

Richard T. Serpe  
Robin Stryker  
Brian Powell *Editors*

# Identity and Symbolic Interaction

Deepening Foundations, Building  
Bridges

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 Springer

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Richard T. Serpe · Robin Stryker ·  
Brian Powell  
Editors

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*Editors*

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*For Shel,  
Our father, teacher, mentor, colleague  
and friend.*

# Preface

This book represents a labor of scholarship but also of love. The three of us who co-edited this book have never collaborated on a scholarly project until now, but we have known each other since the mid-1980s. At that time, Brian came to Indiana University as a postdoctoral fellow in a measurement program funded by the National Institutes of Mental Health. Richard was completing graduate school at Indiana University with Sheldon Stryker as his Ph.D. advisor, and Robin, Shel's daughter, was living in Bloomington completing her University of Wisconsin Ph.D. in sociology. Robin and Richard shared an office belonging to Shel in the Institute of Social Research, later named in honor of Karl Schuessler, who, along with Shel, made Indiana University one of the top departments of sociology in the world. The two—Robin and Richard that is—bonded for life in an epic fight against wasps who nested in our office window. Meanwhile, Brian was just across the street in Memorial Hall, happily missing out on this particular battle.

Over the next thirty years, while Richard collaborated with Shel to further develop the structural symbolic interactionism and identity theory that Shel had pioneered, Brian developed himself as a scholar of family, education, gender, and sexuality, and Robin developed herself as a macro-sociological scholar of law and society, inequality, and the state. For 25 years now, Robin also has been teaching Mead and the symbolic interaction paradigm to graduate students in her courses on sociological theory. While Brian took a job at Indiana University and remained there alongside Shel, Richard and Robin were employed elsewhere. The three of us remained in touch and saw each other often, perpetually networked through our respective relationships with Shel.

It is fitting then that the three of us come together to co-edit this book. In this, our first scholarly collaboration, we hope to honor Shel in a way that he would have appreciated. Consistent with Shel's orientations, we sought to produce a book that, while mindful of the road already trod by symbolic interactionism and identity theory, would build on that road to provide new theoretical insights and methodological advances.

As well, and consistent with Shel's (2008) own reflections on the development and content of structural symbolic interactionism and identity theory, and his priorities for future development, we wanted to emphasize the applicability of identity theory across a wide range of sociological topics. We wanted to show how identity theory and research offer sociological understanding and explanation linking micro to macro and consequently (re)connecting social psychology and macro-sociology. As well, while deepening understanding and explanation within the traditional bailiwick of "Indiana School" structural symbolic interaction and identity theory, we wanted to forge new bridges to other theoretical paradigms and research programs in the social sciences. We hope that this book we produced with the help of a great many colleagues in sociology and beyond lives up to our aspirations.

Although the three of us first encountered Shel in different role relationships—teacher–student for Richard, father–daughter for Robin, and senior colleague–junior colleague for Brian—all of us benefited from Shel's mentorship and feedback with respect to research, teaching, and administration within the scholarly academy. Though we did not always agree with him, the reflected appraisals we attached to our interactions with Shel have had a profound influence on the development and enactment of our professional identities. Although today Shel is no longer with us in the world of the living, we all have "internalized Shels" that contribute to internal conversations between "I" and "Me" to shape our behavior. It is no accident that, for all of us, as it was for Shel, graduate education and mentorship is a top priority, as is leaving a scholarly legacy upon which others can—and will want to—build.

Shel often said that we should consider every idea others shared because learning from others is the foundation of the academy. He was also clear that one does not need to agree with the argument, but before one can critique others' ideas, one needs both to understand and respect their position. You could always find Shel in the front row of any talk or presentation he attended. He was happiest when engaged in the process of exchanging ideas. Thus, honoring Shel after his passing meant looking forward to the enterprise of building and exchanging new ideas and scholarship about identity theory and symbolic interactionism.

One way we did so was by organizing a gathering of scholars and colleagues whose work extends or bridges from the ideas Shel spent over 50 years theorizing, researching and writing about. The Indiana University Identity Conference, which took place on April 13 and 14, 2018, brought together established scholars to present new empirical or theoretical papers. Many of the papers presented at the conference are in this book. We thank all of the scholars who participated in this conference, either by presenting their work or by contributing to an appreciative, but constructively critical audience. We especially want to thank those who contributed their best and cutting edge papers written for the conference, and those who, while not in attendance, signed on to write a chapter for this volume. We also wish to acknowledge and thank Springer for agreeing to publish and disseminate this book. Lastly, we want to thank Indiana University for hosting and providing support for the conference.

We hope this book will carry forward Shel's scholarly legacy while ensuring that structural symbolic interaction and identity theory do not remain static. Promoting dynamism within structural symbolic interaction and the identity theory paradigm is essential if we are to tackle and resolve both older social problems and newly emerging ones, while more generally enhancing our understanding of, and explanation for the processes of social life.

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# Structural Symbolic Interaction and Identity Theory: The Indiana School and Beyond



Richard T. Serpe, Robin Stryker and Brian Powell

**Abstract** This chapter provides an overview of the development of symbolic interaction and identity theory as a prelude to introducing the theoretical and methodological advances to these traditions contributed by authors of subsequent chapters in this book. Built on the pioneering work of George Herbert Mead and others, symbolic interactionism focuses on the reciprocal relationship between self and society, in which shared meanings constructed through interaction with others influence social behavior. Where the paradigm originally centered on analyzing micro-social encounters, highlighting specific characteristics of situations and actors, over time it extended its focus to understanding patterns in interaction across situations and time, suggesting that social structure explained these patterns. In the late 1960s, Sheldon Stryker began to codify the premises of structural symbolic interaction. From this, identity theory developed and, over the next five decades, came to encompass both structural and perceptual research agendas. Where the former elucidates behavioral processes relating hierarchies of identity salience structuring the self to patterns of identity commitments and role behaviors, the situational enactments of which are embedded in networks, groups and social institutions, the latter elucidates perceptual control processes exercised by the mind in response to the feedback that self receives from others in interaction. Over time, identity theory's initial focus on role identities broadened to include group identities and person identities, and bridges developed between identity theory and other theories and paradigms in sociology and the social sciences more generally. These include bridges to theories such as affect control theory and identity accumulation theory, built upon symbolic interactionist premises, and bridges to theories and paradigms beyond symbolic interactionism, including

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exchange theory and social identity theory. The chapter ends with a preview of ideas and findings developed in the rest of the book.

**Keywords** Identity theory · Structural symbolic interactionism · Symbolic interactionism · Identity · Identity salience · Identity prominence · Identity verification · Commitment

## 1 Introduction

Built on the symbolic interaction tradition pioneered by Mead (1934), identity theory is one of the most vibrant theoretical traditions in contemporary sociology. Symbolic interactionism itself is a classical sociological tradition rooted in the United States, in contrast to the European born-traditions associated with Emile Durkheim, Karl Marx, and Max Weber. In this book, we bring together both well-known scholars and emerging scholars to exemplify the breadth, depth, and explanatory power of the tradition, while also building bridges to other notable traditions in the social sciences, including social identity and rational choice theories. We focus especially on highlighting and synthesizing theoretical and methodological advances in identity theory and structural symbolic interactionism to assist researchers in situating their work within the present-day scholarly landscape while stimulating yet new theoretical insights and empirical advances.

The structural symbolic interactionist paradigm within sociology focuses on the reciprocal relationship between self and society, in which shared meanings constructed in engagement with others, influence social behavior. Where the “traditional” version of symbolic interactionism enhanced understanding of how social interaction proceeds, the “structural” version of symbolic interactionism helped explain how social structures—from those pertaining to family, to work, and to religious, educational and political institutions—shape interaction. Representing the “Chicago School” of traditional symbolic interaction—so labeled by Blumer (1969)—symbolic interactionism initially focused on qualitative, interpretive analysis of micro-social encounters, emphasizing specific characteristics of actors and situations. In the 1950s, other symbolic interactionists began to extend the traditional focus from micro-interaction to understanding the patterned reproduction of interaction across time and situations, suggesting that social structure explained such patterns (Kuhn and McPartland 1954; Kuhn 1964). This research, now known as the “Iowa School,” used quantitative approaches to investigate the self. In the late 1960s, Stryker (1968, 1977, 1980) began to codify the social structural premises of structural symbolic interaction. Following Stryker’s formulation, identity theory developed.

IT theory and research motivated by Stryker’s structural symbolic interactionism have come to be known as the “Indiana School” (Burke 2004). In this chapter, we elucidate the development of this body of research over the past five decades. These include theory and research about behavioral processes relating hierarchies of identity salience to patterns of identity commitments and role behaviors (Stryker

1980; Stryker and Serpe 1982, 1994), and theory and research about the perceptual control processes exercised by the mind (Burke 1991; Stets and Burke 2014). After briefly outlining the relationship between identity theory and affect control theory (Smith-Lovin and Heise 1988), we discuss identity theory's extension from Stryker's (1968, 1980) initial focus on role identities, to person and group identities, while initiating a bridge to social identity theory. The latter developed from Tajfel's (1982) psychological theory of categorical social identities such as race and gender, and the mechanisms through which such categories may become social groups. We likewise discuss briefly identity accumulation theory (Thoits 1983), developed within structural symbolic interaction, and bridges between identity theory and exchange theory, a major sociological tradition outside of symbolic interactionism (Cook and Rice 2003).

We end this chapter by previewing key ideas and findings developed in the rest of the book. The book as a whole is framed as a response to Stryker's (2000, 2008) and Burke and Stryker's (2016) recent calls for further advancing the theoretical and methodological foundations of identity theory's structural and perceptual paradigms, while working to answer questions of concern to macro-sociologists across many substantive areas, and bridging to other major theoretical traditions in the social sciences.

## 2 Symbolic Interaction

Building on the work of early philosophers asserting that humans are social beings, the symbolic interaction paradigm emerged in the wake of World War I (Blumer 1937, 1969). Mead himself did not use the term symbolic interactionism; Blumer (1937) coined the term. Symbolic interactionists presume that society is based on communicative social action, structured social relationships, and interactions that are motivated by sympathy and the desire to be sociable; society reflects how people see themselves (Bryson 1945; Stryker 1980). However, as Stryker (1997, 315) asserts, the fundamental starting point for symbolic interaction is that "in the beginning, there is society." Though self and society are co-constitutive through organic, reflexive processes, society structures social relationships that, in turn, shape interaction (Stryker and Stryker 2016).

Three scholars, all identified with pragmatism in philosophy, are central to the development of the symbolic interactionist perspective: William James, John Dewey, and George Herbert Mead (Joas 1987). Focusing on self-esteem and consciousness, James (1890), posited that consciousness of human experience is a continuous, reflexive process that provides the foundations for the emergence of the self, consisting of a knower (the "I") and the known (the "Me"). James identified four types of self: material, spiritual, social, and pure ego. For James, the social self, based on recognition of the person by others, is central to understanding the empirical content of the self. This assumption leads to an organized self that is the product of "*as many social*

*selves as there are individuals who recognize him.* But as the individuals who naturally carry the images fall into classes, we may practically say that he has as many different social selves as there are distinct *groups* of persons about whose opinions he cares” (James 1890, 294; italics in original). Thus, for James, the self is a product of a highly differentiated society. This assumption remains central to contemporary symbolic interaction.

Dewey (1930) posited that human evolution involves continual adaptation to contextual interactional conditions and asserts that mind is instrumental and perhaps central to this process. Arguing that persons react to stimuli in the context of problem solving, Dewey presumed that mind—thinking—aligns behavior with problem resolution. For Dewey, the stimuli themselves arise during interaction but do not cause the interaction. For example, Dewey suggests that the mere presence of a needle in a haystack is not a stimulus unless the context of searching for it already is present. Stryker (1980, 26) frames Dewey’s principle in the following manner: “The world that impinges on our senses is a world that ultimately depends on the character of the activity in which we are engaged and changes when that activity is altered.” In short, Dewey develops a pragmatic theory of action in which multiple persons work together to resolve problems by engaging the mind and identifying alternative solutions. Implicit in this view, the social action of problem solving continues until the problem is resolved.

Mead (1934) drew on Dewey’s (1930) pragmatism as well as on Darwin’s (1859) evolutionary ideas, explicitly positing that mind, self, and society all emerge from an on-going social process consisting of conversations of gestures that have become significant symbols expressed through language. Mind emerges when people can point out meanings to themselves and others, that is, when they are capable of reflexivity. Thinking is an internal conversation of gestures, and because mind and thinking develop through gestures and significant symbols, they are social processes, not individual ones. Mead presumed that the mind allows people to incorporate significant symbols with shared meaning to facilitate successful social interaction. Successful interaction in turn requires mutual problem solving. To do so, persons learn to take the role of the other to anticipate the other’s responses, so that understandings and behaviors can align in the ongoing process of social action.

Self emerges through the same reflexive processes that give rise to mind; the definition of self is that which can be an object of itself (Mead 1934). In other words, the essence of self is reflexivity. Language makes possible the development of self because language enables us to take the standpoint or role of others to see ourselves as objects. It is through role-taking, then, that self develops and manifests. Role taking is the act of putting oneself in the position of the other, based on a common communication process, to anticipate the other’s response.

Following James (1890), Mead (1934) identified two parts of the self: the “I” and the “Me.” Anticipated responses of others are incorporated into the self as the “Me.” The “Me” thus represents the organized responses, attitudes, and expectations for our future behavior with respect to others with whom we interact. Through the “Me,” our behavior takes on consistency and predictability, with the expectations

of others—externalized social control—becoming internalized self-control through role-taking.

Indeed, the self is engaged in internal conversation, with persons' behavior the outcome of this internal conversation. In internal conversation with the "Me," the "I" represents self's responses to the organized expectations of others. Mead (1934) often depicts the "I" as a pure impulse, allowing for spontaneity, creativity, and unpredictability. However, the "I" and the spontaneity for which it is responsible is within—not outside—the social process, because the social control exercised by the "Me" is a precondition for them. In short, and in more contemporary parlance, the "I" and the "Me" are Mead's answer to the presumed problem of structure versus agency. For Mead, this "problem" is, in fact, no problem because, just as the "I" requires the "Me," exercising agency requires social structure. The continuous dialectic between "I" and "Me" makes both social order and social change possible. Society is continuously created and recreated.

There are three key implications of Mead's (1934) formulation. First, society emerges as a continuous process in which solutions to problems arising in social action are institutionalized, but not static. Societies evolve and change based on novel problems of social action that arise within diverse social and environmental settings. Second, because both mind and self emerge and are recreated through symbolic communication, producing shared meanings, both mind and self are intrinsically social phenomena. Third, Mead's formulation of problem solving within the social process aligns well with the scientific method, because social actors systematically assess the context of the social interaction, drawing on possible solutions to problems arising in the interaction until they settle on a solution they believe will be successful.

## ***2.1 Additional Foundational Contributors to Symbolic Interaction***

Other scholars of the first part of the 20th century, including notably Charles Horton Cooley, W. I. Thomas, Herbert Blumer, and Manfred Kuhn, also helped shape the development of contemporary symbolic interaction. A contemporary of Mead, Cooley (1902) presumed that sociology would address everyday life issues that are social, mental, and subjective, and that empathy and sympathy are mechanisms through which persons can understand and imagine the lives of others. Cooley's influential formulation of "sympathetic introspection" links to Mead's concept of role-taking, and like Mead's views, presumes that self and society are two sides of the same coin. Indeed, for Cooley, persons exist in the imagination of others and society is the collective imagination of a set of persons. Therefore, the everyday life of the person and society are collective aspects of the same thing. Self does not exist distinct from others but rather is a social product of interaction with others: "We always imagine, and imagining, share the judgments of the other mind" (Cooley 1902, 152–153).

Today, Cooley may be best known for his concept of the “looking glass self” (Cooley 1902), in which the self comes from a three step process in which first, we imagine how we appear to others; second, we imagine how others judge us based on this; and third, we react to our perceived judgment by others, such that we experience feelings of pride or shame deriving from these imaginations.

On the one hand, Mead (1934) criticized Cooley’s (1902) idea that imaginations are the underlying reality, such that society at root is the imagination of others. As well, he pointed out, disapprovingly, that the concept of the looking glass self implicitly presumed the existence of self in order to explain the self’s emergence. As Mead (1934) noted in developing his distinct views of self’s emergence, if there is no self before others respond to it, there would be no basis for having any feelings at all when imagining others’ judgments.

On the other hand, shaped by an intellectual world in which reason and emotion were regarded as separate, antithetical processes (Damasio 1994), Mead (1934), while recognizing the importance of emotion to a full theorization of social life, cast aside a focus on emotion to focus on reflective cognition. In contrast, Cooley (1902) foreshadowed contemporary inclusion of research focused on affect and emotions in conceptualizing the self and explaining how identities emerge and shape behavior. As well, Cooley (1902) emphasized that self-development and relationships with others tie strongly to broader social organization. Social interaction in primary groups based on intimacy, face-to-face relations, and cooperation are foundational to the more complex relationships that define the context of social action.

W. I. Thomas is known best today for his famous aphorism, co-written with his spouse Dorothy: “...if men define situations as real, they are real in their consequences” (Thomas and Thomas 1928, 572). That aphorism alone, however, expresses only part of Thomas’ full vision. His sociology focused on how individuals and groups adjust and respond to the behavior of other individuals and groups. Adjustive responses are context-specific; people respond to the objective circumstances in which they are embedded. However, equivalent circumstances often do not produce the same responses because people have different subjective senses of—different definitions of the situation for—the objective conditions they experience. Thus, understanding how individuals and groups adjust their responses requires the researcher to consider the “total situation,” including both its objective, verifiable components, and the definitions attributed to it by the individuals and groups in question (Thomas 1925; Thomas and Thomas 1928).

Herbert Blumer, arguably the leading scholar framing symbolic interactionism as a perspective focusing on micro processes, built on Dewey’s (1930) pragmatism to focus on the centrality of meanings attributed in definitions of the situation. Rooting symbolic interaction’s theoretical and methodological foundations in humanism, Blumer (1969) advocated investigating Mead’s (1934) ideas by researching micro-processes in which each new interaction is viewed as a new event. This approach led Blumer and his adherents to reject the idea that symbolic interactionism should or could study the emergence of shared meanings applicable across a broad range of social action.



In short, for Blumer (1969), symbolic interactionism cannot lead to empirically testable and predictive general theoretical propositions. Because persons organically, reciprocally, reflexively, and continuously construct behavior through context-specific meanings that develop through social interactions, social scientists must develop context-specific and after-the-fact-interpretations of social behavior. To do so, they should use “exploration” and “inspection,” observational methods based on data gathered through unstructured interviewing and listening to conversations, and interpretation of letters, diaries, life histories, and public records. Foundational to Blumer’s vision of symbolic interactionism is the strength of direct observation in interpreting the meaning of context-specific social action.

Kuhn (1964; Kuhn and McPartland 1954) differentiated his vision of symbolic interactionism from that of Blumer (1969), using what Kuhn termed “self-theory” to develop and empirically test precise, theory-based generalizations. Kuhn presumed that social action produces social structure reflexively maintained and modified through the development of shared meanings. Resulting social structures both facilitate and constrain further interaction.

Kuhn (1964; Kuhn and McPartland 1954) conceptualized social structure as composed of social roles, reference groups, and networks of organized relationships among persons, with patterned sets of behavioral expectations guiding interactions across persons and contexts. Building on Mead’s (1934) definition of “self as an object,” Kuhn presumed that self conceptualizes plans of action reflecting definitions of the situation invoking shared meanings and relations to arrive at best predictions of future behavior. The concept of “core self” is central to Kuhn’s theorizing; the core self is comprised of a set of stable meanings that constitute a stable self-conception. This lends continuity to interaction across contexts, as well as to substantial predictability in social behavior. At the same time, however, within Kuhn’s formulation, role-taking processes also are role-making processes and allow for creativity in behavior.

For Kuhn (1964), the self is composed of many components, including status identifications, role expectations, preferences and avoidances, personal attributes and traits, and patterns of selection of reference groups. All these shape linkages between social structure and self. However, though the social structure has a profound impact on behavior, people are not automatons, and there is high variability among persons in the content of components of self. It stands to reason that, for Kuhn, unlike for Blumer (1969), the appropriate methodological stance for symbolic interactionism is that of the conventional scientific method, calling for the development of general propositions and empirically testable hypotheses derived from symbolic interactionism’s meta-theoretical foundations. For Kuhn, then, there is no contradiction between SI’s conceptual apparatus and the requirements of a more conventional scientific method.

In sum, the scholarship of James, Dewey, and Mead—in interaction with, and as built upon by that of Cooley, Thomas, Blumer, and Kuhn—provided a rich foundation of complementary and contradictory ideas on which to build more contemporary symbolic interaction. It will come as no surprise, then, that while encompassing multiple methodological traditions, all variants of contemporary symbolic interactionist

theory and research focus on the attribution of meaning as the lynchpin of a correlative relationship between self and society.

### 3 Contemporary Symbolic Interactionism

The two major symbolic interactionist paradigms in today's sociological social psychology—traditional symbolic interactionism and structural symbolic interactionism—are built upon the competing visions offered by Blumer and Kuhn (Stryker and Vryan 2003). However, these traditions also intersect because so-called traditional symbolic interaction based on Blumer's (1937, 1969) work influences structural symbolic interaction, by helping to shape the latter's concepts and its views of the mechanisms that underlie cross-context but always situated social action. Meanwhile, structural symbolic interaction is especially indebted to Kuhn (1964) in its orientation toward developing empirically testable general hypotheses about the development and consequences of self in—and for—social behavior.

Consistent with both Blumer (1969) and Kuhn (1964), both variants of contemporary symbolic interactionism rely on a common foundation: symbolic communication enables meaning attribution that in turn enables social interaction. The reflexive, meaning-suffused nature of social life evolves from multiple persons engaged in context-situated interactions in the normal flow of everyday life. In essence, society is a web of interactions that constructs and defines persons, and persons in interaction with each other, construct and define society.

Both traditional symbolic interactionism and structural symbolic interactionism follow Mead's (1934) view of mind and thinking as an internal conversation of gestures. With 20–20 hindsight, Mead (1934) was in error in failing to recognize that, although the content of mind varies cross-culturally because of culturally variable socialization and learning, the evolution-based structures of the mind that permit humans to think at all are more universal (Stryker and Stryker 2016). Happily, this error does not undermine Mead's (1934) or contemporary symbolic interactionism's perspective on the development, structure, and content of the self (Stryker and Stryker 2016).

Both traditional symbolic interactionism and structural symbolic interactionism likewise follow Mead (1934) in assuming that self develops through the meaning attribution involved in role-taking. When persons think about themselves symbolically, they are interpreting internally and subjectively the flow of social action, to formulate and enact appropriate responses. Thus, any social scientific understanding of human behavior requires attending to the subjective experiences of those who are studied. However, because until recently—and certainly in Mead's time—it was not possible to gaze directly at the workings of the mind through technologies such as contemporary magnetic resonance imagery (MRI), subjective experience had to be gotten at behaviorally. Depending on methodological orientations consistent with either traditional or structural symbolic interaction or both, and depending on how a researcher analyzes data gathered through observation and in-depth

interviews, researchers could use field observations, in-depth interviews and content analyses of diverse documents, or they could use laboratory experiments and surveys.

In their overview of symbolic interactionism and identity theory, Serpe and Stryker (2011, 230) highlight key differences between traditional and structural symbolic interactionism along five dimensions. We reproduce their summary Table 1.

As can be seen, traditional symbolic interactionists presume the emergent character of society as a central premise. Both self and social organization lack the stability and predictability required for the development and refinement of an empirically based general theory based on cumulative analyses across many different situations. Instead, analysts can and should provide careful descriptions of observed micro-social interactions in process, and a post hoc interpretation of the interactional process that will be relevant for that particular interactional process only.

In contrast, structural symbolic interactionists presume that social life is patterned in ways that provide substantial continuities from one interaction to the next. Based on empirical findings demonstrating some level of continuity and predictability in social action, structural symbolic interaction is oriented to developing general theory and seeking empirical generalizations that go beyond descriptions and interpretation of specific, situation-based micro social processes. In short, structural symbolic interactionists assert that concepts useful in understanding one situation can be useful in understanding other situations. Based on this assertion, the goal is to develop and test predictive explanations of social behavior (Heise 1986; Kuhn 1964; Stryker 1980).

Historically, the most cited distinction between traditional and structural approaches to symbolic interactionism has been methodological. Traditional symbolic interactionists gather data to ground their ideas naturalistically through ethnography, participant observation, and intensive unstructured interviewing. In contrast, structural symbolic interactionists use a wide range of data gathering techniques, including surveys, experimentation, simulations, formal modeling, and more recently, techniques from neuroscience. Typically, structural symbolic interactionists prefer quantitative, statistical methods for analyzing the data they gather. However, as some chapters in this book will show, there is no necessary dissociation between interpretive analytic techniques and the goal of developing general theory. Typical differences in methodology notwithstanding, both traditional and structural symbolic interactionist approaches and the research these foster continue to thrive.

We return to the question of the relationship between substance and method in our concluding chapter. To preview, we will argue for the utility of methodological pluralism in contemporary symbolic interactionism and identity theory. Openness to multiple techniques of theorizing and conducting empirical research should increase the capacity of these paradigms to provide interpretive, explanatory and predictive insights in response to questions that have scholarly significance and also practical consequences for individuals, social groups and social institutions.

