2. How much would you say you were mentally involved in the series while watching it?	0.73
T3. How hard was it for you to put it out of your mind after finishing watching an episode/season?	0.75
T4. How much did House of Cards affect you emotionally?	0.75
<i>Cognitive transportation</i>	<i>Alpha = 0.63</i>
T1. How much could you picture yourself in the scenes and the events of the series?	0.65
T5. How often did you find yourself thinking of ways an episode/event/season could have turned out differently?	0.70
T6. How much would you say that the events in House of Cards are relevant to your everyday life?	0.58
T7. How much would you say that while viewing House of Cards, you felt as if you were part of the action?	0.51
<i>Identification</i>	<i>Alpha = 0.85</i>
I1. How much were you able to understand the events in House of Cards in a manner similar to that in, which Frank Underwood, understood them?	0.63
I2. How much do you think you have a good understanding of Frank Underwood?	0.80
I3. How much do you think you understand the reasons why Frank Underwood does what he does?	0.78
I4. How much do you think that viewing House of Cards you could feel the emotions Frank Underwood portrayed?	0.61
I5. How much do you think you could really get inside Frank Underwood's head?	0.78
I6. How much would you say that at key moments in the series, you felt you knew exactly what Frank Underwood was going through?	0.82
<i>Realism</i>	<i>Alpha = 0.72</i>
R1. How much do you think that the dialogue in the narrative is realistic and believable?	0.55
R2. How much do you think characters in House of Cards are like people you or I might actually know?	0.44
R3. How much do you think that political events that actually have happened or could happen are discussed in House of Cards?	0.64
R4. How much would you say that House of Cards deals with the kind of very difficult choices people in real life have to make?	0.46

All of the items were measured on a scale from 0 to 7.

^aExploratory factor analysis, with principal component factors, rotation: unrotated

As expected, the two scales of transportation are correlated ($r = 0.41$). Identification is also slightly related to mental transportation ($r = 0.32$) and cognitive transportation 2 ($r = 0.37$). Perceived realism was best related to mental transportation ($r = 0.45$), but also related to cognitive transportation ($r = 0.38$) and identification ($r = 0.37$).

The means for the three dependent variables seem to suggest that those watching the series have the feeling they understand politics better after viewing (3.98 on a scale from 0 to 7), with the other two variables reaching slightly lower values.

Dependent variables: (on a scale from 0 to 7)

	Mean	Standard deviation
Understanding politics	3.98	2.03
Gaining political information	3.63	1.96
Political interest	3.75	2.33

The results of bivariate regressions indicate that that the three dependent variables are correlated with the two subscales of transportation and with perceived realism but not with identification (Table 2).

Table 3 displays the results of a multivariate analysis. We can observe how the two dimensions of transportation affect differently the three dependent variables. Cognitive transportation has a significant impact on two of the dependent variables and slightly influences the impression on political information, meaning that those who were transported at the cognitive level believed that watching *House of Cards* helped them understand better the political world and it increased their political interest. The second dimension of transportation, the mental one has a positive effect on the political interest variable. Realism is significant ($p < 0.01$), but only in the case of the “understanding” politics variable. People who identified with the main character of the series are not under the impression they understand politics better or that their connection to Frank Underwood increased their interest in politics or their level of information.

Table 2 Results of bivariate analyses

	Understanding politics		Political information		Political interest	
	Coef.	P > t	Coef.	P > t	Coef.	P > t
Mental transportation	0.39	0.01**	0.40	0.03**	0.75	0.00***
Cognitive transportation	0.58	0.00***	0.44	0.00***	0.76	0.00***
Identification	0.26	0.11	0.08	0.62	0.32	0.10
Realism	0.58	0.00***	0.41	0.00***	0.49	0.00***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3 Results of multivariate analysis^a

	Political understanding	Political information	Political interest
Mental transportation	0.01 (0.18)	0.18 (0.18)	0.48 (0.20)*
Cognitive transportation	0.44 (0.17)**	0.34 (0.17) ⁺	0.56 (0.19)**
Identification	-0.10 (0.17)	-0.24 (0.18)	-0.11 (0.20)
Realism	0.46 (0.16)**	0.29 (0.17) ⁺	0.12 (0.18)
Constant	1.23 (0.89)	1.70 (0.91) ⁺	-0.14 (1.00)
Observations	86	86	86
R ²	0.242	0.161	0.274

Standard errors in parentheses

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^aThe regression was performed also with control variables: the number of seasons viewed, age, gender and nationality. We preferred to present the results of the analysis without controls, as it illustrates the significance of the relations better. The “political information” variable becomes slightly significant for cognitive transportation and realism (compared to the results of the regression with control variables), and the strength of the correlation gets stronger in the case of cognitive transportation, political understanding and political interest (moving from a $p < 0.05$ when control variables were added to a $p < 0.01$ without the controls)

Conclusion

The main goal of this study was to assess whether people who are fans of political TV series like *House of Cards* perceive some benefits (the series as a influential factor in growing their political interest, their level of understanding politics and as a source of information) due to this exposure and if these impressions could be explained through the processes of transportation and identification.

The results of the online survey reveal that a series like *House of Cards* can transport its viewers into the fictional political realm. The analysis revealed that transportation can be divided into two sub-scales: a mental/emotional and a cognitive one. The cognitive dimension of transportation proved to be more important than the mental one. Those transported on a cognitive dimension believed (in a significant way) that they understand politics better after watching the series and that their political interest grew because of watching it. Those “mentally” transported believed that *House of Cards* managed to increase their level of political interest. Apparently, the series high lightens more the cognitive aspect of transportation than the mental one, which passes on a second plan. Fans are influenced by the physical experience, and the fact they are able to picture themselves in the scenes, feel part of the action and believe that what they see on screen is relevant to their everyday life, makes them believe that *House of Cards* “offers” them a real chance to know more, understand better and raise their interest for politics.

Results also reveal that people do feel connected and tend to identify with the main fictional character of the series, Frank Underwood (the mean for identification was 4.66 on a 0–7 scale). People usually identify with the positive, moral characters (Sestir & Green, 2010; Tal-Or & Cohen, 2010), therefore it is interesting they have identified with the villain in *House of Cards*. Identification here might be explained by the “duration” of the series, which allows viewers to create a bond with the fictional characters and also “allows us to identify with morally defective characters who – beyond some obvious virtues – commit crimes, abuse and deceive; the type of person that would repel us in real life” (Garcia, 2016, pp. 52–53). But identification did not affect people’s perceptions. Even though people declared they understand and feel the emotions of the character, identification did not make them believe the series affected them positively (enabling them to understand politics better than before or increasing their level of political interest).

Transportation and identification with a fictional character are powerful psychological mechanisms, which were challenged by the scenario and characters of political series. Fans need to make an extra effort to put themselves into the skin of a politician (without knowing too much about what the position implies) and to get immersed into the world of politics (an unknown universe, where access is restrained). Transportation and identification prove to be even more relevant and valuable in explaining the effects of a special type of narrative, the one proposed by political series.

One of the strong points of this study is the nature of the participants, made of heavy watchers, fans of the series. Garcia signalizes the particularity of the TV series audiences, which in general have much more power, as producers are taking into account their audience’s opinions and reactions, sometimes adjusting the plot or fate of the characters according to what fans love and hate (Garcia, 2016, p. 23). Fandom communities have their own culture, their own way of expressing themselves, which makes them harder to reach. Recruitment on Reddit proved to be the best option in our case, allowing us to reach people who were already engaged in discussions about *House of Cards*, already expressing and sharing their views online.

Another interesting point of the study is the focus on the impact of a visual narrative, and not a written one. Research in the area of transportation and identification using visual narratives is not as developed, the majority of the studies rest on written stories. “Whereas the imagery evoked by narratives needs to be generated by readers, narratives on television provide the images ready-made. How these differences between modalities affect the dimensions of narrative engagement is an important question for future research” (De Graaf et al., 2009, p. 399). It would be interesting to test if transportation and identification are stronger in the case of visual narratives compared to written ones (*House of Cards* the book released in 1989 and written by Michael Dobbs, compared with *House of Cards* the series). Green et al. (2008) tested if the same story (“Harry Potter and the chamber of secrets”) transports people the same way in its print or film version. Interestingly, their results reveal that people with low levels of need for cognition are more easily transported into the movie version, while people with high levels are transported more by the book. The visual narrative is considered “an easier medium”, requiring

less mental effort than the written narrative (Green et al., 2008, p. 530) which puts the imagination of its readers to a test.

Political TV series represent an interesting study object also because “our engagement with TV characters is slightly different than our engagement with film characters” (Garcia, 2016, pp. 57–58) and this allows viewers to experience another type of transportation and identification (stronger, long lasting connections, developed in time), different from the one created by movies.

We need to also be aware of the risks associated with the fact that people believe that watching fictional series has some benefits for them. They may have the feeling they understand better politics, but they are basing this judgment on fictional information, which might mislead them: “What strategies might we use, to protect ourselves and others from” false “information that might distort our memories, knowledge, and beliefs?” (Johnson, 2002, IX). Political TV series offer them the “fake” sense of gaining some understanding while they are entertained, therefore discouraging them to search for further information. Could series like *House of Cards*, which offers an insight into a fictional political universe, become a potential enemy of news, if people start to consider TV series as sources of information about politics (and prefer it to news media)?

Finally, the results of the present study offer some perspectives in the area of entertainment-education effects. Researchers recognize the educational impact of entertainment on people’s beliefs and behaviors (Slater, 2002, p. 158). Singhal and Rogers (1999) brought evidence on how a Latin-American telenovela changed people’s opinions about class differences, encouraged maids to surpass their condition, increased enrollment in adult education classes, encouraged migration from villages to cities and even increased sales in sewing machines (audiences were so influenced by the fictional characters that they started imitating their actions). Gans (2003, p. 107) believes that movies and other forms of entertainment could trigger a search for information that traditional media is not capable: “For example, television’s *The West Wing* has, for all its faults, acquainted its viewers with White House politics in ways that the news media do not.” Political TV series may facilitate some sort of political education. Through their content and setting, they might offer their audiences some political information, which they (think) can use to judge real issues. After all, regardless their dramatic, soap-opera like content, much of the elements present in the series are depicting real actions: elections, campaigns, debates, and strategy meetings around all these events. Despite a positive short-term effect, the long-term effect might prove to be negative, people could get overconfident about their understanding (and the quality of the information found in political series) and have less incentives to inform themselves from actual, official sources (e.g. news).

“How might a story about invented characters in imaginary situations influence readers’ judgments about people, problems, and institutions in the everyday world?” (Strange: 276 in Green, Strange, Brock, 2002). This study offers an answer to the question: the influence of fictional stories is exercised through transportation and identification.

We must be aware that not only politics has changed, the ways we as citizens get persuaded have also changed and multiplied. Political series are part of our popular

culture and their influence is particular as it passes unnoticed and unsuspected. Viewers (who with time become fans) do not actively seek for information when choosing, but in most case what they look for is entertainment. The entertaining experience provided by political series transports the viewer into the fictional world of politics, allowing him to establish a connection with the characters and start seeing things through their eyes. According to this, Green, Garst and Brock suggest that transportation “may aid in suspension of disbelief and reduction of counter-arguing about the issues raised in the story. Another means by which transportation may affect beliefs is by making narrative events seem more like personal experience” (2004, pp. 168–169). The identification process functions in a similar way. When viewers engage with the characters and adopt their perspective they will oppose less resistance to the message (Zaller, 1992) of the series.

All in all, under the mask of entertainment, series like *House of Cards* offer an interesting insight into the world of fictional politics and trigger certain psychological processes which affect the impressions of their audiences.

Appendix

Transportation

1. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much could you picture yourself in the scenes and the events of the series?
2. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much would you say you were mentally involved in the show while watching it?
3. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very hard” how hard was it for you to put it out of your mind after finishing watching an episode/season?
4. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much did House of Cards affected you emotionally?
5. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how often did you find yourself thinking of ways an episode/event/season could have turned out differently?
6. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much would you say that the events in House of Cards are relevant to your everyday life?
7. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much would you say that while viewing House of Cards, you felt as if you were part of the action?

Identification

1. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much were you able to understand the events in House of Cards in a manner similar to that in, which Frank Underwood, understood them?

2. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think you have a good understanding of Frank Underwood?
3. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think you understand the reasons why Frank Underwood does what he does?
4. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think that viewing House of Cards you could feel the emotions Frank Underwood portrayed?
5. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think you could really get inside Frank Underwood’s head?
6. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much would you say that at key moments in the series, you felt you knew exactly what Frank Underwood was going through?

Perceived Plausibility

1. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think that the dialogue in the narrative is realistic and believable?
2. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think that the setting for the narrative in House of Cards just doesn’t seem real?
3. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think characters in House of Cards are like people you or I might actually know?
4. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think that the way people really live their everyday lives in not portrayed very actually in House of Cards?
5. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think that political events that actually have happened or could happen are discussed in House of Cards?
6. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much would you say you have a hard time believing the people in House of Cards are real because the basic situation is so far-fetched?
7. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much would you say that House of Cards deals with the kind of very difficult choices people in real life have to make?

Dependent Variables

1. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think House of Cards helped you understand more real politics?
2. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much political information do you think you have gained watching House of Cards?
3. On a scale from 0 to 7, where 0 means “Not at all” and 7 means “Very much” how much do you think your political interest has grown because of watching House of Cards?

References

- Appel, M., Gnamb, T., Richter, T., & Green, M. C. (2015). The transportation scale—short form (TS—SF). *Media Psychology, 18*(2), 243–266.
- Appel, M., & Richter, T. (2007). Persuasive effects of fictional narratives increase over time. *Media Psychology, 10*(1), 113–134.
- Basil, M. D. (1996). Identification as a mediator of celebrity effects. *Journal of Broadcasting & Electronic Media, 40*(4), 478–495.
- Baym, N. K. (2000). *Tune in, log out. Soaps, fandom, and online community*. Thousands Oaks, CA: Sage Publications.
- Bury, R. (2017). *Television 2.0. Viewer and fan engagement with digital TV*. New York, NY: Peter Lang Publishing.
- Busselle, R., & Bilandzic, H. (2008). Fictionality and perceived realism in experiencing stories: A model of narrative comprehension and engagement. *Communication Theory, 18*(2), 255–280.
- Bilandzic, H., & Busselle, R. W. (2011). Enjoyment of films as a function of narrative experience, perceived realism and transportability. *Communications, 36*, 29–50.
- Butler, L. D., Koopman, C., & Zimbardo, P. G. (1995). The psychological impact of viewing the film “JFK”: Emotions, beliefs, and political behavioral intentions. *Political Psychology, 16*(2), 237–257.
- Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass Communication & Society, 4*(3), 245–264.
- De Graaf, A., Hoeken, H., Sanders, J., & Beentjes, J. W. J. (2009). The role of dimensions of narrative engagement in narrative persuasion. *Communications, 34*(4), 385–405.
- De Graaf, A., Hoeken, H., Sanders, J., & Beentjes, J. W. J. (2012). Identification as a mechanism of narrative persuasion. *Communication Research, 39*(6), 802–823.
- Diekman, A. B., McDonald, M., & Gardner, W. L. (2000). Love means never having to be careful. *Psychology of Women Quarterly, 24*(2), 179–188.
- Duffet, M. (2013). *Understanding Fandom: An introduction to the study of media fan culture*. Bloomsbury Academic: New York, NY.
- Elliot, W. R., Rudd, R., & Good, L. (1983). Measuring the perceived reality of television: perceived plausibility, perceived superficiality and the degree of personal utility. Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication, Corvallis, OR.
- Gans, H. J. (2003). *Democracy and the news*. New York, NY: Oxford University Press.
- Garcia, A. N. (Ed.). (2016). *Emotions in contemporary TV series*. London, UK: Palgrave Macmillan.
- Gerrig, R. (1992). *Experiencing narrative worlds: On the psychological activities of reading*. New Haven, CT: Yale University Press.
- Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology, 79*(5), 701–721.
- Green, M. C., & Brock, T. C. (2002). In the mind’s eye: Transportation-imagery model of narrative persuasion. In M. C. Green, J. J. Strange, & T. C. Brock (Eds.), *Narrative impact: Social and cognitive foundations* (pp. 315–343). Mahwah, NJ: Lawrence Erlbaum Associates.
- Green, M. C., Strange, J. J., & Brock, T. C. (Eds.), (2002). *Narrative impact: Social and cognitive foundations* (pp. 315–343). Mahwah, NJ: Lawrence Erlbaum.
- Green, M. C., Garst, J., & Brock, T. C. (2004). The power of fiction: Determinants and boundaries. In L. J. Shrum (Ed.), *The psychology of entertainment media. Blurring the lines between entertainment and persuasion* (pp. 161–176). Mahwah, NJ: Lawrence Erlbaum Associates.
- Green, M. C., Kass, S., Carrey, J., Herzig, B., Ryan, F., & Sabini, J. (2008). Transportation across media: Repeated exposure to print and film. *Media Psychology, 11*(4), 512–539.
- Green, M. C., & Sestir, M. (2017). Transportation theory. In P. Rossler, C. A. Hoffner, & L. van Zoonen (Eds.), *The international encyclopedia of media effects*. Chichester, West Sussex: John Wiley & Sons.

- Haralabopoulos, G., Anagnostopoulos, I., & Zeadally, S. (2015). Lifespan and propagation of information in On-line Social Networks: A case study based on Reddit. *Journal of Network and Computer Applications*, 56, 88–100.
- Holbert, R. L., Pillion, O., Tschida, D. A., Armsfield, G. G., Kinder, K., Cherry, K. L., & Daulton, A. R. (2003). The West Wing as endorsement of the U.S. presidency: Expanding the bounds of priming in political communication. *Journal of Communication*, 53, 427–443.
- Johnson, M. K. (2002). Foreword. In M. C. Green, J. J. Strange, & T. C. Brock (Eds.), *Narrative impact: Social and cognitive foundations*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Levine, T. R., Serota, K. B., & Shulman, H. C. (2010). The impact of Lie to Me on viewers' actual ability to detect deception. *Communication Research*, 37(6), 847–856.
- Manoliu, I. A., & Bastien, F. (forthcoming). Does my favorite political TV series make me cynical? *Canadian Journal of Communication*.
- Manoliu, I. A. (2017). Like and dislike. Negativity bias in political TV series. *Composite*, 19(3), 5–22.
- Melanie. C. Green, Jeffrey. J. Strange, & Timothy. C. Brock (Eds.), 2002, *Narrative impact: Social and cognitive foundations*, Mahwah, NJ: Lawrence Erlbaum.
- Moyer-Gusé, E. (2008). Toward a theory of entertainment persuasion: Explaining the persuasive effects of entertainment-education messages. *Communication Theory*, 18(3), 407–425.
- Mulligan, K., & Habel, P. (2011). An experimental test of the effects of fictional framing on attitudes. *Social Science Quarterly*, 92(1), 79–99.
- Murphy, S. T., Frank, L. B., Moran, M. B., & Patnoe-Woodley, P. (2011). Involved, transported, or emotional? Exploring the determinants of change in knowledge, attitudes, and behavior in entertainment-education. *Journal of Communication*, 61(3), 407–443.
- Oatley, K. (2002). Emotions and the story worlds of fiction. In M. C. Green, J. J. Strange, & T. C. Brock (Eds.), *Narrative impact: Social and cognitive foundations* (pp. 39–71). Mahwah, NJ: Lawrence Erlbaum Associates.
- Russell, C. A., Norman, A. T., & Heckler, S. E. (2004). People and “their” television shows: An overview of television connectedness. In L. J. Shrum (Ed.), *The Psychology of entertainment media. Blurring the lines between entertainment and persuasion* (pp. 275–290). Mahwah, NJ: Lawrence Erlbaum Associates.
- Sestir, M., & Green, M. C. (2010). You are who you watch: Identification and transportation effects on temporary self-concept. *Social Influence*, 5(4), 272–288.
- Shatz, I. (2016). Fast, free, and targeted: Reddit as a source for recruiting participants online. *Social Science Computer Review*, 35(4), 537–549.
- Singhal, A., & Rogers, E. (1999). *Entertainment-education: A communication strategy for social change*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Slater, M. D. (2002). Entertainment education and the persuasive impact of narratives. In M. C. Green, J. J. Strange, & T. C. Brock (Eds.), *Narrative impact: Social and cognitive foundations* (pp. 157–183). Mahwah, NJ: Lawrence Erlbaum Associates.
- Slater, M. D., Rouner, D., & Long, M. (2006). Television dramas and support for controversial public policies: Effects and mechanisms. *Journal of Communication*, 56(2), 235–252.
- Strange, J. J. (2002). How fictional tales wag real-world beliefs. Models and mechanisms of narrative influence. In M. C. Green, J. J. Strange, & T. C. Brock (Eds.), *Narrative impact: Social and cognitive foundations* (pp. 263–286). Mahwah, NJ: Lawrence Erlbaum Associates.
- Tal-Or, N., & Cohen, J. (2010). Understanding audience involvement: Conceptualizing and manipulating identification and transportation. *Poetics*, 38(4), 402–418.
- Van Laer, T., De Ruyter, K., Visconti, L. M., & Wetzels, M. (2013). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumers' narrative transportation. *Journal of Consumer Research*, 40(5), 797–817.
- Wang, L., Zhan, Y., Li, Q., Zeng, D. D., Leischow, S. J., & Okamoto, J. (2015). An examination of electronic cigarette content on social media: Analysis of E-cigarette flavor content on Reddit. *International Journal of Environmental Research and Public Health*, 12(11), 14916–14935.
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. Cambridge, MA: Cambridge University Press.

Part V
International Perspectives

Political Betrayal, Political Agency, and International Politics



Philip Giurlando

The rising tide of sovereigntist¹ groups opposed to the various manifestations of globalization—free trade, migration flows, inter-state governance institutions which pool and restrict national sovereignty—have enjoyed varying degrees of popular support. There are multiple reasons for this trend, and a potentially significant one is a widespread sense of betrayal. For example, public opinion data, as well as expert analysis, suggests that large numbers of Republican voters in the US selected Donald Trump rather than establishment candidates because they felt betrayed by the mainstream members of their party (Beamon, 2016; Mead, 2017). Other commentators, mostly journalists but also a few academics, have linked a widespread sense of betrayal to the populist insurgencies elsewhere (Brooks, 2016; Gilman, 2016; Irwin, 2016; Krastev, 2017; Rachman, 2015, 2016). Although they are united in observing that a sense or a feeling of betrayal is prevalent, they have not theoretically interrogated the subjective dimension of betrayal, nor have they elucidated its links to particular forms of political agency.

This paper argues that the feeling of political betrayal is a *feelingful* discourse that thoroughly entangles feeling and narration. The work of Hochschild (2016, p. 220), Fierke and Fattah (2009), and Langman et. al (2013, p. 534) suggests it is associated with humiliation; political actors who feel “lowered” or “devalued” have the tendency to feel betrayed by the political elites who are perceived to be

¹ Sovereigntists are groups which are either hostile to, or extremely skeptical of, various facets of globalization, particularly the global governance institutions designed to manage the process. This distinguishes them from the globalist or cosmopolitan mainstream parties who are more willing to transfer sovereignty to the supranational level. On questions like the euro, the distinction between sovereigntists and globalists is more significant than the categories of right and left in determining political positions (Rinaldi, 2018).

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responsible for their condition. In this context, sovereigntists appeal to many citizens because they promote feelings of pride, dignity, vengefulness, and a restoration of national sovereignty. Their success has important implications for international politics because the signing of international agreements depends on a willingness to give up at least some national control.²

The structure of the argument is as follows. First I will elaborate the subjective dimension of political betrayal, and argue that it is distinct from instances of anger in that it is tied to specific narratives which produce what Hochschild (2016, p. 135) calls ‘feels as if stories’.³ These felt narratives which comprise the feeling of betrayal include a rupturing of loyalty, breaching of rights, a loss of control, and the desire for vengeance. The theoretical analysis proceeds with the argument that economic insecurity increases feelings of resentment and humiliation; when combined with perceived elite disloyalty, they lead to feelings of betrayal which sovereigntists successfully exploit by promising pride, dignity, vengefulness and national control. These political actors are more likely to adopt a policy of confrontation which is inconsistent with actions predicated on pooling national sovereignty.⁴ This will be illustrated in the case of the debt crisis in the Eurozone, and evidence to support these observations will be presented from secondary sources, and will include public statements of sovereigntist leaders in Italy and Greece, memoirs of statesmen involved in international negotiations, and polemical tracts which provide the intellectual inspiration for sovereigntists.

The euro is a productive site to study political betrayal because it arguably did betray its promise of spurring convergence between the economically advanced nations and others (Artus & Virard, 2017). The actual result has been divergence between an economically dynamic north and a stagnant south, and between creditors and debtors (Stiglitz, 2016). Additionally, the Eurozone is of interest to scholars of international politics; Bleiker and Hutchison (2008, p. 118), in their review of the literature on world politics and emotions, encourage analysts to go beyond the prevailing agendas (which usually involve instances of inter-state war and conflict). Investigating the common currency from an emotions and IR perspective may add value to this domain of the discipline. The euro is also of interest to scholars of world politics because it is a unique hybrid of domestic and international governance. Observers recognize that there is a pressing need for a fiscal and political union in order to mutualize risk between economically dynamic countries and the ones that are disadvantaged by the currency (Stiglitz, 2016). The political will is very weak for this welfare-enhancing outcome, particularly in Germany, the most

²International politics is manifested in inter-state behaviour. As such, the unit of analysis includes the corporate body of the state which decides and acts internationally, i.e. vis-à-vis other states.

³According to Hochschild, the betrayal and humiliation felt by Trump supporters are ‘feels as if stories’, which she defines as the stories that feelings tell. Sovereigntists like Trump, she shows, mobilize voters by transforming these feelings into pride and dignity.

⁴‘Pooling national sovereignty’ refers to transferring control from the national to the supranational level. In this sense, global governance institutions that restrict national prerogatives and back this obligation with the force of international law are examples of pooling sovereignty.

influential Eurozone country: the official opposition (Alternative for Germany⁵) vociferously opposes it, while the governing parties, the Christian Democratic Union and Christian Social Union, have repeatedly repudiated proposals, from both Brussels and Paris, to proceed with deeper Eurozone integration (see below). One reason for German skepticism, I will show, is that some Eurozone members, such as Italy and Greece, were led by governments composed of parties which explicitly labeled the euro as a humiliating instance of German domination, as a betrayal of the democratic will of their nation, and which adopted stances of confrontation vis-à-vis Germany which are not consistent with the political union required by the common currency.

Towards a Theory of Political Betrayal

This paper assumes that when political actors express a “sense” or “feeling” of betrayal, they are communicating an emotionally-laden, internal, subjective state *as well as* a moral and normative description of the world.⁶ Understanding this feeling begins with loyalty, which is recognized by scholars from a variety of disciplines as a feeling or an emotion (Langman et al, 2013; Collins, 1990; Jasper, 1998, 2011).⁷ Loyalty involves a relationship of trust between at least two parties, and actors may feel betrayed when they perceive that this loyalty has been unjustifiably ruptured. Although this dynamic involves at least two actors, it can transpire at multiple levels of social aggregation. In modern democracies, betrayals can occur between citizens and political elites, because their relationship is based on an implicit contract: votes in exchange for economic progress (Berezin, 2002). When this arrangement breaks down, some voters may feel that their loyalty was not reciprocated, and the feeling of betrayal can be a consequence.

One view on this subject is that expressions of “feeling betrayed” and “feeling anger” are equivalent (Hall, 2011; Searles & Ridout, 2017).⁸ The interpretation adopted here is that these feelings are often distinct and that betrayal is what Rohmann, Brauer, Niedenthal, Castano, and Leyens (2009, pp. 710–711) call a ‘sentiment’ rather than emotion—the latter referring to primarily physiological reactions which are sudden and ephemeral, the former to longer-lasting blends of

⁵The party now emphasizes migration issues but it was originally founded in 2013 in order to oppose the bailouts for Greece and to endorse the break-up of the Eurozone.

⁶This assumption is consistent with the work of emotion discourse analysts who argue that expressions of emotional categories are instances of *both* internal feelings and a sense of external events (Edwards, 1999, pp. 277–278).

⁷In a similar vein, Solomon and Steele (2017) mention “feelings of solidarity”, Bleiker and Hutchison (2014) discuss the “feeling of trust”, and Mercer calls trust “an emotional belief” (2005, p. 95).

⁸This observation is often made indirectly, for example, when it is assumed that expressions of “feeling betrayed” can be taken as evidence for the feeling of anger.

feeling, cognition, morality, and memory. Lowenheim and Heiman (2008) have applied a similar analysis to their study of vengeance and international conflict; vengefulness and anger can be distinguished because “anger is simpler and usually fades over time” (p. 693). Vengefulness lasts longer, and is more intense, because its essence is “the desire to restore one’s assumptive world and violated rights—to reinstate self-worth, dignity, and identity” (p. 695) or because it is a response to an “injured identity” (p. 696).

Political emotions like humiliation and betrayal are often the result of macro-economic ruptures that implicate changes in social standing and status (Barlabet, 1998; Kemper, 1990). Economic crises have significant emotional consequences for persons who are socio-economically vulnerable—especially youth, the working class, and contract-workers (Salmela & von Scheve, 2017). After an economic rupture that implicates an actor’s economic condition and social status, inter-temporal and inter-class comparisons help to create a reservoir of resentment (Barlabet, 1998), and political entrepreneurs propagate narratives that allocate blame, creating villains (Ost, 2004), which, in the case of betrayal, are disloyal elites (Langman et al, 2013, p. 535). Lasch (1991, p. 487) says working-class people are more likely to value stability and to feel a primordial sense of belonging to the nation; for them, therefore, economic instability and perceived elite disloyalty are more likely to create the feeling of betrayal.⁹

Links between feelings of betrayal and international political action are more complex and difficult to establish, but existing research suggests possible pathways. Several have implicated the feeling of betrayal and rise of the Nazis in Germany (Fierke, 2004; Morgenthau, 2005; Scheff, 1990). Hitler succeeded, at least in part, because he promised to restore dignity and greatness to Germany after its humiliation caused by the perceived malicious actions of Jews, Communists, the Social Democrats, and others who, Hitler believed, sold out the Germans. Betrayal and humiliation have also been studied in the Middle East, and Fierke and Fattah (2009) argue that a sense of humiliation from Western colonialism is compounded by the perception of betrayal by Arab regimes allied to the West. Islamists successfully used this narrative to gain adherents, recruits, and support for their cause to overthrow the system and replace it with the caliphate that, they believe, will restore control and dignity. Perceptions of betrayal are also implicated in the violent reaction to the traumatic events of September 11 (Edkins, 2006); many felt betrayed because of elites’ failure to provide security to citizens. In all three examples, there is an observable relationship between feelings of humiliation, betrayal, and extreme political action—fascism in the first case, Islamism in the second, and militarism in the third. The particular intensity of these types of feelings contributed to the outcomes, as did the content: these ‘felt narratives’ include a lowering, a breach of rights, and a sense of lost control which motivate vengeance, punishment, and a

⁹As far back as 1996 Lasch’s “Revolt of the Elites and the Betrayal of Democracy” (1996) argued that “elite loyalties are international rather than national” (p. 35) and “they have removed themselves from common life” (p. 45). Lasch was describing America but many European populists would agree with his diagnosis, especially after the 2007 financial crisis.

restoration of political control. These dynamics can be observed in less extreme cases, for example, ones that involve economic conflict between nations. For instance, Donald Trump's main narrative on trade is that Americans were betrayed by the establishment which signed free trade deals that decimated American industry. Ethnographic research (Hochschild, 2016) and public opinion data (Beamon, 2016) have confirmed a widespread feeling of betrayal among his supporters. He campaigned on "taking back control", and after taking power, he withdrew from Trans Pacific Partnership, weakened the World Trade Organization, and slapped major tariffs on his allies.

In summary, economic crises lead to changes in many actors' social status and to resentment; sovereigntist political leaders transform this into feelings of betrayal by successfully propagating the narrative of disloyal elite behaviour as the cause of their distress. Trust, belonging, and the social contract break down, strengthening support for movements, parties, and groups which promise pride, dignity, and a reassertion of national control. In the final stage of this theoretical model, the capacity for international political action predicated on pooling or restricting sovereignty is reduced.

Italy

The initial years of Italy's Eurozone membership (2001–2006) were characterized with weak growth and financial stability. The financial crisis which began in 2007 was a major rupture which destabilized the country's public finances. An inflection point was the political crisis of 2011; at the time, investors were betting on Italy's imminent exit from the Eurozone. Democratically elected Prime Minister Silvio Berlusconi lost the confidence of markets, Brussels, Angela Merkel, and Nicolas Sarkozy. The president of the Republic, Giorgio Napolitano, successfully pressured Berlusconi to resign and replaced him with the unelected technocrat Mario Monti, who, under pressure from Berlin and Brussels, implemented austerity, i.e. tax increases and spending cuts. Although Monti helped to stabilize public finances, economic conditions worsened significantly: at the peak of the crisis there was a 25% reduction in industrial activity, and an increase in unemployment from 7% to 13%, reaching 35% for youth.

One of his successors, Matteo Renzi, the Europhile prime minister of the centre left, under pressure from Brussels to pass "structural reforms", implemented the Jobs Act in 2015. The reform failed in its intended goal of reversing economic decline (Broder, 2017). In 2017 Italy had the weakest growth in Europe, its GDP was still 9% below pre-crisis levels, and unemployment rates remained well above pre-crisis levels. The poverty rate doubled, and those living in "serious difficulty" increased from 1.9 to 4.6 million. Because of cuts to healthcare, in 2016 one million Italians could not afford necessary medical treatment. Effective salaries were, on average, 36% below the previous generations'. 1.5 million Italians, mostly working age youth, left the country between 2011 and 2017 (Romei, 2017). This was not

supposed to happen; Italian elites sold the euro as an event that would bring prosperity, employment, increased productivity, and enhanced well-being (Giurlando, 2016). It is perhaps not surprising that public opinion data collected in 2017 indicates 64% of Italians are convinced that elections are meaningless, 84% have no trust in political parties, and 73% believe that the country is in a state of decline (Socci, 2018).

This economic distress and the associated emotions contributed to the collapse of support for mainstream, Europeanist parties (Partito Democratico and Forza Italia) and the victory of sovereigntists in Italy on March 4th 2018.¹⁰ In Italy they are the League, which is unambiguously right-wing, and the anti-establishment Five Star Movement (M5S). The socioeconomic profile of their vote is consistent with the observation that economic precarity is associated with support for sovereigntists. Their largest supporters are youth (between the ages of 18 and 45) and the economic precarious who have borne the brunt of the crisis. The region of the country which has suffered the most from the economic crisis and cuts to public services, the Mezzogiorno, overwhelmingly (47%) selected the Five Star Movement.

In regards to the euro, both the League and the M5S have been influenced by the ideas of three important intellectuals: Alberto Bagnai, Claudio Borghi, and Antonio Rinaldi. They are known for their view, expressed in a popular blog and in published materials, that the Italian constitution, and the democratic will of the nation, have been betrayed by the euro (Rinaldi, 2018). Both the League and the M5S, well before their triumph on March 4th, 2018 expressed the same narrative. In 2016 the leader of the League, Matteo Salvini, called former Italian Prime Minister Carlo Azeglio Ciampi a “traitor” for bringing Italy into the euro (TGCOM24, 2016). After receiving critiques for using harsh language on an esteemed statesman, he doubled down and made the same accusation against other architects of Italy’s Eurozone membership, including former prime ministers Romano Prodi and Mario Monti. The Italian national newspaper which fully supports Salvini is *Libero Quotidiano*. They have adopted the same narrative vis-à-vis the euro, most recently in their fawning coverage (Libero, 2018) of a book titled “Betrayed, Subjugated, Invaded” by the conservative nationalist Antonio Socci, which argues that giving up monetary sovereignty was a betrayal which subjugated Italy to the hegemony of Germany and financial markets. Paolo Savona, the Keynesian economist selected by the Five Star Movement and the Northern League to be minister of finance, expressed a similar narrative in his public statements, saying that “the euro is a German cage and Italy is being colonized” (Guerzoni, 2018). He has also said that the Italy’s political class

¹⁰In Europe, Italy went from being one of the countries with the highest levels of support for the euro to one of the lowest. Gianni Balduzzi (2016). *Sondaggi sull’euro, il sostegno alla moneta unica cala solo in Italia*. Termometro Politico, https://www.termometropolitico.it/1235780_sondaggi-sull-euro-sostegno-alla-moneta-unica-cala-solo-italia-rimane-stabile.html. Antonio Socci explains the collapse of Italian support for the euro as “the strong disappointment from realizing the truth about someone or something after being led astray. It is the shock of discovering that you were lied to. And it is a feeling of betrayal”, *Libero*, June 11th, 2018.

consciously usurped the democratic will of the nation when it adopted the new currency.

The accusation of “colonization” suggests a sense of humiliation, while the usurping of democracy suggests betrayal, feelings which, if true, would confirm the sovereigntist narrative that establishment elites are contemptuous of their compatriots. The solution, says Savona, is for Italians to take back control of their own destiny to valorize the dignity of work and equity. These narratives are also prominent among nationalist intellectuals of the right and the left. For example, in his book which argues that Italians have been humiliated and betrayed, the Antonio Socci tells Italians to rediscover their pride, dignity, and control and to confront the domestic and international enemies responsible for the country’s condition (Socci, 2018). In a similar vein but from a different ideological perspective, the Keynesian economist Antonio Rinaldi exhorts his compatriots to rediscover pride and dignity as a response to the betrayal of establishment leaders who brought Italy into the Eurozone. Not coincidentally, part of Salvini’s campaign strategy, both before and after the election, is to convey that, unlike establishment parties, he cares for the people. For instance, he frequently ends his social media posts with “vi voglio bene” which means “I love/care for you”.

The M5S’s initial surge was in 2011-2012, when democratically elected Prime Minister Silvio Berlusconi was replaced with the unelected technocrat Mario Monti. They framed this event, apparently successfully, as an example of the anti-democratic machinations carried out by elites who “sold out” ordinary Italians (Grillo & Casaleggio, 2014). In their sources of political communication (Grillo & Casaleggio, 2014; Tarchi, 2013), their narrative very closely tracks that of conservative-nationalist Lasch (1996); “disloyal elites” (Grillo, 2010)—understood broadly to include the financial industry, media, CEOs of multinational firms, and the established political parties that supposedly reflect these agents’ interests—have conspired to undermine civic equality by promoting monetization, marketization, and financialization, all of which have accelerated with the euro. In the process, they have enriched themselves, creating what the M5S calls an “oligarchy”, while most experience economic insecurity. For the M5S, this change is part of a conscious and concerted effort, rooted in greed and selfishness rather than, say, honest mistakes in policy or unstoppable technological trends.

One of the prominent voices of the M5S was the recently deceased Nobel Prize winning playwright Dario Fo, who rejects the claim, often made by its critics, that it is a proto-fascist movement of the Right. Rather, Fo and Manin (2013) said that most M5S supporters are from the left who “feel betrayed” by Italy’s centre-left parties which, like their counterparts elsewhere, adopted the “Third Way”—meaning they abandoned the goal of socialism and accepted the legitimacy of the market economy and globalization. The former leader of the M5S, Luca di Maio, also utilized the narrative of betrayal; he said that the democratic will of Italians was betrayed by the euro (Di Trocino, 2016). On this point at least, right-wing sovereigntists would agree; an article with a section titled “The Betrayal” published in the philo-Salvini *Libero Quotidiano*, which analyzes Matteo Salvini’s success among the electorate, says the Left “subordinated itself to Merkel and Macron...with this

Franco-German Europe, Italians' most important public good, its national currency, was expropriated...the middle class has been impoverished, we have had zero economic growth and have lost 25% of industry" (Socci, 2018a, 2018b).

Greece

Greece's initial years in the euro coincided with a mini golden age. As credit flooded the country, debt and spending increased, leading to price rises and increased valuations that further fueled the country's speculative boom. One of the drivers of this bubble was its membership in the euro, which created a false sense of security that was reflected in the convergence of interest rates between Greece and its euro partners. The party came to a halt after Greek Prime Minister Papandreou admitted that the country's fiscal accounting was the result of statistical chicanery and did not reflect the country's actual balance of payments; the real fiscal deficit was 12.5% rather than the 6% that was originally reported. This sparked a debt sell-off, skyrocketing interest rates, and closed off access to private capital markets.

At this point, European leaders decided to violate the Maastricht's Treaty no-bailout rule.¹¹ In theory, bailouts provide emergency funding to countries on the precipice of collapse. In practice they meant that foreign agents of the creditors coming to Athens and dictating austerity measures independently of the democratic will of the nation. The first-bailout in 2010 consisted of 107.3 billion euros which stipulated a number of measures meant to put Greece on a sustainable path. It failed, mainly because its assumptions were unrealistic: the IMF projected a brief recession and a manageable rise in unemployment, and instead a dramatic decrease in output and significant increase in unemployment ensued. Despite this failure, creditors adopted the very same strategy for the second bailout in 2012 which, predictably, produced similar results. Together, the financial crisis, the bailouts, and the austerity programs led to a 25% decline in overall economic activity, while unemployment reached 27% at its peak. Half a million Greeks, mostly young and educated, left the country in search of employment elsewhere.

Syntagma square was the epicentre of Greeks frustration and rage. Protests occurred there with such frequency and on a scale that, on some estimates, almost 20% of Greeks participated at one time or another over several years (Sotirakopoulos & Sotiropolous, 2013, p. 448). Sotirakopoulos and Sotiropolous (2013) carried out ethnographic research on Syntagma square in 2011 and observed that most of the protesters were on the lower end of the socioeconomic scale—unemployed or underemployed, public sector workers, and small businessmen (pp. 449–450). What unites these disparate groups is “being below” and “stripped of political power” (p. 450), although the slogan “treason” was more prominent among right-wing

¹¹The Eurozone is governed by a series of rules outlined in the Treaty of Maastricht, including the prohibition of bailouts, transfers, and limitations on debts and deficits.

protesters (p. 447). Similarly, Aslanidis (2016) observed the prevalence of the feeling of betrayal among anti-austerity protesters.