**Table 1** Comparison of traditional and structural symbolic interactionism

Traditional symbolic interactionism	Structural symbolic interactionism
<p>Traditional interactionist analyses assume the emergent character of society and self and the constructed character of social interaction. These analyses argue that self and social organization lack the constancy required for theory built around them to be useful beyond the singular instance from which they develop. Implied is that social life is unpredictable and that testing theories of social psychological phenomena is not possible. What is possible is to describe interaction as it occurs and to understand that interaction after it occurs</p>	<p>Structural interactionist analysis assumes a sufficient continuity in social life to justify seeking empirical generalizations applying beyond particular interactions. Concepts useful in understanding one situation can be useful in understanding other situations (Heise 1986; Kuhn 1964; Stryker 1980)</p>
<p>Actors' definitions and interpretations change continuously in immediate interactive situations. This fluidity extends to social life in general; thus, interaction may be reasonably described only as it unfolds. Consequently, the relevance of concepts representing social structure (as well as concepts imported from prior analyses of interaction) is dubious</p>	<p>The purposes of sociological social psychology make it essential to include social structure when studying social psychological processes. Conceiving of social structure as relatively stable patterns of social relationships and social interaction, these patterns constrain actors' definitions, providing sufficient stability in definitions to justify using structural concepts in social psychological analyses</p>
<p>Only the perspectives of participants in social interaction are relevant to understanding their interaction. Using the perspectives of sociological observers negates true understanding. Consequently, the voices of observers are to be eliminated in description and analysis</p>	<p>Actors' definitions must be considered in explanations of their behavior, but these alone are insufficient as explanations</p>
<p>Self emerges from society but becomes free of structural constraints over time, acting as an independent source of social behavior (McCall and Simmons 1978). Novelty and creativity are highly probable in social life. Social life is continuously newly constructed</p>	<p>Self is a conduit through which prior social organization and structure reproduce themselves (Goffman 1964; Burawoy 1979). Creativity and novelty are possible but limited by the degree extant social life reproduces existing patterns</p>
<p>The ideas of symbolic interactionism require a commitment to qualitative research methods. The most useful methods of pursuing its ideas are naturalistic; ethnography, participant observation, and intensive unstructured interviewing are strongly preferred. Consequently, the locus of research is generally a small set of interactants</p>	<p>The widest range of social science data gathering methods, including sample surveys, simulations, and experimentation, are available for use, and quantitative methods of analysis are preferred</p>

## 4 Social Structural Symbolic Interactionism

The traditional interactionist frame drew strong critiques, arguing that its premise—that incorporating a role for social structure within symbolic interactionism had little utility—was deeply problematic (Gouldner 1970; Huber 1973). In response, structural symbolic interactionists focus on the concept and role of social structure in theorizing structural symbolic interactionism and conducting empirical research within the paradigm. Starting with Stryker's (1997, 315) aphorism "...in the beginning there is society," structural symbolic interactionists assert that an understanding of and explanation for social psychological processes must root them within structural contexts. If sociological social psychologists do not take social structure seriously, symbolic interactionism can provide little to no purchase in understanding and explaining patterned social action (Stryker 1980) and will remain divorced from macrosociology. In short, although structural symbolic interactionism considers that the symbolic meanings embedded in social action are sufficiently fluid that interaction is substantially self-directed and agentic, symbolic meanings are shared sufficiently to facilitate and constrain agency.

Structural symbolic interactionism starts with the premise that person and society are mutually constitutive, albeit because one must start theorizing somewhere, society is the "pragmatic" causal prior in this formulation. Embedded in social relationships and social networks, we are socialized to recognize and understand the organization of social life and the social relations that pre-existed us. Shared meanings and expectations are not random, but rather socially patterned. Social structure encompasses diverse, differentiated patterns of reciprocal role relationships, as well as organized groups, networks, organizations, and communities that are differentiated according to positions based on social class, gender, race, ethnicity, age, and other markers of social positioning that both facilitate and constrain social action in various ways. Everyday life is shaped by the experience of persons within multiple kinds of social relationships that, in turn, are bound to societal locations; through these, we engage others and participate in social interaction.

Social structures establish interactional contexts that are more open or closed (Stryker 1980). Our location in social structure shapes the likelihood that interaction will include or exclude particular others, the more general options for interaction, and the level and range of resources available for interaction. In contexts that are more open, the person has more choice or agency over the issues and resources that can come into play, while more closed contexts limit the issues and resources available for social action. Social structures shape self-development and motivation, as well as expectations for behavior, resources, and meanings attributed to the interactional context. Overall, most people live their lives in and through relatively small and specialized sets of social relationships and roles.

Where traditional symbolic interactionists view all life as open to reconstruction and radical social change, structural symbolic interactionists instead emphasize that interactions are constrained by stable situational characteristics, past experiences that lead persons to have constructed situation-relevant expectations prior to the

focal interaction, norm-based pressures from interaction partners, and habit (Serpe and Stryker 1987). Recognizing that everyday life interactions more often than not reproduce existing social structures (Burawoy 1979), structural symbolic interactionists expect behavior to incorporate a mix of conformity and creativity, and to lead to both social stability and social change.

A central concept for structural symbolic interactionism is that of the social role. Conceptual identification of roles as both locations within the social structure and imbued with shared expectations and meanings responds to Mead's dictum that self—developed and enacted in diverse role-based relationships, for example, parent-child, teacher-student, pastor-congregant, employer-employee—reflects society. Reciprocal role-based relationships link social structure to persons with selves in social interaction. Complex, differentiated and organized into recurring patterns, roles structure the form and content of self. When persons internalize the role-based meanings and expectations associated with their social relationships, these meanings and expectations become the basis for identities located within the self. As will be developed further below, in society today, self comes to contain a complex, internalized structure of multiple identities reflecting the diversity of roles people play in social life and the networks in which their social roles and relationships are embedded. Identity-based social interaction, then, demonstrates the linkages between persons with selves on the one hand, and society with its differentiated social structures, on the other.

## 5 Structural Symbolic Interaction and Identity Theory

Over fifty years ago, Stryker (1968) developed key premises of identity theory. Since that time, substantial theory and empirical research within sociological social psychology have focused on identity and building identity theory (Burke and Stets 2009; McCall and Simmons 1978; Owens et al. 2010; Serpe and Stryker 2011; Stets 2006; Stets and Serpe 2013; Stryker 1980/2000; Stryker and Burke 2000; Burke and Stryker 2016). As prefigured above, identity theory presumes a fundamental linkage between the development, enactment, and change of identities and the diversity and differentiation characterizing the social structures shaping everyday life.

Identity theorists consistently define identity as an internalized set of shared meanings that provide shared expectations for individuals in social roles (Stets and Serpe 2013). However, identity theorists now presume there are three bases for identity; that is, there are role identities, group identities, and person identities (Burke and Stets 2009; Stets and Serpe 2013). Individuals have role identities based on meanings attributed to locations they occupy in reciprocal relations within social institutions—e.g., parent-child or spouse-spouse within the family, employer-employee within the workplace. Individuals have group identities based on meanings attached to memberships or affiliation with specific groups in society—e.g., a professional association or community group. Individuals have person identities based on the meaning of specific characteristics that constitute them as differentiated, unique individuals—e.g.,

being artistic or musical or a hard worker or kind and compassionate or intellectually aggressive. We discuss the multiple bases of identity further below.

Much research guided by identity theory examines the development of psychological and behavioral consequences of one identity considered in isolation (e.g., identity as a scientist in Brenner et al. 2018; identity as a moral person in Stets and Carter 2012). However, identity theory-guided research also examines the implications of multiple identities experienced in tandem for outcomes such as psychological well-being and mental health (Thoits 1983; Simon 1995).

Identity theory provides a framework to understand how and why meanings and expectations are attached to identities and the mechanisms through which persons negotiate and manage their identities in social interaction. Identity theorists use this framework to ask and answer research questions pertaining to how identities are organized and inter-relate, how identities relate to role performance, and how identities relate to emotion. Scholars also often use identity theory to conduct research on self-concept, including self-esteem, authenticity, and efficacy, on physical and mental health, and on other aspects of how people experience everyday life. Although the structural research agenda of identity theory, deriving from Stryker (1980) and the perceptual research agenda of identity theory, deriving from Burke (1991) pursue different research questions, both research programs are central to identity theory (Burke and Stets 2009; Serpe and Stryker 2011; Stets and Serpe 2013; Stryker and Burke 2000; Burke and Stryker 2016). As Finch and Stryker (this volume) note, this view is fitting because a key concept in Stryker's (1968, 1980) mostly structural formulation involves the organization of identities internal to the person, and Burke's (1991; Stets and Burke 2014) mostly perceptual formulation cannot function without input based on externalized social interaction.

## 5.1 *Conceptual Apparatus of Identity Theory*

Core concepts in identity theory include identity, bases of identity, identity salience, identity prominence, extensive (interactional) and intensive (affective) commitment, and identity verification. We elaborate briefly on each of these core concepts so that it will be easy for all—including those who are first introduced to identity theory by this volume—to understand and appreciate the advances made by contributors in subsequent chapters of this book.

*Identity.* There are two fundamental requirements for the existence of identities. First, persons must place themselves, and others must place them, as social objects with positionality. Second, persons must internalize the meanings of positional designations. Identities are shared meanings and expectations that form part of cognitive schema (Markus 1977) that shape the cognitive and conceptual processes of the self (Stryker and Serpe 1994). The cognitive schema of internalized meanings locates persons within organized social relationships. Identities are not situation specific, but rather are present across multiple situations experienced. Role identity is a set of meanings and expectations attached to relational positions in social structure (Stryker

1989). As previously indicated, identities also can be associated with groups whose shared meanings come to be internalized as an aspect of self (group identities), and with unique ways individuals see themselves as persons (person identities) (Burke and Stets 2009). When people reflect upon their behavior in social roles and groups, and as persons (Burke and Stets 2009), they attribute meanings to the identities formed on each basis. The constellation of identities possessed by an individual organizes how that individual behaves, interacts with others, and develops social relationships.

*Identity Salience.* Identity theory scholars define identity salience as the probability that one will invoke a specific identity across situations (Stryker 1968, 1980). Identities that have higher, relative to lower salience have more, relative to less, likelihood of enactment across situations in social interaction. The salience of a given identity relative to other identities signals its placement in an individual's identity salience hierarchy (Serpe 1987; Stryker 1980), and there is substantial variability in the hierarchical placement of particular identities across the population. For example, the parent identity may—or may not—be more salient than the worker identity for a young working mother relative to an older father who is well established in his employment (Stryker 1968, 1980).

Though identity salience pertains to the probability of enacting the identity, it does not completely determine identity enactment. Explicit in Stryker's formulation is that individuals choose to enact—or refrain from enacting—various identities across situations. Enacting an identity, then, is an agentic aspect of social life (Stryker 1968; Stryker and Serpe 1983; Serpe 1987; Serpe and Stryker 1987, 1993, 2011).

Implicit in the formulation of hierarchies of identity salience is that, to the degree that identities have higher, relative to lower, salience, individuals actively may seek out opportunities to enact them (Serpe 1987; Stryker 1980). For example, a person giving a presentation at a professional meeting not focused on family issues nonetheless may work into the presentation that he/she/they have become a first-time grandparent. Invoking the grandparent identity in a professional setting and while enacting one's professional identity, then, signals that the grandparent identity has high salience.

*Identity Prominence.* Parallel to the development of structural symbolic interaction and building on more traditional symbolic interactionism to emphasize agentic aspects of identity, McCall and Simmons (1978) posited that persons' subjective judgment of the importance of an identity shapes behavior. Thus, McCall and Simmons (1978) theorized that identities are structured into an identity prominence hierarchy paralleling Stryker's (1968, 1980) hierarchy of identity salience. However, McCall and Simmons (1978) also presumed that an individual's identity prominence hierarchy reflects that individual's ideal self.

Rosenberg (1979) developed the idea of psychological centrality, which is very similar to McCall and Simmons' (1978) concept of identity prominence. Centrality to self-concept signals the importance of a component of the self, such as an identity, to a person's general self-concept. The greater the subjective importance of an identity to the person's self-concept, the greater the centrality.



Currently, researchers in the identity theory tradition treat the terms identity prominence, identity centrality, and identity importance as synonyms. Whereas some researchers emphasize the importance of identity salience for shaping behavior (e.g., Stryker 1968, 1980), others emphasize the importance of identity prominence (e.g., McCall and Simmons 1978). However, salience is defined behaviorally, as the probability of enacting the identity, and prominence is defined subjectively, as the internalized importance of the identity for how a person views their general self-concept. This definitional distinction has important implications for the empirical measurement and import of the two concepts. Research suggests that, although salience and prominence typically are positively inter-related and often work in similar ways, they also may work differently (Brenner et al. 2014, 2018; Markowski and Serpe 2018; Stryker and Serpe 1994; Stryker et al. 2019).

*Identity Verification.* Burke's (1991) perceptual control model and research agenda brought the concept of identity verification to identity theory. An identity is verified when individuals perceive that others view them in the same way as they view themselves. Conversely, when individuals perceive that others view them differently than they view themselves, identity non-verification occurs and typically creates distress (Burke and Stets 2009). In the face of identity non-verification, individuals work to resolve the problem of non-verification by either changing their view of themselves or trying to change how others view them (Burke and Stets 2009).

Designed to assess how reflected appraisals shape self-view, the perceptual control model posits a cybernetic process with four steps (Burke 1991). For any given identity, the model presumes that prior to the situational activation of the identity, individuals have an identity standard—a set of self-meanings—associated with the identity. The identity standard is the starting point for a feedback loop that, in step two, involves assessment of some perceptual input pertaining to the identity standard. Perceptions of others' feedback pertaining to the identity standard are reflected appraisals. Third, individuals compare the reflected appraisal to the meanings they associate with their identity standard. If the reflected appraisal and identity standard match, there is identity verification; if the reflected appraisals and identity standard do not match, there is identity non-verification. Fourth, when identity is verified, no further response from the person is required. However, identity non-verification gives rise to attempts to align the identity standard with the reflected appraisal, by changing the identity standard, by changing behavior to conform more to the reflected appraisal, or by trying to change the reflected appraisal so it accords better with the identity standard (Burke 1991; Stets and Burke 2014).

Identity verification produces positive emotions, but identity non-verification leads to negative emotions (Burke and Stryker 2016; Stets and Burke 2005, 2014; Stets and Serpe 2013). Research suggests that negative emotions typically occur especially—but not exclusively—when identity non-verification is in a negative direction (Kalkhoff et al. 2016a, b; Stets and Burke 2014). Identity non-verification also seems to produce more cogitation. Recent research using electroencephalography finds that, while identity verification activates brain structures responsible for unconscious, automatic processing, non-verification activates a region of the brain associated with more effortful, conscious processing (Kalkhoff et al. 2016b).

*Commitment.* Researchers working within structural and perceptual research agendas within identity theory conceive of commitment differently. From the structural perspective, Stryker (1968) defined commitment in terms of two dimensions, extensive, also known as interactional commitment, and intensive, also known as affective commitment. Where extensive commitment pertains especially to the number of direct network ties through which a person enacts an identity, intensive commitment pertains to the affective strength attached to those ties (Serpe 1987; Stryker and Serpe 1994). Extensive commitment to an identity increases as the size of the social network in which that identity is enacted increases, and as the number and types of interactions held with members of that social network increase (Adler and Adler 1991; Stryker 1980).

The concept of extensive (interactional) commitment is tied to that of identity salience in that opportunities to enact identities are linked to the individual's embeddedness in social networks. Access to networks for enacting identities, whether role identities, group identities, or person identities, in turn, reflects placement in the social structure. For example, an individual who has limited education beyond high school is not as likely to have the opportunity to develop strong social relationships with professionally trained persons, as are other individuals who themselves have more professional training. Thus, the less educated individual is not as likely as the more educated individual to enact their various identities within groups with membership based on professional training. Similarly, the individual without opportunities to pursue post-high school education is unlikely to be engaged in community activities more open to those with college educations or advanced degrees. This also restricts the contexts in which the focal individual can enact diverse identities.

At the same time, when an individual's network ties to a set of others—say through a professional association—depend on enacting a particular identity—say a professional identity—and the individual values those ties, professional identity is likely to be salient—that is frequently enacted—by that individual. More generally, when ties to a set of valued, particular others depend upon playing out a particular identity, that identity will be salient to the individual. Thus, extensive commitment and identity salience are positively and reciprocally associated (Serpe 1987; Stryker 1980/2000; Stryker and Serpe 1982, 1994).

Intensive (affective) commitment reflects how people experience their emotional and social response to others with whom they interact within an identity. Intensive commitment reflects the level of closeness a person feels toward others in terms of personal and emotional attachments, the level of distress the person would feel if they were no longer able to interact with persons in the social network associated with the identity, and the need for others to know them with respect to the identity. Whereas extensive (interactional) commitment is measured by the number of direct network ties involved in a focal person's interactions based on the identity, intensive (affective) commitment is measured by the strength of the person's personal and emotional response to social interactions within the identity. The higher the level of intensive commitment to an identity, the higher the likely level of salience of the identity (Serpe 1987, 1991; Serpe and Stryker 1993, 2011; Stryker 1980; Stryker and Serpe 1983).

Burke and Reitzes (1991) define commitment from the perspective of perceptual control theory as the amount a work an individual does to verify their identity. The perceptual control model's conception of commitment focuses on how maintaining an identity is an internal process working to match the person's self-view with their reflected appraisals. The two concepts of commitment are two sides of the same coin, and the common element is the social interaction and relationships with persons in one's network based on reflected appraisals. We return to these various concepts of commitment and how commitment relates to social networks in this volume's concluding chapter.

*Bases of Identities.* As we already have signaled, as identity theory advanced, researchers elaborated and distinguished among multiple structural bases for identities. In identity theory's early stages, the focus was on roles and role identity (Burke 1980; McCall and Simmons 1978; Stryker 1980; Thoits and Virshup 1997). As the range of substantive issues addressed by identity theory expanded, it became evident that individuals experience the structural locations of identities and the contexts for their enactment in multiple ways. The resulting refinement to aid theory development and empirical research organized identities into three bases, roles, groups, and persons (Burke and Stets 2009; Serpe and Stryker 2011; Stets and Serpe 2013). Identity theory researchers also increasingly are considering how social categories such as race and gender, at the heart of social categorization and social identity theory (Tajfel 1982), relate to identity theory (Stets and Burke 2000).

Attached to social positions in society, roles invoke culturally patterned, shared expectations for behavior. For example, we have shared behavioral expectations for those who occupy the roles of parents, children, teachers, students, clergy, police officers, etc. Individuals occupying specific roles will exhibit variability in role performance. However, shared expectations for behavior in particular roles provide a framework to organize and understand social interaction. For example, we expect that parents will be nurturing and attentive toward their children, teachers will come into the classroom with an organized presentation for their students, and that students will attend class and complete the assignments for the course. When an individual internalizes the shared expectations associated with a particular role, that person by definition holds a role identity. When people claim a role identity, others understand the implications for social interaction and are guided by the shared expectations for behavior associated with the role (Burke and Reitzes 1980; Stryker 1968, 1980).

Social networks bring persons together who share common experiences. When the experiences lead to repeated social interaction with a particular set of persons, reflect shared meanings and behaviors, and persons internalize that shared experience, those persons form a "group" identity. Group identities pertain to family, church affiliations, professions, teams, clubs, gangs, and so forth. They are based on involvement with other group members, shared expectations for the behavior of group members, and active engagement with group activities.

Where social identity scholarship emphasizes that categorical social identities often become the basis for in-group enhancement, out-group derogation and hostile inter-group dynamics (Tajfel 1982; Stryker et al. 2019), identity theorists presume a strict analytic distinction between group identities and social identities (Stets and

Burke 2000). Social identities are based on the meanings associated with the identification of the individual as occupying a social category reflecting societal stratification (Hogg 2006; Hogg and Abrams 1988) and include identities based on the (mostly) ascribed characteristics of race/ethnicity and gender. Social identities locate persons with respect to the status and power accorded to their category of persons—the privileges they enjoy or, conversely, the disadvantages they suffer—because they are members of that category. Those with different social identities differ in their access to both structural and cultural resources, and with respect to societal expectations for appropriate behavior and treatment. Social identities thus reflect attitudes and values attached to the collective category in the broader society, rather than to a group identity as defined in identity theory.

Social action may be based both on category membership—social identity—and on active engagement and shared meanings associated with group membership—group identity. However, group identity by definition involves shared meanings internal to the group, and self-definitions shaped by those meanings (Burke and Stets 2009). Identity theory researchers focus more on group identity than social identity, precisely because group identities are based on shared meanings and expectations for behavior that serve the interests of the group, rather than on the broader cultural meanings attributed to social categories (Burke 2012). However, as illustrated by some of the chapters in this book, research continues to bridge between identity theory and social identity theory, and it includes further consideration of the relationship between social category-based social identities and group identities.

Within identity theory, person identities are distinguished from both role and group identities in that a person identity reflects sets of meanings differentiating the person from other persons as an individual (Burke and Stets 2009). Although each of us has a unique set of person identities, these are based on the internalization of culturally defined meanings. For example, person identities may include seeing oneself as “moral” (Stets and Carter 2011, 2012) or “fair” (Savage et al. 2019), with the sense of what is moral or fair derived from broader cultural patterns of meaning. Internalizing meanings constituting a person identity define the self in distinct ways, with self-expectations and reflected appraisals associated with person identity guiding our behavior.

Activated in social interaction, role, group, and person identities are not mutually exclusive guides for behavior. Multiple and variable constellations of a focal individual’s identities—role, group, and person—may be activated by particular situations. In many situations, it may be difficult to tease out the relative enactment of each type of identity.

## 6 “Foundational” Bridges

Just as is true for most research programs that advance, research programs in identity theory have advanced simultaneously with those of other closely related research

programs. Especially in the short run, research programs may grow in depth by limiting their scope and the breadth of the questions they ask in order to specify better and test core theoretical propositions and accumulate evidence about those propositions. In the longer run, however, maximizing the contribution made by identity theory to understanding and explaining social action requires that identity theory researchers engage with other advancing theories. This in turn should help motivate researchers in other paradigms to engage with identity theory.

First, relating ideas across diverse traditions of theory and empirical research increases clarity by elucidating where the different theories complement or contradict each other, and where each theory operates under specified conditions that themselves can be theorized and examined empirically (Wagner and Berger 1985). Second, bridging across theories and research programs presents an opportunity for innovation that may be less likely if the different research programs remain isolated from each other. Third, bridging requires cross-paradigm communication that, in turn, improves the capacity of specialized researchers to understand and appreciate the research of others whose work is guided by different paradigms. This enhances the likelihood of further cross-fertilization, while also ensuring that researchers in one tradition can better take the role of those in other traditions to appreciate better the contributions of those other traditions. It also ensures that, when researchers criticize traditions outside of their own, those critiques are based on in-depth knowledge and therefore productive, rather than setting up “straw people” just to knock them down.

## 6.1 *Affect Control Theory*

Affect control theory (Heise 1979) and identity accumulation theory (Thoits 1983) both exemplify foundational bridging with identity theory. Developing independently, affect control theory, and identity accumulation theory, like identity theory, have roots in Mead (1934) and structural symbolic interaction. All three traditions focus on the self in interaction with others.

As Robinson et al. (2008) note, Heise (1979) began developing affect control theory in hopes of providing a formal framework that would increase precision in explaining context-situated behavioral processes. These include both behaviors that “people enact under normal circumstances and the creative responses they generate when [they encounter] non-institutionalized or counter-normative situations” (Robinson et al. 2008, 179). Thus, Heise (1979) took as his starting point the same foundational issue as did symbolic interactionism more generally. But he approached this issue by combining insights from a measurement tradition in psycholinguistics (Osgood 1962; Osgood et al. 1957, 1975), empirical studies of impression formation (Gollob 1968; Gollob and Rossman 1973; Heise 1969, 1970), and a cybernetic model of perception (Powers 1973). This last likewise served as inspiration for Burke (1991) in developing identity theory’s perceptual research agenda. In contrast to Stryker’s (1968, 1980) original formulation of identity theory that did not theorize a role for

emotions, Heise (1979) presumed that affective reactions underlie our conscious understandings and definitions of the situation. Indeed, “the core affect control principle is that people act to maintain the affective meanings that are evoked by a definition of the situation” (Robinson et al. 2008, 179). Just as the control of identity is central to perceptual control processes in identity theory, control of affect is central to affect control theory.

As affect control theory developed further (e.g., Heise 1986; Smith-Lovin and Heise 1988; Robinson and Smith-Lovin 1992), affect control theorists clarified the relationship between identity and emotion in the theory. “Emotions [are] signals about self-identity meanings within a situation and how well those meanings [are] aligned with stable, fundamental self-conceptions” (Robinson et al. 2008, 180). In short, emotions transmit key information about whether the situation as experienced maintains or fails to maintain meanings attached to self-identity.

Where affect and emotion often are considered synonyms in everyday life, each concept has a specific, analytically distinct definition and role within affect control theory. The former refers to evaluative orientations, both positive and negative, toward objects—what Heise (1979) called affective meanings. There are three key dimensions of affective meaning: “evaluation (good vs. bad), potency (powerful vs. weak), and activity (lively vs. quiet)” (Robinson et al. 2008, 180–181). Affect control researchers conceive of emotion as a subset of affect:

Emotions are the labels (with their associated cultural meanings) that are applied to the ways that we feel after an event has occurred [...] There is a formal, mathematical model that predicts what emotion we will experience after we have participated in a social interaction [...] emotions are culturally given labels that we assign to experiences in the context of social interaction that is self-referential. They are signals about how we feel within a situation and how that feeling compares to the stable affective meanings that are usually associated with our self-identity. (Robinson et al. 2008, 183)

Just as does Burke’s (1991) identity control system, affect control theory’s meaning control system operates according to a feedback model, and the model involves theoretical assumptions about self and meaning that parallel those relied on by most symbolic interaction and identity theory scholars more generally. What is different, as Robinson et al. (2008) emphasize, is that affect control theory provides precise measurement of meaning along the dimensions outlined, and it employs empirically generated, culturally specific dictionaries of meaning for impression formation (MacKinnon 1994; Smith-Lovin 1987; Smith et al. 2001).

Exemplifying the utility of affect control theory for understanding and explaining understudied social phenomena, Bergstrand (2019) used measures and concepts developed by affect control researchers to study grievance formation. She experimentally investigated the consequences of various combinations of good versus bad behaviors, perpetrators, and victims in mobilizing events. Results showed that evaluations of goodness and badness in grievances shape individuals’ inclination to support activism on behalf of specific issues. Bergstrand’s (2019) research provides useful purchase on what types of social movements are more relative to less likely to succeed, and what types of social problems are more relative to less likely to be addressed.

Spurred by the development of affect control theory and by the rise of sociological interest in emotion, identity theory researchers more generally have incorporated emotion into both structural and perceptual research agendas within identity theory (Stets and Turner 2006; Stets and Burke 2014; Stryker 2004; Stryker et al. 2005). Chapters in this book pursue additional linkages between identity and emotion, and between affect control and identity control.

## 6.2 *Identity Accumulation Theory*

Identity accumulation theory (Thoits 1983, 2003), conceives of roles and identities in terms of the resources they provide to negotiate life events and hypothesizes that “the more identities possessed by an actor, the less psychological distress he/she should exhibit” (Thoits 1983, 178). Thoits’ research is one of the earliest empirical tests of the conjoint import of multiple identities. Earlier research, while exploring many identities, examined them one identity at a time. Thoits (1983) found that the number of identities held shaped stress, such that a greater number of identities buffered against stress, while the loss of identities increased stress.