The victory of the radical left-wing party Syriza in January 2015 cannot be understood without taking into account the economic crises, the failed bailouts, and economic pain which disproportionately hurt the weakest and was seen as the being done at the behest of Germany and Brussels rather than the democratic will of the nation (Varoufakis, 2017). Left-wing populist leader Greek Prime Minister Alexis Tsipras employed the rhetoric of humiliation, abandonment, and betrayal during his campaign. His Finance Minister, Yanis Varoufakis, in his widely read memoirs which recount the Greek crisis, emphasized the humiliation of Greeks by creditor countries (Varoufakis, 2017). Syriza won an unprecedented 36% of the vote, which made it the country's most popular party but which was insufficient to form a government. Rather than allying with centrist parties closer to its ideological orientation, it formed a coalition with the right-wing populist party 'Independent Greeks', whose leader, Panos Kammenos, called the bailouts "a national humiliation equal to the tragedy of Cyprus" and demanded that those responsible "must be punished, politically, legally, and socially".

In both Italy and Greece, there was a desire for vengeance, and sovereigntists in both Italy and Greece channeled this desire—a vote for them meant punishing the agents deemed to be responsible for the countries' condition. When they finally took power and formed governments, decisions had to be made in the international sphere, and here we can begin to identify associations between the felt narratives of humiliation, betrayal, and international political agency.

Betrayal and International Political Action

Italy's sovereigntist government's initial program included a proposal for a mechanism that would allow countries to abandon the euro and return to national currencies. This was later withdrawn, not because of a change of heart, but rather because the President of the Republic would not give his assent to a government with that agenda. Subsequently, candidates for the cabinet demonstrated a willingness to challenge Brussels and Berlin and threaten a return to the national currency. The most notable was the candidate for the ministry of Finance, Paolo Savona, who in his memoirs explicitly frames the euro as a kind of German colonialism, a usurpation of the democratic will of the nation, and as an event which betrayed its promise of creating economic prosperity (Savona 2018). The solution, for him, is to defy Germany by breaking the Eurozone's rules on public spending limits. Savona also proposed the creation of a parallel payments system that could be activated in the event of German intransigence and Italy's forced exit from the currency union. Such a position is not consistent with a stable Eurozone membership, and it was for this expressed reason that the President of the Republic, Sergio Mattarella, refused Savona's candidacy for the ministry of finance, leading to a constitutional crisis in June 2018. Representatives of both the M5S and the League subsequently accused

the President of the Republic of “high treason” for his blocking of Savona,¹² and threatened legal action.

The populist government’s confrontational orientation with Brussels can be observed in the agreement, or contract, between the two parties that compose it. It stipulates that the Italian constitution, and hence national sovereignty, must take precedence over supranational rules emanating from Brussels. This is a direct response to the policies of previous governments which seemingly prioritized supranational rules over the interests of Italians, in the process betraying the constitutional clause which stipulates that sovereignty resides in the nation. It also clearly shows the influence of Alberto Bagnai, Claudio Borghi, and Antonio Rinaldi in the new government, all of whom have published material arguing that the euro is a betrayal of democracy and demanding that the Italian constitution’s clauses on the dignity of work, welfare, and national sovereignty must take precedence over the strictures of the euro.

When Syriza took power in 2015, its official position was to support a democratic Eurozone organized around socialist principles of redistribution. On the surface, then, they are a Europeanist party that wants to reform, not abandon, the euro. But here, the gulf between rhetoric and reality is quite large: in a German-led currency union constituted by treaties which impose market based discipline, a periphery country’s demand to reorganize it around socialist and redistributionist principles needs to be taken with some skepticism. The major question when Syriza took power, then, was whether it would submit or leave the currency union. Initially, it adopted a strategy of confrontation, blaming Germany for the crisis and demanding debt-forgiveness. At this point, German finance minister Wolfgang Schäuble demanded that Greece exit the currency union, the position favoured by the majority of Germans (Fahmy & Behrmann, 2015) and adopted by popular newspapers such as *Bild* and *Der Spiegel*. The Greek finance minister Yanis Varoufakis was aware of this eventuality and hence began the process of creating a parallel payment system which would effectively lead to an exit from the currency union.

In the Spring of 2015, the policy of confrontation came to a head and Greece was given the final ultimatum: submit to the rules of the currency union, or leave. The Syriza government felt that it could not make such a drastic decision without the support of Greeks, and so Prime Minister Tsipras called a referendum. Here, Tsipras was dishonest: Germany and France said that the question Greeks had to answer was between submitting to the rules or Grexit, while the question put to the Greek people during the referendum was whether to accept or reject austerity. Sixty-two percent voted against austerity, giving people hope that a change in policy direction would be forthcoming, or at least that it would challenge the reigning orthodoxy of bailouts and austerity. Instead, Tsipras capitulated to a set of austerity policies that were deeper and more intense than those in the offer he was previously presented

¹²Georgia Meloni of Fratelli di Italia (whose nationalist party supports Salvini’s Northern League) said “if it is confirmed that the President Mattarella was influenced by foreign powers [in his blocking of Savona], we will request that Parliament process him for high treason, because we have had enough of leaders concerned with the interests of foreigners rather than Italians”.

with. This led to cries of betrayal (Foy & Hope, 2015; Mavroudeas, 2015; Patrikarakos, 2015). Tsipras's response was that "the alternative was the plan of Schäuble" (referring to the latter's proposal to expel Greece from the euro). Here Tsipras was trying to attenuate the feelings of betrayal felt among his supporters by redirecting their ire towards Greek Finance Minister Wolfgang Schäuble. Had Tsipras rejected the offer, the story goes, the malicious will of the man who Greeks detest would have become reality.¹³

As of this writing, there has been little progress in the direction towards transferring sovereign powers away from the nation and toward Brussels. Emmanuel Macron, a committed Europhile, provided hope for progress in this direction after his victory in the presidential election of 2017. Many obstacles may stand in the way, including the political dynamics in France itself, where sovereigntists of the left and right enjoy the support of almost half the country.¹⁴ They, too, have associated the euro with humiliation and betrayal.¹⁵ Their popularity is an indication that anti-euro sentiment in France is not insignificant. Nonetheless, after Macron's victory, he made concrete proposals to pool sovereignty in the Eurozone, including a Eurozone minister of Finance, a Eurozone budget, and a Eurozone parliament to give the former institutions democratic legitimacy. Germany only agreed in principle with the budget but refused the other proposals.¹⁶

German reluctance is partly the result of an unwillingness to pool sovereignty with Southern European countries like Italy and Greece.¹⁷ For instance, during the negotiations with the new Syriza government, polls in Germany showed that the majority wanted Greece to exit the currency.¹⁸ At this point, not coincidentally,

¹³ German Finance Minister Wolfgang Schäuble is perceived by many Greeks as the personification of German cruelty and heartlessness. One highly educated and well-off Greek even told me that he wishes the assassination attempt on him would have been successful (Schäuble was shot by a deranged gunman in 1990; he survived but became permanently paralyzed).

¹⁴ In the first round of the 2017 presidential election, La France Insoumise, the Front National, and Debout La France—all of which are hostile to the currency union—together obtained 45% of the national vote.

¹⁵ Although the right-wing Marine Le Pen more often used the language of betrayal while the left-wing Jean-Luc Mélenchon deploys the imagery of humiliation, particularly when he characterizes the euro as a German attempt to dominate France.

¹⁶ Germany is not alone in refusing Macron's proposals. Eight other EU countries, mostly the economically dynamic countries of Northern Europe, also publicly rejected Macron's vision to quickly pool sovereignty in the Eurozone. Their resistance has only increased after Macron's decision to defy the Eurozone's rules on public spending limits in order to quell the anger of the "Yellow Vest" protesters (Barber, 2018).

¹⁷ After the Italian election on March 5 2018, the German parliamentarian and member of the governing coalition (CSU) Eckhardt Rehberg publicly stated that "Italy is playing with fire and is dangerous for the entire Eurozone". At the same time, the influential *Der Spiegel*, which is a good indicator of German public opinion on the left, said "Italians are self-destructing—and destroying the euro in the process".

¹⁸ On September 5th, 2018, European Commissioner (and German national) Günther Oettinger, referring to the new Italian government's spending proposals, said that "Italy poses a mortal threat to Europe." After the outcry, Angela Merkel evidently instructed public officials to avoid express

Wolfgang Schäuble broke a taboo during the negotiations: for the first time, a high level German official publicly admitted that the currency union was not irreversible. Most German economists, and the majority of Germans, supported his position, which was only prevented because Angela Merkel and Françoise Hollande were determined to keep Greece in the currency union.

Germany is skeptical of the possibility of pooling sovereignty with Italy because its populist government of 2018-2019 was composed of parties who openly stated that the euro is a German cage that has humiliated Italians, the latter of whom were betrayed by the leaders who gave up the national currency. Both the Northern League and Five Star Movement have expressed a desire for a referendum on the euro, even though the Italian constitution forbids subjecting international treaties to popular veto. One way they circumvented this was with a plan to create a parallel currency that would, they said, coexist with the euro but allow the state to free itself from the constraints of the currency union. Moreover, its campaign promises included spending commitments that would violate Italy's obligations in the Eurozone. When it introduced its budget in September 2018, the European Commission rejected it and threatened sanctions. This outcome would have been the opening salvo in the country's slide towards exiting the euro. Only the extraordinary intervention of the President of the Republic Sergio Mattarella prevented this development, leading to a tenuous truce between Rome and Brussels.¹⁹ According to Francesco Galiatti, "this is not a perpetual peace, just a postponement of hostilities" (Johnson, 2018), because the underlying dispute over the Eurozone's rules have not been resolved.

Future Research

Feelings of betrayal and humiliation can account for important political changes, such as the rise of sovereigntists and the implementation of their political programs. The best way to measure these sentiments is probably with public opinion surveys. As of this writing, only in the U.S. have pollsters directly asked (small) samples of voters whether they feel betrayed; this approach has revealed that the feeling was widely held among Republican voters who selected Donald Trump (Beamon, 2016). Another approach is ethnographic research, which Hochschild (2016) carried out in the American South and whose findings are consistent with the mentioned public opinion data, namely, that large numbers of Donald Trump supporters did indeed

their feelings about Italy.

¹⁹ Several other factors influenced the truce between Rome and Brussels. One is that the vision of the technocrats in the Italian government, especially Giovanni Tria and Enzo Moavero, prevailed over that of the sovereigntists Matteo Salvini and Luigi Di Maio, despite the technocrat's lack of democratic legitimacy. Another is that the "Yellow Vest" protests in France led to that country's decision to increase spending in defiance of the Eurozone's rules. And thirdly is European parliamentary elections in May of 2019.

feel betrayed and humiliated by mainstream Democrats and Republicans. In the case of the Eurozone crisis, the ethnographic approach was adopted by Sotirakopoulos and Sotiropoulos (2013) and Aslanidis (2016) both of whom observed the feeling of betrayal among anti-austerity protesters. The sources analyzed here—the expressed political platforms of sovereigntist parties in Greece and Italy, memoirs, polemical tracts, and the secondary literature—supports these general findings. This suggests that both survey data and qualitative techniques can be useful for the study of complex feeling-states like humiliation and political betrayal and their links to various forms of political agency.

Conclusion

In both Italy and Greece, the euro promised to enhance economic well-being, in both, the debt crisis led to dramatic collapses of economic activity, and in both, mainstream parties who managed these events were delegitimized and replaced with coalition governments composed of right-wing and left-wing sovereigntists. Despite the different ideological orientations of each party, and the different national contexts, their expressed narratives on the euro were similar, namely, that it is a humiliating instance of German domination, that national-level elites who managed the currency betrayed the democratic will of the nation, and that the nation must reassert control and adopt a policy of confrontation. The political platforms of the sovereigntist governments in both countries included a policy of confrontation vis-à-vis Germany which is not consistent with the steps that the eurozone needs to place it on a stable footing, namely, the pooling of sovereignty with Germany and other core countries in the form of a fiscal, banking, and political union. In Greece, this tension produced the dramatic events of 2015, particularly the referendum which brought Greece to the precipice and contributed to a toxic political climate in the currency union. The tension between Italy's sovereigntist government, and the constraints of a German-led currency union produced similar tensions, raising questions about the successful implementation of a political union which would stabilize the common currency.

References

- Artus, P., & Virard, M.-P. (2017). *Euro: Par Ici La Sortie?* Paris, France: Fayard.
- Barber, T. (2018, December 19). Macron's woes at home hobble his European ambitions.
- Barlabet, J. (1998). *Emotion, social theory, and social structure*. Cambridge: Cambridge University Press.
- Berezin, M. (2002). Secure states: Towards a political sociology of emotion. In J. Barbalet (Ed.), *Emotions and sociology*. Oxford, UK: Blackwell Press.
- Bleiker, R., & Hutchison, E. (2008). Fear no more: Emotions in world politics. *Review of International Studies*, 34(1), 115–135.

- Broder, D. (2017, December 27). This isn't work, it's exploitation. *Jacobin*. Retrieved from <https://jacobinmag.com/2017/12/italy-workers-precarious-unions-m5s-democratic-party>
- Brooks, D. (2016, September 12). The coming big flip. *National Post*.
- Collins, R. (1990). Stratification, emotional energy, and the transient emotions. In T. D. Kemper (Ed.), *Research agendas in the sociology of emotions* (pp. 27–57). New York, NY: State University of New York Press.
- Di Trocino, A. (2016, July 27). Maio Avvia il Dialogo Con La Chiesa. *Corriere Della Sera*.
- Edwards, D. (1999). Emotion discourse. *Culture and Psychology*, 5(3), 271–291.
- Fierke, K. (2004). Where of we speak, thereof we must not be silent: Trauma, political solipsism and war. *Review of International Studies*, 30, 471–491.
- Fierke, K. (2009). A clash of emotions: The politics of humiliation and political violence in the Middle East. *European Journal of International Relations*, 15, 67–93.
- Fierke, K. (2014). Emotion and intentionality. *International Theory*, 6(3), 563–567.
- Fo, D., & Manin, G. (2013). *Un Clown vi Seppilira*. Guanda.
- Foy, H., & Hope, K. (2015, September 15). Broken promises dog Tsipras campaign. *Financial Times*.
- Franchini, F. (2018, May 23). Salvini: “Il nostro sarà il governo dell’orgoglio. E ricostruiremo l’Ue”, Il Giornale. Retrieved from <http://www.ilgiornale.it/news/politica/salvini-nostro-sar-governo-dell-orgoglio-e-ricostruiremo-l-1531225.html>
- Gilman, N. (2016). Technoglobalism and its discontents. *The American Interest*, 6–16.
- Giurlando, P. (2016). *Eurozone politics: Perception and reality in Italy, Britain, and Germany*. New York, NY: Routledge.
- Grillo, B. (2010). *A Riveder Le Stelle*. Milano: Rizzoli.
- Grillo, B., & Casaleggio, G. (2011). *Siamo in Guerra Per una Nuova Politica*. Milano: Chiarelettere.
- Grillo, B., & Casaleggio, G. (2014). *Vinciamo Noi. La Voce Dei 5 Stelle. Chi Siamo e Quale Europa Vogliamo*. Milan: Casaleggio Associati.
- Guerzoni, M. (2018, May 25). Savona, l’ideologo no euro rifiuta compromessi: “Non cambio idee per una poltrona”. *Corriere della Sera*.
- Hochschild, A. (2016). *Strangers in their own land: Anger and mourning on the American right*. New York, NY: The New Press.
- Johnson, M. (2018, December 21). Rome’s truce with Brussels saves face but debts remain. *Financial Times*.
- Kemper, T. D. (1990). *Research agendas in the sociology of emotions*. New York, NY: State University of New York Press.
- Krastev, I. (2017, January 17). The rise and fall of European meritocracy. *New York Times*.
- Lapavistas, C. (2012). *Crisis in the Eurozone*. New York, NY: Verso Books.
- Lasch, C. (1991). *The true and only heaven*. New York, NY: Norton.
- Lasch, C. (1996). *The revolt of elites and the betrayal of democracy*. New York, NY: Norton and Company.
- Libero. (2018). Antonio Socci: “L’Italia ha perso la sovranità, a decidere il nostro futuro soltanto i mercati”. Retrieved from <http://www.liberoquotidiano.it/news/personaggi/13310394/antonio-socci-italia-senza-sovranita-comandano-soltanto-mercati-traditi-sottomessi-invasi.html>
- Lowenheim, O., & Heiman, G. (2008). Revenge in international politics. *Security Studies*, 17(4), 685–724.
- Mavroudeas, S. (2015). The Betrayal of Syriza and the duties of the left. *Pandiera*. Retrieved from <http://pandiera.gr/η-προδοσία-του-συριζα-και-τα-καθήκοντα/>
- Mead, W. R. (2017, March/April). The Jacksonian revolt: American populism and the liberal order. *Foreign Affairs*.
- Mercer, J. (2005). Rationality and psychology in international relations. *International Organization*, 59(1), 77–106.
- Morgenthau, H. (2005). *Politics among nations*. New York, NY: McGraw-Hill.
- Mudde, C. (2016). *Syriza: The failure of a populist promise*. Cham: Springer.

- Patrikarakos, D. (2015, July 14). Many Greeks now think Tsipras is a Traitor. *Guardian*. Retrieved from <https://www.theguardian.com/commentisfree/2015/jul/14/greeks-alexis-tsipras-traitor-eurozone>
- Rachman, G. (2015, December 1). We deride the chances of Le Pen and Trump at our peril. *Financial Times*.
- Rachman, G. (2016, January). Anti-globalists on the march. *The World in 2017. Economist*.
- Rinaldi, A. (2018). *La Sovranita Appartiene al Popolo o Allo Spread?* Reggio Emilia: Aliberti.
- Rohmann, A., Brauer, M., Niedenthal, P. M., Castano, E., & Leyens, J. P. (2009). The attribution of primary and secondary emotions to the in-group and to the out-group: The case of equal status countries. *The Journal of Social Psychology, 149*(6), 709–730.
- Romei, V. (2017, November 12). Italian emigration continues despite strong economic recovery. *Financial Times*.
- Salmela, M., & von Scheve, C. (2017). Emotional roots of right wing populism. *Social Science Information, 56*(4), 567–595.
- Savona, P. (2018). *Come un Incubo, Come un Sogno*. Rubinetto.
- Scheff, T. (1990). *Microsociology: Discourse, emotion, and social structure*. Chicago, IL: Chicago University Press.
- Searles, K., & Ridout, T. N. (2017). The use and consequences of emotions in politics. *Emotion Researcher*.
- Socci, A. (2018a). *Traditi, Sottomesi, Invasi*. Milano: Rizzoli.
- Socci, A. (2018b, June 10). *Così Matteo Ha Reinventato La Lega*. Libero.
- Solomon, T., & Steele, B. J. (2017). Micro-moves in international relations theory. *European Journal of International Relations, 23*(2), 267–291.
- Sotirakopoulos, N., & Sotiropoulos, G. (2013). The Greek Indignados and the present cycle of struggles. *Current Sociology, 61*(4), 443–456.
- Stiglitz, J. (2016). *The Euro: How a common currency threatens the future of Europe*. New York, NY: Norton and Company.
- Tarchi, M. (2013). *Italia Populista*. Bologna: Il Mulino.
- TGCOM24. (2016). *Salvini: “Ciampi un traditore dell’Italia”*. Retrieved from http://www.tgcom24.mediaset.it/politica/salvini-ciampi-un-traditore-dell-italia-ed-e-bufera-politica_3031451-201602a.shtml
- Turner, J., & Stets, J. E. (2005). *The sociology of emotions*. New York, NY: Cambridge University Press.
- Flam, H. (2005). “Emotions’ map: A research agenda”. Pp. 19-40. Edited by Flam H. and King D. *Emotions and Social Movements*. London: Routledge.
- Irwin, D. (2016). The Truth About Trade: What Critics Get Wrong About the Global Economy. *Foreign Affairs, July/August Issue*: 84-95.
- Fierke, K., and Fatah, K. (2009). A Clash of Emotions: The Politics of Humiliation and Political Violence in the Middle East, *European Journal of International Relations, 15*:67-93..
- Beamon, T. (2016). “CNN Exit Poll: 50 Percent Feel Betrayed by GOP.” CNN, February 9. Accessed February 9, 2016. [https://www.newsmax.com/headline/cnn-exit-poll-betrayed/2016/02/09/id/713525/.](https://www.newsmax.com/headline/cnn-exit-poll-betrayed/2016/02/09/id/713525/)
- Langman, L., Benski, T., Perrugoria, I., Tegerina B. (2013). From Indignation to Occupation: A New Wave of Global Occupation, *Current Sociology, 61*(4).
- Stiglitz, J. (2016). *The Euro: How the Common Currency Threatens the Future of Europe*, Norton and Company.
- Jasper, J. (1998). The Emotions of Protest: Affective and Reactive Emotions in and Around Social Movements. *Sociological Forum*13 (3), 397–424.
- Jasper, J. (2011). Emotions and social movements: Twenty years of theory and research. *Annual Review of Sociology*37, 285–303.
- Bleiker, R., & Hutchison, E. (2014). Theorizing Emotions in World Politics, *International Theory, 6*(3): 491-514.