However, Simon (1995) found that holding multiple identities does not necessarily enhance mental health. The same multiple role configuration of parenting and work roles had profoundly different meanings for women relative to men. Simon suggested that these differences in meaning could help account for sex differences in mental health, because women relative to men, experienced work-family conflicts to a greater extent, experienced more guilt, and tended to have less good self-evaluated role performance. In subsequent research, Thoits (2003) revisited her earlier theory, now distinguishing between obligatory and voluntary identities. She found that it is accumulating voluntary identities—involving choice and substantial agency—that increases self-esteem and self-efficacy while reducing stress. Some of the chapters in this book continue the exploration of the combined import of multiple identities, as well as multiple bases of identity, and some chapters advance our understanding of stress processes.

## 7 **Additional Extant Bridges**

Beyond the boundaries of the symbolic interactionist paradigm, identity theory researchers and researchers who situate themselves primarily in other programs of theory and research have engaged in bridge building both within and outside of sociological social psychology. Hogg et al. (1995) offered the first synthetic treatment of identity theory—a product of sociological social psychology—and social identity theory—a product of psychological social psychology; they noted that the two paradigms used a number of the same core concepts, but defined the concepts differently. Stets and Burke (2000) argued that, despite their differences, social identity

theory and identity theory could be combined usefully to move toward a more complete and general theory of self that encompasses both micro and macro processes. Some of the chapters in this book take up this particular challenge.

Stryker (2008) highlighted some mutual influences between identity theory and cognitive social psychology. These are unsurprising given that both traditions focus fundamentally on self. Where identity theory benefitted from Markus' (1977) research on selves as cognitive schema, cognitive psychology benefitted from identity theory's conceptualization of identity salience and multiple identities (Stryker 2008). Stryker (2008, 24) also suggested that, because "behind cognitive organization lies social organization," more could be accomplished by bringing together cognitive theory with identity theory's understanding of the structural and cultural sources of person identity.

Likewise, within sociological social psychology itself, identity theory has cross-fertilized with exchange theory notably in the research of Lawler and his colleagues (Lawler 2001, 2003; Lawler et al. 2000). As exchange theory developed, it expanded its core focus on the structure of exchange networks, power relations, and use of power, to include other social psychological phenomena including trust, emotion, cohesion, commitment, and perceptions of fairness (Cook and Rice 2003). Research on commitment directly bridges to symbolic interactionism and identity theory.

Lawler (2001; Lawler et al. 2000) tackled a puzzle within the exchange paradigm: why do people continue exchanges that, while sustaining the exchange relationship, may not promote their self-interest? Lawler et al. (2000) theorized that exchanges would produce positive emotion solidifying the bond between exchange partners and increasing commitment to the exchange relationship. They found that this posited mechanism did increase commitment. Of course, exchanges do not always elicit positive emotions (Lawler 2001). However, one important implication of Lawler's (2001) research is that, as the commitment of an exchange partner to the exchange relationship increases, the less likely it will be that the exchanges promote that party's material self-interest.

In developing his affect theory of social exchange, Lawler (2003) incorporated a structural symbolic interactionist frame and concepts from identity theory. Laying out both the commonalities and differences between identity theory and exchange theory, Lawler (2003) posited that the contextualized social action essential to exchange theory parallels symbolic interactionism's definition of the situation. In doing so, he argues that exchange theory and identity theory both focus on persons who have an emotional attachment to groups. The strength of emotional attachment impacts the level of commitment to identity(ies) attached to role relationships within the group. Consistent with both exchange theory and the symbolic interaction paradigm, for Lawler (2003), the relationship between persons and groups is reciprocal. Using concepts of role identity and identity salience as aspects of his theory, Lawler (2003) demonstrated that when persons exhibit role identities within a given group, and those role identities are highly salient, the role-based relationships within the group are strong and they strengthen affective ties to the group.

Finally—and although the relationship between scholars who developed identity theory and those who developed status characteristics theory (Berger et al. 1974,



1977) sometimes has been characterized by keeping a friendly, or not so friendly, distance from each other—the two paradigms do share some common premises. The most notable one is the fundamental importance of expectations.

Structural symbolic interactionism and identity theory emphasize the importance of diverse types of expectations for behavior across a wide variety of situations, how such expectations become internalized into role, group, and person identities, and how such internalized expectations shape behavior. Meanwhile, status characteristics theory specifically emphasizes performance expectations based on social categories such as race and gender that likewise operate as diffuse status characteristics. In the absence of other relevant information, such diffuse status characteristics communicate culturally shared expectations for the differential competence of those with the more, relative to less, valued state of the characteristic (Correll and Ridgeway 2003). As well, status characteristics theory specifically emphasizes how differential performance expectations operate in a specific type of social setting—the task-oriented group.

Researchers in the status characteristics tradition have generated fundamentally important and empirically supported predictions about the generation and reproduction of inequalities within task groups (Berger and Webster 2018). Ridgeway (1991, 2011) has used the expectation states assumptions underlying status characteristics theory to develop status construction theory, explaining how social categories such as race and gender come to have diffuse status value in the first place. However, status characteristics theory also can be seen as an especially powerful demonstration of the symbolic interactionist aphorism that “what is perceived as real is real in its consequences” (Thomas and Thomas 1928, 572).

Within symbolic interactionism, all social interaction, whether in task groups or not, requires definitions of self, other, and situation. When persons enter an entirely new situation, they may lack a great deal of relevant information, and so will attach meaning to the information they do have—quickly observed characteristics such as dress, speech patterns, physical appearance, and social category markers such as race and gender. They then behave guided by the meanings they have attributed. “Because meanings of the cues [the actors use to define the situation] tend to be widely shared in a culture, initial behaviors based on the cues also tend to elicit confirming and reinforcing responses, solidifying [social] structures [including inequality structures] implicit in the meanings of the cues” (Stryker 2008, 22). Of course—and as symbolic interactionists would anticipate—there will be some instances in which initial behaviors based on cues with widely shared cultural meaning occasion agentic pushback. Then, all kinds of interesting things may ensue.

## 8 This Volume

Most of the chapters in this volume are revised versions of papers initially presented in April of 2018, at the Indiana University Conference on Identity Theory. The editors solicited the chapters contributed by Merolla and Baker, and by Kalkhoff,

Dippong, Gibson and Gregory, after the conference. The chapters range widely in the substantive topics they explore, from crime and law, to health, to education, to politics and policies, to inequality, to race and ethnicity, to education. That substantive foci are far ranging is intentional, to make clear the broad applicability of structural symbolic interactionism and identity theory across the full breadth of sociology. What unites all the chapters is their goal of adding theoretical depth and breadth of application to symbolic interactionism and identity theory while enhancing bridges to other theories and paradigms.

The research reported here also bridges from symbolic interactionism and/or identity theory to, respectively, affect control theory, rational choice theory, stress process theory, self-esteem theory, ideas from neuropsychology, and social-neuroscience, theories of social solidarity, and social identity theory. Multiple chapters innovate in measurement. Some chapters employ data gathered through observation in natural settings and in-depth interviews, while others employ data gathered through survey research or laboratory experiments. Similarly, chapters employ a wide variety of data analytic strategies, including diverse qualitative-interpretive and quantitative techniques, as well as simulations. Some chapters engage in theory development, others in theory testing and still others in both. Contributors of chapters include researchers who have spent their scholarly careers engaged in research programs within identity theory or closely related research programs likewise within the symbolic interactionist frame, as well as scholars known primarily for their research in psychology or macro sociology. Likewise, contributors include many senior scholars, but also some more junior scholars.

We have divided the book into two parts. Part I contains a set of chapters that primarily contribute theoretical and methodological advances within the foundational core of identity theory. Part II contains a set of chapters that primarily bridge between identity theory and symbolic interactionism on the one hand, and other paradigms in sociology and beyond on the other. However, many chapters in both parts of the book both deepen knowledge within identity theory and/or symbolic interactionism while also building bridges to other theoretical traditions.

In the chapter titled “[The Relationship Between Identity Importance and Identity Salience: Context Matters](#),” Peggy Thoits revisits the ongoing issue of how two fundamental, analytically distinct concepts in structural symbolic interaction and identity theory—identity prominence and identity salience—relate to each other empirically. Thoits addresses the specific question of why the empirical associations between measures of the two concepts found in prior quantitative studies differ substantially from one study to another and from one identity to another. Tackling this issue through qualitative, interpretive analysis of interview data, Thoits finds that context-specific norms of conversation and situational appropriateness shape the likelihood that a subjectively important identity is expressed behaviorally, thus exhibiting identity salience, in diverse situations.

Where Thoits’ chapter contributes to more precise theorization within identity theory’s structural research agenda, the chapter titled “[Cognitive and Behavioral Responses to the Identity Verification Process](#),” by Jan Stets, Scott Savage, Peter Burke and Phoenicia Fares, tests theoretical propositions formulated within identity

theory's perceptual research agenda. Based on a laboratory experiment conducted with participants who occupy structurally powerless positions, and an experimental design contrasting those with dominant versus non-dominant person identities and whose identities are verified versus non-verified, the authors find support for their theorization of a dual response to identity non-verification. Participants push back against non-verifying feedback while also slowly altering their view of self so that it is more aligned with that feedback. The two strategies for aligning identities with reflected appraisals are not an either/or proposition.

Like the chapters by Thoits and by Stets et al., the chapter titled "[Identity Dispersion: Flexibility, Uncertainty, or Inconsistency?](#)," by Peter Burke, contributes to identity theory's capacity to generate understanding and explanation for patterns in situationally rooted social behavior. Burke builds on research that moved from using identity standards measured as point estimates on semantic dimensions that define the identities, to conceptualizing and measuring identity dispersion. Identity dispersion captures the idea that people hold distributions of meanings around a point representing the central tendency of that distribution; people may vary in the dispersion of their meanings around such a central tendency. As Burke notes, where some scholars have presumed that identity dispersion reflects uncertainty in the identity, others have presumed that identity dispersion reflects flexibility in the identity, and the two interpretations have very different implications for emotional and cognitive responses that in turn shape behavior. Burke's findings, from two studies examining survey data on six different identities, suggest that identity dispersion stems from neither uncertainty nor flexibility per se, but rather from inconsistencies in identity meanings. Such inconsistencies lead to negative emotion by causing cognitive dissonance, but also to reductions in negative emotion occasioned by non-verification, because they provide a wider range of available identity meanings.

The chapter titled "[Competing Identity Standards and Managing Identity Verification](#)," by Jessie Finch and Robin Stryker, shifts from quantitative analysis back to qualitative-interpretive analysis, and from laboratory experiments and surveys to in-depth interviews and observational research in a real-world setting. The chapter shows that field research can benefit from the precise conceptual apparatus offered by identity theory, at the same time as field research can ground empirically a set of new theoretical propositions that advance the theory. Finch and Stryker rely on in-depth interviews, courtroom observations, and third party media accounts to examine how defense lawyers participating in a controversial criminal procedure ending in the deportation of undocumented immigrants manage their role and racial/ethnic identities in the face of challenges to identity verification. The authors find that within their sample of defense attorneys, role strain caused by the incapacity to satisfy simultaneously two key role identity related values—formal legality and substantive justice—is almost universal. Yet defense attorneys also viewed these two values as providing positive, culturally available, but competing role identity standards on which they could draw to push back against potential non-verification of their professional role identity. Examining how identities based on race/ethnicity entered into identity verification/non-verification processes in tandem with role based identities, the authors find that Latinx lawyers, relative to white lawyers, faced greater professional

role strain and also experienced conflict between a central role identity standard, on the one hand, and meanings and expectations associated with their racial/ethnic identity. Faced with challenges on both fronts, Latinx lawyers resisted role and racial/ethnic identity standards whose adoption would lead to non-verification and adopted instead available competing standards facilitating verification.

The chapter titled “[Racial Identity Among White Americans: Structure, Antecedents, and Consequences](#),” by Mathew Hunt, continues the focus on racial identity, in this case by using new items in the 2014 General Social Survey to advance empirical knowledge about an underdeveloped research topic—the structure of white racial identity. Employing factor analysis and reliability analysis, Hunt examines five aspects of racial identity—salience, prominence, verification, public self-regard, and private self-regard—and finds enough inter-item consistency to justify creating a five-item “identity intensity” index. He then uses this new measure as an independent and dependent variable in regression analyses to show that sociodemographic factors shape white racial identity intensity, and that variability in white racial identity intensity helps explain variability in racial policy attitudes held by whites.

The chapter titled “[Mathematics Identity, Self-efficacy, and Interest and Their Relationships to Mathematics Achievement: A Longitudinal Analysis](#),” by George Bohrnstedt, Jizhi Zhang, Bitnara Jasmine Park, Sakiko Ikoma, Markus Broer and Burhan Ogut, is the final chapter in Part I of the book. As do other chapters, the Bohrnstedt et al. chapter highlights contributions of identity theory to answering research questions with practical as well as scholarly importance, in this case what accounts for variable mathematics achievement in high school. Using a large sample of students who participated in both of two major studies of mathematics assessment among high school students, Bohrnstedt et al. examine the relationship among mathematics identity, efficacy, interest in mathematics and math achievement in high school. They employ structural equation modeling and find that, controlling for a diverse array of other factors, having a “math person” identity, as well as a self-perception of math efficacy in grades 9 and 11, have positive effects on grade 12 math achievement. However, whereas math identity in grade 11 has a direct net effect on math achievement in grade 12, math self-efficacy and math interest in grade 11 have no such direct effects. Math efficacy in grade 9 has an indirect effect on grade 12 math achievement through math identity in grade 11.

Part II of the book begins with the chapter titled “[The Role of the Other: How Interaction Partners Influence Identity Maintenance in Four Cultures](#),” by Dawn Robinson, Lynn Smith-Lovin and Jun Zhao. This chapter bridges between identity theory and affect control theory by using a series of simulations to illustrate how interaction partners shape identity maintenance in China, Egypt, Morocco and the United States. Explicitly conceptualizing interaction partners to be occupants of counter-roles in reciprocal role relationships as well as a key source of reflected appraisals, identity theorists also implicitly view the actions and identities of others as inputs within identity verification processes. As Robinson, Smith-Lovin and Zhao note, affect control theory provides a more elaborated specification of how interaction partners influence perceptual control processes, in which others provide

a basis for impression-change in situations while also—as objects of new actions by self—provide resources for identity maintenance. Given prior research within the affect control paradigm finding cross-cultural variability in the impact of the other in identity maintenance, Robinson, Smith-Lovin and Zhao use simulations based on the theoretical apparatus of affect control theory to illustrate these variable impacts. This, in turn, allows us to consider how the structure of identity control processes generalizes across cultures, while the influence of key social-environmental inputs within such control processes may be culturally specific.

As indicated earlier in this chapter, identity theory and affect control theory are close cousins within the symbolic interactionist paradigm. The chapter titled “[Embeddedness, Reflected Appraisals, and Deterrence: A Symbolic Interactionist Theory of Adolescent Theft](#),” by Ross Matsueda, Kate O’Neill and Derek Krieger, bridges across paradigms, showing that symbolic interaction can encompass a redefined, social interaction-rooted rational choice concept of decision-making. Matsueda et al. argue that integrating rational choice with a theory of the self requires identifying precisely how the structure of social relations embeds decision-making. Mead’s perspective on self and role-taking provides resources for such a specification, and Matsueda et al. elaborate on Mead’s meta-theoretical framework to conceptualize a pragmatic and relationally embedded process of choice. This choice process incorporates responses to reflected appraisals and situational elements that establish diverse types of imagined consequences for the chosen behavior. Deriving specific, testable hypotheses predicting variability in delinquent behavior and examining these using longitudinal survey data and random-effects negative binomial models predicting self-reported theft behavior, Matsueda, O’Neill and Krieger find that variability in theft is shaped strongly by variability in reflected appraisals of self as a rule violator. Likewise, theft is shaped by various expected costs and benefits of theft, including those that pertain to self-image as well as those that pertain to sanctions. Youth who view themselves as rule violators are deterred less by the threat of arrest than are youth who do not view themselves as rule violators.

In the chapter titled “[Immigration and Identity Theory: What Can They Gain From Each Other?](#),” Kay Deaux argues that identity theory provides substantial purchase on the experiences of immigrants—an issue at the forefront of current scholarly and practical concern—at the same time that empirical research on immigration can inform identity theory. Deaux places identity theory within a more general category of multi-level theorizing about the relationship between person and social structure as mediated by the meso-level phenomenon of network-situated social interaction. Having compared identity theory with social identity theory briefly, Deaux shows how she has used identity concepts to research stability and change in ethnic identification. She then argues that identity theory and empirical research on immigration are maximally mutually informative with respect to (1) relationships among multiple identities; and (2) issues pertaining to identity flexibility and change. In this regard, one specific empirical finding from immigration research for which identity theory provides an explanation is the variable compatibility between the new national identity of immigrants and their ethnic identity of origin.

The chapter titled “[Identity Meaning Discrepancies and Psychological Distress: A Partial Test of Incorporating Identity Theory and Self-definitions into the Stress Process Model](#),” by Richard Adams and Richard Serpe, bridges between symbolic interactionism and the stress process perspective formulated to explain variability in distress. Adams and Serpe build on a theoretical integration offered by McLeod (2012) and add to this integration by comparing stress responses to identity-discrepant meanings that pertain to normative relative to counter-normative role identities. They hypothesize that discrepancies in meanings attributed to parent and work role identities by self and by the public, in general, are more stressful for those with children and people who work outside the home—the normative role identities—than for the childless and unemployed—the counter-normative identities. Using data from a web-based survey and structural equation modeling, they find that identity-discrepant meanings do shape stress differently conditional on whether the identity is normative or counter-normative. Variability in identity-discrepant meanings also helps explain variability in identity-specific self-esteem, sense of mastery, and psychological well-being, but mostly for the normative identities examined, whereas identity-discrepant meanings have minimal influence on these outcomes for the counter-normative identities. Similarly, identity-specific self-esteem and sense of mastery shape psychological well-being, but mostly for those with normative role identities.

The chapter titled “[Society in Peril? How Distance Media Communication Could Be Undermining Symbolic Interaction](#),” by Will Kalkhoff, Joseph Dippong, Adam Gibson and Stanford Gregory, provides new theoretical and empirical insights that bridge from symbolic interactionism to other bodies of theory and research. In this chapter, Kalkhoff et al. ask how electronically mediated communication shapes processes and outcomes of symbolic interaction. Combining understandings of role-taking in the symbolic interactionist tradition with theoretical and empirical work pertaining to interaction ritual chains, bodily co-presence and the emergence and maintenance of social solidarity, Kalkhoff et al. argue that there is good reason to believe electronically mediated communication undermines the development of social solidarity. They test their argument in a laboratory experiment using a new, real-time, and non-consciously controlled measure of interpersonal closeness—vocal convergence. Finding that engaging in face-to-face communication promotes development of greater group solidarity than does interaction through electronically mediated formats, Kalkhoff et al. suggest a further research agenda bridging between symbolic interaction and neurology to develop a neuro-interactionist account of how change in communication media shapes interaction, including opportunities for and constraints on developing social solidarity.

The chapter titled “[University Racial Composition and Self-esteem of Minority Students: Commitment, Self Views and Reflected Appraisals](#),” by David Merolla and Erin Baker, begins with a well-established empirical finding: among minority students, self-esteem is higher for those in schools with more, relative to fewer, other students with whom they share ethnic and racial background. Merolla and Baker use identity theory to advance an explanation for this finding by constructing and testing a serial mediation model of self-esteem. They hypothesize that students in schooling environments with more relative to fewer others who share their ethnic and

racial backgrounds are more likely to be involved in more satisfying relationships with both faculty and other students. More relative to less satisfying relationships, in turn, enhance reflected appraisals of students' capacities as students, and this enhances students' self-evaluations. Enhanced self-evaluations in turn increase self-esteem. Using survey data on a sample of minority students from universities across the United States, Merolla and Baker find substantial support for their hypothesized model.

The chapter titled "[Symbolic Interaction and Identity Theory: Current Achievements and Challenges for the Future](#)," by Robin Stryker, Richard Serpe and Brian Powell concludes this book by circling back to where it started, highlighting both theoretical and methodological advances contributed by the book's various chapters. These advances deepen the foundational core of symbolic interactionism and identity theory and bridge to other theoretical traditions within sociology and the social sciences more generally, integrating these other traditions at least partially with symbolic interactionism.

Based on all these advances, coupled with the material provided in this chapter, the authors suggest priorities for additional theorizing and research within symbolic interactionism and identity theory and point out additional opportunities for, and the importance of, more bridging theory and research. Noting the breadth of substantive topics and research questions on which identity theory can provide leverage, this final chapter argues that research framed by symbolic interaction and identity theory is all the more important because of its relevance to central societal issues, problems, and policies that are the subject of major public controversies today. These include, but are not restricted to, issues of crime, law and social control, immigration, class, racial-ethnic and gender inequalities and conflict, climate change and environmental policy, political polarization and political dysfunction, public health issues, reproductive issues, social protest—or the absence thereof—cultural change, and international relations.

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# **Deepening Identity Theory**

# The Relationship Between Identity Importance and Identity Salience: Context Matters



Peggy A. Thoits

**Abstract** A perplexing finding in the identity literature is that the strength of the relationship between identity importance (also called “prominence” or “centrality”) and identity salience varies dramatically across studies, from near-zero to 0.63, even when the same role identities are examined. I argue that these findings may be due to the influence of the social contexts in which respondents have been asked to report the likelihood of invoking one or more of their valued role identities (i.e., identity salience). I use qualitative data from a study of community volunteers (N = 80) to show that the imagined context matters substantially for whether and when individuals will mention a highly important volunteer identity to another person at a first meeting. Specifically, conversational norms and situational appropriateness guided respondents’ readiness to bring up their volunteer identity when meeting people at a party or on vacation for the first time. These qualitative findings have implications for measuring salience in future quantitative work. Additionally, both role-identity theory (McCall and Simmons 1978) and identity theory (Stryker 1980), may need to incorporate an identity’s normative or situational appropriateness to better predict the likelihood that the identity will become salient in interaction. This possibility echoes a fundamental symbolic interactionist insight: Through imaginatively taking the role of the other, we anticipate and share our role partners’ reactions to our contemplated plans of action. Situationally appropriate role identities (i.e., plans of action) may be those that individuals are most likely to invoke, regardless of those identities’ personal importance.

**Keywords** Role identity · Identity importance · Identity salience · Volunteer role identity

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The original version of this chapter was revised: Table 4 has been corrected. The correction to this chapter is available at [https://doi.org/10.1007/978-3-030-41231-9\\_15](https://doi.org/10.1007/978-3-030-41231-9_15)

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## 1 Introduction

In this chapter, I examine the contexts in which a person might mention a highly prominent or important role identity to other people. In identity theory terms, I examine when an important role identity will be made salient in social interaction. A role identity, or “identity” for brevity, refers to describing oneself in terms of a social role that one holds. As Stryker put it, identities are answers to the question “Who am I?”—answers that refer to one’s social roles and group memberships (Stryker 1980; Stryker and Serpe 1982; Stets and Serpe 2013). For example, responses might include “I am a mother/father, husband/wife, carpenter/first grade teacher, man/woman, yoga enthusiast/golfer, Catholic/Episcopalian, American Red Cross member/Sierra Club member” and so on.

To date, the relationship between identity importance and identity salience has been studied solely with quantitative data. I use qualitative data here to highlight aspects of social interaction that can encourage or inhibit the invocation of a highly valued conception of self. On the basis of the qualitative patterns, I will argue that widely varying associations between identity importance and identity salience found in prior research likely depend on the interactional context that is posed for respondents when they are answering salience questions.

## 2 Two Theories of Multiple Identities and Behavioral Choice

The question of how importance and salience are related to one another was raised by Stryker and Serpe (1994). They recognized that two theories addressed the reality that people typically have multiple role-identities and that in most circumstances people must choose one identity to enact while foregoing the others. *Role-identity theory* proposed by McCall and Simmons (1978) and *identity theory* developed by Stryker (1980; Stryker and Serpe 1982) differ regarding how, why, and when such behavioral choices will be made, despite their common grounding in classic symbolic interactionism (Cooley 1902; Mead 1934). These theoretical differences prompted the question of how importance and salience were related to one another, if at all. To understand the significance of this question, it is first useful to contrast the main tenets of the two approaches.

*Role-Identity Theory.* McCall and Simmons (1978) argued that persons’ multiple role identities are organized in two related hierarchies, one based on the relative prominence of each role identity held, the other based on the situational salience of each role identity held. The prominence hierarchy (or the “ideal self” in their terms) is a relatively stable organization of one’s self-conceptions in terms of their subjective importance. As McCall and Simmons describe it: “...role-identities themselves are not equally important to the individual but differ in their prominence” (1978, 80) and “Some of [a person’s] identities are more important to him than are others...” (1978,

84). Prominence is analogous to Rosenberg's (1979, 73–75) concept of psychological centrality: self-components vary in their "importance" or "value" to the individual. According to McCall and Simmons, the location of each identity in our prominence hierarchy is determined by (1) how much our performances of it live up to our personal standards, (2) how much our performances are supported by relevant others, (3) how committed we are to the identity (where commitment refers to the amount of self-esteem we have staked on the identity), (4) how much we have invested materially in and obtained extrinsic rewards from the identity, and (5) how much intrinsic gratification we gain from enacting it.

The salience hierarchy (or the "situational self" in their terms) is more fluid and changeable than the prominence hierarchy. McCall and Simmons (1978) point out that role identities are sources of "*suggested alternative performances*" (p. 79) or "sources of *possible performances*" (p. 81) (my emphases). Thus, persons must choose which role identity to perform, given the situation at hand. A highly salient identity is one that an individual thinks s/he might possibly perform. According to McCall and Simmons, assessments of an identity's situational salience will depend on (1) the identity's prominence (importance to the person), (2) the person's need for legitimation or support for the identity, (3) the person's desire for the intrinsic and extrinsic gratifications associated with performing that identity, and (4) "the perceived degree of opportunity for its profitable enactment in the present circumstances" (p. 82). An identity with high situational salience will have a greater probability of actually being performed. It is key to note that McCall and Simmons' theory posits that an identity's situational salience will be a product of the prominence (i.e., importance) of the identity to the individual, as well as other rewards to be gained from enacting it.

*Identity Theory.* Like McCall and Simmons, Stryker proposed two related identity hierarchies, but in his theoretical approach, multiple role identities are organized in a hierarchy of commitment (rather than prominence) which in turn determines the rank ordering of identities by their salience. The meanings of "commitment" and "salience" in Stryker's theory diverge from common understandings of these concepts, which has led to a number of misinterpretations of the theory in journal articles and textbooks as well as mismeasurements of one or both concepts, especially salience (e.g., Hoelter 1983; Reid et al. 1994). "Commitment" is often mistaken to refer to a person's subjective sense of devotion, dedication, responsibility, or attachment to some person or group. "Salience" is frequently interpreted to mean importance because dictionary definitions of and synonyms for "salience" employ terms such as "noticeable," "important," "prominent," "significant," "major," and "outstanding" to convey its meaning. Readers who do not adhere closely to Stryker's definitions of commitment and salience miss the essentials of the theory.