- Hall, T. (2011). We Will Not Swallow this Bitter Fruit: Theorizing a Diplomacy of Anger, *Security Studies*, 20(4):521-555.
- Ost, D. (2004). Politics as the Mobilization of Anger. *European Journal of Social Theory*, 7(2): 229-244.
- Edkins, J. (2003). *Trauma and the Memory of Politics*. New York: Cambridge University Press.
- Varoufakis, Y. (2017). *Adults in the Room*, Random House.
- Fahmy, D and Behrmann. (2015). Germans Tired of Greek Demands Want Country to Exit the Euro, Bloomberg, 15 March 2015.

(De)Humanization of Muslim Immigrants: Newspaper Discourse and Public Responses During the UK 2015 General Election



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Immigration debates during the 2015 United Kingdom (UK) General Election (GE) and the subsequent UK vote to leave the European Union have arguably heightened media and public interest in immigration, particularly towards Muslim immigrants. In the present research, we focus on the nature and extent of de(humanizing) views of Muslim immigrants in UK newspaper sources around the time of the UK 2015 GE. Our research extends past work in a number of ways. First, we move beyond dehumanization processes alone and concurrently assess humanization in UK newspaper articles. Second, we consider both the content of the newspaper articles and reader comments, enabling inference concerning the influence of the former on the latter, and evaluate lay persons' expressions of (de)humanization. Third, we examine how (de)humanizing discourse may differ depending on the political orientation of the news source. Given that Muslims represent the second largest faith group in Britain (Stokes, 2013), we believe that this topic is timely and relevant in the UK as well as other contexts where Muslim immigration is a topic of debate.

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Media Representations of Muslims

Media constructions of inherent differences between Muslims and non-Muslims have been shown to accentuate intergroup tensions and threat perceptions (Poole, 2006; Richardson, 2006). Saeed and Drainville (2006, cited in Jaspal & Cinnirella, 2010) argue that Muslims are “systematically ‘otherised’ and constructed in terms of an inferior and even barbaric (homogenous) people” (p. 340). Whilst research has examined dehumanization of Muslim immigrants (e.g., Esses, Medianu, & Lawson, 2013), there has been a dearth of scholarly attention on media discourses relating to the humanization of immigrants, with some exceptions (e.g., Khosravini, 2009).

Whereas in the past, it was argued that favourable views of immigration and multiculturalism was important in winning votes (Holohan, 2006), the rise of right-wing politics in the UK, especially leading up to EU Referendum, suggests that the tide may be shifting. In the 1990s Blair’s New Labour government made changes to migration policy and loosened controls, and media portrayals of an inclusive Britain were associated with the left-wing politics of New Labour (Holohan, 2006). In contrast, multiculturalism as threatening the rights of the White British majority and a focus on defending traditional definitions of British identity tended to be associated with right-wing media (Holohan, 2006). Given the salience of immigration discourse in the run up to the 2015 UK GE and the push for an EU Referendum, we felt it was timely to examine differences in media sources with different political affiliations. In this chapter, we examine the nature of (de)humanizing media discourse towards Muslim immigrants and related themes in articles and public comments comparing left and right newspaper sources in the UK in the months before the 2015 GE. We code for instances of (de)humanization based on previous research (Christie & Noor, 2017; Haslam, 2006) and conduct a thematic analysis to determine key subthemes surrounding the nature and extent of (de)humanizing discourse.

Understanding Dehumanization

In light of immigration debates, understanding the extent to which (de)humanizing discourse is reflected in media and public opinion is of urgent importance. Dehumanization can be defined as perceiving a group as lacking human qualities (Haslam, 2006) and is often associated with a perceived lack of prosocial values in the outgroup (Struch & Schwartz, 1989). In his dual model of dehumanization, Haslam (2006) distinguishes between uniquely human characteristics (as contrasted with animal characteristics) and human nature characteristics (those that are inherently human, in contrast to machines or inanimate objects) and suggests factors that represent (de)humanizing characteristics include human uniqueness, animalistic dehumanisation, human nature and mechanistic dehumanisation.

Recently, dehumanization research has advanced further to focus on mechanistic dehumanization and innovatively on a number of key areas including blatant dehu-

manization, perceptual dehumanization, superhumanization, and the use of non-human metaphors (Haslam & Stratemeyer, 2016). In the present chapter, we operationalise dehumanization as lacking humanness in line with Haslam and Louglaan (2014) and code dehumanization based on an extended version of Haslam's (2006) dual model by Christie and Noor (2017), who examined dehumanization in terms of: (1) how individuals are seen (e.g., below us, immoral, distant superficial), (2) what they lack that is essentially human (e.g., unintelligent, irrational), and (3) the emotions they elicit (e.g., contempt, disgust, indifference).

Being dehumanized can have negative consequences. For example, evidence suggests that blatant dehumanization of immigrants and Muslims (in the US) predicts support for aggressive political policies and that blatant dehumanization of Latinos and Muslims (in the US) is associated with increased support for violent, over non-violent, collective actions (Kteily & Bruneau, 2017). Research from Australia has demonstrated the link between prejudice and dehumanization of asylum seekers, by assessing perceived value dissimilarity with the outgroup and also establishing the moderating role of dispositional preference for consistency (Greenhalgh & Watt, 2015). Research has also begun to examine the conceptual link between dehumanization and humanization. In their examination of discourse in two mainstream Malaysian newspapers, Christie and Noor (2017) found that dehumanizing discourse about outgroups was pervasive, but humanizing discourse was also evident. They proposed a framework for the conceptualisation of humanization, which they argued is a means for promoting more positive intergroup relations. Christie and Noor (2017) conceptualised humanisation as the semantic opposite of dehumanization in terms of: (1) how individuals are seen (e.g., equal to us, moral, close to us, deep), (2) what they have that is essentially human (e.g., intelligent, rational) and (3) the emotions they elicit (e.g., admiration, attraction, personal regard).

Laboratory research suggests that multiple categorization of the outgroup can increase humanization (Pratti, Crisp, Meleady, & Rubini, 2016) and although this research has contributed to an understanding of basic processes, it reveals little about how (de)humanization works in real world settings and how these relate to public perceptions of outgroups. We therefore build our present study upon this growing area of research by examining the nature and extent of (de)humanizing discourse in media sources.

Political Perspectives in Media Discourse

The media has long played a role in influencing public opinion and setting political agendas (c.f. McCoombs & Shaw, 1972). It can therefore be argued that the media can influence attitudes towards immigration. Evidence for this comes from the UK, where research demonstrates that immigration reports that include references to education and economic issues increase public concern about immigration

(McLaren, Boomgaarden, & Vliegenthart, 2017). Moreover, the way in which immigration is reported can depend upon the political orientation of the newspaper. For example, Alonso and da Fonseca (2012) observed that there is left-right polarisation of attitudes towards immigration across most European countries. Given the salience of immigration discourse in recent decades, studies have attempted to apply such theories of dehumanization to perceptions and media constructions of immigrants in Western industrialised nations (Esses et al., 2013; Hodson & Costello, 2007; Khosravinik, 2009). This scholarly attention is seen partly as a response to the contentiousness and uncertainty around immigration and migration apparent in these regions. Esses et al. (2013), for example, found that media portrayals of immigrants in Canada reinforced popular perceptions of immigrant threat in the public. They suggested that the media's tendency to circulate negative rather than positive immigration stories might lead to "extremely negative reactions to immigrants and refugees" (p. 531). We argue, however, that the content and valence of this discourse may differ depending on the political perspective of the source.

Political perspectives are often viewed in terms of a single left-right dimension in which the left is associated with liberalism and the right is associated with conservatism (Jost, Federico, & Napier, 2009). Whereas liberalism is associated with open-mindedness, creativity, curiosity and novelty seeking, conservatism is associated with orderliness, conventionalism and better organisation (see Carney, Jost, Gosling, & Potter, 2008 for a review). Although some scholars suggest that political ideology may be multi- rather than uni-dimensional (see Jost et al. for a review), Jost et al. (2009) argue that society makes it particularly easy to maintain use of this single dimension in discourse in the media (and amongst political elites and academics). Accordingly, the present research took a unidimensional approach (consistent with past research in the UK, see section "Method" for more detail) by focusing on the discourse presented in two popular UK newspapers, one that is arguably political aligned to the left and one that is politically aligned to the right.

In line with previous research (e.g., Alonso & da Fonseca, 2012), we hypothesise that a newspaper which is more aligned to the left may demonstrate less dehumanizing and more humanizing attitudes towards Muslims than a newspaper that is politically aligned to the right. We focus on media because evidence suggests that the media plays an important role in influencing and representing a society's politics, culture and political beliefs (Nesbitt-Larking, 2007). Therefore, it was felt that this was an important real world setting in which to examine dehumanization and humanization processes in relation to Muslim immigrants, which, as argued above, represent a stereotyped outgroup in a number of Western contexts including in the UK and Europe. This adds to previous research not just by focusing on immigration discourse but linking this to (de)humanization as it occur in a real world context and by taking into account the political perspective of the media source.

The Present Research

The aim of this research was to examine the discourse in newspaper articles on the subject of immigration and associated public responses to determine the extent of (de)humanizing statements towards Muslim immigrants around the 2015 UK General Election. Our research was driven by three key questions: (1) What is the nature and extent of (de)humanization reflected in the discourse in immigration focused newspaper articles and corresponding public comments around the UK 2015 General Election? (2) What key themes emerge from the discourse and how do these relate to (de)humanization? (3) To what extent does the content of the discourse differ depending on the political affiliation of the source? To answer these questions, we conducted a thematic analysis of (de)humanizing statements in two UK newspaper sources.

Method

Sources

The initial phase of data collection consisted of a broad evaluation of sources in which the issues of immigration and Islam were discussed by the research team (e.g., transcripts of political speeches, political blogs and immigration specific websites) in order to gather primary information on the topic in public discussion. This was followed by a closer reading of relevant articles from most major UK newspapers, of varying political stances, as evidence suggests that British voters do align themselves along a left-right dimension (Evans, Heath, & Lalljee, 1996), including the Guardian, the Telegraph, and the Daily Mail. The Guardian and Daily Mail were selected for analysis due to their greater online readership,¹ inclusion of readers' comments, publication of the most articles on the topic, and for their respective representation of relatively left (Guardian) and right-wing (Daily Mail) perspectives. Online versions of these papers were chosen as online readership is higher for both papers and for ease of retrieval of historical articles.

The search terms "Immigration and Muslim" and "Immigration and Islam" were entered in the online search tools of the Guardian and Daily Mail on the 8th December 2015. When using the online search tool for each newspaper website, we found that when selecting 'date' as the search criterion, the Guardian restricted accessibility to the most recent 100 articles meaning that it was not possible to obtain articles from the election period (May 2015). As a result, we changed our search strategy and instead sorted articles by 'relevance' using the newspaper sources search engine. To ensure consistency, we followed the same procedures for

¹The Daily Mail has an online readership of approximately 2.3 million and the Guardian has an online readership of approximately 1.5 million (www.newsworks.org.uk).

the Daily Mail website, except that we chose to select from the most relevant 200 articles in the Daily Mail as this newspaper produced fewer sources overall. To narrow our search, we applied specific criteria to each newspaper, excluding articles from pre-2014 and those which focused on immigration outside of the UK context. This resulted in 19 sources from the Guardian and 10 from the Daily Mail. From this list, we removed any articles that were solely factual reports (as these tended to focus only on dates and relatively impartial event descriptions), those based on primary research findings (as these simply reported results in an objective fashion), and those that did not have reader comments. We applied these criteria because our interest was in articles that represented more subjective perspectives, given that our goal was to analyse dehumanising and humanising content. This resulted in 12 articles in total, 6 from the Guardian and 6 from the Daily Mail.

In addition to the content of the online newspaper articles, we coded reader comments on each article, as a means to capture public discourse. Given the large number of comments for some articles (over 2000), we focused on the most popular 100 comments from each article. To ensure consistency across sources, for the Daily Mail we selected the 100 best rated comments and for the Guardian we selected the top 100 recommended comments.

Initial (De)Humanization Coding

Each article and associated comments were exported into separate Microsoft Word documents for coding. Articles were coded for instances of (de)humanization using an adapted version of Christie and Noor's (2017) coding framework. This framework focuses on (de)humanization as how the outgroup is seen, what outgroup members are seen to lack/have which makes them (un)human and the emotions they elicit. Coders were asked to read background articles regarding dehumanization to improve their conceptual understanding and were trained to code articles to be analyzed based on the framework. Coders read through the articles and noted instances of (de)humanizing statements. The first 100 readers' comments were coded in the same way. Coders also noted the number of (de)humanizing statements overall, other points of interest in language and content and considered the relevance of the Christie and Noor (2017) categories.² To ensure coding consistency and alignment with the coding framework, a group of three coders independently coded six articles, with each article being coded by at least two separate coders. The group then met to discuss the coding and their understanding of the coding framework. A single coder (one of the three original coders) then continued to code the remaining six articles and comments (12 articles in total). The frequency of dehumanizing and humanizing statements in the articles and comments are presented below. In this analysis, we did

²Following our initial use of the coding framework, we removed "having religion" as a form of humanization and "lacking religion" as a form of dehumanization as the extent of religiosity in the UK is very different to that of Malaysia.

Table 1 Frequency of (de)humanizing statements by source

	Dehumanization		Humanization	
	Article	Comments	Article	Comments
Daily Mail	28	26	25	7
Guardian	40	65	27	18

not focus on language, metaphors or the broader context of the articles. Instead, we focused in on: (1) instances of (de)humanization and then (2) the themes which emerged from the (de)humanizing statements present in the articles and comments (Table 1). This is in line with the aims of the present research.

Thematic Analysis

To further our conceptual understanding of (de)humanization processes as they occur in the real world, we were interested in examining the common themes presented in the discourse and how these related to (de)humanization towards the Muslim ‘other’, in addition to the frequency analysis above. Therefore, initial coding for instances of (de)humanization were extracted from the articles and produced in tables, indicating whether the statement represented humanization or dehumanization, and whether it was sourced from either the Daily Mail or Guardian and from the article or comments sections. Statements from these tables were then analysed using a thematic approach (Braun & Clarke, 2006), which involved reading and re-reading the statements and developing themes based on the content of the discourse. This enabled us to more deeply examine the broader themes surrounding (de)humanizing discourse and to compare the emergent themes in the articles and comments associated with newspapers from the two political perspectives.

Results

The following analyses are presented first focusing on dehumanizing discourse and second on humanizing discourse. Emergent themes are described as they relate to dehumanization and humanization.

Dehumanizing Discourse

Following a thematic analysis of the statements coded as being dehumanizing, a number of subthemes and emerged from the discourse presented in the articles and comments (Table 2).

Table 2 Subthemes associated with dehumanization depending on source and orientation

	Article	Comments
Daily Mail	Lack of integration Tougher measures Incompatible values Taking over	Taking over Incompatible values Need for control Losing culture
Guardian	Tougher measures Generalisation Incompatible values Lack of integration Taking over Primitive	Lack of integration Taking over Unable to voice concerns Incompatible values Primitive

There was overlap in Some of the subthemes with ‘incompatible values’ and ‘taking over’ evident across articles and comments in both sources. The subtheme ‘Lack of integration’ was also apparent in articles from both sources and the Guardian comments. Both sources discussed the need for tougher measures towards immigration but this was not expressed in the comments sections, where individuals were more concerned about other issues such as losing culture (Guardian) and being unable to voice concerns without sounding racist. One notable difference between the newspapers was that the Guardian articles and comments appeared to link Islam with primitive attitudes and behaviours, which does not seem to be evident in the Daily Mail articles, suggesting that the expected pattern of liberal values (i.e., positive regard) in the Guardian was not as expected. Indeed, past research from Belgium shows a link between literal anti-religion attitudes (i.e., viewing religion as irrelevant and unscientific) and negative views of the Islamic veil, and also notes anti-veil attitudes among political liberals (Saroglu, Lamkaddem, Van Pachterbeke, & Buxant, 2009). The view of religions, including Islam, as primitive may be associated with a preference for secularism or a stronger priority on value on empiricism and scientific ways of knowing.

When comparing the content of the articles with the comments, the comments appear more emotive and less factual than the material presented in the articles, suggesting that the articles ‘fuel the fire’ for public responses. For example, the articles emphasize percentages, statements from politicians, and positive exemplars, whilst comments tend to relate more personal experiences and use more assertive—even aggressive—language. Examples of these themes, condensed into broader categories, are discussed below.³

Lack of Integration

One of the key concerns in the articles and comments was a perceived lack of Muslim integration:

³Quotations from articles and comments have been included as worded, this therefore includes grammatical errors.

What on earth is the concept of 'community of communities'? I'm afraid that multiculturalism is an experiment carried out mainly on the working class of this country. It seems to have failed. No matter which way you hang it the Muslim community does not do integration. (G, comment).

There has been little or no integration and the police have been so afraid of being thought racist that they turn a blind eye to a lot of what goes on (DM, comment).

The view expressed here that Muslims do not 'do integration' offers some indication that Muslims are seen as responsible and to blame for the failure of the multiculturalism 'experiment' in the UK. This notion is consistent with past research that has found media portrayals that contrast Muslims with other Westerners, in ways that suggest incompatibility (Moore, Mason, & Lewis, 2008; Poole, 2011; Shaheen, 2003). The idea that authorities are turning a 'blind eye to a lot of what goes on' indicates a level of suspicion towards the outgroup. This is further supported by the comment noting that the authorities are too fearful to intervene.

And, this lack of integration was viewed, by some, to have consequences for society:

For others, Britain has become too diverse. Too much immigration and too little integration have, they suggest, combined to erode social cohesion, undermine national identity and corrode public trust. (G, article).

The use of the terms 'erode' and 'corrode' in relation to trust, cohesion and identity highlights the view that those who are not British are seen as a potential danger to society. There is also a suggestion that being Muslim and British is incompatible with one of the articles reporting on Nigel Farage's comments regarding the so-called 'split loyalties' of British Muslims:

Farage said there was "a problem with some of the Muslim community in this country" and that research suggested that British Muslims experienced a "tremendous conflict and a split of loyalties". (G, article).

Beyond dehumanizing discourse represented above (i.e. through lack of civility and being a danger to society), there is a focus here also on perceptions of acculturation strategies whereby it is perceived that immigrants are not integrating (See Berry, 1997 for a review of acculturation strategies). Further, there are concerns around the possibility of being able to hold a dual identity (e.g. British Muslim).

Taking Over and Losing Culture

Concerns over lacking integration were often coupled with an inherent fear of losing what it means to be British. Dominant discourse focused on feelings of infiltration and taking over, "towns as swamped by immigrants" (G, article) with an "explosion of mosques" (G, article) making certain areas 'no-go' zones. The idea of taking over was also evident in a commenters' response to the call for Muslims to sign a charter to reject violence:

Muslims have an average of five children per couple, so in two generations that couple has multiplied to twenty-five Muslims. They don't need to kill us, they will outbreed us very quickly. (G comment)

The content of the discourse within this theme is arguably closely aligned to animalistic dehumanization, with Muslims being presented as predatory. Here, the terms ‘outbreed’ and ‘swamped’ connote insects or vermin, a common indicator of dehumanization (Haslam, 2006). Concerns surrounding losing culture were also common with one commenter supporting the view of Nigel Farage and stating that:

For all our sakes get in power and sought this issue/issues regarding immigrates and those you clearly live here and want to destroy completely our whole way. (DM, comment).

The use of the term ‘destroy’ in the above quotation also provides some evidence that Muslim immigrants have a lack of self-restraint and are potentially a danger to society. This is consistent with past research that has found media representations of Muslims as threatening (Poole, 2006; Richardson, 2006) and as excluded from the collective ingroup (Jaspal & Cinnirella, 2010; Karim, 2006).

Incompatible Values and Primitive

Further to concerns over lack of integration and fear of immigrants taking over, discourse often aligned religion and Islam with being primitive and incompatible with British values. Primitive discourse focused around the reporting of political elite speeches that focused on the need to update the Quran:

Gerard Batten, UKIP’s immigration spokesman, proposed ban on new European mosques and says Qur’an needs updating” (G, article).

And on the primitive nature of religion more broadly, drawing on Islam as an example:

I have to say that I am fed up with having to tip toe around medieval religions which represent the total opposite of all that is progressive and enlightened. I did not think that come 2014 we would be seeing mosques cropping up across the west or having people calling for sharia law to be introduced. We are supposed to be moving forward as a society. (G, comment).

In the above quotations, Islam (and religion more broadly) is presented as primitive and something which lacks progressive thinking arguably suggesting that those who follow such religions are unintelligent (not enlightened). There is also an indication that Islam and its followers are trying to take over society by opening up new places of worship and reportedly trying to introduce Sharia law. This view of religion is in contrast to previous research by Christie and Noor (2017) who found that having religion in the Malaysian context was a form of humanization. Instead, we see a reversal of this pattern with a view that those who are religious are less human.

Other discourse within this subtheme focused more specifically on perceptions of incompatible ideologies:

I am not a supporter in any way of UKIP - they seem to be a pretty paranoid bunch on the whole. But there is no doubt that there is a huge problem with some Muslim “values” being incompatible with living harmoniously in the UK. (G, comment).

Here there is an indication of stereotyping of Muslim immigrants within the UK context. Such contrast between Muslims and non-Muslims, in addition to suggesting incompatibility of values, has been observed in other media research (e.g., Poole, 2011; Shaheen, 2003). Past research has also found evidence of this kind of dehumanization of Muslims in the UK media. In one study, for example, more than a quarter of the articles analysed represented Muslims as backward, dangerous, or irrational (Moore et al., 2008).

Tougher Measures

In the context of the UK general election, sanctions on immigration were also dominant in the analysed discourse. Articles reported on comments made by political elites questioning the ‘explosion of Mosques’ across the UK:

Batten told the Guardian: “Why do we allow the wholesale building of mosques by a religion that refuses in its heartland to acknowledge other people’s right to worship a different religion?” (G, article).

The above quotation not only raises concerns regarding an increase in the number of Mosques in the UK but also questions the values of Islam, perhaps indicating that those who follow such a religion are cognitively rigid by not supporting alternative religious views. Indeed, researchers have hypothesized the existence of anti-Islam attitudes (e.g., opposition to the veil) among those who placed a high value on egalitarianism and autonomy (Saroglu et al., 2009), but evidence is mixed.

Some discourse focused more on the need to be tougher and sanction behaviours which appear to be out of line with British values:

Farage commented “We’ve turned a blind eye to many of our minority communities to practises that would not be tolerated in the rest of the population.” (DM, article).

The term ‘blind eye’ appeared a number of times in the articles and comments. This time, however, it is a political elite and leader of UKIP (UK Independence Party, a far-right political party) who is indicating that there is uncivil behaviour happening within minority communities in the UK and further, that this behaviour is not tolerated within the rest of the population, suggesting that minorities are treated more favourably than they should be.

In response to Barak Obama suggesting that Muslims need to speak out to produce a counter narrative to terrorism, one commenter stated:

So because we essentially can’t trust any of them, we have to treat them all as potential hostiles. The sooner you and the other pacifist appeasers in western governments get that into their thick heads, the sooner we might begin to address the problem properly (DM, comment).

This comment further highlights the view that Muslims are a ‘problem’ in society and that this problem needs to be tackled. Use of the term ‘hostiles’ indicates that this commenter views the presence of Muslims as a danger to society.

Table 3 Subthemes associated with humanization depending on source and orientation

	Article	Comments
Daily Mail	Out of touch Politicians Positive exemplars Need for Muslim voice Shared identity	Positive exemplars Parsing Islam from terrorism Out of touch Politicians Need for leadership Commonality
Guardian	Positive exemplars (country) Shared identity Misrepresentation Need for Muslim voice Commonality Condemning division	Contact experiences Need for Muslim voice Misrepresentation Parsing Islam

Articles and comments often supported the need for tougher measures, such as an immigration points system like that in Australia. Here, the discourse leans towards taking control of borders and preventing infiltration by Muslim immigrants. This seems to relate closely to fear of the other and the need to control. There is also clear ‘othering’ of Muslim immigrants through the use of ‘them’, in a manner similar to that observed by other researchers (Jaspal & Cinnirella, 2010; Karim, 2006).

Humanizing Discourse

Similar to dehumanizing discourse, a number of subthemes relating to humanization emerged from the articles and comments (see Table 3).

The subthemes that are common across sources include: parsing Islam from terrorism, a shared identity, positive exemplars and the need for Muslim voice. For the remaining themes, the Daily Mail appears to focus on issues at the macro level including political support and need for leadership; whereas the Guardian focuses on misrepresentation, condemning division and experiences, and the need for contact. Examples are discussed below.

Exemplars, (Mis)Representations and Contact Experiences

In a number of cases, articles and comments provide examples of Muslims who are perceived to integrate and represent British values or contribute to society in some way. For example, one article discusses the achievements of British Muslim Amir Khan as a world champion and Olympian (G, article). There is also recognition that the actions of a few individuals do not represent the actions of the group.

Muslims should not have to apologise for anything other Muslims do (G, comment).

Surely the wise good Muslims outnumber the bad guys by a HUGE percentage (G, comment).

The above commentator negates the generalisation of blame to the broader Muslim community, suggesting that such acts are associated with a minority of individuals and not the majority. The use of ‘wise’ in the second quotation suggests that Muslims are viewed as intelligent and thereby human.

Commenters also draw upon the importance of engaging in interactions with Muslims:

I live in an area that has many Muslims in [*sic*], and they are no trouble. They don’t impose their views at all, and integrate just fine (G, comment)

This comment suggests that there are similarities between Muslims and others living in British society, offering some support for Muslims being personable, open and civil - key indicators of humanization as conceptualised in previous research (Christie & Noor, 2017; Haslam, 2006).

The need for individuals to engage in more contact to challenge stereotypes and the dominant discourse was also apparent:

I hope people would actually go and talk to Muslims, and ask them what they feel rather than rely on the media. (G, comment).

Statements like this, however, are evidenced only in the Guardian articles and comments, not in the Daily Mail. This offers some support for the Guardian as a newspaper source that uses more humanizing language towards Muslims compared to the Daily Mail.

Commonality and a Shared Identity

Humanizing statements also focused on commonality with Muslims and the potential for a shared identity. In the debate around British pubs closing in the comments section of one article, it was suggested that Muslims also take part in social activities that resonate with British culture:

[in the] area I live there are just as many Muslims drinking as white people. (DM, comment).

In the above quotation, there is an attempt to demonstrate that Muslims are ‘just like us’, that Muslim are open and flexible to alcohol consumption, enabling a sharing of commonalities and interests. This challenges the dominant narrative that pubs are closing in the UK due to an increase in immigration. In some articles, political elites were shown to promote shared values; for example, one article quoted Barack Obama’s statement that:

We are representing values that the vast majority of Muslims believe in, in tolerance, and in working together. (DM, article)

Another article quoted Nick Clegg as pointing out:

Many British Muslims - who I know feel fervently British but also are very proud of their Muslim faith. (DM, article).

Both of these statements appear to be trying to break down stereotypes associated with Muslim immigrants in the UK context and to offer support for Muslims as civil, warm, open and morally sensible.

Need for Voice and Leadership

A number of articles and comments pointed to the need for Muslims to speak out and demonstrate that moderates do exist, challenging the dominant narrative:

Middle ground Muslims (yes we are here) need to be more vocal, else the extreme (Muslim and non-Muslims) will drown us out. (G, comment).

Similar calls for action were present amongst non-Muslim commenters, thereby placing the onus for change on the minority group:

It is therefore incumbent on the “Muslim community” (to the extent that this exists, and I do appreciate that there are many many different branches of Islam and no central authority) to confront and address the problems caused by people who claim that their interpretation of Islam allows them to commit these abhorrent acts. (G, comment).

In the above quotation, the commenter calls for action and, in doing so, recognises the complexity of Islam and that abhorrent acts are due to a particular interpretation of the Islamic faith. Whilst this comment does focus on the need for Muslims to speak out (rather than calling for action from the majority group), the recognition that not all Muslims are extremists indicates a view that (at least some) Muslims are rational humans.

The Daily Mail also pointed to the need for stronger leadership and criticises the (then) present leadership. For example, on the concerns around pubs closing one commenter notes:

[it’s] nothing to do with Muslims just shows me how out of touch politicians are. (DM, comment).

The above comment describes politicians as rigid, superficial, and prone to unnecessarily placing the blame on the human Muslim outgroup.

Discussion

Whilst there is a substantial body of research on attitudes towards immigrants and dehumanization processes, we know very little about the processes of humanization towards immigrants in real world contexts and how such discourse may differ in media and public responses according to the political orientation of the source. In this chapter, we were interested in examining the content of immigration focused newspaper articles and public responses, and the extent of (de)humanizing discourse towards Muslim immigrants in UK newspapers articles and comments

around the 2015 General Election. Results from the thematic analysis revealed a number of key themes underlining positive and negative discourse that are discussed in relation to existing literature below.

Understanding Dehumanization

In our analysis of (de)humanization, we used Christie and Noor's (2017) coding framework to extract statements, which we then subjected to thematic analysis to identify emergent themes. These themes included: lack of integration, taking over and losing culture, incompatible values, Islam as primitive, and need for tougher measures. These themes relate closely to Haslam's (2006) understanding of dehumanization as lacking human values. Examples are particularly evident in statements surrounding religion and Islam as being of the dark ages, and of Muslims 'taking over' and infiltrating UK culture. This dehumanizing discourse appears to be a function of, or at least is associated with, symbolic threat; that is a threat to a group's values (Stephan, Ybarra, & Morrison, 2009). Indeed, this is consistent with past research on film portrayals of Muslims, in which Muslims are represented in ways that strongly contrast with Westerners (Shaheen, 2003). Similarly, other research documents a media focus on differences between Muslims and non-Muslims (Karim, 2006; Richardson, 2004 as cited in Jaspal & Cinnirella, 2010). There also appears to be a further link to symbolic, or cultural, threat where Islam and being British are framed as oppositional and not compatible, signifying that Muslims do not belong in British society, which is in direct opposition to the fact that many Muslims in the UK identify with the hybrid identity of British Muslim. Similar observations have been made of US media portrayals of Muslims, particularly since 9/11 (Karim, 2006), in which Muslims are not included in the collective ingroup of Americans.

In addition to symbolic (cultural) threat, articles and comments point to realistic threats in which there are concerns regarding resources, the size of the British Muslim population, and of the closure of British pubs. This suggests that immigration represents both types of threats outlined by intergroup threat theory, realistic and symbolic, (Stephan et al., 2009) and is consistent with past research indicating that media reports of immigration often involve a focus on threat (Esses et al., 2013). The discourse also points to measures that need to be taken in order to prevent this perceived 'take over'. One such measure, for example, would be introducing a points system for immigration. This discourse is arguably closely aligned to wider narratives that are becoming increasingly associated with the rise of the political right across Europe. This is of great concern in the context of Brexit and wider European politics surrounding the closing of borders in response to immigration from war-torn countries in Europe.

Understanding Humanization

To understand humanization, we began with examining it as the semantic opposite of dehumanization, drawing from Haslam (2006) and following previous research by Christie and Noor (2017). Thematic analysis of the selected articles and comments, however, revealed themes that were related more to the mechanisms that promote humanization and barriers that prevent it. These broader categories included: exemplars, (mis)representations and contact experiences, commonality and a shared identity, and the need for voice and leadership. In humanizing the other, articles often related to specific examples of the ‘good Muslim’; for example, boxing champion Amir Khan. Comments, however, tended to draw on more personal examples such as living in an integrated neighbourhood, being friends, or having contact with Muslims. This offers some support for contact theory (Allport, 1954), which at the most basic level, argues that engaging in positive and meaningful interactions with others reduces prejudice and promotes community relations. Perhaps through engaging in contact, individuals are more likely to humanize the outgroup and this may generalise beyond the individual contact experience.

Moreover, individuals who have contact with others are more likely to see commonalities and shared values that represent a collective or shared identity. This is evidenced in the present research through discussions about similarity within neighbourhoods. It also links closely with the common ingroup identity model (Gaertner, Mann, Murrell, & Dovidio, 1989) that demonstrates that a common identity is associated with more positive attitudes and improved intergroup relations. This overlaps with Christie and Noor’s (2017) findings that humanization is represented through intergroup similarity. In a related vein, lab research has demonstrated the importance of common identity in humanization (Capozza, Trifiletti, Vezzali, & Favara, 2013) of value similarity/dissimilarity in dehumanization (Greenhalgh & Watt, 2015). There is arguably also some evidence to support the need for a multicultural ideology that recognises and supports difference, which again aligns with Christie and Noor’s (2017) finding that it is important to honour group differences.

The humanizing discourse observed in the present research also points to potential mechanisms through which Muslims could become less dehumanized. In particular, the discourse focuses on the need for voice from moderate Muslims to speak out against extremism and demonstrate that extremists are the exception to the rule. This need has been documented previously by Richardson (2006) whose research identified a relative absence of Muslim voices in the media when it came to critiques of violence and terrorism. Addressing this void in media reporting will contest the dominant narrative and perhaps encourage individuals to engage in interactions with outgroup members, which should, in turn, challenge stereotypes. This narrative, however, does put the onus on the minority group to challenge the dominant narrative, rather than the majority. Further, the discourse, particularly in the Guardian, focuses on the need for strong leadership and for politicians who do not promote fear. The issue of leadership in the UK is of great importance following the UK EU referendum that was dominated by a discourse of fear surrounding immi-

gration and that resulted in the resignation of Prime Minister David Cameron, arguably leading to a crisis in politics and a lack of Brexit strategy that continued long after the original vote.

The Role of Media and Political Orientation

Based on previous research (e.g., Holohan, 2006; Poole, 2006), we expected to see differences in discourse depending on the political affiliation of the newspaper, such that the left-wing source would involve more humanizing and less dehumanizing discourse than the right-wing source. Frequencies presented in Table 2, however, seemed to indicate that the Guardian included both more dehumanizing and humanizing statements than the Daily Mail. This is in contrast to what we expected. Delving deeper into the statements, thematic analysis demonstrated some further differences between the Daily Mail and the Guardian, as well as some overlap in the subthemes that were developed from the data. For dehumanization, both sources presented issues surrounding lack of integration, Muslims ‘taking over’, perceptions of having incompatible values, and the need for tougher measures to prevent extremism. Despite this common ground, there were some differences between the sources. In the Daily Mail, public comments introduced the need for more control over immigration and concerns regarding losing culture. The Guardian articles and comments, however, focused more on the view that religion is primitive, as is Islam, and that individuals cannot express concerns without being seen as being racist. This is partially consistent with past research that suggested that right-wing media would focus on threat to the British majority and in particular the Daily Mail’s emphasis on “law and order” with respect to immigration (Holohan, 2006). Nonetheless, the representation of Muslims in the Guardian was not as expected. In this case, the more liberal view involved dehumanizing discourse about religion, in contrast to a more enlightened secular approach.

For humanization, both sources discussed the need for Muslim voice in standing out against extremism, and for making public their shared identity, commonalities, and positive exemplars. In addition, the Daily Mail comments section presented concerns over politicians being out of touch and the need for stronger leadership. This fits with previous research that has demonstrated that conservatism is associated with orderliness, conventionalism, and better organisation (Carney et al., 2008). The Guardian articles, in contrast, focused more on the misrepresentation of Muslims in the media and by politicians and condemning divisions, akin to an intolerance of an intolerant view. This is consistent with past research that found that the Guardian was particularly likely to report on discrimination against Muslims (Poole, 2006). The differences between the newspapers with respect to the humanizing discourse were more consistent with what we expected.

The comments also considered individual level contact experiences that appear to challenge stereotypes. This provides some evidence that there are differences in the content of the newspapers, depending on political affiliation. Moreover, the

comments on these articles support the idea that the media plays an important role in influencing and representing a society's politics, culture and political beliefs (Nesbitt-Larking, 2007). It is worth noting, however, that much of the discourse presented in articles from both newspaper sources were direct quotations from political elites, rather than the opinion of the author.

Limitations and Implications for Future Research

Whilst this research adds to our understanding of (de)humanizing discourse and how this is represented in different politically affiliated news sources, there are some limitations. First, by taking a qualitative perspective we cannot generalise these findings to all left and right sources or to immigration debates beyond the UK context. Second, we cannot fully test the impact that the articles have on the comments. Third, our analysis focused on a small number of articles and comments from the sources. This included only the 100 top rated comments, rather than the thousands of comments available for each article. This means that our analysis is somewhat skewed by the popularity of the comments. Despite this limitation, we argue that viewing the most popular comments is important likely captures the most influential discourse. Finally, the selection of the articles was by relevance rather than by date, so the use of the newspaper search engines contributed to some selection bias.

Despite these limitations, this research is an important addition to the literature on (de)humanization, immigration attitudes, Islamophobia, and the role of the media. This is particularly relevant in light of the UK vote to leave the EU and the 'refugee crisis' where a better understanding of how we can promote community cohesion and knowing how we can best tackle the culture of fear we have across Europe and beyond is becoming increasingly important. The present research raises a number of key issues for future work.

First, a deeper conceptualisation of humanization is needed to fully understand what this means more broadly. Whilst we found evidence of dehumanization according to Haslam's (2006) framework, which focuses on parsing out human nature and uniquely human aspects, we suggest that it is important to understand the nature of dehumanization in context, where social, political and historical factors play a key role in understanding relationships between us and them. The same is true of humanization. This is particularly important if we are to truly understand the impact of dehumanizing media discourse and how to promote humanization of the others. Second, experimental research examining the direct effects of newspaper discourse on intergroup attitudes is needed to determine causal processes. This would also aid an understanding of who is more likely to comment on articles and under which conditions the articles really are 'fuelling the fire' or whether it is simply those who are already emotive regarding the topics in the article who comment. Finally, a closer consideration and comparison of how (de)humanization processes are played out amongst political elites and the relationship this has with individual political orientation and support for immigration policies would help us to better understand these complex relationships.

Conclusion

In this chapter we have shown, through thematic and frequency analysis of real world media sources, the nature and extent of (de)humanizing discourse towards the Muslims in two newspapers in the run up to the 2015 UK GE. Dehumanizing discourse was found to be associated with symbolic and realistic threat (including acculturation strategies and need for control), whereas humanizing discourse was associated with commonality, shared identity, and the need for strong leadership. Our findings demonstrate that humanization discourse is evident, but that it is not simply the semantic opposite of dehumanizing discourse. At least in the present data, it is not represented by humanness per se but instead by the factors that contribute to viewing the outgroup as more human, such as increased contact and reduced threat. We have also shown that the content of discourse differs depending on the political affiliation of the newspaper in some predictable ways but also in some less predictable ways. Taken together, the findings of the present research contribute to understanding of dehumanization and humanization of outgroups in the media and point to the importance of understanding these processes in context, as real world manifestations do not always converge with the findings from the laboratory.

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References

- Alonso, S., & da Fonseca, S. C. (2012). Immigration, left and right. *Party Politics, 18*(6), 865–884. <https://doi.org/10.1177/1354068810393265>
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied psychology, 46*, 5–34.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Capozza, D., Trifiletti, E., Vezzali, L., & Favara, I. (2013). Can intergroup contact improve humanity attributions? *International Journal of Psychology, 48*, 527–541. <https://doi.org/10.1080/00207594.2012.688132>
- Carney, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology, 29*, 807–840. <https://doi.org/10.1111/j.1467-9221.2008.00668.x>
- Christie, D. J., & Noor, N. M. (2017). Humanizing and dehumanizing the other: Ethnic conflict in Malaysia. In M. Seedat, S. Suftla, & D. Christie (Eds.), *Enlarging the scope of peace psychology: African and world-regional contributions* (pp. 109–157). New York, NY: Springer. https://doi.org/10.1007/978-3-319-45289-0_7
- Esses, V. M., Medianu, S., & Lawson, A. S. (2013). Uncertainty, threat, and the role of the media in promoting the dehumanization of immigrants and refugees. *Journal of Social Issues, 69*, 518–536. <https://doi.org/10.1111/josi.12027>
- Evans, G., Heath, A., & Lalljee, M. (1996). Measuring left-right and libertarian-authoritarian values in the British electorate. *British Journal of Sociology, 47*, 93–112. <https://doi.org/10.2307/591118>

- Gaertner, S. L., Mann, J., Murrell, A., & Dovidio, J. F. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of Personality and Social Psychology*, *57*, 239–249. <https://doi.org/10.1037/0022-3514.57.2.239>
- Greenhalgh, E. M., & Watt, S. E. (2015). Preference for consistency and value dissimilarities in dehumanization and prejudice toward asylum seekers in Australia. *European Journal of Social Psychology*, *45*, 110–119. <https://doi.org/10.1002/ejsp.2066>
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, *10*(3), 252–264. https://doi.org/10.1207/s15327957pspr1003_4
- Haslam, N., & Loughnan, S. (2014). Dehumanization and infrahumanization. *Annual review of psychology*, *65*, 399–423.
- Haslam, N., & Stratemeyer, M. (2016). Recent research on dehumanization. *Current Opinion in Psychology*, *11*, 25–29. <https://doi.org/10.1016/j.copsyc.2016.03.009>
- Hodson, G., & Costello, K. (2007). Interpersonal disgust, ideological orientations, and dehumanization as predictors of intergroup attitudes. *Psychological Science*, *18*, 691–698. <https://doi.org/10.1111/j.1467-9280.2007.01962.x>
- Holohan, S. (2006). New labour, multiculturalism and the media in Britain. In E. Poole & J. E. Richardson (Eds.), *Muslims and the news media* (pp. 13–23). New York, NY: I. B. Taurus.
- Jaspal, R., & Cinnirella, M. (2010). Media representations of British Muslims and hybridised threats to identity. *Contemporary Islam*, *4*, 289–310. <https://doi.org/10.1007/s11562-010-0126-7>
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology*, *60*, 307–337. <https://doi.org/10.1146/annurev.psych.60.110707.163600>
- Karim, K. H. (2006). American media's coverage of Muslims: The historical roots of contemporary portrayals. In E. Poole & J. E. Richardson (Eds.), *Muslims and the news media* (pp. 116–127). New York, NY: I. B. Taurus.
- Khosravinik, M. (2009). The representation of refugees, asylum seekers and immigrants in British newspapers during the Balkan conflict (1999) and the British general election (2005). *Discourse & Society*, *20*, 477–498. <https://doi.org/10.1177/0957926509104024>
- Kteily, N., & Bruneau, E. (2017). Backlash: The politics and real-world consequences of minority group dehumanization. *Personality and Social Psychology Bulletin*, *43*, 87–104. <https://doi.org/10.1177/0146167216675334>
- McCoombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public opinion quarterly*, *36*(2), 176–187.
- McLaren, L., Boomgaarden, H., & Vliegenthart, R. (2017). News coverage and public concern about immigration in Britain. *International Journal of Public Opinion Research*, *30*, 173–193. <https://doi.org/10.1093/ijpor/edw033>
- Moore, K., Mason, P., & Lewis, J. (2008). *Images of Islam in the UK: The representation of British Muslims in the national print news media 2000–2008*. Cardiff: Cardiff School of Journalism, Media and Cultural Studies.
- Nesbitt-Larking, P. W. (2007). *Politics, society, and the media*. Toronto: University of Toronto Press.
- Poole, E. (2006). The effects of September 11 and the war in Iraq on British newspaper coverage. In E. Poole & J. E. Richardson (Eds.), *Muslims and the news media* (pp. 89–102). New York, NY: I. B. Taurus.
- Poole, E. (2011). Change and continuity in the representation of British Muslims before and after 9/11: The UK Context. *Global Media Journal*, *4*(2), 49–62. Retrieved from http://www.gmj.uottawa.ca/1102/v4i2_toc.pdf
- Pratti, F., Crisp, R. J., Meleady, R., & Rubini, M. (2016). Humanizing outgroups through multiple categorization: The roles of individuation and threat. *Personality and Social Psychology Bulletin*, *42*, 526–539. <https://doi.org/10.1177/0146167216636624>
- Richardson, J. E. (2006). Who gets to speak? A study of sources in the broadsheet press. In E. Poole & J. E. Richardson (Eds.), *Muslims and the news media* (pp. 103–115). New York, NY: I. B. Taurus.