For Stryker, "identity commitment" captures individuals' involvement in "proximal" or "lower level" social structures attached to their roles (Stryker et al. 2005, 94). Specifically, commitment is the degree to which one is embedded in a network of social relationships that are based on a particular role that one holds. The more sizeable one's role-based social network and the more emotionally significant

those network members are, the more structurally committed one is to the role identity in question (Stryker 1980; Stryker and Serpe 1982, 1994). Because a person's role identities differ in their degree of network embeddedness, those identities form a hierarchy of identity commitment, from high to low. The greater the commitment, the greater the social and personal costs of exiting the role or failing to meet its behavioral expectations.

Stryker posits that identity commitment determines identity salience. He defines salience as the likelihood that a role identity will be invoked in a given situation or across a range of situations (Stryker 1980; Stryker and Serpe 1982, 1994; Merolla et al. 2012).<sup>1</sup> To invoke an identity is to call it up, to refer to it, or to be ready to enact it. Stryker (1980) argued that the more embedded one is in a network of relationships based on a particular role (identity commitment), the more likely one is to describe oneself in terms of that role or to consider it as a plan of action in a particular situation or across a variety of situations (identity salience). In turn, the more salient an identity, the more probable it is that one will actually perform it (behavior). However, this process occurs only when "multiple possibilities for action" exist in the situation at hand (Stryker et al. 2005, 94). That is, identity theory applies only when external circumstances allow choice among ones' identities to invoke and perform. This might happen, for example, when one has spare time on a weekend (Stryker and Serpe 1994), when introducing oneself to newly-met others (Brenner et al. 2014; Stryker and Serpe 1982, 1994; Merolla et al. 2012), or when chatting with other people at school or at work (Nuttbrock and Freudiger 1991). The greater the salience of an identity, the more time (and, presumably, effort and care) one would invest in subsequently performing that identity.<sup>2</sup>

The two theories' concepts of salience are remarkably similar. McCall and Simmons view role identities as sources of possible performance—the higher the possibility that an identity might be performed, the greater its situational salience (and vice versa). For Stryker, the higher the likelihood that an individual will call up an identity for self-presentational purposes or as a possible line of action, the greater its salience. In both theories, then, an identity's salience refers to its level of perceived possible use in the situation at hand. The theories differ in the determinants of identity salience. For McCall and Simmons, an identity's prominence is a key predictive factor (along with other desired rewards and anticipated costs of possible performance) while for Stryker, an identity's structural grounding in a network of ties is the primary determinant.

One might be tempted to pit the two theories against one another to ask whether prominence or commitment is the primary determinant of identity salience. But by the early 1990s, multiple studies had already shown a consistent positive association between identity *commitment* and identity salience (Nuttbrock and Freudiger 1991; Serpe 1987, 1991; Serpe and Stryker 1987, 1993; Stryker and Serpe 1982, 1994), and subsequent work has repeatedly supported this finding (e.g., Cassidy and Trew 2004; Merolla et al. 2012). A key unaddressed question was whether identity *prominence* and identity salience were directly related, as hypothesized by McCall and Simmons. Stryker and Serpe took up this question explicitly in 1994, and several other investigators have pursued the issue (Brenner et al. 2014; Gaunt and Scott 2014;



Nuttbrock and Freudiger 1991; Parker et al. 2016; Quinn and Chaudoir 2009; Thoits 2013). The results of these studies have yielded puzzling findings: The strength of the relationship varies dramatically across studies and identities.

### 3 The Relationship Between Role-Identity Importance and Salience

Moving forward, I will substitute the term “importance” for “prominence” or “centrality.” Stryker and Serpe (1994) have acknowledged that importance, centrality, and prominence are generally equivalent in meaning, and researchers employing the concepts of “prominence” or “centrality” in their work routinely operationalize them with indicators of subjective importance. Thus, it is more straightforward to refer to importance here to avoid confusion. I summarize associations between importance and salience measures in Table 1 for nine studies, further described below in their publication order.

**Table 1** Summary of studies: correlations of importance with salience<sup>a</sup>

Study authors and date	Examined identities	Correlation of importance with salience
Nuttbrock and Freudiger (1991)	Mother	0.24
Gaunt and Scott (2014)	Parent	0.19 (mothers), 0.20 (fathers)
	Work	0.44 (mothers), 0.37 (fathers)
*Stryker and Serpe (1994)	Student	0.09 (men), 0.07 (women)
	Friend	0.15 (men), 0.14 (women)
	Athletic/recreational	0.60 (men), 0.62 (women)
	Extracurricular activity	0.57 (men), 0.54 (women)
*Brenner et al. (2014)	Science student	0.63, 0.56, 0.47 (at waves 1, 2, 3)
*Stets and Biga (2003)	Environmentalist	0.43
*Thoits (2013)	Mended Hearts volunteer	0.48
Quinn and Chaudoir (2009)	Concealed stigmatized identity	0.32
Parker et al. (2016)	Homeless	0.07
Morris (2013)	Most important role	0.12
	Second most important role	-0.15

<sup>a</sup>Studies are ordered by similarity in the types of identities they examined

\*The measures of importance and salience used in these four studies are highly comparable

Prior to Stryker and Serpe's (1994) investigation, Nuttbrock and Freudiger (1991) examined the relationship between the importance and salience of the mother identity among first-time mothers. Importance (they used the term "prominence") was indicated by anticipated happiness at being described as a good mother. Salience was assessed by the frequency of talking about and showing pictures of their child at school, at work, and with friends. They found that mother identity importance was correlated **0.24** with mother identity salience.

Stryker and Serpe (1994) assessed the strength of the relationship between importance (they used the term "centrality") and salience for four role-identities held by college students: academic, athletic/recreational, extracurricular activity, and friend. Importance questions asked students to contrast each role with each of the other roles and indicate which role in each pairing was "more important to the way you think about yourself" (p. 21), yielding a rank-ordering of identities by their importance. Salience was the average rank ordering of the same four roles in terms of which of these respondents would mention first, second, and so forth when (a) meeting a roommate for the first time, (b) meeting someone at a party, (c) meeting a friend of a close friend, and (d) telling a speech class about themselves. The results of the analyses were confusing: For two identities—athletic and extracurricular activity identities—importance and salience were strongly and positively correlated. The correlation was about **0.61** for the athletic identity for both men and women (who were analyzed separately throughout the study). The association was about **0.55** for the extracurricular identity. With respect to the other two identities—student and friend—importance and salience were weakly correlated, about **0.08** for student, about **0.15** for friend. Stryker and Serpe concluded that both identity importance and identity salience likely shape individuals' behaviors and that future studies must incorporate measures of both concepts to further explicate their functions and their relationships with one another.

With a sample of college students, Stets and Biga (2003) examined the importance ("prominence") and salience of "the environment identity" or "environmentalist identity": a set of self-meanings with respect to the environment.<sup>3</sup> They noted that an environmentalist identity is not a role identity (i.e., self-meanings in terms of a position one holds in the social structure) but a "person identity"—meanings attached to oneself as an individual. An environmentalist identity can range from eco-friendly and supportive (e.g., very concerned, very protective, very passionate about the natural environment) to eco-unfriendly and non-supportive (indifferent, not at all protective, not at all passionate). Importance was measured as the degree to which respondents viewed the natural environment as personally important. Salience was assessed in terms of what one would mention first, second, third, etc. about oneself from a list of identities (worker, environmentalist, friend, consumer, and student), when meeting a roommate, meeting someone at a party, and going on a date with someone for the first time. The importance and salience of the identity were correlated **0.43** ( $p < 0.05$ ).

Quinn and Chaudoir (2009) examined the importance ("centrality") and salience of having a concealed, stigmatized identity in two pooled samples of college students who held a stigmatized condition that they have kept hidden from other people.

Importance was assessed with the “Importance to Identity” subscale of Luhtanen and Crocker’s (1992) Collective Self Esteem scale (e.g., “My concealed identity is an important reflection of who I am”). Salience was the frequency with which students thought about their concealed identity. They reported a correlation of **0.32** ( $p < 0.01$ ) between the two measures.

Morris (2013) asked junior college and four-year college students to write down two roles that were most important to how they think of themselves. Students most frequently cited family/romantic and academic roles in response. To measure each role’s subjective importance, students were asked to strongly agree (= 5) to strongly disagree (= 1) that “This role is very important to me.” To assess salience Morris asked students a hypothetical question: if they were in a situation in which they had to choose only one of their two most important roles, which one would they choose? For the first role that students wrote down, the association of importance with salience was **0.12** ( $p < 0.001$ ). For the second role, the correlation was **-0.15** ( $p < 0.001$ ). This negative correlation was because students were given a simple binary choice as a measure of salience; by question design, choosing one made the other automatically less likely. Morris (p. 29) reported, “...61.7% of respondents strongly agreed that Role 1 was very important to them and selected this role identity in the face of a salience challenge; however, 38.3% selected Role 2. The difference was statistically significant...Despite the overlap between these concepts, these data show that not all respondents chose to enact their most important role identity, given a choice.”

Thoits (2013) studied the importance and salience (using the term “invocation”) of a specific volunteer identity, Mended Hearts visitor. Mended Hearts is a national organization of former cardiac patients who visit and give support to current heart patients and their families while in the hospital. Importance was measured by the question, “How important to you is being a Mended Hearts visitor?” (1 = not at all important to 10 = extremely important), and salience was the response to, “How likely is it that you would mention your role as a Mended Hearts visitor to someone you met for the first time?” (1 = not at all likely to 10 = extremely likely). Visitor identity importance was correlated **0.48** ( $p < 0.001$ ) with visitor identity salience.

Gaunt and Scott (2014) studied the parent and work identities of married couples with school age children. Respondents were presented with a list of eight role-identities (including work and parent) and were asked to allocate 100 percentage points among these roles to indicate how important (“central”) each one was to them. To measure salience, respondents were given a 10-item “Who Am I?” task. The ordering of the parental and work identities on respondents’ Who Am I lists indicated their salience, with 10 assigned to an identity listed first, 9 assigned to an identity listed second, and so on. Parent importance and salience scores were correlated **0.19** ( $p < 0.05$ ) and **0.20** ( $p < 0.05$ ) for mothers and fathers, respectively. Work importance and salience were correlated **0.44** ( $p < 0.001$ ) for mothers and **0.37** ( $p < 0.001$ ) for fathers.<sup>4</sup>

Parker et al. (2016) surveyed homeless men in Atlanta to assess the various ways that they conceived of themselves and how these conceptions were related to their self-esteem and self-efficacy. The importance (“centrality”) and salience of the homeless identity were among the roles assessed. Respondents were given a list of roles

and groups—including “being homeless,” “disabled,” and “a veteran,” along with conventional roles—and were asked to choose the five roles or groups that were most important to them. The role or group ranked as most important was scored 5, the second most important was scored 4, and so forth, with roles and groups that were not among the top 5 scored 0. To assess salience, respondents were asked what they most often talk about when spending time with friends, with family, with service providers, in the doctor’s office or hospital, and at a shelter. They were asked to choose two roles or groups that they talked about most often in each setting, from a list of 18 roles or groups (e.g., friendship or other friends, family members or family problems, being homeless or homeless issues). The total number of settings in which a respondent most frequently talked about being homeless indicated the salience of the homeless identity. The importance of the homeless identity was unrelated to its salience ( $r = 0.07$ ,  $p = \text{NS}$ ).

Finally, Brenner et al. (2014) examined the causal relationship between importance (“prominence”) and salience with longitudinal data, focusing on the science student identity. They employed a nationwide sample of under-represented undergraduate, graduate, and professional students in science, technology, engineering, and mathematics fields. Brenner et al. used a four-item scale to measure the importance of a science student identity (e.g., “Being a scientist is an important part of my self-image,” strongly agree = 5 to strongly disagree = 1). To measure salience, respondents were asked to rate on a 10-point scale how certain they would be to mention their desire to be a scientist when meeting a coworker, a person of the opposite sex, a friend of a friend, and a friend of a family member for the first time. Importance and salience were assessed at each of three semesters that followed respondents’ initial enrollment in the panel survey. Associations of importance with salience were **0.63**, **0.56**, and **0.47** at each of the three waves of data, respectively (Figure 2, p. 242). It is notable that when cross-lagged effects of the two identity constructs on each other were analyzed, the results clearly showed the importance of the science student identity predicted its salience and not the reverse. Although confined to one identity only, this finding supports McCall and Simmons’ role identity argument that identity prominence is a determinant of identity salience and underscores the utility of incorporating measures of both concepts in identity-related studies, as recommended two decades earlier by Stryker and Serpe (1994).

It should be clear from this fairly detailed summary of studies that identity importance and salience have been measured in dramatically different ways, yielding a set of confusing findings. I will argue in what follows that this confusion can be traced to the ways that identity *salience* has been assessed across studies.

## 4 Sources of Variability in the Prominence (Importance) and Salience Relationship

When one scans the associations between importance and salience in Table 1, one sees consistency in their direction. All associations are positive, with one exception due to Morris's use of a binary salience measure. But there is striking variability in their strength. Associations range from near zero to slightly above 0.60. What might account for such enormous variability in strength? Two explanations have been suggested.

Brenner and DeLamater (2014) have argued that when individuals are asked to attach importance or value to the various identities they hold, they are motivated to match their identity salience ratings to their importance ratings to sustain their self-images or self-presentations. "...[T]he directive nature of survey measurement makes it difficult to conceive of a measure of identity salience that does not prime the identity, encouraging the alignment of importance and salience..." (Brenner and DeLamater 2014, 492). But, clearly, such priming is not consistently evident, given associations ranging from 0.07 to 0.63 across nine survey studies.

Stryker and Serpe (1994) proposed instead that importance and salience may be more tightly correlated for identities that are structurally constrained, giving persons little choice about when and how to enact them (see also Serpe 1987; Stryker and Serpe 1982; Stryker et al. 2005; Brenner et al. 2014)—Thoits (2003) characterizes such role identities as "obligatory" (e.g., spouse, parent, worker). Conversely, correlations between importance and salience may be weaker for structurally unconstrained identities that individuals can perform by choice—"voluntary" identities in Thoits's terms (e.g., friend, churchgoer, community volunteer).<sup>5</sup> Counter to Stryker and Serpe's suggestion, however, "parent"—perhaps the most obligatory identity of those studied (see Table 1)—produced correlations between importance and salience that were weaker than those for voluntary identities. For example, the parent identity yielded associations of 0.24 for new mothers (Nuttbrock and Freudiger 1991) and 0.19 and 0.20 for mothers and fathers (Gaunt and Scott 2014), while correlations for voluntary identities were about 0.60 and 0.55 for athletic and extracurricular identities (Stryker and Serpe 1994), 0.48 for volunteer (Thoits 2013), and 0.43 for environmentalist (Stets and Biga 2003). Additionally, there are obvious *within-category* differences in correlations. For example, the voluntary identity of "friend" yielded minimal association between importance and salience—about 0.15 (Stryker and Serpe 1994)—while, as just mentioned, voluntary athletic and extracurricular identities produced strong correlations (0.60 and 0.55, respectively). Similarly, the more obligatory identities of "student" and "science student" generated associations that were drastically different from one another: about 0.08 for student (Stryker and Serpe 1994) and 0.63 for science student at Wave 1 (Brenner et al. 2014). These inconsistencies undermine the suggestion that degree of choice, or the obligatory versus voluntary nature of a role identity, explains the wide range of correlations between importance and salience appearing in Table 1.

A more obvious explanation lies in the dramatic variations in how importance and salience have been measured across studies. Fortunately, however, four studies (asterisked in Table 1) covering seven identities employ roughly comparable assessments of these concepts: rankings or ratings of the subjective importance of each identity, and rankings or ratings of the likelihood of mentioning particular identities when introducing oneself for the first time to other people (Brenner et al. 2014; Stets and Biga 2003; Stryker and Serpe 1994; Thoits 2013). Five of the seven associations were moderate to strong, above 0.40 (see the asterisked studies in Table 1). But as mentioned above, “student” and “science student” produced radically different relationships between importance and salience ( $r =$  about 0.08 in Stryker and Serpe 1994, vs. 0.63 in Brenner et al. 2014) and “friend” yielded a puzzlingly weak correlation of about 0.15 compared to voluntary identities based in athletic and extracurricular activities, about 0.60 and 0.55 (Stryker and Serpe 1994). Thus, even when measures of importance and salience are directly comparable across studies, inconsistencies in the strength of their associations still appear.

However, when one examines the potential *audiences* that respondents were asked to imagine when introducing themselves in these four studies, another possibility arises: Respondents might have tailored the identities that they invoked to the audiences that were posed. Consider, for example, the audiences that Stryker and Serpe (1994) queried when measuring salience. They asked student respondents to imagine introducing themselves to a roommate, to someone at a party, to a friend of a close friend, and to a speech class. To mention one’s student identity to a roommate or to a speech class seems unlikely—the identity is shared by all, is probably taken for granted in the situation, and thus is simply too obvious to mention. But one might find it appropriate to bring up one’s student identity when meeting someone at a party for the first time or when describing oneself to a friend of a close friend. Further, when meeting the friend of one’s close friend, one’s friend identity also would be obvious, even redundant, information to offer; it seems unlikely that one would call it up (unless it were necessary to explain how one knows the person held in common). And because a majority of people hold a friend identity (Thoits 1992), would it even occur to respondents to mention this role identity when describing themselves to a speech class? Probably not. In short, *the interactional context*—the composition of the imagined audience—might sever the connection between the personal importance of an identity and its likelihood of being invoked. In contrast, athletic and extracurricular identities were better candidates for mention to all four proposed audiences because these identities were not necessarily held in common with these audiences and provided differentiating information about the self.

The audiences to which respondents were asked to imagine describing themselves also help to explain why Brenner and colleagues (2014) obtained a strong positive relationship between the importance and salience of what they termed the “science student identity” ( $b = 0.63, 0.56, \text{ and } 0.47$  at Waves 1, 2, and 3, respectively). They asked respondents about the personal importance of being a “scientist” and whether they would mention their “desire to be a scientist” (p. 241) when meeting a coworker, a person of the opposite sex, a friend of a friend, and a friend of a family member for the first time. The audiences they asked their respondents to imagine were not

explicitly college-related nor students. Hence, it would be situationally appropriate and acceptable to invoke an aspiring scientist identity with such audiences, especially if the identity were personally important. Similarly, when examining students' environmentalist identity, Stets and Biga (2003) employed hypothetical audiences—a roommate, someone at a party, a new date—which did not include individuals who were known to be environmentalists themselves; again, respondents who viewed their environmental identity as important could mention it without it seeming inappropriate or obvious ( $r = 0.43$ ). In contrast with these prior studies, Thoits (2013) asked Mended Hearts volunteers how likely they were to mention their visitor identity to “someone you met for the first time,” without specifying the interactional situation any further. Those who viewed the identity as very important were thus free to invoke it, again resulting in a modestly strong correlation between the two concepts ( $r = 0.48$ ).

In sum, variability in the strength of the relationship between identity importance and identity salience across surveys may be traceable, at least in part, to the explicit or implied *interactional contexts* in which respondents were asked to imagine themselves when providing self-descriptions. In the next sections, I examine this possibility. Specifically, I explore the ways in which an anticipated social context influences respondents to offer or withhold mention of a role identity that is very important to them.

## 5 Qualitative Responses to Salience Questions

To date, survey respondents have not been asked to explain why they might or might not mention particular role identities upon meeting people for the first time. Fortunately, the Mended Hearts study discussed earlier (Thoits 2013) included such questions in the second of its two phases. In the first phase of the study, a random sample of Mended Hearts volunteer visitors responded to a survey assessing various dimensions of their visitor identity and their physical and psychological well-being. In the second phase, a follow-up telephone interview explored several aspects of the visitor identity in greater depth.

*Sample.* Mended Hearts, Inc. is a national, non-profit, self-help organization affiliated with the American College of Cardiologists. Its mission is to provide peer support to cardiac patients and their families (Mended Hearts, Inc. 2002). There are around 300 local Mended Hearts chapters nationwide. Former heart patients and former caregivers to heart patients (usually former patients' spouses) supply information, encouragement, and hope to current patients and family members through hospital visits or an online Internet Visiting Program. The Visiting Chair of each local chapter trains new visitors with a manual and videos supplied by the national organization; he or she also supervises trainees' hospital visits until they have completed the program and received accreditation. All Mended Hearts visitors must be re-accredited formally each year.

There is no nationally-maintained list of visitors; only the Visiting Chairs of local Mended Hearts chapters keep lists of their volunteer visitors. In the spring of 2011, with the permission and support of Mended Hearts, Inc., I drew a random sample of 79 chapters from a nationwide list. Research assistants successfully contacted 76 of the 79 chapters' Visiting Chairs and asked them to distribute surveys to their active visitors. Only six Visiting Chairs did not follow through. Across the 70 participating chapters, the total number of potential respondents was 877, an average of 12.5 visitors per chapter. The response rate to the survey was 52% (N = 458).

Of these survey respondents, 50% (N = 230) indicated willingness to participate in a follow-up, qualitative telephone interview focused on their visiting experiences. A team of 10 trained graduate students conducted the telephone interviews in the summer of 2011. Interviews averaged 45 minutes in duration, were recorded with permission, and were transcribed and then de-identified to maintain respondents' confidentiality. Of 230 willing respondents, 226 completed the telephone interview. For the purposes of the present study, I drew a random subsample of 80 telephone interviews for detailed coding and analysis.

Table 2 reports the characteristics of phase 1 survey respondents, phase 2 telephone respondents, and the subsample of 80 telephone respondents who were drawn for qualitative analysis. The characteristics of the three groups are very similar. The majority are male (with significantly more men in the telephone sample compared to the survey sample), the vast majority are white (with somewhat fewer whites in the telephone subsample), and the average respondent is in his or her early 70s, with the subsample group somewhat younger than the phase 1 survey respondents. There were no differences among the three groups in education, with roughly 75% with some college education or more. The majority of respondents were patient visitors, which indicates that they were former heart patients themselves; however, the telephone group and telephone subgroup included significantly more patient visitors than the initial survey group. (By Mended Hearts rules, only former heart patients may serve as patient visitors. Spouses who were caregivers to former patients visit with family members. Former patients and their spouses often make hospital calls as teams.) There were no significant differences among the groups in years of Mended Hearts membership, with a mean of about eight years of visiting service. Finally, almost 60% of the subsample of interviewees had been visited by Mended Hearts volunteers when they were patients themselves; this question was not asked in the survey and was coded only for the subgroup of telephone interviewees.

*Mean Ratings and Correlations of Visitor Importance and Visitor Salience.* Table 3 reports respondents' ratings of the importance and salience of their visitor identity and shows the correlations between the two variables, for the three groups. These importance and salience ratings come from the phase 1 survey data, where respondents were asked, "How important to you is being a Mended Hearts visitor?" (1 = not at all important to 10 = extremely important), and "How likely is it that you would mention your role as a Mended Hearts visitor to someone you met for the first time?" (1 = not at all likely to 10 = extremely likely). It is clear that the visitor identity was very important to respondents, averaging a rating of eight on the 10 point scale. Telephone respondents attached slightly (but significantly) higher importance to their



**Table 2** Characteristics of survey respondents (N = 458), telephone respondents (N = 226), and the random subsample of telephone respondents (N = 80)

	Survey Rs % or mean (st.d.)	Telephone Rs % or mean (st.d.)	Subsample of telephone Rs % or mean (st.d.)
Male	58.9	65.5 <sup>a</sup>	62.5
Female	41.1	34.5	37.5
White	96.2	96.4	93.7 <sup>b</sup>
Minority	3.8	3.6	6.3
<i>Age (range 41–91)</i>			
Less than 60	7.0	7.1	10.0
60–69	28.5	29.3	31.3
70–79	38.3	40.4	38.8
80–91	26.2	23.1	20.0
Age (in years)	72.9 (8.8)	72.4 (8.8)	71.4 (9.1) <sup>a</sup>
High school or less	25.3	22.2	28.8
Some college	28.9	27.6	27.5
College degree	25.8	26.7	23.8
Graduate degree	20.0	23.6	20.0
<i>Visitor role</i>			
Patient visitor	75.6	77.0 <sup>a</sup>	81.3 <sup>b</sup>
Caregiver visitor	10.4	7.5	11.3
Both	12.0	15.5	7.5
Unspecified	4.1	0.0	0.0
<i>Years of membership (range 1–37)</i>			
1–5 years	43.5	44.7	48.8
6–10 years	27.8	26.1	23.8
11–15 years	15.8	15.5	16.3
16–20 years	7.1	8.0	6.3
21+ years	6.2	5.8	5.0
Mean years of membership	8.3 (6.7)	8.2 (6.6)	7.7 (6.5)
Visited by Mended Hearts	n.a.	n.a.	59.5
Not visited by Mended Hearts	n.a.	n.a.	40.5

<sup>a</sup>Significantly different from survey respondents<sup>b</sup>Significantly different from telephone respondents

**Table 3** Ratings of visitor identity importance and salience, and the correlations of the two variables, by sample group

	Survey Rs Mean (st.d.)	Telephone Rs Mean (st.d.)	Subsample of telephone Rs Mean (st.d.)
Visitor importance (1–10)	8.2 (1.6)	8.4 (1.5)** <sup>a</sup>	8.4 (1.6)
Visitor salience (1–10)	7.0 (2.7)	7.1 (2.7)	7.2 (2.6)
Correlation of importance with salience	0.48***	0.42***	0.61***
N of respondents	458	226	80

<sup>a</sup>Significantly different from survey respondents

\* $p < 0.05$  \*\* $p < 0.01$  \*\*\* $p < 0.001$

visitor identity than respondents in the full survey sample. Ratings of visitor salience were also high across the three groups (a mean of seven), although not quite as high as the mean for importance. Notice also that the standard deviations for salience were larger than those for importance, suggesting greater variability in respondents' estimates of the likelihood they would mention this volunteer identity when meeting new people. Correlations between importance and salience were modest to strong across the three sample groups, with the subsample showing the strongest correlation (0.61,  $p < 0.001$ ).

## 6 Respondents' Thoughts About Invoking Their Mended Hearts Identity

The phase 2 follow-up qualitative interviews were conducted one to two months after all surveys had been returned. In the phone interviews, respondents were asked again about the salience of their visitor identity, but this time with some context added: "If you were describing yourself to someone you met for the first time at a party or while on vacation, how likely is it that you would mention volunteering as a Mended Hearts Visitor to this person?" Interviewers recorded participants' open-ended responses and then probed when necessary, for example, "What might lead you to mention it?" or "Is there anything else that might prompt you to bring it up?"