- Saroglu, V., Lamkaddem, B., Van Pachterbeke, M., & Buxant, C. (2009). Host society's dislike of the Islamic veil: The role of subtle prejudice, values, and religion. *International Journal of Intercultural Relations*, 33, 419–428. <https://doi.org/10.1016/j.ijintrel.2009.02.005>
- Shaheen, J. G. (2003). Reel bad Arabs: How Hollywood vilifies a people. *Annals of the American Academy*, 588, 171–193. <https://doi.org/10.1177/0002716203588001011>
- Stephan, W. G., Ybarra, O., & Morrison, K. R. (2009). Intergroup threat theory. In T. Nelson (Ed.), *Handbook of prejudice* (pp. 43–55). New York, NY: Psychology Press.
- Stokes, P. (2013). *Full story: What does the Census tell us about religion in 2011?* Office for National Statistics. Retrieved from <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/religion/articles/fullstorywhatdoesthecensustellusaboutreligionin2011/2013-05-16>
- Struch, N., & Schwartz, S. H. (1989). Intergroup aggression: Its predictors and distinctness from in-group bias. *Journal of Personality and Social Psychology*, 56, 364–373. <https://doi.org/10.1037/0022-3514.56.3.364>

Quantitative and Qualitative Methods for Predicting Geopolitical Events



Frederick Parente and John-Christopher Finley

Quantitative and Qualitative Methods for Predicting Geopolitical Events

Predicting political, governmental, and economic events has a long history in democratic society. Economists rely on statistical methods for predicting the economic indicators and corporations require accurate forecasts to predict future market trends. Governments need estimates of future military readiness and likely changes in the geopolitical landscape. Polling during elections is commonly used to predict potential winners and losers and corresponding changes in the makeup of governing bodies (Campbell, 1996). The diversity of need for prediction has led to the development of a variety of techniques and applications that, in turn, provide information about the knowable future. What follows is a discussion of various technologies that are frequently used to assess future trends, likely scenarios, and alternative geopolitical events. We begin with a summary of commonly used quantitative and qualitative methods for predicting the future (Table 1).

We assert that quantitative and qualitative methods represent two ends of a research continuum. At one end, purely quantitative methods are those that do not require any human opinion input (Jick, 1979). At the other end, strictly qualitative methods verbally summarize the collective opinions group participants without much in the way of a statistical summary (Jick, 1979). In the middle are mixed methods that share more or less of each aspect. There are a few pure examples of the ends of the continuum. Therefore, most of our discussion focuses on mixed methods that merge the quantitative and qualitative domains. Our conversation ends with a

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Table 1 Quantitative/qualitative research dimension

Purpose	Quantitative	Qualitative	Example
Projecting trends from data series	High	None/low	e.g., Time Series Analysis
Summarize public opinion	Moderate	Low	e.g., Political Polling
Identify problems and solutions	Low	High	e.g., Nominal Group
Facilitate consensus opinion	Moderate	Moderate	e.g., Delphi Method
Consensus-based on betting	Moderate	Moderate	e.g., Prediction Market
Model dynamic systems	High	Moderate	e.g., Cross Impact Analysis
Combine forecasts	Low	Low	e.g., Averaging different forecasts
Summarize experience/reactions	None/low	High	e.g., Focus Group

summary of each of the models' advantages and disadvantages along with suggestions for best use practices when choosing relevant forecasting techniques.

Quantitative Methods

There are a variety of well-developed techniques for making forecasts based upon a known time series that do not require any human opinion. These techniques base their forecasts strictly on a numerical analysis of an existing data sequence; the purpose is to predict future values of the series from available data. One of the simplest approaches involves listing values for a series of events (e.g., sequential presidential approval ratings, in the order in which they appear over time). The researcher then correlates this variable with another that is an index of the time series, per se.

Table 1 presents this type of progression. The series variable contains hypothetical presidential approval ratings over months since inauguration. The time variable is an index of the position in the sequence (e.g., first, second, third, etc.). A researcher would then correlate these two variables and convert the correlation into a linear or non-linear regression equation. Predicting the future involves entering a value for the time series (e.g., 13) that has not yet occurred and using the regression equation to predict the corresponding value of the series variable.

For example, Table 2 illustrates the time and series data for hypothetical presidential approval ratings over a 12-month interval. The equation to the right of the table is a simple bivariate regression where "Series" is the outcome, 36.1 is the intercept constant, and 0.881 is the weight derived from the regression model. One simply inserts the next value in the time sequence (13), multiplies it by the weight (0.88) and adds this product to the intercept (36.1) which produces a predicted value for the next value in the time series (47.54).

The advantage of this modeling technique is that it is simple and can be accomplished with the aid of a hand calculator with a regression function. A limitation is that the relationship between the time and series variables may not always be a linear function. Although there are other procedures for dealing with non-linear rela-

Table 2 Sample time series data

Time	Series	
1	36	
2	38	Series = 36.1 + 0.88(time)
3	36	
4	40	36.1 + 0.88(13) =
5	42	36.1 + 11.44 = 47.54
6	44	
7	42	
8	44	
9	47	
10	44	
11	42	
12	47	

Table 3 Series and three lagged variables

Series	Lag1	Lag2	Lag3
36	–	–	–
34	36	–	–
34	34	36	–
40	34	34	36
48	40	34	34
47	48	40	34
48	47	48	40
44	48	47	48

tionships (e.g., non-linear regression), software for computing the prediction equation may not be readily available. Never-the-less, this approach can generate very useful and robust models especially when there are obvious linear trends in the data.

Another type of time series analysis uses the series variable to predict itself. This category of analysis is usually referred to as “auto-correlational”. The analysis begins by constructing "lagged" variables which are values of the original series that are 1, 2, 3, etc. values behind the original. For example, Table 3 illustrates the sequence and three lagged variables.

An auto-correlational analysis is far too complex and it is impossible to provide a meaningful abbreviated explanation here. Suffice it to say that the lagged variables are used as predictors of the original series in a multiple regression procedure. This yields an overall model fit statistic and other statistics that assess the ability of each lagged variable to predict the series. When applied to the data presented in Table 3, the overall test statistic for this analysis was significant and the forecasted value was approximately the same as the one derived from the regression model above.

Auto-correlational analyses use the series values to predict themselves at different times in the sequence. For example, suppose the analysis was applied to the values in Table 2 which would produce a projection of the next month's rating based on trends depicted by the lags. A significant Lag1 predictor suggests that the current rating is a significant predictor of the next rating in sequence. A significant Lag3 variable suggests that the rating from the beginning of the last quarter (3-month interval) predicts the next rating significantly. This type of analysis might be especially useful when there are known trends in the field, such as known seasonal fluctuations.

Qualitative Methods

Qualitative methods are designed for evaluating opinions, or for revealing those aspects of opinion that cannot be expressed in numbers (Jick, 1979). As outlined above, when there is a known time series, then a quantitative analysis of the series can identify clear trends in the data. However, when no numerical sequence is available, or when the purpose is to assess opinions or emotional reactions about a future event then a qualitative method may be the only appropriate methodology. For example, questions such as, "What will be the public reaction to a discovery of collusion by the Mueller probe?" or "How will organized religion respond to the discovery of alien life?" are best investigated with qualitative procedures. Focus groups are one example of this type of query.

Focus Groups

According to the Oxford and American Heritage dictionaries, a focus group is "an interactive process that is designed to assess the reactions of a demographically diverse group of panelists with the goal of predicting the reactions of a larger population" (Oxford Dictionaries, American Heritage Dictionary, n.d.). Focus groups do not usually involve extensive data reduction, numerical analysis, or summary. Indeed, they may provide only verbal descriptions of the panelists' preferences or reactions. The panelists provide their perceptions, opinions, beliefs, or attitudes about a product, world event, or technological innovation (Lindlof & Taylor, 2002). The group process is interactive; panelists freely discuss the topics and may also describe them in writing. The function of the group leader is to facilitate discussion, encourage individual participation, and to summarize the ideas that emerge from the group process (Kitzinger, 1995). The product is usually a written description of the consensus of the group along with a description of the logic from which the consensus opinion derives (Greenbaum, 2000).

Mixed Methods

Mixed methods include both qualitative and quantitative components (Dörnyei, 2007). The qualitative aspect is the collective wisdom of a group of knowledgeable panelists who provide their opinion or educated guesses concerning future scenarios. The quantitative aspect is a numerical analysis that extracts additional information from the qualitative data. Extracting consensus from the panelists is based on the widely held belief that *Two heads are better than one* and its logical extension, *N heads are better than two* (Dörnyei, 2007).

Since the mid-1960s many academic studies have investigated and documented the extent to which these techniques provide accurate forecasts as well as the underlying relationship between measures of consensus and forecast accuracy. Moreover, considerable research effort has been devoted to methods that combine forecasts from different methodologies (Cuzan, Armstrong, & Jones, 2013). For example, quantitative methods of forecasting can produce accurate predictions of numerical data (e.g., presidential approval ratings) because there are well-documented data on this matter. However, qualitative methods can provide useful insight into the underlying reasons for the change (e.g., the perceived quality of life in the current economy).

Polls and Surveys

This class of technique is an example of a mixed method approach because it extracts opinion from participants (i.e., qualitatively) but then summarizes the group's opinion numerically (i.e., quantitatively), usually as a graph or percentage chart. Surveys and polls are, perhaps, the oldest methods of forecasting (Baumgartner, 2003; Campbell, 1996). This technique involves developing a list of possible scenarios and then extracting the collective consensus of a group regarding which of the futures are most likely to occur. The output of the survey is usually a numerical estimate of the probability that any of several different events will happen, a collection of scenarios that are most likely to happen, or a multidimensional future in which an amalgamation of scenarios are likely to occur in concert (e.g., Carroll & Wish, 1975). Unlike the Delphi Method (Linstone & Turoff, 1975) or Prediction Markets (Surowiecki, 2005) described below, survey methods require only a single polling and usually do not provide the opportunity for group discussion.

Nominal Groups

Nominal groups extend the logic of focus groups by either developing or providing scenarios for the panelists to evaluate (Ven & Delbecq, 1974). Each panelist offers their opinion regarding predictions of a future event, the "best" solution or decision,

or the most likely technological change (Ven & Delbecq, 1974). The final output may also include a verbal summary statement supplemented with any relevant numerical or descriptive information that documents the process by which the group reached consensus. The qualitative aspect of a nominal group is the fact that it relies on collective wisdom and the opportunity for the panelist to provide verbal justifications of their conclusions whereas the quantitative component involves the use of summary statistics to define consensus. The group process may be interactive or anonymous (Ven & Delbecq, 1974).

Delphi Methods

The Delphi method (Linstone & Turoff, 1975) is a structured and iterative technique in which panelists provide their opinions about the future over two or more rounds. After each round, the panelists receive feedback in the form of anonymous summaries of the group responses on the previous round before making another set of predictions that includes the consensus feedback from the previous round. The panelists are free to revise their forecasts once they have reviewed the group response distributions. This combination of anonymous iterative polling and feedback has been shown to reduce the variability of the group predictions (i.e., increase consensus) which is, in turn, assumed to correlate with improved accuracy. The process ends after a predetermined number of rounds or when a measure of consensus no longer decreases. The mean or median response of the group is then taken as the best estimate of the forecast for each scenario. The corresponding standard deviation or interquartile range may be used as a measure of consensus.

The traditional Delphi outline above is but one of several variations on the same theme. Qualitative versions include the *Policy Delphi* which is designed to generate position statements (Turoff, 1975a, 1975b; Dalkey, 1971). A *Scenario Generation Delphi* is designed to produce a variety of possible futures but not necessarily to assess the likelihood of any one of them. An *Argument Delphi* focuses on generating relevant arguments (Hannes, Heyvaert, Slegers, Vandenbrande, & Van Nuland, 2015). Delphi methodology is most useful for long-term predictions whereas other techniques such as Prediction Markets may provide superior short-term forecasts (Finley & Parente, 2018; Green, Armstrong, & Graefe, 2007).

Prediction Markets

Prediction markets are both old and new (Baumgartner, 2003; Green et al., 2007). The concept of betting on the future outcome of events dates back at least to medieval times (Rhode & Strumpf, 2008). Modern versions go by a variety of names, all of which share the “markets” suffix (e.g., information markets, decision markets,

virtual markets). There are, however, other methods that share the same processes but have different names (e.g., idea futures, event derivatives). Regardless of the name, the goal is to encourage financial trading regarding the likely outcome of future events. The consensus market value of trading is used to index the likelihood that the event will occur.

Prediction markets are a form of “crowdsourcing” (Surowiecki, 2005) which is a method of aggregating opinion on topics of interest e.g., election outcome; the possibility of armed conflict or a terrorist attack. The output of the prediction market is a market price which is an index of the probability that the event will occur. Participants, therefore, trade in an open market setting on the belief that an event will or will not happen. The payoff is based on the correlation between validated future outcomes and the participants’ aggregated trade price for any given future.

Cross Impact Methods

The cross-impact methodology is used to assess probable changes in a dynamic system of variables which are assumed to interact with one another (Dalkey, 1971; Turoff, 1975a, 1975b). Although there are several different cross-impact methodologies, perhaps the easiest to understand is one developed by Kane (see Linstone and Turoff, 1975). The process begins with a qualitative description of an impact space which is a collection of interacting events. Table 4 represents a simple impact space from a hypothetical presidential impeachment scenario. For example, the probability that a president will be impeached is, perhaps, related to: the current state of the economy, and the majority status of the president’s political party. These three variables are then entered into a matrix (see Table 4).

Panelists are asked to fill in weights (usually on a scale from -3 to +3) that represent their opinion concerning the impact each variable in the system has on all others. Impact weights are not correlations; they represent the rater’s estimate of the influence that a each row variable asserts on each column variable in the system. They are also not bidirectional. For example, the impact of Impeachment on Majority Status is -3 in Table 4, whereas the effect of Majority Status on Impeachment is -2. Further, a variable can impact itself. For example, a growing economy can self-perpetuate (e.g., +1 in Table 3).

Table 4 Sample cross impact ratings from hypothetical panelist

	Impeachment	Economy	Majority status	Total
Impeachment	0	-2	-3	-5
Economy	-2	+1	+3	+2
Majority status	-2	+1	+1	0
Total	-4	0	+1	

Panelists view the rows of the table from left to right and provide their educated guesses regarding the impact that each row variable has on each column variable and on itself. This aspect of the procedure is the qualitative component. For example, in Table 4, the panelist felt that the likelihood of Impeachment would not self-perpetuate (0). However, if Impeachment did occur it would have a substantial negative effect on the economy (-2) and a severe effect on the Majority Status (-3) of the president's political party. Row 2 in Table 4 indicates that the same panelist felt that a good economy would significantly decrease the possibility of Impeachment (-2), the economy would self-perpetuate (+1) and it would increase the likelihood that the current political party would remain in control of the government (+3). Row 3 indicates that the panelist felt that continued Majority Status of the president's party would lessen the probability of Impeachment (-2), grow the Economy (+1), but not increase the ruling party's hold on control of the government (0).

Another qualitative component of the technique involves the opportunity for panelists to state the underlying reasons for their weights and to share their verbal summaries along with their impact matrices with the group. Each panelist is then asked to resubmit a new impact matrix that includes changes in their impact weights based on their study of the other panelists' matrices and verbal justifications. This iterative process may continue for several rounds.

At the conclusion of the rounds, a final summary matrix is computed which is an averaging of all the final weights from all panelists. Another quantitative component to the procedure involves subjecting the final matrix to a mathematical process which draws a chart depicting the likely progression of each variable in the future. The function for each variable is projected across a hypothetical future space. This chart allows the panelists to assess the amount and direction of each variable's change in the future.

A simpler charting process may be used for situations that do not require an extended graphical display. This procedure begins by summing the impact weights for the rows and the columns of the table. The sum of the impact values for each row is an index of the extent to which that particular variable influences any of the others. The sum of the impacts for the columns indicates the degree to which that variable is affected by each of the others. For example, the -5 sum for Impeachment in the first row suggests that it exerts the most influence on this system of variables. The -4 sum for the first column also indicates that Impeachment is the most potentially affected variable in the system.

Combining Forecasts

We have discussed a variety of different procedures for assessing the probability of alternative futures. These procedures are based on the assumption that collective wisdom, albeit from numerical estimates, human judgment, or hybrid procedures, provides the most accurate forecasts of future geopolitical events. It is, therefore, reasonable to suggest that combining the forecasts from a diversity of methods

would yield a more precise assessment of the future relative to any individual methodology. A meta-analysis of 30 studies showed that the strategy of combining forecasts can reduce forecast error by as much as 12% (Armstrong, 2001). In these studies, the combined prediction was usually more accurate than the best method. Armstrong (2001) recommends combining five or more forecasts whenever possible which optimizes accuracy. Forecast accuracy improves with each additional estimate and the gains are especially noticeable when the forecast interval is longer. There are no published studies that suggest combining forecasts decreases accuracy (Cuzan, Armstrong, & Jones, 2013).

Assessing Accuracy

Most studies of forecast accuracy involve short-term predictions that can be verified within the lifespan of the researcher. For example, many of the original studies of the Delphi Method used almanac questions that could be predicted and evaluated immediately (Linstone & Turoff, 1975). Within this framework, there has been a diversity of opinion regarding the accuracy of forecasting. For example, Gardner (2010) citing Tetlock's (2005) extensive study of expert's opinion about the future, asserted that forecasts based on expert opinion are as accurate as "dart-throwing monkeys" (Tetlock and Mellers, 2011). Parente & Anderson-Parente (1987) indicated that the accuracy of college student short-term Delphi forecasts of geopolitical events ranged between 70–90%. Predictions of time frames for those scenarios that did occur were accurate within approximately 2 weeks of the occurrence. Parente and Anderson-Parente (2011) and Finley and Parente (2018) are perhaps the only two studies of long-term accuracy, specifically, Delphi forecasts of the future of the mental health profession and brain injury rehabilitation. Results indicated that the predictions were approximately 80% accurate over a 30-year period. In general, the majority of published research suggests a moderate improvement in accuracy for group predictions relative to individual forecasts.

Improving Accuracy

Mellers et al. (2014) identified three psychological drivers of accuracy: *Training*, *Teaming*, and *Tracking*. *Training* involved teaching forecasters to use heuristics, such as averaging the results of multiple studies of the same topic or choosing a specific methodology that is best suited for the type of forecasting questions being asked. *Teaming* involved teaching forecasters to discuss their predictions with others before making their own predictions. *Tracking* involved assessing the accuracy of each individual panelist and then eventually composing an elite team that included the most accurate 2% of forecasters.

Wright, Rowe, Bolger, and Gammack (1994) found that self-rated expertise also directly related to accuracy; however, other researchers have warned of the tendency for panelists to be overconfident in their projections (Clark & Friesen, 2009; Deaves, Lüders, & Schröder, 2010). Although the majority of early Delphi studies assumed that variability in the forecasts was inversely related to accuracy, there is little direct evidence for this assumption (Parente and Anderson-Parente, 1987). In general, the factors that improve accuracy include a moderate level of panelists' expertise, a diversity of knowledge, a short forecast interval, opportunity to discuss the predictions with others, and the use of panelists with a proven track record of accuracy. Methods that involve monetary betting usually produce better short-term forecasts, whereas techniques that rely on collective opinion (e.g., Delphi Method) and combining different forecast results provide generally better long-term forecasts.