Seventy-eight of the 80 subsample interviewees answered these questions (two respondents were not asked due to time constraints). To provide an overview of their responses, I coded the gist of their replies into eight categories, summarized in Table 4. Some respondents (27%,  $N = 21$ ) supplied an answer to the salience question(s) without discussing a contingency—categories 1, 2, and 8 in Table 4 for "very unlikely," "unlikely," and "very likely," respectively. However, the great majority of respondents (73%,  $N = 57$ ) not only indicated the relative likelihood of invoking their visitor identity but added a qualifier (see categories 7 through 3): They would describe themselves as a Mended Hearts visitor *if* they were asked

**Table 4** Respondents’ replies to open-ended visitor salience questions, telephone subsample only (N = 78)

		%
8	I am very likely to mention my visitor identity	19.2
		%
7	I am likely to mention my visitor identity if I’m asked what I do	29.5
6	I am likely to mention my visitor identity if health topics come up	5.1
5	It depends (on other factors); sometimes I will mention it	19.2
4	I am unlikely to mention my visitor identity unless I’m asked what I do	5.1
3	I am unlikely to mention my visitor identity unless health topics come up	14.1
		%
2	I am unlikely to mention my visitor identity	6.4
1	I am very unlikely to mention my visitor identity	1.3
		100.0

what they do, *not unless* heart or health problems came up in the conversation, or *sometimes when* there were other situational contingencies (e.g., “when someone at the gym notices and asks about my scar”). In short, the most frequent answers to a typically-worded identity salience question—“how likely are you to mention this role when meeting people in X or Y situation for the first time?”—were variations on “it depends.”

Table 4 conveys an important message. Even in an imagined situation in which they were free to invoke any identity they wished, the majority said they would not volunteer this information about themselves without receiving an explicit invitation to do so or perceiving a relevant conversational opening. In other words, their salience responses were influenced by *aspects of the context*: (a) norms about how a conversation between strangers should unfold and (b) opportunities that emerged in the conversation for mentioning this particular identity involvement. I elaborate these contextual features further in the next sections.

## 7 Conversational Norms Governing Identity Invocation

Two closely related conversational norms can be detected in participants’ open-ended responses to the salience questions. The first was that individuals should not offer up descriptions of themselves spontaneously. To do so might be seen by interaction partners as bragging, in this case because volunteering in hospitals is generally viewed as an admirable altruistic activity. Several respondents raised this concern about spontaneously mentioning their volunteer work to newly-met people, despite its importance to them<sup>6</sup>:

I don't think it's something...that I would just go up and say, "Hey, I'm a Mended Hearts volunteer. Let me tell you about it." You know what I'm saying? 'Cuz that seems a little bit forward, like maybe you're bragging on yourself or something. But if the door opens, yes, I'm always happy to do that, to share that. (Piper, Southern chapter, importance = 9, salience = 10, qualitative likelihood of invocation = 5 [it depends])

(I: ...how likely is it that you would mention volunteering as a Mended Hearts visitor to this person?) Uh, zero percent chance. (I: Okay. Um, so you – is it just not something that you talk about very often, or talk about to describe yourself or your activities?) Yeah, I think that [visiting is] something I've given freely, and talking about it seems to point towards me instead of – [it would be] pointing in the wrong direction, you get my –? (I: Yeah, yeah.) If I talk about it a lot, it's like I must be doing it for the public gratification. I'm not interested in that. (Pete, Central chapter, importance = 6, salience = 2, qualitative likelihood of invocation = 1 [very unlikely])

In short, it would be forward, perhaps even self-aggrandizing, to initiate a conversation with a stranger by citing one's volunteer identity.

More generally, respondents indicated that it might be inappropriate to offer up *any* identity information as an immediate conversational opener with a stranger. The overriding norm is that one should wait for an invitation to describe oneself.<sup>7</sup> This norm was evident in respondents' repeated descriptions of how a "normal" or "typical" conversation with a stranger would unfold and hence why they would mention their visitor identity *if they were asked* or why they would not mention their identity *unless they were asked* (35%, N = 27):

Very likely. (I: Yeah?) Yeah. (I: Is it usually something you bring up right after introduction, or...?) No, like, in the initial conversation, people will normally say, "What do you do?" or "Are you working, are you retired?"...And then I'll say, "We're retired, but this is what we do." So it's early in the conversation usually, when somebody shows an interest in what our occupation is. (Lydia, Southern chapter, importance = 8, salience = 8, qualitative likelihood of invocation = 7 [likely, if asked what I do])

Oh, it's probably very likely, as I got to know 'em. It probably wouldn't be the first thing out of my mouth, but, yeah, I would, I would talk about it. I'm, I'm proud of what we do. (I: Mmm, so what might lead you to mention it? Kind of in the course of conversation?) Oh, I don't know. It just depends on, it depends on how the conversation goes. You get around to, "OK, you're retired; what do you do now with your time?" Yeah, when people ask me that question, I'm pleased to tell them what I do. (Albert, Southwest chapter, importance = 8, salience = 7, qualitative likelihood of invocation = 7 [likely, if asked what I do])

Several respondents described a variant of this normative conversational sequence due to carrying, wearing, or otherwise displaying signals of their visitor status.

I mean, that can even happen in the grocery line at the grocery store. Possibly. Because lots of times I've been to visit [at the hospital], I've [still] got my vest on, it says, "Ask me about Mended Hearts," but people ask, and then when you tell them, they're, "That's really neat!" (Ursula, Midwest chapter, importance = 10, salience = 10, qualitative likelihood of invocation = 7 [likely, if asked what I do])

Well, we just came back from [vacation], and, uh, when I was in a pool, I met a lot of men, different men from different parts of the country, and we were talking baseball and everything, and...two guys did notice my scar. So they says, you know, "Did you have a heart operation?" I said, "Oh yeah." And I told 'em I'm a member of Mended Hearts and if

they ever have a need to volunteer, this is what you need to do...But, uh, but I, you know, I don't just bring it up. (Burt, Central chapter, importance = 10, salience = 10, qualitative likelihood of invocation = 5 [it depends])

These conversational norms—specific to a first encounter between unacquainted individuals—almost guarantee that perceived identity importance and identity salience will not be perfectly correlated. For a majority of Mended Hearts visitors (those in categories 7, 5, and 4 in Table 4), invoking this identity depended on situational contingencies: whether they have been asked about their occupations, about the meaning of the identity indicators that they display on their persons, or about other highly specific circumstances (e.g., having to explain why Wednesday would not be possible for a get-together).<sup>8</sup>

Despite the norm that one should wait to describe oneself until asked, a subset of visitors (19%, N = 15, category 8 in Table 4) claimed they were “very likely” to seize any and all opportunities to mention their Mended Hearts identity. Some were explicit about their lack of reticence:

Uh, we – (laugh) well, we hardly ever talk to anybody we don't mention Mended Hearts and what we do. Uh, that's, that's usually always the, one of the topics of conversation. (Bonnie, Central chapter, importance = 10, salience = 10, qualitative likelihood of invocation = 8 [very likely])

I, I have a lot of [Mended Hearts] business cards and, uh, I give 'em out wherever I can, and...I have been invited to speak to different groups [for other organizations], and, uh, I take [Mended Hearts] material along and give out my business cards and all this, because you never know when you might run into somewhere you need it, you know? (Wendell, Southern chapter, importance = 10, salience = 10, qualitative likelihood of invocation = 8 [very likely])

Willingness to be so “forward” with strangers about who they are suggests an enthusiasm for and subjective commitment to the role (and to the Mended Hearts organization itself) that complements the importance that respondents attach to this identity.

## 8 Conversational Openings: Situational Appropriateness Is the Key

In contrast to individuals who say they are likely to bring up their Mended Hearts identity (a) when asked what they do, (b) when asked about visible markers of their identity, or even (c) regardless of having been asked, respondents who say they generally would *not* invoke the identity make an exception: when cardiac problems come up as a topic of conversation. Specifically, if a newly-met person raises his or her own heart history or a family member's heart issues, respondents are then likely to invoke their visitor identity (category 3 in Table 4, 14%, N = 11):

(I: ...how likely is it that you would mention volunteering as a Mended Hearts visitor?)  
Very, very, very unlikely. (I: Ok. So –) Unless they told me that they had a heart problem.

(I: So that's really the only reason that might –) That's the only thing... If I'm on vacation and somebody says, "I'm going for a heart thing" or "I've had a heart thing," then I'll, then I – (I: Ok.) Pop right in. (Yogi, Northeast chapter, importance = 4, salience = 1, qualitative likelihood of invocation = 3 [unlikely, unless health comes up])

But you know, I don't think in regular, just first meeting someone or talking to someone would be – No, I don't think I would bring it up. (I: So it kind of depends then on what comes up in the conversation?) Right. Right, yeah. (I: So what kind of things that might come up would lead you to talk about Mended Hearts?) Anything medical. (I: Ok.) You know, somebody is talking about somebody they know [who] had emphysema or something like that, and then I'd say, you know, "Do they have any heart problem?" And then you could lead into Mended Hearts. (I: Yeah.) Because you know, I do talk about it a tremendous amount. (laughs) (I: Yeah.) But I wouldn't just say it to anybody, you know, unless they headed in that direction. (Susan, Northeast chapter, importance = 8, salience = 5, qualitative likelihood of invocation = 3 [unlikely, unless health comes up])

What accounts for this apparent reticence to mention the visitor identity unless other people's cardiac problems come up as a conversational topic? There are three possible factors. First, attaching less importance to the identity than the average respondent may lower the probability of calling it up (McCall and Simmons 1978). Indeed, those who said they were unlikely to invoke their visitor identity (respondents in categories 1 through 4 in Table 4) rated the identity as significantly less important to them compared to respondents who viewed invoking the visitor identity as probable (respondents in categories 6 through 8): 7.4 versus 8.8 on the 10 point importance scale, respectively (not shown). Along these lines, a handful of individuals stated explicitly that the Mended Hearts role identity was less important to them than other role identities. For example:

So, um, but like I said, it's just not the first thing I tell people. You know. (I: Yeah, well, I –) I'm a mom. (I: Sorry. Go ahead. [laughs]). I'm just saying, I'm a mom and a wife, and a worship leader in my church. These are things I'd rather talk about. But that doesn't mean that I don't want to talk about Mended Hearts. It's just a priority thing. (Vanessa, Rocky Mountain chapter, importance = 6, salience = 7, qualitative likelihood of invocation = 4 [unlikely, unless asked what I do])

Modesty is a second factor that may cause respondents to invoke their Mended Hearts identity only when a conversational opening occurs. As noted earlier, many were concerned about appearing to brag about engaging in volunteer work. Yet another respondent cited this rationale:

Uh, that would probably be one of the last things I'd ever bring up. (I: Okay. Is there anything that might lead you to mention it?) Um, well, (pause), well, I would say if in the context of conversation it came up about my having had heart surgery, and if you know, the person, you know, we were talking about that, I might say, "Well, yes, and I belong to this group, and within that group I do volunteer visiting." But I'm not one to kind of toot my own horn, you know? (Lindsay, Northeast chapter, importance = 6, salience = 2, qualitative likelihood of invocation = 3 [unlikely, unless health comes up])

A third factor might have to do with concerns about sharing personal health information with strangers, although privacy concerns were rarely voiced in the interviews. Tim articulated the issue most clearly:

Um, I don't know. There's—it's some people don't talk a lot about health problems. In other words, when you meet someone for the first time, you're certainly not gonna share a health problem, but you might as you get closer to them. So, because, because Mended Hearts is relating to a health problem, there would be less chance that it would come up in the conversation. (I: Okay, okay, I see. So it would only —) The only reason I'm a Mended Hearts visitor is because I had open heart surgery. So the question is, do I want to share that with someone I'm meeting, a new person I meet? I don't know. (Tim, Northeast chapter, importance = 8, salience = 9, qualitative likelihood of invocation = 5 [it depends])

When a conversational opening occurs, however, this reticence disappears. Respondents who were likely to invoke their visitor identity *if* heart problems came up (category 6, Table 4) and those who were unlikely *unless* heart problems came up (category 3) said that they would very probably disclose their visitor identity at this juncture. Why? They perceived their visitor identity to be directly related to the conversational topic at hand. Cardiac problems and cardiac surgery are these respondents' areas of experiential and informational expertise. Additionally, they have been trained to give hope and support to people who are worried or fearful about their own or a loved one's health. When heart-related issues are raised by an interaction partner, respondents presume it is situationally appropriate (perhaps even their duty, given the goals of the visiting role) to bring their visitor identity into play.

Many respondents spontaneously described what they were likely to say when the topic of cardiac problems was introduced by another person. They offered information about their own heart history, what their volunteer work entails, the mission of the organization, and/or the availability of a local chapter to join. In effect, some appeared to take this conversational opportunity not only to describe but to shift into enacting their visitor role:

Well, I probably wouldn't bring it up unless somebody says, "Well, I had a heart attack," or, "I had a bypass," and it leads into to saying, "Well, I had one of those, too, and let me tell you what I do." (Daniel, Mid-Atlantic chapter, importance = 6, salience = 4, qualitative likelihood of invocation = 3 [unlikely, unless health comes up])

Um, if that person brought up heart [issues], most definitely. There are people throughout my life...they've had a whatever [kind of heart problem]...and I tell them that there is strength and hope, and there is Mended Hearts, and we have meetings, and we have literature, and that there is, you know, there is someone that can, you know, break down the problems you're going through, besides your doctor. (Fiona, Central chapter, importance = 10, salience = 10, qualitative likelihood of invocation = 6 [likely, if health comes up])

I would mention it, because there are times when people will talk about someone who has either gone through the procedure, you know, a friend of theirs, or even a family member, and I'll say, "Oh," you know, "Did you — have they ever thought about Mended Hearts?" And that's when I have an opening to say, "Hey, this is what we are, this is our chapter here in [Central City]," and so on and so forth. "Now, of course, there are [chapters] all over the United States" and so on and so forth. And, uh, it gives me an opportunity to step in, yes. (Lennie, Central chapter, importance = 10, salience = 10, qualitative likelihood of invocation = 6 [likely, if health comes up])

In general, it appears that individuals are likely to mention—and even enact—a particular role identity when it is *situationally appropriate* to do so. "Appropriate" means suitable, proper, or fitting for a particular person, place, or circumstance. In

this case, given the conversational topic, it is suitable or fitting to invoke an identity that is directly relevant to that topic. Situational appropriateness also implies *normative* appropriateness: it is conventional, expected, or socially desirable to invoke an identity that fits the current situation. In particular, for Mended Hearts volunteers, it is normatively appropriate to respond to another person's expressed concerns about heart problems by bringing up their own experiences, activities, and knowledge about heart problems and how to cope with them.

These observations imply that respondents' identity salience responses depend not only on interactional norms, as discussed earlier (e.g., one should wait to be asked about oneself) but also on the normative context (i.e., one should call forth an identity that best fits the situation at hand). Put another way, norms regarding conversational *process* and conversational *content* govern whether individuals will invoke a particular role identity from their set of available identities, at least when interacting with newly-met strangers at a party or on vacation.

## 9 Discussion and Conclusions

Two identity theories differ regarding the determinants of identity invocation (i.e., salience). McCall and Simmons' (1978) role-identity theory posited that, among other factors, the subjective importance (prominence) of an identity would predict it being called up for potential enactment. Stryker's identity theory (1980) proposed instead that an identity's degree of network embeddedness (commitment) would govern its invocation. These theoretical differences raised the empirical question of whether perceived importance was in fact related to identity invocation, and if so, how strongly related (Stryker and Serpe 1994).

The present analysis was inspired by puzzling variations across a number of studies in the size of the association found between identity importance and identity salience—relationships varied in strength from near zero to 0.63. A review of the ways that identity salience has been measured in prior studies led me to suspect that unrecognized situational contingencies in the salience questions may have influenced those study findings. The specific audiences with which individuals were asked to imagine themselves interacting may have altered their readiness to invoke certain role identities over others. In other words, the identity or identities that study participants invoked may have depended on the imagined *social context* of the interaction.

The Mended Hearts project enabled a qualitative exploration of individuals' open-ended rationales for bringing up or withholding references to a role identity that most view as very important to them. Respondents described their probable lines of action when talking with newly-met persons at a party or on vacation. It is relevant to note that this scenario meets the key scope condition of identity theory: It asks respondents to envision circumstances that provide freedom of choice among identities to mention. Additionally, it avoids the audience problems built into the salience questions that were posed in some prior studies; in this project, imagined conversational



partners are not characterized in ways that might heighten or inhibit respondents' willingness to invoke their volunteer work.

Given these precautions and the high personal importance of the visitor identity to members of the subsample, one might have expected members to say without hesitation or caveat that they would be very likely to bring up their visitor identity. Although 19% of the subsample did say this, fully 73% said they would do so "if X," or would not do so "unless Y." In other words, the majority of interviewees described specific conditions or contingencies under which they would call up their visitor identity.

Conversational norms curbed respondents' probabilities of invoking their visitor identity. Specifically, norms require that one wait to be asked what one does for a living, and one should not jump ahead to supply unasked for information, especially unsolicited positive information that might be seen as showing off. Conversely, respondents were motivated to invoke their visitor identity when they perceived it to be situationally, or normatively, appropriate. In particular, when their interactional partner raised the topic of heart problems, the participants' visitor role identity then became both relevant and suitable (and perhaps even obligatory) to bring up in the conversational context.<sup>9</sup>

These interactional contingencies decouple the personal importance of a role identity from its salience.<sup>10</sup> Regardless of how important the identity is, one should wait for an invitation to cite it; regardless of how unimportant the identity may be among one's multiple roles, one should call it up when a relevant and appropriate conversational opening appears. In general, the analysis suggests that situations allowing "free choice" of identity are not truly free or unconstrained: norms matter, situational appropriateness matters, in general, *context* matters. Hidden contingencies emerged even in seemingly unconstrained circumstances.

What does this mean for the measurement of identity salience in future work? Minimally, typical salience questions will need to exclude interactions with imagined role partners who hold the same roles that respondents do (e.g., avoid asking college students if they would introduce themselves as a "student" to a new roommate or a speech class). Question wording should also take advantage of conversational norms that encourage identity invocation (e.g., "You've met a new person at a party who has just said, 'Tell me about yourself'—what would you say first, second, etc. in reply?").

Stryker and Serpe (1994) have offered a more radical measurement suggestion: Use laboratory-based strategies that bypass the conscious, deliberative information processing required by typical salience questions used in surveys. They noted that identities can be considered self-schemas, i.e., "cognitive generalizations about the self, derived from past experience" that "organize and guide the processing of self-related information" (Markus 1977, 63). Because self-schemas enable swift and efficient cognitive processing, individuals are not necessarily aware of them (Markus et al. 1985). Their existence can be assessed through the rapidity and patterning of subjects' responses to schema-relevant and -irrelevant cues presented on-screen in controlled conditions.

On the basis of the findings here, I would counter that identity invocation may actually *require* deliberation, and thus, that survey methods remain viable. The qualitative data suggest that situations of “free choice” are not free of imagined or anticipated contingencies. If this is true, then individuals need to think through such contingencies. To illustrate, consider Stryker and Serpe’s (1994, 18) central question, “Why does one father take his child to the zoo on a free Saturday afternoon while another opts to play golf with his buddies?” Their answer: These behavioral choices are influenced by the relative salience of the men’s identities of father and friend. However, it seems plausible that when a man contemplates whether to enact his father or friend identity on a Saturday, he must weigh the expectations of his spouse and child against those of his friends, he must consider his family’s and friends’ possible reactions to each potential plan of action, and he must anticipate the consequences for his own self-regard if he fulfills one set of role partners’ expectations and not the other’s. In other words, there are implied audiences to these decisions that need to be taken into account. Perhaps the more structurally committed one is to a particular identity, the more one’s salience response is shaped by the imagined expectations and anticipated reactions of one’s role identity partners. Identity invocation, in short, may be determined by the normative or contextual appropriateness of one’s potential behaviors in the eyes of others—what one *should* do when one has free time to devote to one role activity versus another.

These observations suggest that it might be instructive to ask respondents which of their identities they would *prefer* to invoke in their free time/when talking with new acquaintances, which identities would be *expected or appropriate* to invoke in such contexts, and which they would be *most likely* to invoke in these contexts (i.e., salience). Identities that are personally important should be those that respondents list as preferred. If context does in fact matter, identities respondents cite as socially expected and appropriate in the situation should be the ones they select for likely invocation; i.e., situationally appropriate identities should be viewed as most salient.

Interestingly, in outlining the determinants of identity salience, McCall and Simmons (1978) did not include situational appropriateness as a determinant, even though it seems self-evident that the first identity that should occur to people for probable enactment is the one that best fits the context in which they find themselves. Barring unusual events, everyday situational cues typically are unambiguous and easily interpreted. For example, entering a classroom makes student-teacher and student-student role identities expectable and appropriate, entering a church makes pastor-parishioner and parishioner-parishioner identities expectable, and so forth. As Stets and Serpe (2013, 44) observed, “...it is not simply the person but also situational cues that may introduce meanings that encourage the activation of one identity over another. Individuals will interpret these situational cues by relying on shared symbols and cultural meanings and identify the particular identity that is called forth...” In agreement, I would argue that the situational or normative appropriateness of a particular identity should be added to McCall and Simmons’ role-identity theory as a primary factor that predicts the ordering of multiple identities in persons’ salience hierarchies.

Like McCall and Simmons, Stryker did not consider situational appropriateness as a precursor to salience either, but this was due to the theory’s main scope condition:

Identity theory applies only when individuals' possibilities for self-presentation or potential action are unconstrained. Identity theory would not apply, for example, to a woman who is entering her workplace because that circumstance *demand*s that she perform her occupational role identity, regardless of whether that occupational identity ranks low or high in her commitment and salience hierarchies. Thus, to be able to discern the effects of commitment on salience, and of salience on subsequent behavior, one must examine situations in which people have free choice among role identities to enact.

But I believe identity theory could be extended to constrained social circumstances if we were to take seriously the possibility that individuals weigh the expectations and reactions of role partners to their contemplated lines of action. How might identity theory work in a constrained situation? It seems there are two behavioral choices individuals have in such circumstances. One is whether to enact the required identity or not. This has been the behavioral choice on which most identity researchers have focused, typically operationalized as the number of hours a person chooses to spend in role identity performance each day or each week. The other choice, mostly unexamined by researchers, is how much effort and care to put into role identity enactment. Consider again the woman about to enter her workplace. Given the setting, her occupational identity is obviously the most socially appropriate, so the probability that she will call it up is quite high (in fact, reaching the doors of the workplace suggests that she has already done so). Should she entertain the possibility of *not* calling up her occupational identity—doing something else instead of going to work—the anticipated disapproval of her boss and coworkers again would keep the probability of invoking her occupational identity high. Thus, constrained circumstances make the likelihood of calling up and then enacting the appropriate identity fairly certain—although people do suddenly quit or call in “sick” to obtain a day off, so exercising choice is still possible, even if uncommon in constrained situations.

But even when choice is constrained, individuals still retain a good deal of control over how well to perform their jobs. In other words, they can call up and enact an expected and appropriate “*responsible employee*” identity, or not. Returning to the woman at work, if her social ties are many and emotionally close on the job (vs. few and emotionally distant), consideration of her role partners' expectations and their possible responses to poor performance should predict doing her job with a high level of effort and care rather than the minimum necessary to get by. In short, greater structural commitment to a work identity should lead to a higher probability of invoking a normatively appropriate “*responsible employee*” identity, resulting in more investment of time, attention, and energy in job-related tasks. A similar process should apply to other constrained identities and circumstances (e.g., marriage, parenting).

Admittedly, much of this commentary is speculative, triggered by the finding that Mended Hearts visitors take a number of situational contingencies into account when deciding whether and when it is appropriate to call forth this specific role identity. A major limitation of the study, of course, is that it focuses on one role identity only, and this is an identity that is voluntary in nature rather than obligatory. It remains

an empirical question whether individuals take the same (or even any) situational contingencies into account when assessing the salience of other identities, especially obligatory ones. Further, the study interviewees are older adults, overwhelmingly white, mostly retired, and well educated on average, with unusually long histories of doing this peer-support volunteer work. Whether their observations and reasoning would be characteristic of other role incumbents is unknown and an important question to pursue.

Nevertheless, this qualitative analysis has uncovered the intriguing finding that even in seemingly unconstrained circumstances people's identity salience responses depend on numerous aspects of the social context, including the audience that is explicit or implied in that context and specific situational contingencies (conversational norms, visible identity markers, topics raised by conversational partners). More generally, the finding suggests that some role identities are more situationally appropriate to invoke than others, regardless of how personally important they are to the individual. If the salience of an identity is in fact a function of its situational appropriateness, then dramatic differences in the strength of the relationship between perceived identity importance and identity salience found in prior studies may be explicable (and avoidable in future studies). Wording for salience questions might be improved. And incorporating identities' situational appropriateness into role-identity and identity theories might add to their explanatory power. After all, a fundamental symbolic interactionist insight is that through imaginatively taking the role of the other, we anticipate and share our role partners' reactions to our contemplated plans of action. It may well be that socially acceptable plans of action are those that individuals are most likely to invoke.

## Endnotes

1. Stryker and Serpe (1994, 18) added that salience is based on cognitive schema about the self that "organize and guide the processing of self-related information" and "operate as frameworks for interpreting experience," including defining a situation as identity-relevant. This interpretive aspect of salience has not been operationalized in their empirical work, to my knowledge.
2. In contrast to Stryker, McCall and Simmons do not set a scope condition in their theory; prominence and salience processes operate across all situations, whether constrained or not. Theoretically, in constrained situations such as work, a prominent identity such as "mother" will simply drop in its salience because opportunities for profitable enactment of the mother identity will be perceived to be low relative to the situationally more profitable but perhaps less personally important identity of "receptionist at a law firm." In short, for McCall and Simmons, the situational rewards attached to enacting or not enacting a particular role identity determine its salience in both constrained and unconstrained circumstances, making role-identity theory more generally applicable than identity theory.