Summary and Recommendations

What are the most appropriate uses of these methods? This is best described as a table of advantages and disadvantages (Table 5).

Advice

So, what practical information can we glean from this review of forecasting techniques? *Time series analysis* is appropriate when there is a large sequence of numerical data that describe the periodicity of a variable of interest, computing resources are available, and the researcher has a good understanding of the various model components and the assumptions of the modeling procedure. *Polls and surveys* are probably the best choices in situations where information is needed quickly, there is limited money to fund data collection, the researcher wants to do a mail or online survey, and the data are amenable to analysis with statistical procedures. *Focus groups* are best used when the issues that are being studied are somewhat vague, e.g., the perception of the dishonesty of presidential candidates and its effect on voting preferences. It is also useful for assessing preference data based on feelings about a product, service, and/or behavior patterns. *Nominal groups* are best used to evaluate problem/solution scenarios in situations where group discussion is appropriate, the group process does not require iteration and feedback of results, and where the results can be described with relatively simple ranking procedures. *Delphi groups* are best used for long-term forecasts where the scenarios are well-defined and preferably quantifiable; there may be a need for group discussion and where the survey can be conducted in real-time or by mail. *Prediction markets* are especially useful for short-term forecasts and with people who have some basic knowledge of market betting. *Cross impact* procedures are best used in situations where the goal is to model a dynamic system of variables that are correlated and are known to affect

Table 5 Summary of the advantages and disadvantages methods to forecasting

Technique	Advantages	Disadvantages
Time Series Analysis	Time Series Analysis is a well-developed statistical methodology that is generally available on most comprehensive statistical packages (e.g., SPSS, SAS, Statistica). Assuming the assumptions of the analysis are met, it provides a precise confidence interval for future values of a known data sequence.	This procedure requires advanced training in statistical modeling. As with any linear modeling procedure, violations of assumptions limit the validity of the projections. The time series model must be updated frequently to reflect recent changes in the political landscape. There must be sufficient data to ensure a valid and stable model.
Polls and Surveys	This method is perhaps the easiest to implement. Surveys can be conducted by mail, phone, or in person. Computerized versions can be done internationally and data reduction can be done automatically and in real-time. There are well developed statistical procedures for validating the survey items, presenting the results, and for dealing with missing data. Survey methodology is well understood and well documented.	Surveys are a snapshot in time which may change markedly in a short period (e.g., political polls). The data is only as valid as the sampling procedures. The data may not meet the assumptions of chosen statistical methods.
Focus Groups	Focus Group methodology is commonly used and generally accepted. It may be the only way to evaluate abstractions such as feelings or impressions. It is relatively easy to implement and does not require large samples of participants.	The quality of the focus group largely depends on the quality and experience of the group leader. The results often include only a subjective description of group opinion. There may be no way to quickly or conveniently validate the results or to identify the most accurate panelists.
Nominal Group	The output from the group is usually a summary of scenarios, possible events, or problem/solutions that are rank ordered in terms of their likelihood or value. The group process allows for either discussion among group members or for anonymous group participation. The group can evaluate events for which there is no existing time series. The group process is generally accepted.	The validity of conclusions may be difficult to evaluate. The data analyses may be limited to simple descriptive procedures. The quality of the discussion depends on the experience of the group leader.

(continued)

Table 5 (continued)

Technique	Advantages	Disadvantages
Delphi	Delphi procedures are exceptionally well-developed and well-understood. The output has proven validity and accuracy. The technique is flexible and does not require time series data. It is the only method with proven long-term accuracy.	The purpose of iterative polling and feedback is to reduce the variability in responding over sessions. However, there is little evidence that supports the assumption that accuracy is correlated with reduced variability. The iterative polling and feedback procedures may be difficult to implement. It may be impossible to assess the accuracy of the results with long event horizons. It may also be difficult to identify and aggregate the most accurate panelists into expert groups.
Prediction Markets	This class of procedures is generally well-developed and well-accepted. The measure of accuracy is straightforward. The results have proven accuracy, especially with short-term projections. The method can be applied in person or via computer consultation.	Prediction Markets are less useful for long-term forecasts. The procedures may be difficult to implement for novice users. Certain topics may be inappropriate, e.g., illegal acts that could be committed simply to win the prediction market.
Cross Impact Analysis	This technique is especially useful for evaluating dynamic systems or those that are in constant flux. The simplest applications do not require computer software. The data collection procedures can be implemented in person, by mail, or with real-time computing either with or without consultation among the panelists. The process can handle abstract variables.	The various methods are not well understood or well developed. There are few actually published applications. There is little in the way of available software. It may be difficult for panelists to understand the concept of an impact weight or to define the $-/+$ nature of the weights with specific variables.
Combining Forecasts Advantages	Amalgamating results from different forecasts generally results in more accurate predictions relative to any of the components. There is no evidence that combining forecasts reduces accuracy.	It may be difficult to average forecasts from different methodologies, e.g., a verbal summary from a focus group along with the numerical output of a time series analysis. Increased accuracy may require five or more forecasts.

one another. *Combining forecasts* is appropriate when there is a standard unit of measure among at least two or more (preferably five) forecast methodologies.

Final Thoughts

How do forecast results impact the psychology of geopolitical experience?

Comprehensive forecasts of leading economic and social indicators provide a global picture of the nation-state. These forecasts allow businesses, governments,

and individuals to anticipate the future and to act proactively. Accurate methods of forecasting political outcomes are especially important in light of recent turbulence in the national political arena.

Clearly, forecasts are not without their limitations. For instance, the users of forecast information often selectively choose from the most favorable results to support their political agenda. Without a clear plan for disseminating the results, the derivative recommendations may not produce any discernable impact on the geopolitical landscape because the information derived from the forecast is either overlooked or ignored. As such, potentially important suggestions quickly fade from public consciousness. Lastly, although the use of qualitative methodologies may produce accurate results, they are typically less readily accepted by decision-makers and the public.

Projections from quantitative modeling, consensus-based procedures, and political polls generally present accurate information. Bias occurs because the solicitors select pieces of information that supports a particular point of view. This type of bias gives rise to “alternative facts” and “fake news.” However, the problem can be avoided by basing conclusions on all available measures of an issue. For example, high employment rates may suggest a thriving economy, yet, real wages (wages adjusted for cost of living increases) may actually be low indicating a preponderance of low paying jobs. Although the number of students graduating from college may increase over the years, which suggest economic progress, the number of student loans likewise increases which signals a growing nation-wide debt.

Whether or not a forecast is implemented depends on whether the results are: *Reasonable*, *Believable*, and *Persuasive*. Without these traits, a forecast may never see the light of day. Reasonable refers whether the results make sense and are logical. Believable results are credible. Persuasive results spur the intended audience to action. Each of these factors affects the likelihood that any recommendations derived from the results will be put into action. The best way to ensure acceptance is to use well-documented forecast procedures clearly stated predictions of likely scenarios, and practical recommendations for how to actuate desired futures and to avoid undesirable events.

Political polls are typically implemented within a few days after data collection; thereby, impacting voter preference, especially if published close to an election. However, political polls are often labeled as either more or less biased toward one candidate or another. For example, a Rasmussen poll may be seen as generally favorable to the republican parlance, whereas a CNN poll may be viewed as more favorable to Democrats. Perhaps, the best way to lessen political polling biases is to amalgamate the results of all available polls to provide an average assessment.

Qualitative forecasting techniques are vulnerable to a host of problems that can bias projections. For example, experts typically adhere to specific theoretical positions that can easily bias their predictions. Group facilitators vary in their skill and may allow bias to affect summaries of group opinion. Qualitative forecasts are general summaries of educated guesses about events that have no recorded history. Therefore, even though a forecast may derive from valid and reliable methods (e.g., Delphi Method), include a sample of credible panelists; the results may not be read-

ily acceptable to the public. Perhaps the best way to instill confidence in a qualitative forecast is to ensure that the panelists are credible, come from varied disciplines, are not financially tied to the solicitor, and are not politically motivated. Whenever possible, the consensus predictions should be evaluated sequentially as the outcomes unfold across time.

The above discussion is based on the assumption that there is a knowable future and that we all share a fundamental faith in prediction. For example, most of us can predict with certainty that the sun will rise tomorrow at a particular time. Our car will start when we turn the ignition key. The lights will go on when we turn on the switch. However, we have less faith in forecasts that are not data dependent (e.g., recreational space travel will be available during my lifetime) or that are not confirmed by repeated experience (e.g., I will get a grade of an A on a test) or that are distant (e.g., the polar ice caps will melt before 2050). Nevertheless, despite the problems with forecasting outlined above, it is safe to conclude that we are better off using these techniques than not using them or ignoring their results. Conceivably, the most significant advantage of these predictive tools is that they force us to think about the future, to foresee alternative futures, and to identify sources and methods that allow us to achieve desirable futures.

References

- Armstrong, J. S. (Ed.). (2001). *Principles of forecasting: A handbook for researchers and practitioners* (Vol. 30). Berlin: Springer Science & Business Media.
- Baumgartner, F. J. (2003). *Behind locked doors: A history of papal elections*. New York, NY: Palgrave Macmillan.
- Campbell, J. E. (1996). Polls and votes. *American Politics Quarterly*, 24(4), 408–433. <https://doi.org/10.1177/1532673X9602400402>
- Carroll, J. D., & Wish, M. (1975). Multidimensional scaling: Models, methods, and relations to Delphi. In H. Linstone & M. Turoff (Eds.), *The Delphi method: Techniques and applications* (pp. 396–425). Reading, MA: Addison-Wesley.
- Clark, J., & Friesen, L. (2009). Overconfidence in forecasts of own performance: An experimental study. *Economic Journal*, 119(534), 229–251.
- Cuzan, A. G., Armstrong, S., & Jones, R. (2013). Combining methods to forecast the 2004 presidential election: The PollyVote. Retrieved January 23, 2013, from Archive.is
- Dalkey, N. C. (1971). An elementary cross-impact model. *Technological Forecasting and Social Change*, 3, 341–351.
- Deaves, R., Lüders, E., & Schröder, M. (2010). The dynamics of overconfidence: Evidence from stock market forecasters. *Journal of Economic Behavior & Organization*, 75(3), 402–412.
- Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.
- Finley, J. C., & Parente, F. (2018). A 30-year retrospective case analysis in the Delphi of cognitive rehabilitation therapy. *Journal of Technological Forecasting & Social Change*, 138, 254–260.
- “Focus Group” (n.d.) Oxford dictionaries—English. Houghton Mifflin Harcourt Publishing. The American Heritage Dictionary entry: focus group. Retrieved from www.ahdictionary.com.
- Gardner, D. (2010). *Future babble: Why expert predictions fail-and why we believe them anyway*. New York, NY: Random House.

- Green, K. C., Armstrong, J. S., & Graefe, A. (2007). Method to elicit forecasts form groups: Delphi and prediction markets compared. *Foresight: The International Journal of Applied Forecasting*.
- Greenbaum, T. (2000). *Moderating Focus Groups*. Thousand Oaks, CA: Sage Publications, Inc..
- Hannes, K., Heyvaert, M., Slegers, K., Vandenbrande, S., & Van Nuland, M. (2015). Exploring the potential for a consolidated standard for reporting guidelines for qualitative research: An argument Delphi approach. *International Journal of Qualitative Methods*, 14(4), 1–16. <https://doi.org/10.1177/1609406915611528>
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24(4), 602–611.
- Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *BMJ*, 311(7000), 299–302.
- Lindlof, T. R., & Taylor, B. C. (2002). *Qualitative communication research methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Linstone, H., & Turoff, M. (Eds.). (1975). *The Delphi method: Techniques and applications*. Reading, MA: Addison-Wesley.
- Mellers, B. A., Ungar, L., Baron, J., Ramos, J., Gurcay, B., Fincher, K., & Tetlock, P. E. (2014). Psychological strategies for winning a geopolitical forecasting tournament. *Psychological Science*, 25(5), 1106–1115.
- Parente, R., & Anderson-Parente, J. K., (1987) Delphi Inquiry Systems. In: Wright, G. & Aton, P. (eds.) *Judgemental Forecasting* (pp 129–157). John Wiley and Sons.
- Parente, R. & Anderson-Parente J. K. (2011). A case study in long-term Delphi accuracy. *Technological Forecasting and Social Change*, 78(9), 1705–1711.
- Rhode, P. W., & Strumpf, K. S. (2008). *Historical election betting markets: An international perspective*. University of Arizona, mimeo.
- Surowiecki, J. (2005). *The wisdom of crowds*. New York, NY: Anchor Books.
- Tetlock, P. E. (2005). *Expert political judgment: How good is it? How can we know?* Princeton, NJ: Princeton University Press.
- Tetlock, P. E., & Mellers, B. A. (2011). Intelligent management of intelligence agencies: Beyond accountability ping-pong. *The American Psychologist*, 66(6), 542–554. <https://doi.org/10.1037/a0024285>
- Turoff, M. (1975a). Cross impact analysis. In H. Linstone & M. Turoff (Eds.), *The Delphi method: Techniques and applications* (pp. 329–363). Reading, MA: Addison-Wesley.
- Turoff, M. (1975b). The policy Delphi. In H. Linstone & M. Turoff (Eds.), *The Delphi method: Techniques and applications* (pp. 80–96). Reading, MA: Addison-Wesley.
- Ven, A. H., & Delbecq, A. L. (1974). The effectiveness of nominal, Delphi, and interacting group decision making processes. *The Academy of Management Journal*, 17(4), 605–621. <https://doi.org/10.2307/255641>.
- Wright, G., Rowe, G., Bolger, F., & Gammack, J. (1994). Coherence, calibration, and expertise in judgmental probability forecasting. *Organizational Behavior and Human Decision Processes*, 57(1), 1–25. <https://doi.org/10.1006/obhd.1994.1001>

Control and Countercontrol in Brazilian Public Policies: Conjectures from a Humanist-Contextualist Behaviorism



Kester Carrara

The relations between the constituted public powers and the people are inevitably constant and acidic enough to require analysis and reformulation from time to time. This recurrent situation generates a permanent operational difficulty for the consolidation of scientific knowledge on social and political facts, since it generates segmented and incomplete knowledge. It is—among other issues—the fact that government actions include both legislation and the organization and application of public policies, as well as strategic negotiation between peers of the same parties and opposition to them.

If political negotiations constitute a scenario of bargaining of all kinds and even give rise to illicit cultural practices, such as corruption, it follows that the social interactions that occur there necessarily constitute an object of study for various disciplines, such as Anthropology, Social Sciences and Psychology. One of the approaches of the latter, Behavior Analysis, through the process of contingency analysis, seems to be a promising science to contribute to the planning of new behavioral arrangements capable of ensuring a more transparent, more solidary and more directed society life distribution of income and services among the various social segments.

In fact, a variant of Behavior Analysis, Behavioral Analysis of Culture, is precisely the sector of behaviorism that addresses cultural practices, trying to describe the variables that control the installation and maintenance of licit or illicit action patterns responsible for permeating political negotiations that often lead to illegal enrichment, tainted by corruption, or electoral advantages of voting exchanged with personal favors that are outside acceptable moral standards. In this context, the question to be answered in this chapter is associated with the possible contributions of the Behavioral Analysis of Culture to describe such behaviors, to discuss and propose referrals focused on education for citizenship from childhood, and to

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suggest strategies to combat development-damaging political fraud democracy in most developing countries, as is the case in Brazil.

Half an hour of attention to the news and a daily scan in the Brazilian newspapers reveal a scenario full of more and more judicial investigations that have not just multiplied, plus information about ethical misconduct among a significant part of politicians who occupy positions of deputies, senators, governors and the like. The cases already reported and being investigated in justice reveal numbers and values that reach hundreds of millions, sometimes including billions of dollars. It is not without reason that Brazil, in a recent survey presented in the Corruption Perceptions Index 2017 study by Transparency International—TI—(The Global Anti-Corruption Coalition) reached the position of 96th place (along with Panama, Colombia, Indonesia, Peru, Thailand and Zambia) in the proportion of corruption cases among 180 countries.

The Brazilian situation of corruption, represented in IT statistics, requires the adoption of at least two types of measures: legal (generated by reformulation of laws and effective application of existing legal prescriptions) and educational (promoted by the implementation of ethical education programs—moral from the earliest years of academic formation in Elementary School). These two lines of action require the participation of both the judiciary and the executive branch, since at the same time both the fight against already entrenched situations of corruption must be combated, and the prevention of the development of unethical behavior patterns must be part of the policies for the training of new citizens.

At first glance, it seems that dealing with both ends of the problem at the same time is the best strategy, since only combating entrenched and entrenched cultural practices of corruption does not prevent the custom of continuing content-oriented and neglected profile education of ethical-moral formation. At least in the Brazilian case, literature has begun to examine the two types of social problem. On the ethical formation for citizenship, for example, we can cite the researches of Ferreira and Carrara (2009) and Bolsoni-Silva et al. (2013). According to the latter, the context could be represented as follows:

In addition to the necessary care with the excellence of content, the contemporary school of quality should be concerned with contributing to a solid preparation of its student body, in the sense that it is able to interact, socially, in accordance with the best principles of urbanity in interpersonal relations, as well as in accordance with the presupposition of collaboration and sharing with the collective, in the altruistic perspective of preparing to respect duties and rights and contribute to the consolidation of a society based on the bases of social justice. It should be noted, however, that (apart from the family, of course) school is one of the first and most fundamental instances in which the essential concepts of a respectful, cooperative and constructive coexistence should be learned and apprehended, certainly ethical values enshrined as more basic training for citizens. (p. 349).

In this same research, the effects of an intervention with five educators and 57 primary school students were analyzed. The results showed, in addition to the teachers' involvement with the teaching procedures, a significant increase in positive student-teacher interaction and an important increase in the students' pro-ethical behavior, demonstrating the participants' sensitivity to the scheduled contingencies.

This seems to make it auspicious to employ, in the context of public policies, procedures for rearrangement of contingencies that differentially prioritize behaviors that imply relevant moral values and that will function in the future of these children as a kind of antidote against stimulation that is harmful to their integrity moral. The systematic teaching of pro-social and pro-ethical behaviors, based on the research results of this modality, shows that it is a contribution for frank, honest and transparent behavior to be consistently installed in the children's repertoire and adequately prepare them for social coexistence.

It is clear that the choice and allocation of values in other contexts can become difficult to justify (Valle, 2001), especially when it comes to groups of adults or segments identified with religious sects or political parties, for example. In these cases, it does not seem to fit a different choice of the demand for changes in cultural practices, since the values eventually pointed out by the professional of Psychology may be merely derived from his own life experience and, in this case, contaminated by biases of his particular history of life. In this case, it is always better to listen to social demands. However, as in the case of the research by Bolsoni-Silva et al. (2013), these were children who attended the first years of schooling and whose ethical values already in the children's repertoire were only known to the parents. In this case, the behaviors were about values such as asking "please", saying "thank you" or kindly borrowing some toy or school material, which is why these values were (even though they were trained again in the project) of knowledge of the whole group, even though they also lived with a part of the repertoire of values that were precisely against them, which needed to be changed. The issue of values is persistently controversial, but educators will always have to address it in pro-ethical behavioral teaching programs, although the decisions to be made are more obvious to this population. Already with adults—imagining the practice of what is called "Brazilian way" in Brazil—decisions about what constitutes adequate or inadequate moral values is not always simple, requiring careful analysis prior to decisions. In both cases, there are differences in attributable values (Fernandes, Peralis, & Pezzato, 2015; Oliveira, 2001), considering the life history of different people. At the extreme poles, as in the specific case of corruption, legal and social condemnation of crime is so evidenced by social criticism around the world that entities such as Transparency International are created.

As we have noted, directly or indirectly, the political dimensions and the "psychological" knowledge are touched. That is, when we teach children in the early years of elementary school to choose behaviors of social contact that meet the best ethical- moral principles, we are, in fact, providing them with a kind of model for their life in society. This model can become so well embedded in their behavioral repertoire (as a process of "naturalization" of attitudes appropriate to their future and future social relations) that they, children, can grow and develop in order to reject pernicious alternatives and of pro-social behavior. In an extreme and optimistic dimension, it is as if they are "vaccinated" against corruption and other cultural practices that are deleterious to society at large. That is, they will be prepared to refuse, even in their earliest childhood or adolescence, a significant part of the threats posed by illicit or immoral advantages, which present financial gain, undue

prestige, or the like. Therefore, if it makes sense to conceive the need to develop teaching strategies that strengthen a sound ethical-moral formation, although not confused with pseudo-moralisms and social inflexibility, it can be said that there is an interesting possibility of the contribution of Psychology to the construction of new generations of citizens solidly constituted and prepared to move forward in their lives without unacceptable vicissitudes when social justice, solidarity and transparency of attitudes are proposed as goals.

In the context of Psychology, there are several theoretical options, several of them with a very consistent conceptual substrate. Among them, Behavior Analysis deals with behavior in its relations with the environment, whether it has a physical-chemical, biological and/or social dimension. To deal with behavior in these conditions corresponds to providing assumptions and principles compatible with the formulation of projects, interventions and systematic planning of new cultural practices—which necessarily implies and involves social behaviors—so as to favor the installation and consolidation of ethically adequate repertoires, as well as to remove ethically unacceptable repertoires as exemplified by corruption and threats to people's peace and security.