3. Stets and Biga employ Burke's (1991) definition of identity rather than Stryker's: An identity is "a set of meanings attached to the self that serves as a standard or reference that guides behavior in situations" (Stets and Biga 2003, 401).
4. This study is potentially flawed because respondents who were not employed (3% of the fathers, 31% of the mothers) were in the sample. Respondents without employment probably allocated low or zero points to indicate the importance of the work identity (when in fact they simply did not *have* a work identity), and they were given a salience score of 0 if (in all probability) they did not enter a work-related identity on the Who Am I task. Importance and salience scores are meaningful only if they are based on roles that are actually held.
5. Obligatory identities involve long-term ties to other individuals that are often emotionally intense and involve relatively demanding rights and responsibilities, making those identities difficult to exit without experiencing strong social sanctions; voluntary identities are shorter-term, less affectively intense, and less demanding roles, making them relatively easier to exit with less risk of sanctions (Thoits 2003). Brenner et al. (2014) adopt the obligatory/voluntary distinction when characterizing degrees of choice.
6. All respondent names are pseudonyms. Respondents are identified only by the geographic region where their chapter is located. Respondents' importance and salience ratings come from their phase 1 survey answers. Their "qualitative likelihood of invocation" code is based on their phase 2 interview remarks—see Table 4 for these codes.
7. The broader, more encompassing norm is that one should invite a new conversational partner to talk about him/herself and the partner should do the same in return. This broader norm is unexamined here, as respondents were not queried about the questions they might ask of a newly-met stranger.
8. Another contextual factor that is not addressed in survey-based identity theory research and that was not probed in these interviews is how often this situation actually occurs in respondents' lives. Some respondents may view the probability of invoking their visitor identity as low because encountering new people rarely happens in their day-to-day experience. This observation may help to explain why so many interviewees' invocation responses were phrased in speculative terms ("I would probably...") rather than experiential terms ("I usually...").
9. A handful of respondents said they would mention their volunteer work and/or Mended Hearts visiting if their conversational partner brought up his/her own *volunteer activities* first. Again, it would be situationally appropriate to invoke one's volunteer identity at this point in the conversation—the identity is relevant and fits the topic at hand.
10. More formally stated, the relationship between identity importance and identity salience will depend on the situational appropriateness of the specific identity in question; i.e., context will moderate the association between importance and salience.

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# Cognitive and Behavioral Responses to the Identity Verification Process



Jan E. Stets, Scott V. Savage, Peter J. Burke and Phoenicia Fares

**Abstract** We empirically test the concomitant cognitive and behavioral responses to identity verifying and non-verifying feedback. Based on identity theory, we expect that those who experience identity non-verification will enact behaviors aimed at resisting the non-verifying feedback, while at the same time their situated self-view will slowly change in the direction of that feedback (Burke and Stets 2009). Both responses co-occur as individuals behave to counteract the non-verifying meanings, even while their self-view shifts in the direction of the non-verifying meanings of the feedback. We examine these dual responses for people in structurally powerless positions who have less influence and perhaps greater difficulty effectively responding to identity non-verification. In a controlled laboratory experiment, actors who are either higher or lower in their dominant person identity, and whose dominance identity is either verified or not verified, bargain with two simulated actors over the distribution of a pool of resources. The results support the identity theory expectations that, in response to identity non-verification, people attempt to alter situational meanings as well as slowly accommodate to them.

**Keywords** Identity theory · Identity verification · Identity non-verification · Dominant identity · Negotiated exchanges · Power · Self-image · Cognitive responses · Behavioral responses

## 1 Introduction

Imagine a worker, who takes pride in her new job, being evaluated for the first time. Her six-month probationary period is ending, and she sits down with her supervisor

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to hear his assessment of her performance. She believes that she has worked hard over the past six months and that she has completed her duties efficiently and effectively. Nevertheless, she is nervous about his evaluation. She wonders whether he will agree with her self-evaluation as being a hardworking and capable employee. If her supervisor agrees, her identity is verified, and she likely will feel good about herself. If her supervisor judges her performance as poor, her identity is not verified, and she likely will feel bad.

For identity researchers, this is an example of the identity verification/non-verification process. When the meanings that define individuals in terms of an identity are consistent with how they think others see them in a situation, this is identity verification (Burke and Stets 2009). Identity non-verification occurs when they do not think that others in the situation see them in the same way that they see themselves. While identity verification produces positive feelings, identity non-verification leads to negative feelings. The positive feelings that arise from identity verification encourage individuals' actions and self-perceptions to continue uninterrupted in the situation; the negative feelings motivate individuals to respond to the discrepancy.

Individuals respond to non-verifying feedback behaviorally and cognitively. According to identity theory, people behaviorally respond to non-verification in a compensatory manner by acting more forcefully or less forcefully in asserting their identity meanings in the situation, depending upon whether the non-verifying meanings exceed or fall short of their own identity meanings (Savage et al. 2017; Stets and Burke 1994, 2005). Cognitively, their self-views in the situation are modified in the direction of the views of others (Cast 2003; Cast and Cantwell 2007; Cast et al. 1999). Theoretically, the behavioral and cognitive responses work in concert to restore a verifying state for individuals. Adjusting one's self-image toward the current meanings in the situation serves to shift individuals from a non-verifying to a verifying state over time. While we have theory (Burke and Stets 2009) and suggestive evidence that these responses occur (Burke 2006; Cast and Cantwell 2007), a direct test of this process is needed. We do that in this research.

We examine how individuals with either a more dominant or less dominant person identity, and who are structurally disadvantaged in terms of being in a low power position in an ongoing negotiation setting, respond both behaviorally and cognitively to identity verification and non-verification. Prior research reveals that those who are in a low status position in an interaction are more likely to cognitively align to non-verifying feedback than those in a high status position (Asencio and Burke 2011; Burke and Cast 1997; Cast 2003; Cast et al. 1999; Stets 2003).<sup>1</sup> Thus, we study those individuals who should be most susceptible to having their self-images modified as a result of identity non-verification.

At the same time, the structurally disadvantaged are limited in their ability to resist the demands of others in a negotiation given their weak position. This is especially relevant when those who are structurally low in power, but higher in the dominant person identity, are told that they are submissive. Here, the drive to reassert their dominance by way of a more aggressive negotiation style conflicts with their relative power. Thus, if low-power actors are more likely than high-power actors to

cognitively align to non-verifying feedback, it may be because they are less likely to successfully resist, behaviorally. We examine this in this study.

## 2 Identity Theory

Identity theory as discussed here is rooted in structural symbolic interactionism (Stryker 2002 [1980]). An identity is an internal designation of meanings (Stryker 2002 [1980]) that people attribute to themselves as a unique person, in a role, or as a member of a group or social category (Burke and Stets 2009). Once an identity is activated in a situation such that the identity meanings held by an individual are relevant to the meanings in the situation, a feedback loop is established that has the following component processes (Burke and Stets 2009). First is the *perceptual input process* which brings self-relevant meanings to the situation including one's actual appraisals or direct information individuals receive from others as to how others see them (Burke and Stets 1999; Cast et al. 1999), and reflected appraisals or how they think others see them in the situation (Kinch 1963; Stets and Burke 2014; Stets and Harrod 2004).

Actual appraisals from others are not necessarily unfiltered on the part of the recipient or others. Others may selectively communicate some evaluations (such as positive views) over other evaluations (such as negative views) to recipients (Felson 1980). Even if others communicate their evaluations accurately, the recipient may ignore it, distort it, or reject it. Reflected appraisals are rooted in Cooley's ([1902] 1964) "looking-glass self" in which people see themselves reflected in the reactions of others to them. Like actual appraisals, reflected appraisals are not necessarily unfiltered because the appraisals are based on actors' perceptions as to how others see them. Actors may selectively perceive others' appraisals (Matsueda 1992). They also may project their own appraisals onto others' appraisals, thereby falsely assuming that others share their own view of themselves (Tice and Wallace 2003).

The second component process is the *identity standard*, which contains the meanings that define the identity held by the individual. Self-relevant meanings that are the input are compared to the identity standard. When considering moment-to-moment interaction, early on, Burke (1980: 20) suggested that the *self-image* or the situational "working copy" of the identity standard is what is more relevant in serving as the reference for comparison with the input meanings. It is this self-image or working copy of an identity and not the identity itself that guides ongoing interaction in the situation.

Burke described the self-image as a probability density around a point, with the point being one's identity standard. As the probability of the image gets nearer to the location of the identity, it better reflects the meanings in the identity; as it gets further away from the identity, it increasingly departs from the identity meanings. Given theoretical development over time, we might today conceptualize this self-image as more of a point moving around the identity standard, with the self-image having its own distribution of meaning. The self-image meanings are influenced by

the meanings in the identity more than they influence the identity meanings (Burke 1980). Therefore, if self-images change in a situation given situational expectations and demands, since their impact on an identity is smaller than the reverse, the identity will change, but only very slowly over time.

If we return to the example in the opening paragraph of the worker who is about to receive her six-month probationary evaluation, she may think that her behavior has given off meanings that are consistent with her current self-image and that are close to her worker identity standard. If her supervisor does not agree with the meanings implied by her behavior and judges her as being inefficient and ineffective over the past six months, her current self-image may begin to depart some from her working identity standard and move in the direction of the self-meanings set by her supervisor. In this way, the situation influences the image of the self (Stryker 2002 [1980]). We underscore the influence of the social context in shaping and modifying one's self-image. Indeed, self-meanings are rooted in negotiations that emerge between self and others in interaction.

This dynamic and potentially changing self-image in an ongoing interaction has been discussed in a similar way by others as one's "working self-concept" (Markus and Kunda 1986; Markus and Wurf 1987). Since we cannot access all identities at any one time, we access that identity that is most appropriate for the situation. This working, on-line self-image is malleable in the situation. The self-image also is analogous to Alexander's concept of a situated identity, the establishment of which is considered a fundamental task in social interaction (Alexander and Wiley 1981). The situated identity, however, emerges fully in the situation as others make attributions about actors given their behavior. In identity theory, the identity standard is carried from one situation to another and is not created anew in each situation. The self-image, however, is derived from the identity standard anew in each situation and is modified by the situation.

Implied in the above discussion is that the *situation* is crucial in influencing what "working copy" of the identity is activated in a situation. In identity theory, it is the *meanings in the situation* that are relevant to an identity that call up an image of the identity (Stets and Burke 2014; Stets and Carter 2012). Once the self-image is activated, so is the motivation to have it verified. Thus, when a worker is being evaluated on her job performance, the self-image of the worker identity is shored up and guided by the worker identity standard meanings. If she has trouble verifying her worker self-image, then she may adjust her self-image meanings to fit the current situation. Strictly speaking, then, what is immediately subject to verification in moment-to-moment interaction is the self-image.

The *comparator process* is the third component process in the feedback loop. It receives as input the actual and reflected appraisal meanings from the situation as well as the self-image meanings that serve as the reference. It plays a key role in the verification process, assessing the difference between the input meanings and the self-image meanings. A close correspondence in input meanings and self-image meanings signals identity verification, and results in individuals feeling good. When that happens, the self-image meanings will guide *output* or behavior that reflects the

self-image meanings. Essentially, the self-image meanings should correspond to the meanings implied by how people behave.

Increasing non-correspondence between input meanings and the self-image meanings signals identity non-verification, and people will feel bad. Identity non-verification occurs both when self-image meanings are exceeded and when they are not met. If people receive feedback that exceeds their self-image, they may respond by decreasing the strength of their behavior, perhaps backing off from what they are doing. If they receive feedback that falls short of their self-image, they may increase the strength of their behavior, perhaps working harder than previously. Indeed, there is evidence that individuals increase their efforts to verify who they are, either working more forcefully or less forcefully depending upon the direction of the discrepancy, when identity non-verification occurs (Cast and Cantwell 2007; Savage et al. 2017; Stets and Burke 1994, 2005). Essentially, behavior or *output* attempts to counteract the discrepancy with the goal of giving off meanings that better align with the self-image meanings and reduce the discrepancy to close to zero.

In addition to behavioral responses, cognitive responses may change meanings to better match self-image meanings. As discussed above, people may distort actual or reflected appraisals with the result that they see more verifying information than what exists (McCall and Simmons 1978). We focus on the cognitive response whereby one's self-image changes to align more with the non-verifying feedback since, according to identity theory, this should occur at the same time as behavioral resistance to non-verifying feedback happens. Alignment involves slowly coming to see oneself in a manner that is consistent with the feedback one is receiving in a situation. Research reveals that this is even more likely to occur when individuals have little control or power in the situation (Burke and Cast 1997; Cast 2003; Cast et al. 1999; Stets 2003). In the current study, we investigate the tendency toward adjusting one's self-image for individuals located in low power positions in a negotiated setting.

### 3 Current Study

We examine individuals' cognitive and behavioral responses when their dominance identity is verified or not verified in a negotiation setting. The dominance identity is a person identity that exists on a continuum from high to low. On one end of the continuum, people see themselves as more dominant or less submissive, and on the other end, people see themselves as less dominant or more submissive. Thus, the dominant identity carries meanings as to how individuals see themselves along the dimension of dominance. Characteristics of this dimension include being assertive/passive, demanding/not demanding, and controlling/not controlling. In general, where people place themselves on this continuum should elicit behavior that is consistent in meaning with their identity meaning.

Because the dominant identity involves meanings associated with power, those with a higher dominant identity are more likely to try to exert their will onto others,

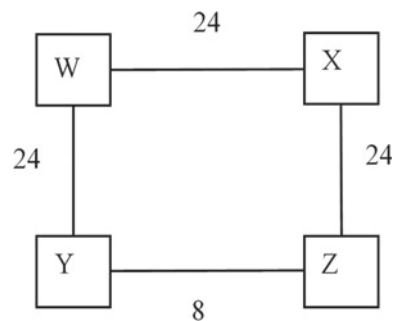
and those with a lower dominant identity are more likely to succumb to the will of others. Since negotiations involve people directly competing over the division of resources, individuals tend to view negotiation as more conflict-laden than other forms of interaction (Molm et al. 2006, 2007).

In this study, we create a negotiated exchange situation whereby participants try to make deals with two exchange partners, one of whom is structurally advantaged relative to the participant, and one of whom is structurally equal to the participant. Our network is a weak-power network, meaning that no participant can exclude another without incurring costs to themselves. Because weak power networks exert less structural pressure on actors to be included in exchange relations, individuals have greater freedom to explore different strategies for accumulating resources (Markovsky et al. 1993).

In exchanges in which actors must bargain over the division of a pool of points before making an exchange, there may be several strategies that are used. Individuals may request more or fewer points from their partners, or they may exchange with one partner more or less frequently than the other. The dominance identity that individuals bring to these exchanges may influence how often they employ these strategies. We investigate these strategies in this study.

In our weak power, negatively connected network,<sup>2</sup> we place participants in a power-disadvantaged position in what they believe is a four-person, network. Figure 1 shows the basic structural features of the network. Although each position has two exchange partners, the value of the resources controlled by these partners is not always the same. While W and X are positions of high power because exchanges are of high value (dividing 24 points with alternative partners), Y and Z are positions of low power because exchanges involve one high valued relation (dividing 24 points) and one low value relation (dividing 8 points). Participants do not know the relative value of these different exchange relations. Nevertheless, those in the Y and Z positions are more dependent on their advantaged partners (W and X) for resources than their advantaged partners are on them, but this difference is not because of forced exclusion. In this study, all participants are in the Y position, and the other three positions are populated by simulated actors who are programmed to behave in ways consistent with their structural position. This is explained below.

**Fig. 1** Exchange network



We examine how individuals with a relatively high or low dominance identity in the Y, low power position, respond to identity feedback that verifies or does not verify their dominance identity. The design is such that when higher dominant identity actors are not verified, they are under-verified or told that others see them as less dominant than how they see themselves. When lower dominant identity persons are not verified, they are over-verified or receive feedback that others see them as more dominant than how they see themselves. Theoretically, the manipulated feedback is operationalizing actual appraisals of how others in the situation see the actor.

Based on identity theory, verification of an identity will result in individuals behaving, seeing themselves, and thinking that others see them in ways consistent with the meanings of their identity standard. Thus, verification of a high dominant identity should produce behavioral and cognitive responses that are consistent with being more dominant, while verification of a low dominant identity should produce behavioral and cognitive responses consistent with being less dominant. In a negotiation situation, this should result in more dominant individuals maintaining self-images of dominance as well as enacting more dominant negotiating tactics, such as initially requesting more points and engaging in more exchanges with the high-power partner, as opposed to the low-power partner, who can provide the most resources for them.

When individuals are not verified, identity theory says they should act in ways that counteract non-verifying identity meanings even as their self-images begin to change in the direction of the non-verifying feedback. For more dominant people who receive feedback that they are less dominant (under-verified), they should work harder to show that they are more dominant, while at the same time, they should begin to see themselves as less dominant, given the feedback. Less dominant people who receive feedback that they are more dominant (over-verified) should reduce their dominant behavior to counteract the more dominant feedback, while simultaneously their self-images should begin to shift in the direction of the non-verifying feedback, that is, as more dominant.

Given the above, we hypothesize the following cognitive responses for non-verifying and verifying feedback:

*H<sub>1</sub>: Those who receive **non-verifying** feedback will shift their self-image in the direction of the non-verifying feedback.*

*H<sub>2</sub>: Those who receive **verifying** feedback will show stronger self-images consistent with the verifying feedback.*

The following hypotheses are the behavioral responses for non-verifying and verifying feedback:

*H<sub>3</sub>: Those who receive **non-verifying** feedback will behave opposite the direction of the non-verifying feedback.*

*H<sub>4</sub>: Those who receive **verifying** feedback will behave more strongly consistent with the verifying feedback.*

Hypotheses 3 and 4 will each be tested with two behavioral measures: the number of points requested and the degree of engagement with an exchange partner. We assert that requesting more points and being more engaged with the high-power partner are signs of dominance.

In summary, we investigate how low-power actors with a high or low dominant identity respond cognitively and behaviorally to non-verification. We test our predictions with data from individuals who participate in a laboratory experiment. In the experiment, participants are placed in a four-person network in which they are to negotiate over a pool of resources. They receive verifying or non-verifying feedback throughout the negotiation, and we capture their cognitive and behavioral responses following their feedback.

## 4 Method

### 4.1 Overall Design and Participants

Participants are undergraduate students from a large public university who are recruited based on their desire to earn money. Prior to the laboratory experiment, participants completed a web-based survey that collected background information as well as information about their dominance identity. In the experiment, participants are told that they are part of a four-person network, and that the two other participants with whom they can make an agreement each have a common alternative partner with whom they can exchange. A diagram of this network (Fig. 1) hung on the wall in each participant's workspace.

The participant is always Y and always has one structurally advantaged (high-power) simulated partner (24 points are divided), and one structurally equivalent (low-power) simulated partner (8 points are divided). W, X, and Z are simulated actors programmed to behave in a manner consistent with their relative power. As can be seen in Fig. 1, Y can only exchange with W and Z, who, to add realism, "exchanged" with X a small portion of the time.<sup>3</sup> The use of simulated actors ensured that participants had similar opportunities to amass points and experienced similar disadvantaging behaviors from their high-power, simulated partner. There is a long tradition in exchange theory of using simulated actors to test how individuals respond to patterns of exchange (Molm 1997; Molm et al. 2006; Savage and Sommer 2016).

Participants were either high in dominance or low in dominance. Following earlier work (Swann and Hill 1982), we restrict the experiment to include only those who have high (top third) or low (bottom third) dominant identities, as measured in the survey before their participation, thereby creating a strong contrast. The middle third is excluded. At three points in the negotiations, participants' identities are either verified or not verified. Thus, the experiment is a 2 (high/low dominant identity)  $\times$  2 (non-verifying/verifying identity feedback) design. Eighty-two individuals participated in the experiment or about 20 individuals per condition.

## 4.2 Procedures

Participants first complete a web-based survey in which they rate themselves along a variety of dimensions including the dominant identity. We add up participants' responses to a 10-item bi-polar dominant identity scale. Given the overall distribution of scores for all participants, each participant falls into the top, middle, or bottom third of the overall dominant identity distribution. A few weeks following their survey participation, we invite those in the high and low dominance categories to participate in the laboratory experiment.<sup>4</sup>

When a participant enters the lab, a research assistant escorts the participant to an isolated room where s/he is seated at a desk with a computer. The participant reads through a set of instructions that appear on the computer screen describing the task at hand. Each is informed that s/he will be negotiating with two other participants in a four-person network in an attempt to earn points, which are worth money. Thus, participants learn that how much money they earn depends upon the number of points earned.

Negotiations are broken down into 40 opportunities to exchange with a partner. In each exchange opportunity, a participant has four rounds to negotiate a "deal" with one of two partners. The participant negotiates by requesting a number of points from each partner within a specified range. The participant may request up to 24 points from one partner and up to 8 points from the other. Each of these requests is then converted by the computer into an offer. A participant generally knows that the more s/he requests, the less s/he is offering, but the participant does not know how the computer converts requests into offers.

While the conversion is simply subtracting one's request from the total possible points in one's pool, this conversion is concealed from the participant, preventing the person from knowing exactly how much a partner earns once an agreement is made. This circumvents behaving along equity lines (Cook and Emerson 1978). Agreements occur when the points requested by the participant are equal to or less than what a simulated actor offered. If an agreement is not made after the initial request, a new round of negotiation begins, and the participant chooses whether to make a counteroffer or accept the offer.<sup>5</sup>

After completing the instructions and two practice sessions, a participant begins the experiment by entering the first exchange opportunity. A disadvantage between the high-power, simulated actor and the participant is created by the participant receiving, on average, 10 out of 24 points (a 10/14 split). Negotiations involve the participant making initial requests on how many points s/he wants. The participant can request up to 24 points from one partner (high power) and up to 8 points from the other (low power). The high-power, simulated actors make initial *requests* from 14 to 18 points, and the participant is thus initially *offered* a high of 10 points to a low of 6 points on the initial offer. The value requested is randomly determined within a set range. If the participant does not accept the initial offer, the request is repeated or lowered on subsequent negotiations (i.e., the offer is raised); again, this is



randomly determined. By the fourth round of negotiation, the simulated high-power actor offers 10 points, on average.

The second, low-power, simulated actor creates, on average, an equal value exchange with the participant, but for fewer points. This low-power, simulated actor requests 7, 6, or 5 points out of 8 total possible points, thus the participant receives initial offers of 1, 2, or 3 points. If a participant does not accept an initial offer, the low-power, simulated actor lowers the request by a random amount. By the fourth round of negotiation, the simulated actor offers, 4 points on average, with final offers ranging from 1 to 7.

To avoid end effects, participants do not know how many exchange opportunities there will be, nor do they know that an exchange will be interrupted by a brief survey after the 11th, 20th, and 29th exchange opportunities. In these short surveys, the participant rates on a scale from 1 to 100: (1) how dominant s/he thinks s/he was in the previous exchanges (self-image), and (2) how dominant the participant thinks each partner saw the participant in the previous exchanges (a manipulation check of the manipulated feedback in the previous phase of exchanges). Immediately following this, the participant receives feedback about how dominant the participant's two partners, on average, think the participant was in the current exchanges or phase of negotiation. This is manipulated feedback (actual appraisal) that provides either verification or non-verification as to one's level of their dominant identity. Thus, the experiment consists of four exchange phases (exchange opportunities 1–11, 12–20, 21–29, and 30–40), punctuated by three brief surveys.

### 4.3 Manipulations

**Dominant Identity.** In the survey, participants rated themselves on a set of 10 bipolar items that include the following characteristics: “very dominant/not at all dominant,” “commanding/not at all commanding,” “always in charge/never in charge, very forceful/not at all forceful,” “very influential/not at all influential,” “very assertive/not at all assertive,” “very passive/not at all passive,” “very managerial/not at all managerial,” “very demanding/not at all demanding,” and “very controlling/not at all controlling.” For each item, participants think about who they are in relation to each of the two opposing characteristics and indicate, using a seven-point scale, where they would place themselves in relation to the characteristics. A 1 indicates agreeing with one bipolar characteristic, a 7 indicates agreeing with the other bipolar characteristic, and 4 indicates agreeing somewhere in the middle. The items form a single factor with an omega reliability of .83. We sum the aligned items, with a higher score representing a more dominant identity. We divided the overall distribution of scores into thirds and selected only the top and bottom thirds to participate in the study. This allowed us to use the dominance identity as a blocking factor, with “high” and “low” dominant identity participants included in the experiment. The dominant identity condition is coded 1 for a high dominant identity and 0 for a low dominant or submissive identity.

**Identity Feedback.** We randomly assign each participant to one of two feedback conditions: a high dominance feedback or a low dominance feedback. After exchange opportunities 11, 20, and 29, and immediately following a participant's responses to: (1) how dominant the participant thinks s/he had been, and (2) how dominant the participant thinks others thought s/he had been during the negotiations, the participant receives the manipulated feedback about how dominant the participant's two partners, on average, thought the participant had been.

Participants are told that the feedback ratings range from 1–100, with an average of 55, and that higher scores indicate more dominant ratings. After the first phase, participants receive a rating of 70 (the upper third of the dominant identity sample distribution) or 40 (the lower third of the dominant identity sample distribution). Subsequent phases randomly adjusted the feedback by up to  $\pm 3$  to avoid the participants getting suspicious with the same feedback value. High dominant participants who received high dominant feedback and low dominant participants who received low dominant feedback had their identities verified. Similarly, low dominant participants who received high dominant feedback and high dominant participants who received low dominant feedback were not verified. In general, identity non-verification for low dominant identity participants translates into them always being over-verified as "too dominant," while identity non-verification for high dominant identity participants translates into them always being under-verified as "too submissive." Verification was coded 1 and non-verification was coded 0.

#### 4.4 Measures

**Cognitive Measure of Self-Image.** Immediately after exchange opportunities 11 (Phase 1), 20 (Phase 2), and 29 (Phase 3), participants reported how dominant s/he thinks s/he was during the negotiations. These are one's current self-image. The response category ranges from 1 to 100 with a higher number reflecting more dominance.

**Behavioral Measures: Points Requested and Behavioral Engagement.** During each exchange opportunity, a participant can ask for up to 8 points from the equal, low-power partner and 24 points from the high-power partner. In this analysis, we are interested in the latter request. The average number of points participants' request from their high-power partner in each phase is calculated. Higher scores indicate more points requested and is reflective of more dominant behavior.

Behavioral engagement is the degree to which participants frequently come to an exchange agreement with their high-power partner rather than with their low-power partner. For each phase, we take the number of exchange agreements reached with the high-power partner minus the number of exchange agreements reached with the low-power partner all divided by the total number of exchanges. This index ranges from  $-1$  to  $+1$ . A value of 1 indicates exchange agreements occur only with the high-power exchange partner. A value of  $-1$  indicates exchanges only with the low-power exchange partner. A value of 0 reflects equal exchange agreements with both

partners. This index is calculated for each phase. The higher the number during a phase, the more participants engage in exchanges with their high-power partner. Frequent engagement with the high-power person is a sign of dominance.

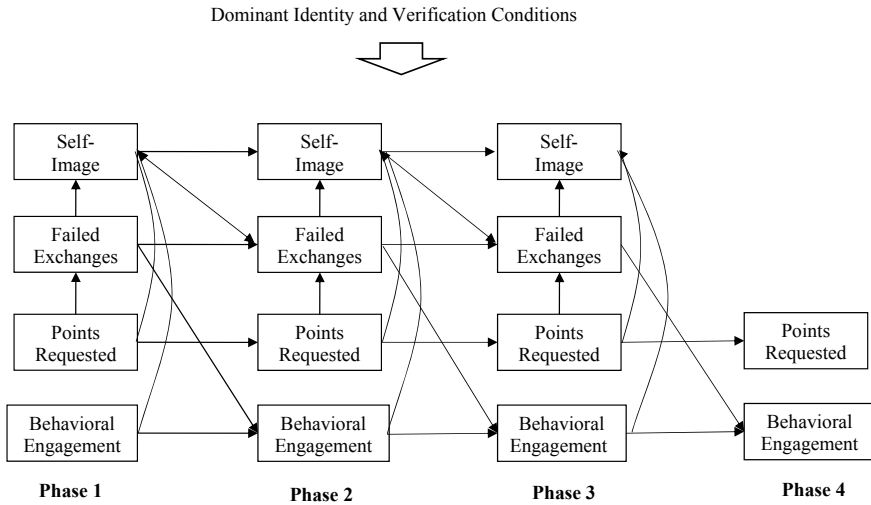
**Failed Exchanges.** We control for the difficulty in negotiating and reaching successful exchanges in the experiment. This is operationalized as the total number of rounds in which the participant does not reach an agreement with either partner. Recall that there are 40 opportunities for a participant to exchange with a partner, and four rounds per exchange opportunity. If the participant fails to make an agreement during the four rounds, the exchange is a “failed exchange,” and the participant does not receive any points for that exchange opportunity. Participants learn about the possibility of not receiving any points early on, during the instructional phase of the experiment. Throughout the negotiations, the computer screen displays what round they are on, for example, “Round 1 out of 4.” The number of failed exchanges is calculated for each phase with a higher score indicating more frequent failed exchanges.

#### 4.5 *Model and Analysis*

The model we estimate has the four variables discussed above measured at three-time points (the first three phases of the experiment). These are the cognitive response to non-verification (participants’ self-image), the two behavioral responses (points requested and behavioral engagement with the high-power partner), and a control for the frequency of failed exchanges because agreement could not be reached with either exchange partner.

The two manipulated factors (dominance identity and verification) are also incorporated into the analysis. First is the assignment of participants to the higher or lower dominant identity condition based on the earlier measures of their dominant identity. Second is their assignment to the verifying or non-verifying feedback condition. These two manipulated variables influence all the other variables in our model and are represented in Fig. 2 with the large arrow at the top of the figure. The dominant identity condition variable influences the other variables directly. The verification condition variable is treated as a group variable, and we run the model separately for those whose dominant identities (whether high or low) are verified and not verified.

While our focus is on how people respond to counteract non-verification both cognitively and behaviorally, one’s self-image and negotiation behaviors are embedded in an ongoing process over the 40 rounds of exchange. As shown in the model in Fig. 2, each variable influences itself in the next phase. Self-image at the end of a phase is influenced by failed exchanges, points requested and behavioral engagement in the same phase. Failed exchanges in one phase are influenced by points requested in the same phase. Self-image in one phase influences failed exchanges in the next phase, and failed exchanges in one phase influence behavioral engagement in the next phase. Finally, the level of one’s dominant identity influences all outcomes.



**Fig. 2** Model of cognitive and behavioral responses

Our final model is estimated using maximum likelihood in a series of steps. The first, baseline model as depicted in Fig. 2 is estimated separately for those whose dominant identity is not verified and those for whom it is verified. We then test the equality of the coefficients between the two groups (not verified and verified) and constrain those coefficients to be equal that are not significantly different. This constraint allows us to estimate those coefficients with more power by pooling equivalent estimates. Results reveal that, overall, the intercepts for the two groups are not significantly different ( $\chi^2_{11} = 7.56, p = .75$ ), thus the intercepts are constrained to be equal. When analyzing the structural coefficients for the two groups, while we find that, overall, they are significantly different ( $\chi^2_{54} = 125.50, p \leq .05$ ), many of the effects are the same between the two groups. Thus, we test for differences in individual coefficients and constrain those that are not significantly different to be equal. Finally, we test whether equivalent coefficients at two-time points are the same and constrain those that are not significantly different to be equal.

## 5 Results

In Table 1, we show the means and standard deviations of the variables in our model. We run a series of Bonferroni tests to identify whether there are any differences in the average levels for each variable by the different phases and verification conditions. The results reveal no significant differences in the means for any of the variables across the phases or verification conditions. Table 2 displays the correlations among the variables in both the non-verifying and verifying conditions.

**Table 1** Means and standard deviations among the variables

	Phase 1		Phase 2		Phase 3		Phase 4	
	NV <sup>a</sup>	V	NV	V	NV	V	NV	V
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)
Self-image	55.43	53.15	59.57	60.14	59.74	56.52	–	–
	(15.83)	(14.48)	(17.19)	(13.82)	(17.59)	(18.38)	–	–
Failed exchanges	0.38	0.43	0.64	0.40	0.60	0.43	–	–
	(1.19)	(1.17)	(1.45)	(1.01)	(1.61)	(1.22)	–	–
Points requested	9.67	10.18	9.76	10.11	9.67	10.25	9.99	1.45
	(3.81)	(2.96)	(4.02)	(3.05)	(3.87)	(3.28)	(3.92)	(3.81)
Behavioral engagement	0.68	0.61	0.68	0.57	0.63	0.59	0.58	0.66
	(.27)	(.28)	(.36)	(.39)	(.34)	(0.37)	(0.39)	(0.31)

<sup>a</sup>NV = Identity non-verification ( $N = 42$ ); V = Identity verification ( $N = 40$ )

The final model fits the data well ( $\chi^2_{152} = 137.22, p = .80, RMSEA = 0.00$ ). The estimates are presented in Table 3. The upper panel shows the results for the non-verification condition, and the bottom panel shows the results for the verification condition. Bolded coefficients indicate significant differences in effects between the verification conditions.

Recall that our focus is on actors' cognitive and behavioral responses to the verification process. For the cognitive responses, we examine one's self-image of being dominant. For the behavioral responses, we study two behaviors: points requested and behavioral engagement. At the end of phase one, respondents receive their initial (manipulated) identity feedback, which was designed to either verify the participant's dominant identity or not.

A manipulation check of the feedback was made to ascertain that the respondents were aware of the feedback they were given. This was done at the end of each phase when respondents were asked how dominant they think others see them. At the end of the first phase (before feedback was given), those in the high feedback group did not differ from those in the low feedback group in terms of how dominant they thought others saw them (55.3 and 55.0, ns). At the end of phase 2, however, the groups differed in how dominant they thought others saw them with those receiving high feedback reporting that others saw them as more dominant, and those receiving low feedback reporting that others saw them as less dominant (61.3 and 53.0,  $p \leq .01$ ), and this was maintained through the third phase (61.3 and 49.5,  $p \leq .01$ ).

For non-verification, high dominant participants are told their exchange partners think they are not very dominant, and low dominant (more submissive) participants are told their exchange partners think they are very dominant. Table 3 contains the effects for persons whose dominance identities are not verified. We look first at the effects of the feedback on the cognitive response of the self-image of the participants. When high dominant identity people are told their exchange partners, on average, do

**Table 2** Correlations among variables by verification condition

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Self-image 1	<b>1</b>	.54*	.43*	.05	-.04	.04	-.07	-.10	-.04	-.01	.10	-.12	-.17	-.14	.34*	
Self-image 2	.52*	<b>1</b>	.69*	.09	.28	.35*	.26	.10	.22	.19	-.03	-.32*	-.38*	-.43*	.08	
Self-image 3	.29	.74*	<b>1</b>	.09	.17	.29	.16	.03	.12	.15	-.18	-.20	-.25	-.34*	-.14	
(4) Failed exchanges 1	.31	.12	.11	<b>1</b>	.66*	.71*	.45*	.45*	.33*	.32*	.31*	-.41*	-.49*	-.15	.04	
(5) Failed exchanges 2	.25	.18	.20	.81*	<b>1</b>	.81*	.77*	.34*	.43*	.43*	.47*	-.42*	-.63*	-.49*	.22	
(6) Failed exchanges 3	.18	.10	.19	.70*	.74*	<b>1</b>	.83*	.31*	.35*	.39*	.34*	-.35*	-.65*	-.49*	.08	
(7) Failed exchanges 4	.19	.12	.17	.79*	.84*	.92*	<b>1</b>	.29	.40*	.35*	.36*	-.29	-.61*	-.50*	.18	
(8) Points requested 1	.12	.17	.21	.72*	.74*	.56*	.65*	<b>1</b>	.83*	.76*	.71*	-.45*	-.34*	-.19	.09	
(9) Points requested 2	-.01	.30	.17	.56*	.66*	.57*	.61*	.70*	<b>1</b>	.90*	.86*	-.43*	-.48*	-.23	.30	
(10) Points requested 3	.16	.38*	.33*	.42*	.57*	.51	.49*	.62*	.84*	<b>1</b>	.92*	-.41*	-.49*	-.40*	.34*	
(11) Points requested 4	.17	.37*	.29	.32*	.47*	.34*	.35*	.57*	.74	.90*	<b>1</b>	-.36*	-.48*	-.37*	.43*	
(12) Behavioral engagement <b>1</b>	-.20	-.13	-.09	-.54*	-.41*	-.34*	-.44*	-.57*	-.26	-.12	-.08	<b>1</b>	-.56*	-.36*	-.27	

(continued)

Table 2 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(13) Behavioral engagement 2	-.01	-.19	-.16	-.36*	-.19	-.22	-.21	-.22	-.21	-.07	-.03	-.35*	<b>1</b>	-.62*	-.59*	-.32*
(14) Behavioral engagement 3	.22	.01	.11	-.10	-.10	-.23	-.15	-.11	-.25	-.17	-.08	-.15	-.13	<b>1</b>	-.51*	-.24
(15) Behavioral engagement 4	.02	.03	.17	-.41*	-.40*	-.43*	-.52*	-.29	-.33*	-.12	-.11	-.43*	-.51*	-.28	<b>1</b>	-.21
(16) Dominant ID condition	.20	.32*	.35*	-.07	.10	-.06	-.01	.06	-.13	-.02	.03	.11	-.06	-.31*	-.22	<b>1</b>

\* $p \leq .05$ ; Upper right = correlations for non-verification condition ( $N = 42$ ); Bottom left = correlations for verification condition ( $N = 40$ )

**Table 3** Standardized coefficients for identity non-verification condition ( $N = 42$ )

Independent variables	Dependent variables											
	Phase 1			Phase 2			Phase 3			Phase 4		
	Self-image	Self-image	Failed exchange	Points requested	Behavioral engagement	Self-image	Failed exchange	Points requested	Behavioral engagement	Points requested	Behavioral engagement	Points requested
Phase 1	Dominant ID condition	.24**	<b>-.26**</b>	.14**	<b>.11**</b>	<b>-.12</b>	<b>-.26**</b>	-.09	<b>.11**</b>	<b>-.12</b>	<b>.11**</b>	<b>-.11</b>
	Self-image		<b>.64**</b>	-.01		<b>.24*</b>						
	Failed exchanges	.31**		.54**		-.31**	.20**					
	Points requested	-.23			.84**							
	Behavioral engagement	-.01		.02		<b>.38**</b>						
Phase 2	Self-image					<b>.54**</b>	-.01					
	Failed exchanges		<b>.18</b>				.57**			<b>-.37**</b>		
	Points requested		<b>.21</b>	.19**				.88**				
Phase 3	Behavioral engagement		-.08				-.06			<b>.30**</b>		
	Self-image											
	Failed exchanges					.11						<b>-.37**</b>
Phase 4	Points requested					<b>.08</b>	.18**				.90**	
	Behavioral engagement					.06						.10
	Behavioral engagement											

\*\* $p \leq .01$ ; \* $p \leq .05$ ; Bold coefficients = significantly different between the verification conditions



not think they are very dominant (manipulated appraisals) at the end of Phase 1, their self-image in the situation was lower in dominance than low dominant participants who are told they are very dominant in Phase 2 ( $\beta = -0.26, p \leq .01$ ). This effect continues in Phase 3, again rating themselves lower in dominance than the low dominant people who are told they are very dominant. These results show that the participants are not maintaining their dominant (or submissive) identities in the face of non-verifying feedback. Rather, they are changing their self-views in the direction of the feedback. This supports Hypothesis 1.

In contrast to the above, Table 4 shows identity verification for those whose dominance identities are verified. When high dominant identity participants learn that their partners, on average, think they are quite dominant (manipulated appraisals), in phase two of the negotiations, their situational self-image is more dominant than the low dominant identity participants who learn that their partners, on average, think they are not very dominant ( $\beta = 0.18, p \leq .01$ ). This effect also continues into phase three. Thus, identity verification serves to maintain or strengthen the level of dominance of the situational self-images of participants, whatever level their dominant identity is set. This confirms Hypothesis 2.

The manipulation check showed that participants see and understand the manipulated feedback. The results in Tables 3 and 4 show that they begin to incorporate this feedback into their own self-images. When they are verified, their self-image does not shift but remains consistent with the meanings set by their identity. When they are not verified, rather than resisting these non-verifying manipulated appraisals, their situational self-images begin to change in the direction of the feedback. This is consistent with identity theory.

Identity theory, however, also tells us that individuals should respond behaviorally to verifying and non-verifying feedback in predictable ways. We now turn to analyze these behavioral responses. Table 3 shows that the high dominant identity participants who receive non-verifying feedback responded in strength by requesting more points per round more than the low dominant identity persons who are given manipulated feedback that they are very dominant ( $\beta = 0.11, p \leq .01$ ). Thus, the actions of the non-verified, high dominant identity participants are to show more dominance after being under-rated, while low dominance participants react to non-verification by showing less strength. These behavioral responses indicate strong counteraction to the feedback. This strong counteraction continues into phase three and phase four, thus confirming Hypothesis 3.

Table 4 shows responses to verification. These results reveal that compared to low dominant identity participants who receive verifying feedback, high dominant identity participants who receive verifying feedback increase the number of points requested (a dominant response) ( $\beta = 0.07, p \leq .05$ ). This increase is significant and supports Hypothesis 4. Further, the increase in points requested is significantly higher in the non-verified condition ( $\beta = 0.11$ ) than the verified condition ( $\beta = 0.07$ ) indicating that high dominant participants who are verified continue with their dominant behavior, but high dominant participants who are under-verified come back with even stronger dominance behavior.

**Table 4** Standardized coefficients for identity verification condition ( $N = 40$ )

Dominant ID condition	Phase 1				Phase 2				Phase 3				Phase 4			
	Self-image	Failed exchange	Points requested	Behavioral engagement	Self-image	Failed exchange	Points requested	Behavioral engagement	Self-image	Failed exchange	Points requested	Behavioral engagement	Points requested	Behavioral engagement	Points requested	Behavioral engagement
Phase 1	Self-image															
	Failed exchanges	.28**	.18**	.07*	.15*	.18**	.15*	.18**	-.10	.07*	.15*	.07*	.15*	.07*	.20*	
	Points requested															
	Behavioral engagement															
Phase 2	Self-image															
	Failed exchanges	.35**	.48**	.72**	-.27**	-.01	.23**	-.20	.86**	-.01						
	Points requested	-.21		.75**					.48**							
	Behavioral engagement	-.01		.03	.14											
Phase 3	Self-image															
	Failed exchanges															
	Points requested															
	Behavioral engagement															
Phase 4	Self-image															
	Failed exchanges															
	Points requested															
	Behavioral engagement															

$1 \chi^2_{152} = 137.22, p > 0.7990$ ; RMSEA = 0.00; \*\* $p \leq .01$ ; \* $p \leq .05$ ; Bold coefficients = significantly different between the verification conditions

For behavioral engagement, Table 3 shows that high dominant identity persons who are not verified do not differ in their behavioral response of engagement from low dominant identity persons who are not verified engagement ( $\beta = -0.12$ , ns). This result continues through Phase 3 and Phase 4. These results disconfirm Hypothesis 3 with respect to behavioral engagement. On the other hand, Table 4 reveals that compared to low dominant identity participants, high dominant identity participants who are verified are more likely to exchange with their high-power partner ( $\beta = 0.15$ ,  $p \leq .05$ ). This is in accord with their verified dominant identity and continues into phases three and four thus supporting Hypothesis 4 with respect to behavioral engagement.

In sum, the results support all but Hypothesis 3 about behavioral engagement, and thus show relatively strong evidence for the dynamics proposed in identity theory. In our ongoing negotiation setting, when participants periodically experience identity verification, their situational self-images and behavior are consistent with their identity standard meanings. When they periodically experience identity non-verification, their self-images in the situation shift in the direction of the non-verifying feedback. Behaviorally, and even though our analysis focuses on low-power participants, we find that actors attempt to counteract the meanings in the non-verifying feedback.

## 6 Discussion

In this research, we have examined more closely how the social context importantly influences an understudied person identity in identity theory: the dominant identity. We have examined how identity processes operate in ongoing, moment-to-moment negotiations in the face of verifying or non-verifying feedback. We did this by examining how participants with high or low dominance person identities responded cognitively and behaviorally to feedback that verified or did not verify those identity levels. More generally, we studied how individuals react to meanings that are given off in situations, and whether they resisted or somewhat succumbed to meanings that did not fit with how they saw themselves. In many interactions, actors receive direct feedback as to how others see them in terms of their identities. Sometimes this is obtained formally, as in performance reports at one's job, and sometimes it is obtained informally, in social situations or in casual conversations. These are others' actual appraisals, which we manipulated in this experiment as verifying or non-verifying feedback to see how people responded, both behaviorally and cognitively.

Identity meanings as manifest in the self-image guide behavior and are affected by the verification process within and across situations. Situations become difficult for individuals when they experience identity non-verification. Because identity non-verification triggers distress for individuals, it motivates individuals to try to eliminate the disturbance. Both behavioral and cognitive responses can serve this end insofar as they offer strategies for fighting against or aligning with the disturbance. We examined both responses in this study.

Results showed that people's dual responses to the identity verification process were consistent with identity theory. When individuals experienced identity verification, they responded cognitively and behaviorally in ways that were consistent with their current identity standard meanings. When they experienced identity non-verification, the cognitive and behavioral responses appeared, on the surface, to be contradictory since they worked in opposite directions. Cognitively, the self-images of individuals shifted self in the direction of the non-verifying feedback. Behaviorally, individuals resisted the feedback by behaving in ways that counteract the meanings in the discrepant feedback. They requested more or fewer points in subsequent exchanges, depending upon whether they have been under-verified or over-verified, suggesting that they were attempting to change situational meanings to be consistent with their identity. The cognitive and behavioral responses should not be seen as contradictory but simply different ways that people use to try to return to a state of verification. Non-verification is a distressful state, so multiple strategies may be employed to remove the distress quickly.

While it is not surprising that those in a low power position shifted their situational self-images in the direction of the non-verifying feedback, they also worked behaviorally to counteract the non-verifying feedback, despite their vulnerable position. Both are predicted in identity theory. This suggests that having one's identity verified is important to individuals irrespective of their structural position. However, one's structural position still might have had an influence on how individuals responded to non-verifying feedback. For example, while those with a higher dominant identity requested more points following identity non-verification, this show of dominance was not supplemented with an increase in exchanges with their high-power partner as it was for those who were verified. It is not clear whether this was an effort by those who were not verified at tempering their dominant response given their structurally disadvantaged position, or whether they simply wanted to reduce the feeling of being exploited. It is riskier to resist non-verifying feedback when one is in a disadvantaged position than an advantaged position.

We wondered if it might be possible that the shift that participants showed, cognitively, was simply due to them reporting back what they had been told during the negotiations. For example, when participants were told they were not as dominant as they thought they were, they simply might have fed that information back when their self-image was measured. We did additional analyses to test this and found that the feedback had no direct effect on the self-image but was fed through how dominant participants thought others saw them.<sup>6</sup> Only if they believed others saw them as too dominant or too submissive did their self-images begin to change. Additionally, evidence from survey research on newly married couples reveals that, over time, people do shift their self-in-situation meanings in the direction of the feedback they are receiving (Burke and Cast 1997; Burke and Stets 1999; Cast and Cantwell 2007; Cast et al. 1999). What the current research offers is an analysis of this shift in self-image meanings in moment-to-moment interaction.

We want to be clear that our findings do not evidence persistent identity change. The fact that the self-images of those who experienced identity non-verification shifted in the direction of the feedback that they received does not mean that the

meanings in their identity standard have changed. How they see themselves in the situation, and how they think others see them in the situation may be changing, but it is the situational self-image that is changing, not the identity standard (Burke 1980). To the extent that non-verification persists over time, self-image meanings will slowly affect identity standard meanings. This is where we begin to see identity change. It is a very slow process. At best, the current research gives us insight as to what first occurs before identity change begins to emerge. Situational meanings first influence self-image meanings, thereby illustrating how social structure influences the self (Stryker 2002 [1980]).

Future research will want to examine whether those who are in a structurally weak position are more vulnerable than those in a structurally strong position to shifts in their self-in-situation meanings in moment-to-moment interaction. Indeed, prior research suggests this pattern (Cast 2003; Cast et al. 1999). Because low-power actors have fewer resources to challenge these views or even exclude those who are the carriers of those views, they may simply align their self-image to them. There is a potential danger in doing this because others' views as to who one is may advantage those others, leaving weaker people in an even more vulnerable position.

Future work also might examine additional ways in which individuals may behave to counteract non-verifying feedback. In this study, we examined how an increase in the number of points initially requested as well as an increase in engagement with the high-power partner were signs of dominance for actors in relatively weak structural positions. We did not consider alternative actions that might appeal to individuals in these situations. Indeed, behaviors aimed at changing the structure of the network in an effort to improve one's relative position, either through coalition formation or network expansion (Emerson 1962), are worth investigating.

Finally, future research will want to examine whether the findings about behavioral and cognitive shifts in response to the verification process in this study generalize to other identities. Some recent research has shown that non-verification of the fairness identity produces similar behavioral effects (high fairness actors who were told they were being unfair acted to increase their perceived fairness, while low fairness actors who were told they were being very fair decreased the level of fairness) (Savage et al. 2017). However, the effects on self-image were not tested in that research. Thus, while there appears to be some corroboration of findings across different identities as to how people behaviorally respond to non-verifying feedback in moment-to-moment interaction, more work needs to be done.

More generally, the findings in this study reveal how the dual cognitive and behavioral responses to the verification process guide moment-to-moment interaction, while at the same time they are in reaction to non-verifying disturbances that emerge. More work is needed on these dual responses because both influence self-in-situation meanings, and in turn, the stability or change in identity standard meanings.

## Endnotes

1. This does not mean that the structurally advantaged are not influenced by the views of others; only that they are influenced less than the disadvantaged.
2. Negative connection means that exchanges can occur with only one partner in each exchange opportunity.
3. The simulated actors (W and Z) occasionally make fake agreements with X. For the high-power, simulated actor (W), there was a 5% chance of such an agreement occurring with X. For the other low-power, simulated actor (Z), the percent chance of this occurring was 7.
4. The time delay between when participants took the survey and when they participated in the experiment reduces the likelihood that they make a direct connection between the two.
5. These procedures are common for power-dependence experiments (Cook and Emerson 1978; Lawler and Yoon 1996; Savage et al. 2017).
6. Available upon request.

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# Identity Dispersion: Flexibility, Uncertainty, or Inconsistency?



Peter J. Burke

**Abstract** Variability in the meanings of an identity (identity dispersion) have had two contrasting interpretations. On the one hand, drawing on uncertainty-identity theory within social identity theory, such variability may indicate uncertainty in the identity, an aversive state leading to negative feelings. On the other hand, identity theory suggests that such variability may indicate flexibility in the identity that reduces the negative impact of identity nonverification and allows people to feel more positively. The present paper brings together data on six identities (gender, friend, worker, student, moral, and spouse) to test the negative impact of uncertainty and/or the positive impact of flexibility. Results show that both effects occur, but further analyses suggest that identity dispersion may not represent either flexibility nor uncertainty. In a second study using longitudinal data, dispersion appears to result from inconsistencies in the identity meanings that lead to both cognitive dissonance (producing the negative effects) and a wider range of held identity meanings that reduces the negative impact of nonverification (Festinger 1957).

**Keywords** Identity · Identity verification · Identity dispersion · Identity uncertainty · Identity flexibility

## 1 Introduction

The meanings that define an identity have generally been understood to reflect points on semantic dimensions that define the identity. For the student identity, for example, students may see themselves as very academically oriented, slightly social, and moderately assertive on semantic dimensions (Reitzes and Burke 1980). The point interpretation has worked well for many applications of identity theory (Burke and

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Stets 2009), but recently there is a revived interest in the idea of people holding a distribution of identity meanings around the point. The point represents the central tendency of the distribution, but the degree of dispersion of meanings around that central point has gained some interest as representing additional aspects of identities that have not received much attention. In the present paper, I explore the implications of this aspect, i.e., dispersion, of identities. I begin with a brief description of the nature of identities and identity theory, and then talk about the two interpretations of identity dispersion that have received some investigation, followed by a test of these interpretations. In exploring the implications of these two main interpretations of identity dispersion, several additional factors come to light that suggest a different third interpretation may be more correct. The implications of this are then discussed.

## 2 Identity Theory

Within identity theory, an identity is defined as the set of meanings that are held by a person in terms of what it means to be who one is in a role (e.g., police person, truck driver, student), a social category or group (e.g., American, Black, PTA member), or the kind of person one is (e.g., dominant, moral, outgoing) (Burke and Stets 2009). Each of these role identities, social identities, or person identities, are meanings the person holds for the self, and others attribute to the person. These meanings come to be known both to the person and others through their mutual interaction in situations where the others respond to the person in terms of the role, group, or category occupied by the person. Over time, these meanings are modified by experience and learning and they become internalized into an identity standard. Persons then act to maintain and reproduce these meanings through the verification process.

The verification process operates as a perceptual control system whereby persons monitor identity-relevant meanings in the situation and compare those meanings to the meanings held in their identity standard. These situational meanings are often in the form of reflected appraisals or what meanings that persons think others attribute to them. If the perceived situational meanings match the identity meanings, that is, the identity is verified, the person responds with positive feelings and heightened esteem and continues to act as he or she has been (Burke and Stets 2009; Powers 1973; Stets and Burke 2014a). If, however, the perceived situational meanings are disturbed and become discrepant from the meanings held in the identity standard, this is nonverification, and the person becomes distressed and acts to counteract the discrepancy by shifting the meanings in the situation until the perceptions once again match the standard (Burke and Stets 2009).