Of course, the procedures recommended in each of the situations are distinct and specific. If, on the one hand, it is possible to devise renewed programs of transversal education (that is, prioritizing the teaching of ethical actions, in addition to those of a substantive nature as to the contents to teach) at the beginning of the intellectual formation, in the processes of child sociability and the development of interaction strategies in adolescence and youth, it is also plausible to develop public policies that involve actions of the executive, legislative and judicial branches, in order to inhibit and reduce the increasing cases of corruption and similar crimes that imply misconduct ethic. It is necessary, however, to pay attention to the constant banalization of these terms as dear to the history of philosophical literature as to its indiscriminate generalization to the most diverse and impertinent situations found in the public debate, in the vehicles of social communication and in the usual proposals of reorganization of public goals in Education (see Romano, 2001).

This chapter, although its repercussions surely reach other territories, originates from a motivation unfortunately produced by underdeveloped or developing countries, as is the case of Brazil. In this country, despite the accumulation of records of deviations from ethical conduct in public management and politics since its occupation by Europeans in the sixteenth century, there has been a recent (at least in the last 10 years) a high incidence of cases corruption, particularly in the context of public actions in relevant spheres of public power (state, municipal and federal governments), so that the public prosecutor's office and the higher courts continue to be daily engaged in the investigation of crimes, especially in an investigation general who involves politicians and who was called Operation Lava-jet, in metaphorical allusion to a fast and urgent washing, as is done in the services of quick car wash. This operation has already imprisoned several politicians and keeps under review a large group of others indicted.

The Brazilian scenario is so serious in relation to the growth of cases of active corruption and money laundering between public managers and politicians in

general, that perhaps we can go so far as to suggest changing the weights that hitherto balanced the types of teaching contents used in the school curricula, especially at the elementary and secondary level. The traditional contents, composed of subjects related to knowledge about nature, in its physical, chemical and biological aspects, as well as in subjects such as mathematics, Portuguese language and other knowledge that prepared students for a possible professional career, today seem to us to be threatened or placed under doubt. This is done because there are several factors that, in the current socio-political reality, lead to a social structure permeated by growing violence and corruption and lack of mutual treatment based on the concept of peace and cordiality. There seems to be a crisis of ethical profiles, derived from educational processes and family education that are fragile as to the educated, respectful and solidary ways of social coexistence, resulting in a deterioration of the customs that, in turn, lead to the overwhelming criminality installed for types of illegal practices, including corruption, misappropriation, misappropriation of public money, gang formation, and similar issues.

Apparently, two lines of action, through public policies, are set to try to address the “two cornerstones” of corruption and similar crimes: in the first, the improvement of legislation and the development of concrete instruments for its application without restrictions, with speed and through the reduction of legal resources that perpetuate permanence without punishment of the individuals reached by the legislation; in the second—which is the one that occupies us the most as an argument in this text—represented by what we refer to here as an “Education for Social Conviviality”, which cannot simply be offered midway through the educational process, in the form of remediation, but, as a strategy directly geared to education from an early age, that is, linked to educational processes of raising families’ awareness of ethical education and, in practice, in schools and other institutions, through the teaching of pro-social behaviors and pro-ethical, beyond the classical contents of physical and biological sciences.

Contributions of Behavioral Analysis of Culture

BF Skinner had already enunciated in several chapters of *Science and Human Behavior* (1953) the possibility that Radical Behaviorism as a philosophy and the Analysis of Behavior, as a science supported by the presuppositions of such a philosophy, could offer relevant subsidies in terms of concepts, technology and strategies developed over many years of research, to make progress in changing social behaviors typically intertwined in the context of groups of individuals, commonly referred to as social behavior or social practices. Such group people behaviors—cultural practices—as well as behaviors in a discrete relationship of individuals and specific parts of their respective physical environments, can be installed, maintained, altered, suppressed with the aid of the same functional principles. Cultural practices, such as corruption and violence, can therefore be changed—not without major operational difficulties—through what we call contingency rearrangements,

which in turn may be part of public policies aimed at reducing the alarming indexes that exist today. Likewise, teaching prioritizing ethical social coexistence can also be subsidized by behaviorist principles, which will entail rearrangement (or reprogramming) of contingencies. Both focuses seem, at least in developing countries, such as Brazil, to be priority issues for any other content to be taught. That is, in the present day and through the political panorama that presents itself, the relevant alternative seems precisely to coincide with the increase of pro-ethical repertoires since childhood and a difficult arrangement of contingencies in cases—in great number—in which the violating repertoires are already installed and consolidated.

In the literature on Behavioral Analysis of Culture, two examples of research—one theoretical and one applied—illustrate how the approach can be taken in relation to these themes. In the first one, we can recover the already mentioned study of Bolsoni-Silva et al. (2013) on a successful experience of teaching of pro-social and pro-ethical behaviors from a training of teachers of the public network in the context of elementary School. It is a research that suggests the concrete possibility of the elaboration of public policies to change the scenario of the relative proportion of teaching of content/transversal teaching of ethical precepts in the schools. The theme, however, seems quite controversial, as already shown by Oliveira (2001).

With regard to the problem of corruption, it can be noted that its definitions, even undertaken by other disciplines (Social Sciences, Anthropology, Sociology) are very convergent with those of Behavioral Analysis of Culture. It can also be noted that corruption, as behavior, obeys the same principles that determine the occurrence of any other behavior. A study developed by Carrara and Fernandes (2018) reveals precisely that

(...) at least three emphases or fronts of action against corruption can count on the collaboration of behavior analysts: (1) related to abandonment to the kind of common sense conviction, according to which the corrupt, corrupting and corruption itself constitute “things,” events, structures, deformation of character, innate ethical-moral drift. What this essay argues, of course, is that the issue needs to be treated as resulting from a relational process, in which what predominates is not in itself something like a bad or deformed personality, but a history of interactions of individuals with the environment that can be changed, depending on new contingency rearrangements; (2) related to the wide literature already produced in the sense of arranging contingencies for the installation and development of pro-social and pro-ethical repertoires from fundamental education, for example by establishing, through transversal teaching parameters, rules compatible with contingencies that preserve social relations fair, equitable and contributory to a harmonious collective life; (3) the importance of investing, through public policies to promote research, resources for the development of research and application of findings on behavioral-environmental relations that consistently subsidize the formulation of a rigorous and integrated treatment with the contribution of social movements organizations, researchers and the media.

Control and Countercontrol Relationships

From what has hitherto been pointed out, it is noted that whatever the dimensions, scope, or importance of social behavior examining, there will always be ethical-moral issues to interweave. In particular, this is evidence present in those cultural practices that concern the breach of rules formulated as laws to be obeyed by the citizens. For example, in the case of corruption, a large amount of money is at stake that can be obtained by the corrupt individual at a small risk of being indicted for crime against public property, control relations and countercontrol are present. A situation can relate to the actions inherent to the state, government or any institution that can concretely or indirectly influence the behavior of those who intend to take illicit advantage over collective good—we could exemplify this initiative, arbitrarily, as a control. Yet in another situation—where the individual's responses to the conditions of control by the public agent are implicated—can be understood as countercontrolling responses. In short, control and counter-control constitute no less than contrasting and conflicting situations to one another, where divergent cultural behaviors or practices occur, one influencing the patterns of the other. Both are, however, a typical scenario in which one can conjecture about the possibilities of acting, for example, the public prosecutor or other judicial bodies, either by determining a period of imprisonment as punishment of the offender, from a trial, confiscation or repatriating assets and values deviating from public assets. Control and counter-control do not constitute processes that may exist separately. It is a relationship of mutual dependence, so that its occurrence is always of the control-counter-control type (with a hyphen corresponding to an indispensable link between the two). Given these conditions, the next step is the fact that the Behavioral Analysis of Culture supports its procedures in this one-to-one relationship and, in this sense, it is responsible for seeking to offer strategies that effectively affect the control-counter-control relationship. In other words, cultural planning (such as the proposal of public policies to reduce corruption or to install and consolidate pro-social and pro-ethical repertoires of behavior) has as its purpose the proposition of forms of change in cultural practices with based on the rearrangement of contingencies, here considered as a unit of analysis of relations between environmental variables and human behavior. In this scenario, we return to our statement at the beginning of this text, that "... relations between constituted public powers and the people are inevitably constant and acidic enough to require, from time to time, analyzes and reformulations". Cultural planning implies the installation, maintenance, modification, modulation or suppression of cultural practices and/or practices. It is a technological possibility broadly extended year after year from Science and Human Behavior (Skinner, 1953, see also, 1981, 1986), which includes the scientific production initiated by Glenn (1986) and amplified by several authors, particularly from Brazil and the USA (e.g., Carrara, 1996, 2000; Carrara et al., 2013; Carrara & Gonzalez, 1996; Carrara & Zilio, 2015; Glenn, 1988, 1991, 2003, 2004; Glenn et al., 2016; Houmanfar & Rodrigues, 2006; Souza, 2013).

Humanism in Radical Behaviorism

Humanism, as a philosophical and social movement, can be interpreted in several ways. B. F. Skinner became heavily criticized at the time of the publication of his *Beyond Freedom and Dignity* (1971a). On this occasion, they denounced him as the mentor of an inhuman, reductionist, positivist and reactionary psychological approach. The author explains why he understands that his behaviorism is humanist in articles (1971b, 1972) and later (1974) in his classic *About Behaviorism* (1974) responds to the top 20 critics of his detractors. It is possible that part of his explanations of the notion of humanism have had an effect on the opinion of psychologists, since he is awarded in 1972 with the maximum laureate of Humanist of the Year, granted by the American Humanist Association.

In any case, we consider that theoretical mediations in Psychology, in order to be considered humanistic, must meet the criterion of being directly interested in preserving the qualities and conditions for a life in society where people are not deprived of freedom of belief, freedom to go the right to privacy, autonomy, the ability to make meaningful personal choices, even considering possible limitations arising from phylogenetic and ontogenetic histories and possible environmental arrangements. These possibilities respect and at the same time constitute the unanimous characteristics of humanistic philosophy.

In these terms, the humanism to which Behavior Analysis would associate would be one that recognizes the important role of man in the civilizing process, but at the same time recognizes that this role can be better or worse, greater or less, less or more important, depending on the contingencies (planned or unintentional) presented to it in the context in which it lives. The Behavioral Analysis of Culture, on the other hand, although it recognizes that human values result only from experience and not from a rational justification, it chooses, because an absence of values is not possible (an absolute neutrality attributable only to a naive science), some values typically supported under the umbrella of human dignity, consensually established in the Universal Declaration of Human Rights.

Receiving the award in 1972, Skinner said almost at the end of his speech:

(...) We need everyone to learn about human behavior and to have a history of behavior from other species, but, of course, no one is interested in pigeons or rats; the human organism is what is important and it is this organism that is going to be changed in behaviorism. Building this seems to me a program that is at the heart of humanism, it seems to me to be a program of behavioral analysis. So I welcome this opportunity to show you that behaviorism is a humanistic psychology. (*italics added*)

Contextualism in Radical Behaviorism

As can be deduced from the previous considerations, this text concerns some of the different possibilities of dialog of Psychology (more precisely, one of the theoretical mediations of Psychology) with the politics and agencies of social control. The

approach from which we set out to describe some of the possibilities of this “dialogue” is constituted by two fundamental elements: on the one hand Radical Behaviorism taken as philosophy of science and, on the other, Analysis of Behavior as science. These two parts (behavioral philosophy and science) always appear together, being inseparable insofar as any set of statements about variables in their relations in empirical reality does not make sense for these two conditions, if such statements, for example, in a dualistic dimension. Thus, various other preconditions are prescribed by behaviorist philosophy to enable Behavior Analysis as science.

Given these conditions, Behavior Analysis has a number of operating requirements (its “principles”), just as its more specific variant, Behavioral Analysis of Culture, also depends on a set of metaphysics, so to speak).

Skinner’s Radical Behaviorism and Behavior Analysis, on the other hand, also go through a set of characterizations. One of them, which has gained importance in the literature, originates in publications that began in the 1980s, when some analysts recovered the iconic work of Pepper (1942), published in the book *World Hypotheses*. In this work, Pepper, a philosopher in the area of aesthetics, presents the concept of cosmogonic hypotheses, which would be constituted by a set of conditions and distinctive features of different ways of describing and analyzing reality. He reveals characteristics of what he termed as root metaphors of events in the world, that is, ways of interpreting reality. It includes, as a world view, formism, mechanicism, organicism and contextualism, which are particular ways of analyzing phenomena of natural reality. In contextualism, in particular, several researchers have identified a conceptual unit quite coherent with the way behavioral phenomena are viewed in the context of Behavior Analysis.

As we explained elsewhere (Carrara & Gonzalez, 1996):

Some of the more costly features of the philosophical orientation of contextualism include the unequivocal adoption of behavioral multidetermination: innumerable variables from different fields (personal, social, cultural, educational, political, ideological, economic, biological, chemical, etc.) compete (and non-linear) for the causal explanation of the behavioral phenomenon, and the meaning of behavior can only emerge from the context. To exemplify the obvious, the meaning of moving a leg is not the same as that of walking to a store, at least because: 1. contexts are absolutely diverse; 2. for the first behavior was not alluded to for any purpose; 3. for the second behavior is explicit a particular goal; 4. The analysis, in any measure (frequency, duration, intensity, topography) of leg movement, in this case, does not ensure understanding of walking, because contextual multidetermination is omitted. It is clear that a concern of contextualism is to consider the indivisible and interactive psychological unity, so that it is not reasonable to try to explain the psychological only by analyzing particular events: the subsequent step of analyzing the whole is indispensable. Thus a behavior will always be a behavior-in-context and can not be understood with appeal to isolated actions of the parts or mechanisms involved in the interaction (glands, arms, brain, or, in an even more controversial example, “mind”). Two cautions with this proposition deserve record: 1. to assume the idea of the act in and with the context, without appealing to explanations of isolated mechanisms, does not deny the influence of other levels of analysis: a contextualist behavioral analysis can not do without the biological, the anthropological, the sociological; 2. to assume a contextualist analysis in which concern is the interactive whole and not the parts, does not mean also that, naively, it is possible to visualize the whole behavioral repertoire during all time and under all the added circumstances: surely it is done reference to inevitable temporal and historical cuts, but which are at least a “cut” that has a recognizable meaning. (pp. 215–216)

Synthetically, adopting a Radical Contextualist Humanist Behaviorism implies, among other positions, to assume human dignity as a fundamental ethical value for any interventions within the framework of cultural practices. It means, furthermore, that we can not propose a science that is neutral or free from the interference of values, whether arising from the personal history of the scientist's interactions or whether they result from the very moral tendencies of communities living in social reality. It also means adopting a contextualist view that considers that no theoretical current in psychology can, on its own, fully answer all questions about the directions of human interactions, so that, consequently, only a comprehensive view and that considers behavior in the (see Carrara, 2000) in its historical dimension (as in a film, which does not dispense with scenery and movement, but not as a photograph, which temporarily isolates and freezes an action), as the purpose of our analyzes, especially when directed with a broader focus than just the individual: the individual in its context. From what we have exposed so far, there is much to be done for the installation of new cultural practices, but we must at the same time consider Skinner's vision in a thoughtful way. He said (1989):

The problem of greater importance remains to be solved. Rather than build a world in which we shall all live well, we must stop building one in which it will be impossible to live at all.
(p. 84)

When we transfer the technological and conceptual resources of a moderate behaviorism to the social reality of public policies, we have the possibility of seeing to what extent such behaviorism, weighted by a humanistic and contextualist perspective, can effectively bring concrete contributions to the change of cultural practices. More specifically, those cultural practices harmful to the environment, harmful to the socio- sustainability necessary for our descendants in the near future, developed and imposed on society by despots who emerge dangerously in various places of the world, independently and sometimes contrary to social demands of the vast majority of the population.

As a result, especially referring to the different peoples of America, most of the population is left out of political decisions and waiting for an idealistic benefactor who will never arise. In contrast, it seems inevitable that the role of the Human Sciences in general also includes the mission of subsidizing public policies that guarantee values derived from human dignity: solidarity, social justice, transparency of actions and a culture of peace. Finally, it seems possible and coherent to argue that even before the judgment according to which the ideologies or political regimes that determine human actions, it is necessary to reflect on the fact that the most basic of the assumptions is what states that the rules that should affect our social behaviors and practices should originate from our own history of social interactions. In this sense, ideologies result from the history of social interactions. More than that: we can plan and install the essential conditions for a democratic choice and effectively free of a model of society based on freedom of choice, solidarity and social justice.

References

- Bolsoni-Silva, A. T., Verdu, A. C. M. A., Carrara, K., Melchiori, L. E., Leite, L. P., & Calais, S. L. (2013). Extending pro-ethical behavior of students: Research and intervention with primary school teachers. *Revista Temas em Psicologia, 21*(2), 347–359.
- Carrara, K. (1996). A Psicologia e a construção da cidadania. *Psicologia: Ciência e Profissão, 16*, 12–17.
- Carrara, K., & Gonzalez, M. H. (1996). Contextualismo e mecanicismo: implicações conceituais para uma análise da Análise do Comportamento. *Revista Didática, 31*, 119–217.
- Carrara, K. (2000). Contextualismo, Contracontrole e Cidadania. *Revista da APG- PUCSP, 9*(21), 23–27.
- Carrara, K., Souza, V. B., Oliveira, D. R., Orti, N. P., Lourencetti, L. A., & Lopes, F. R. (2013). Guide and flow-chart development as support for cultural designs. *Acta Comportamental, 21*(1), 99–119.
- Carrara, K., & Zilio, D. (2015). Behavioral analysis of culture: Congingency or metacontingency as the unit of analysis? *Revista Brasileira de Análise do Comportamento, 11*(2), 135–146.
- Carrara, K., & Fernandes, D. M. (2018). Corruption and selection by consequences: A behavioral analysis. *Psicologia: Teoria e Pesquisa, 34*, e3423.
- Fernandes, D. M., Peralis, C. G., & Pezzato, F. A. (2015). Creativity, Brazilian “jeitinho,” and cultural practices: A behavioral analysis. *Behavior Analysis: Research and Practice, 15*(11), 28–35.
- Ferreira, M. F. F., & Carrara, K. (2009). Implications of teachers concept of citizenship on students pro-ethical behavior. *Revista Psicologia: Argumento, 27*(58), 219–229.
- Glenn, S. S. (1986). Metacontingencies in Walden Two. *Behavior Analysis and Social Action, 5*(1), 2–8.
- Glenn, S. S. (1988). Contingencies and metacontingencies: Toward a synthesis of behavior analysis and cultural materialism. *The Behavior Analyst, 11*, 161–179.
- Glenn, S. S. (1991). Contingencies and metacontingencies: Relations among behavioral, cultural, and biological evolution. In P. A. Lamal (Ed.), *Behavior analysis of societies and cultural practices* (pp. 39–73). Washington, DC: Hemisphere.
- Glenn, S. S. (2003). Selección em dos niveles em la evolución de la ciencia. *Revista Latinoamericana de Psicologia, 35*(3), 281–288.
- Glenn, S. S. (2004). Individual behavior, culture, and social change. *The Behavior Analyst, 27*(2), 133–151.
- Glenn, S. S., Malott, M. E., Andery, M. A. P. A., Benvenuti, M., Houmanfar, R. A., Sandaker, I., ... Vasconcelos, L. A. (2016). Toward consistent terminology in a behaviorist approach to cultural analysis. *Behavior and Social Issues, 25*, 11–27.
- Houmanfar, R., & Rodrigues, N. J. (2006). The metacontingency and the behavioral contingency: Points of contact and departure. *Behavior and Social Issues, 15*, 13–30.
- Oliveira, R. J. (2001). Ética na escola: (re)acendendo uma polêmica. *Educação & Sociedade, 22*(76), 212–231.
- Pepper, S. S. (1942). *World hypotheses: A study in evidence*. Berkeley: University of California Press. (348 p.)
- Romano, R. (2001). Contra o abuso da Ética e da Moral. *Psicologia & Sociedade, 22*(76), 94–105.
- Skinner, B. F. (1953). *Science and human behavior*. New York, NY: MacMillan.
- Skinner, B. F. (1971a). *Beyond freedom and dignity*. New York, NY: Knopf.
- Skinner, B. F. (1971b). Humanistic behaviorism. *The Humanist, 31*, 35.
- Skinner, B. F. (1972). Humanism and behaviorism. *The Humanist, 32*, 18–20.
- Skinner, B. F. (1974). *About behaviorism*. New York, NY: Knopf.
- Skinner, B. F. (1981). Selection by consequences. *Science, 213*, 501–504.
- Skinner, B. F. (1986). Contingencies of reinforcement in the design of a culture. *Behavioral Science, 311*, 159–166.

- Skinner, B. F. (1989). *Recent issues in the analysis of behavior*. Columbus, OH: Merrill Publishing Company.
- Souza, V. B. (2013). Cultural designs: Transfer of control from arbitrary to natural and from immediate to delayed reinforcers. *Revista Brasileira de Terapia Comportamental e Cognitiva*, XV(1), 83–98.
- Valle, L. (2001). Ainda sobre a formação do cidadão: é possível ensinar a ética? *Educação & Sociedade*, 76, 175–196.

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