For example, if one perceives that others in the situation feel he or she is less moral than indicated in the identity standard (reflected appraisals), the person becomes upset and/or angry and may engage more strongly in moral ways, letting both self and others see the higher level of morality. On the other hand, if one perceives others as thinking one is excessively moral (relative to the identity standard), the person also will become distressed and act in a less moral manner to change the situational

meanings and bring the reflected appraisals back to being in line with the identity standard (Burke and Harrod 2005). In a sense, this is a constant dance to maintain consistency between the perceived meanings in the situation and the meanings in the identity standard despite disturbances that may upset this balance. By keeping identity relevant meanings in the situation consistent with the identity standard, the identity is maintained and both self and others understand who one is and what to expect in interaction.

Much of the work in identity theory has viewed the meaning of an identity as a point on some dimension of meaning, for example, academic responsibility. Thus, a person may see herself as being a person with a certain level of academic responsibility. Reflected appraisal meanings would also be measured as a point on the academic responsibility dimension of meanings. When the meanings that define an identity are not located at a single point along a semantic dimension, but are distributed along that dimension, perhaps as a probability density, we have what is termed an identity dispersion.

The idea of an identity dispersion has become of some interest in recent years, especially in terms of its consequences for the individual. Two interpretations of dispersion have been discussed, each leading to different consequences.<sup>1</sup> On the one hand, in identity theory, such variability in identity meanings may indicate a degree of flexibility or acceptance of a range of meanings used to define the self and provide a protection against the negative impact of identity nonverification. On the other hand, in social identity theory, such variability or inconsistency in the meanings used to define the self may indicate uncertainty in one's identity, which has an aversive feeling and may lead to lower self-esteem (Hogg 2007). I turn now to discuss each of these two interpretations of identity dispersion and its impact on the self. Following this I discuss a study that brings together data on five identities (gender, friend, worker, student, moral) to test the negative impact of uncertainty and/or the positive impact of flexibility.

### 3 Identity Flexibility

Central to identity theory is an understanding of the meanings in the identity standard. Meanings are bipolar responses to, for example, self as masculine or feminine. A measure of traditional gender identity meanings ranging from very masculine to very feminine can be constructed (Burke and Tully 1977; Osgood et al. 1957; Stets and Burke 1996). One person may have a moderately masculine gender identity, while another has a quite feminine gender identity. These gender identity meanings are points along the underlying scale, more feminine or more masculine. Long ago the concept of androgyny was introduced as one way to help understand persons whose gender identity contained a mixture of meanings, some more masculine and some more feminine (Bem 1974). The original thought was that such mixtures allowed persons to be more flexible in their gender role performances.

Burke (1980) suggested that such flexibility might be represented as a distribution along the scale that ranges in meaning from very masculine to very feminine. A distributed identity contains a range of meanings that people hold for themselves, a variety of meanings with which they are comfortable both portraying and being portrayed by. A person with such a distribution of gender meanings may be more adaptable or flexible to engage in a variety of interactions that called for more masculine meanings at one time and more feminine meanings at other times (Stets and Burke 1996). This idea of adaptability or flexibility can be applied to any dimension of meaning in any identity. A person with a more distributed identity may be comfortable portraying a variety of meanings and be able to interact more comfortably across a variety of situations (Burke 1980).

With respect to the verification of an identity, if people are comfortable with a distribution of meanings for, let's say, their gender identity, then receiving feedback that does not exactly match an identity standard (but is within the acceptable distribution) is less of a problem because of the variety of meanings that are acceptable. Reflected appraisals that they are somewhat more feminine than the standard is okay because they are comfortable with more feminine representations. Similarly, reflected appraisals that are somewhat more masculine than the standard are similarly acceptable. The degree to which a given amount of non-verifying feedback is distressing is much diminished compared to an equal degree of nonverification if their identity were at a single point on an underlying scale. Cantwell's (2016) work on the distributed identity with respect to the student identity showed that those whose identity meanings were spread across a wider (acceptable) range, reacted with less negative emotion and less reduction in self-esteem to nonverification (reflected appraisals that did not correspond to the center of the distribution of meanings) compared to those who had an identity with a narrower spread of meanings. The wider the dispersion of acceptable meanings, the less reactive is the person to a given degree of non-verification.

Cantwell examined the student identity and measured both the mean and dispersion of respondents' student identity (along a dimension of academic responsibility). Some students were more academically responsible, and others were less so. Also, some students had a wider dispersion of acceptable meanings along this dimension than others. It was clear in Cantwell's work that for both persons with narrower distributions of meanings on their identity standard as well as for persons with a wider distribution of meanings, the further that reflected appraisals were from the center of the distribution, the more they suffered increases in negative emotion and reductions in two components of self-esteem: worth and efficacy.

However, for those with a wider distribution (more dispersion), the same amount of discrepancy between the identity standard (as the central point of the distribution) and the reflected appraisals produced less negative reactions with respect to emotion and esteem than that same discrepancy for respondents with a narrower distribution. It appeared that the wider distribution of meanings in the identity for some respondents served as a buffer to the negative effects of nonverification (discrepancy) on emotion and esteem, thus indicating the greater flexibility the person has with the identity meanings.

Based on this logic and data, the first hypothesis is that if greater dispersion indicates greater flexibility in the identity, then:

*H1: The negative impact on the components of self-esteem and positive emotions of identity nonverification will be diminished as the dispersion of identity meanings is increased.*

If the wider distribution of meanings for the identity indicates a greater flexibility and acceptance of a wider range of meanings as describing the self, then that flexibility will diminish the impact of nonverification. Note that this hypothesis involves an interaction: the relationship between non-verification and negative feelings depends upon the level of dispersion in the identity.

## 4 Identity Uncertainty

In the above, the distribution of meanings that identify a person represents flexibility and acceptance of this wider range of identity meanings. Another interpretation is possible. The distribution of meanings that identify a person may represent uncertainty with respect to the identity defining meanings. Personal uncertainty about who one is, that is, a personal sense of doubt or ambiguity of self-views has been shown to be an aversive state that motivates behavior to reduce it (van den Bos 2009). This uncertainty has two components: a stable individual component and variable situational fluctuations. The stable component reflects a relatively continuous or constant sense of doubt or ambiguity that does not vary by situation. Separately, there is the uncertainty induced by some situations that make one more certain or less certain about who they are. Following Hogg's (2009) theoretical developments, I am interested more in the stable individual component of uncertainty about the self rather than the situationally induced and varying component, because the self is the critical organizing principle, referent point, or integrative framework for diverse perceptions, feelings, and behaviors (Rosenberg 1979).

Uncertainty-identity theory (Hogg 2007) is a part of social identity theory in psychology which suggests that when people have uncertainty about the self, they find this state aversive (Greco and Roger 2003) and devaluing of the self. Uncertainty-identity theory suggests that those with high uncertainty are motivated to identify with or join groups that can help reduce the aversive feeling by providing meaning and focus for the individual, which in turn can enhance self-feelings and reduce negative emotions. As a theory about the motivation to identify with or join groups, uncertainty-identity theory grew out of the failure of earlier attempts in social identity theory to understand the motivation for joining groups as a self-enhancement processes (Hogg 2007). The self-enhancement that accompanies joining a group may result from joining the group if the group verifies the identity and provides coherent meanings, rather than be a cause for joining the group. By going back to the principles of social categorization which underlay all of social identity theory, it was suggested that social categorization itself reduced uncertainty and was the underlying motivation for joining groups (Hogg and Abrams 1993). Indeed, as Hogg

(2007) points out, this idea was present in many of the earlier writings, though it was not developed.

One early experiment (Hogg and Grieve 1999) showed the effect of uncertainty on group affiliation. They used a manipulation to create in participants a high or low level of uncertainty about their ability to carry out a complicated task. All the participants were then put in groups in which the level of in-group bias was measured. A high level of in-group bias indicates a stronger level of identification with the group. It was found that those exposed to the high uncertainty condition held significantly more ingroup bias than those not exposed to the uncertainty manipulation and they had a higher level of self-esteem. Situational uncertainty thus appeared to motivate people to identify more strongly with their group, which both reduced their level of uncertainty and increased their self-esteem. Replications of this basic experiment with variations in the manipulation of uncertainty continued to show the same results (Hogg and Grieve 1999).

In the present research, however, we will not be manipulating uncertainty in the situation, but will measure the more stable individual component (van den Bos 2009) by examining the degree of variability in the meanings individuals hold in their identity standards. That is, the meanings they apply to themselves are variable or dispersed rather than fully coherent.

To the extent that a wide dispersion of identity meanings around a central point is the result of or is reflective of uncertainty about the self, I would expect from uncertainty-identity theory that this dispersion, as an aversive state, would lead to lower levels of self-esteem and higher levels of negative emotion. This leads to our second hypothesis:

*H2: The greater the dispersion of a person's identity meanings around a central point, the lower will be the components of the person's self-esteem and the higher will be feelings of negative emotion.*

We thus have two hypotheses about the effects of identity dispersion. From uncertainty-identity theory, dispersion represents uncertainty in the self, and leads to lower self-esteem and feeling bad. From identity theory, identity dispersion represents flexibility of the self and provides protection against the negative effects of identity nonverification. Study 1 tests these hypotheses by analyzing data consisting of measures of dispersion in identity meanings, variability in nonverification, negative emotion, and the self-esteem components [worth, efficacy, and authenticity (Stets and Burke 2014b)]. I use the components of self-esteem rather than a summary score to allow for variation across the different components.

## 5 Study 1

### 5.1 Sample

Data were obtained from a survey administered to students at a large, ethnically diverse, southwestern university in 2011. The students were offered extra course credit for their participation. The response rate was 85% with a total of 326 individuals. The respondents were 65% female and 35% male. The average age was 21. They were ethnically diverse with 22% Asian, 36% Latino/a, 17% white, 13% black, 6% who classified themselves as multiracial, and 6% other. Parental income was coded at the midpoint of a category that was identified (out of eight categories ranging from \$7500 to \$125,000). The median income was \$42,500. These means are typical for the classes from which the students were drawn.

### 5.2 Measures

Measures of identity meanings and reflected-appraisal meanings (to measure identity discrepancy or nonverification) were obtained for five different identities: gender, friend, worker, student, and moral. The bipolar items used to measure the identity meanings for each identity are given in Table 1, along with factor loadings, indicating that the meanings for each identity formed a single factor with high omega reliability scores (Heise and Bohnstedt 1970). The student and moral identity measures are taken from Stets and Burke (2014b), the other measures were developed using discriminant function procedures (Burke and Tully 1977) for the present study.

The eight semantic differential items for gender identity as shown in Table 1 were taken from the Personal Attributes Questionnaire (PAQ) as the most discriminating items that distinguished male and female self-ratings (Spence and Helmreich 1978). The items for worker and friend were newly created. For each identity, the respondents were presented with each set of bipolar characteristics given in the table and asked to indicate where they fell between the two, where 1 represented one end of the continuum, 7 represented the other end of the continuum, and 4 was between the two. For example, on the gender identity scale, the person would rate themselves on the seven-point bi-polar scale for item six in response to the stem “As a man/woman I am...” somewhere between “not at all understanding of others” and “very understanding of others”. All the items were then standardized, aligned in one direction, and averaged to get a gender identity standard.

In addition, the three components of self-esteem (self-worth, efficacy, and authenticity) are measured using the scales developed by Stets and Burke (2014b) along with a negative emotion scale. Following the Stets and Burke procedure, I analyze separately each of the esteem components as there may be differential effects on each that would be hidden by combining all three components into one score. The items, loadings, and reliabilities are given in Table 2. For the esteem components, responses

**Table 1** Items, factor loadings, and reliabilities for each identity scale (N = 318)

<i>Gender</i> ( $\Omega$ for self-ratings and reflected appraisals = 0.87 and 0.88)		
1. Not at all able to devote self completely to others	Able to devote self completely to others	0.61
2. Not at all helpful to others	Very helpful to others	0.74
3. Not at all kind	Very kind	0.68
4. Not at all aware of the feelings of others	Very aware of the feelings of others	0.67
5. Not at all self-confident	Very self-confident	-0.49
6. Not at all understanding of others	Very understanding of others	0.81
7. Very cold in relations with others	Very warm in relations with others	0.71
8. Go to pieces under pressure	Stand up well under pressure	-0.51
<i>Friend</i> ( $\Omega$ for self-ratings and reflected appraisals = 0.93 and 0.95)		
1. Trustworthy	Not trustworthy	0.78
2. Not supportive	Supportive	-0.71
3. Loyal	Not loyal	0.66
4. Encouraging	Not encouraging	0.70
5. Not caring	Caring	-0.79
6. Helpful	Not helpful	0.73
7. Not sincere	Sincere	-0.76
8. Not giving	Giving	-0.74
9. Reliable	Not reliable	0.58
10. Not committed	Committed	-0.71
<i>Worker</i> ( $\Omega$ for self-ratings and reflected appraisals = 0.87 and 0.92)		
1. A follower	A leader	-0.47
2. Hardworking	Not hardworking	0.71
3. Not dependable	Dependable	-0.52
4. A team player	Not a team player	0.59
5. Organized	Disorganized	0.53
6. Not motivated	Motivated	-0.73
7. Creative	Not creative	0.61
8. Competitive	Not competitive	0.43
9. Not prompt	Prompt	-0.68
10. Not efficient	Efficient	-0.77
<i>Student</i> ( $\Omega$ for self-ratings and reflected appraisals = 0.77, 0.83)		
1. Sensitive	Insensitive	0.40
2. Non-competitive	Competitive	-0.45
3. Studious	Non-studious	0.60
5. Hardworking	Not hardworking	0.75

(continued)

**Table 1** (continued)

6. Antisocial	Social	-0.31
7. Open-minded	Close-minded	0.50
8. Immature	Mature	-0.65
10. Irresponsible	Responsible	-0.75
<i>Moral</i> ( $\Omega$ for self-ratings and reflected appraisals = 0.91, 0.94)		
1. Honest	Dishonest	0.68
2. Caring	Uncaring	0.75
3. Unkind	Kind	-0.79
4. Unfair	Fair	-0.79
5. Helpful	Not helpful	0.66
6. Stingy	Generous	-0.51
7. Compassionate	Hard hearted	0.55
8. Untruthful	Truthful	-0.70
9. Not hardworking	Hardworking	-0.59
10. Friendly	Unfriendly	0.59
11. Selfish	Selfless	-0.53
12. Principled	Unprincipled	0.58

are along a four-point scale ranging from strongly agree to strongly disagree. Items are aligned and summed to obtain the scale score on each of the esteem components.

For the negative emotion, responses to feeling the various six emotions shown in Table 2 are on seven-point scales ranging from 0 (not at all) to 6 (extremely). Again, these measures are unidimensional and have high reliability.

To measure identity dispersion, I first measure the identity standard as the mean of the standardized items that capture the meanings of the identity. Next, I measure the variability of individual item responses around that mean. I illustrate this with the gender identity measure, though all the identity dispersions are measured in the same way. The eight gender identity items were standardized and averaged to obtain the gender identity standard for the individual. On this scale, for example, a score of 1 indicates that the person had a score one standard deviation above the mean of all respondents (more feminine). This gender identity score for each respondent can be interpreted as the *expected score* for that respondent’s answer to each of the eight (standardized) items. Departures from this expected answer (the identity standard) on the items capture the variability in the measured responses. For example, a person may answer three items as 1, 1, 1 for an average of 1 (no variability), while another individual may answer as 0, 1, 2 also for an average of 1 but with variability in the responses. The amount of variability in the self-ratings on gender identity meanings can then be measured for each respondent by calculating the dispersion (standard deviation) of the answers around this average (expected) score.



**Table 2** Items, factor loadings, and reliabilities for measures of the components of self-esteem and negative emotion (N = 318)

<i>Worth</i> ( $\Omega = 0.91$ )	
1. I feel I am a person of worth, at least on an equal basis with others	0.73
2. I feel that I have a number of good qualities	0.82
3. I take a positive attitude toward myself	0.79
4. On the whole, I am satisfied with myself	0.74
5. I usually feel good about myself	0.75
6. I feel I have much to offer as a person	0.75
7. I have a lot of confidence in the actions I undertake in my life	0.78
<i>Efficacy</i> ( $\Omega = 0.84$ )	
1. There is no way I can solve some of the problems I have (R)	0.65
2. I have little control over the things that happen to me (R)	0.75
3. There is little I can do to change many of the important things in my life (R)	0.65
4. I feel as if what happens to me is mostly determined by other people (R)	0.55
5. I certainly feel helpless at times (R)	0.73
6. Sometimes I feel that I'm not able to accomplish what I want (R)	0.63
7. I often feel unable to deal with the problems of life (R)	0.77
<i>Authenticity</i> ( $\Omega = 0.90$ )	
1. I feel most people don't know the "real" me (R)	0.73
2. I find I can almost always be myself	0.78
3. I feel people expect me to be different than I really am (R)	0.66
4. I think most people accept who I really am	0.71
5. I just wish I were more able to be myself (R)	0.77
6. I feel the way in which I generally act reflects the "real" me	0.75
7. I often do not feel I am myself (R)	0.79
<i>Negative emotion</i> ( $\Omega = 0.86$ )	
1. Happy (R)	0.49
2. Sad	0.74
3. Guilty	0.76
4. Angry	0.79
5. Shame	0.81
6. Fear	0.78

$$\sigma = \sqrt{\frac{\sum_1^8 (Item - Expected)^2}{8}}$$

Those persons with a large dispersion can be viewed as having either a high degree of flexibility or a high degree of uncertainty with respect to their gender identity. This

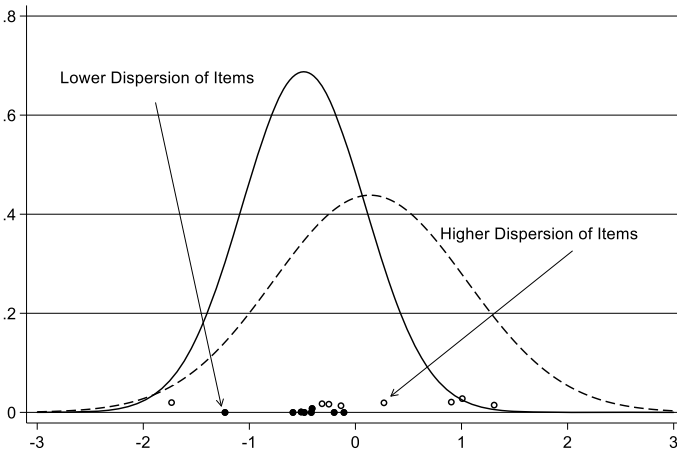
measure is called the gender identity dispersion. This procedure is used to measure the identity dispersion of all five identities used in this study.

To illustrate these dispersion measures as applied to the gender identity for two persons, Fig. 1 shows the standardized gender identity scale and dispersions for two persons, one with a low dispersion (25th percentile) centered at  $-0.49$ , and the other with a high dispersion (75th percentile) centered at  $0.14$ . The individual item ratings around the mean gender identity of the eight items for these two persons are also shown as the solid (for the low dispersion person) or hollow circles (for the high dispersion person) at the bottom of the figure.

To measure identity discrepancy, that is the degree to which an identity is not verified, I measure the degree to which one’s reflected appraisals depart from the identity standard. Thus, for each identity, the same items as used to measure the identity standard were also used in the survey to measure the reflected appraisals, or how respondents thought others saw them. That is, each respondent rated the items with respect to the stem “As a [worker] others see me as...” The reliabilities for these reflected appraisal measures are given in Table 1, along with the items used for each scale. For each item in the identity scale, the squared difference between the self-rating on the item and the reflected appraisal (RA) rating on the item was measured and averaged across items for each of the identity scales used.

$$\text{discrepancy} = \frac{\sum_1^8 (RA - \text{self-rating})^2}{8}$$

Table 3 presents the means, standard deviations, and correlations among all the measures.



**Fig. 1** Illustration of low dispersion function and points (25th percentile) and high dispersion and points (75th percentile) of gender identity

**Table 3** Means, standard deviations, and correlations among variables (N = 318)

Variables	Mean	Std.	Correlations												
			1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Dispersion</i>															
1. Gender	0.78	0.28													
2. Friend	0.62	0.41	0.32												
3. Worker	0.79	0.34	0.28	0.27											
4. Student	0.88	0.27	0.36	0.22	0.30										
5. Moral	0.78	0.30	0.47	0.44	0.34	0.41									
<i>Discrepancy</i>															
6. Gender	0.87	0.46	0.57	0.18	0.19	0.28	0.36								
7. Friend	0.83	0.66	0.21	0.66	0.28	0.17	0.33	0.17							
8. Worker	0.80	0.54	0.22	0.25	0.55	0.22	0.25	0.24	0.37						
9. Student	0.84	0.40	0.26	0.18	0.22	0.41	0.27	0.37	0.22	0.36					
10. Moral	1.02	0.56	0.38	0.33	0.23	0.29	0.60	0.44	0.40	0.40	0.40				
<i>Esteem components</i>															
11. Worth	3.19	0.53	-0.19	-0.09	-0.23	-0.09	-0.11	-0.16	-0.16	-0.20	-0.16	-0.22			
12. Efficacy	2.83	0.49	-0.14	-0.14	-0.29	-0.16	-0.19	-0.19	-0.17	-0.25	-0.19	-0.13	0.51		
13. Authenticity	2.79	0.59	-0.28	-0.21	-0.23	-0.20	-0.22	-0.23	-0.22	-0.25	-0.27	-0.27	0.59	0.55	
14. Negative emotion	1.25	1.06	0.30	0.23	0.19	0.17	0.22	0.12	0.14	0.24	0.21	0.14	-0.37	-0.39	-0.42

### 5.3 Analysis

To test the hypotheses, structural equation models were estimated that predict emotion and each of the esteem components as a function of identity dispersion, identity discrepancy, and the interaction of the two. Correlations among the error variances for each of the esteem components were allowed. To account for the few instances of missing data, the method of maximum-likelihood missing values allowed all valid data to be used in the estimates.

## 6 Results

The results of the analysis for the gender identity are presented in the top panel of Table 4. These results are discussed in detail, as they provide a framework for

**Table 4** Effects of identity dispersion and identity discrepancy on components of self-esteem and negative emotion

	Worth	Efficacy	Authenticity	Neg. emotion
<i>Gender N = 318, 8 items</i>				
Dispersion	-0.17**	-0.05	-0.27**	0.36**
Discrepancy	-0.22**	-0.23**	-0.25**	0.02
Interaction	0.26**	0.12*	0.26**	-0.16**
<i>Friend N = 319, 10 items</i>				
Dispersion	-0.15	-0.26**	-0.29**	0.42**
Discrepancy	-0.37**	-0.43**	-0.35**	0.21*
Interaction	0.35**	0.51**	0.37**	-0.41**
<i>Worker N = 319, 8 items</i>				
Dispersion	-0.15**	-0.19**	-0.19**	0.10
Discrepancy	-0.04	0.03	-0.52**	0.32*
Interaction	0.06	0.18	0.40**	-0.13
<i>Student N = 318, 8 items</i>				
Dispersion	-0.09	-0.10	-0.11	0.11
Discrepancy	-0.29	-0.21	-0.19	0.24
Interaction	0.18	0.07	0.01	-0.09
<i>Moral N = 319, 12 items</i>				
Dispersion	-0.05	-0.30**	-0.22**	0.29**
Discrepancy	-0.42**	-0.34**	-0.48**	0.24*
Interaction	0.27*	0.43**	0.38**	-0.30*

\* $p \leq 0.05$   
 \*\* $p \leq 0.01$

understanding the results for the other identities. Included in the model are identity dispersion, identity discrepancy (nonverification), and the interaction of the two. Hypothesis two predicts, according to uncertainty-identity theory, a negative impact on self-esteem and emotion for persons who have a larger dispersion (interpreted as uncertainty). Table 4 shows the results. Looking first at the self-worth component of self-esteem, we see the negative effect of dispersion on self-worth for the person with an average amount of discrepancy ( $\beta = -0.17, p \leq 0.01$ ), thus supporting Hypothesis two.

Hypothesis one predicts a negative effect of identity discrepancy (nonverification) on emotion and the components of self-esteem, which is moderated by the amount of dispersion (interpreted as flexibility) of the identity. Table 4 also shows the effect of discrepancy on worth for the person with the average amount of dispersion (zero with standardized measures) is a significant  $-0.22 (p \leq 0.01)$ . The effect of the significant interaction term shows that the effect of discrepancy comes very close to zero ( $-0.22 + 0.26$ ) for persons who are one standard deviation above the mean of dispersion as predicted in Hypothesis one. That is, for persons with a high dispersion, the effect of non-verification on emotion and esteem are very close to zero. Both hypotheses are thus strongly confirmed with respect to the effects of gender identity discrepancy and dispersion on self-worth: dispersion for average levels of non-verification has a negative outcome, while discrepancy (nonverification) for persons with high dispersion has little effect.

Turning to the second component of self-esteem, self-efficacy, we see support for Hypothesis one (negative effects of discrepancy moderated by dispersion), but the negative effect of dispersion on self-efficacy as proposed in the second hypothesis is not strong enough to be significant. Looking at the third component of self-esteem, authenticity, we see that, again, both hypotheses are strongly supported when looking at gender identity.

Finally, looking at the results for negative emotion, we see support for Hypothesis two on the negative effects of dispersion, but the negative effect of discrepancy appears to be felt only for those with very narrow dispersions. Those respondents with average dispersion do not feel negative emotion when discrepancy increases (verification decreases).

Without going into all the details for the results with respect to each of the other identities that are shown in the remaining panels of Table 4, we see this same pattern of results, though with somewhat varying significances on each of the coefficients. For example, with respect to the friend identity, the hypotheses are supported except for the effect of friend identity dispersion on self-worth, which is not significant. With respect to the worker identity, the hypotheses are fully supported only for the authenticity outcome. The effect of identity discrepancy and the interaction terms are not significant for the worth and efficacy outcomes. With respect to the student identity, while none of the effects are quite strong enough to reach significance, each is in the correct direction. The likelihood of all 12 coefficients being in the correct direction by chance is extremely small. Finally, with respect to the moral identity, both hypotheses are supported for the efficacy, authenticity and emotion outcomes, but only Hypothesis one is supported for the self-worth outcome. Overall, thus, we

see a general pattern of support for the hypotheses, but there is some variability in the individual outcomes across identities which do not always reach statistical significance.

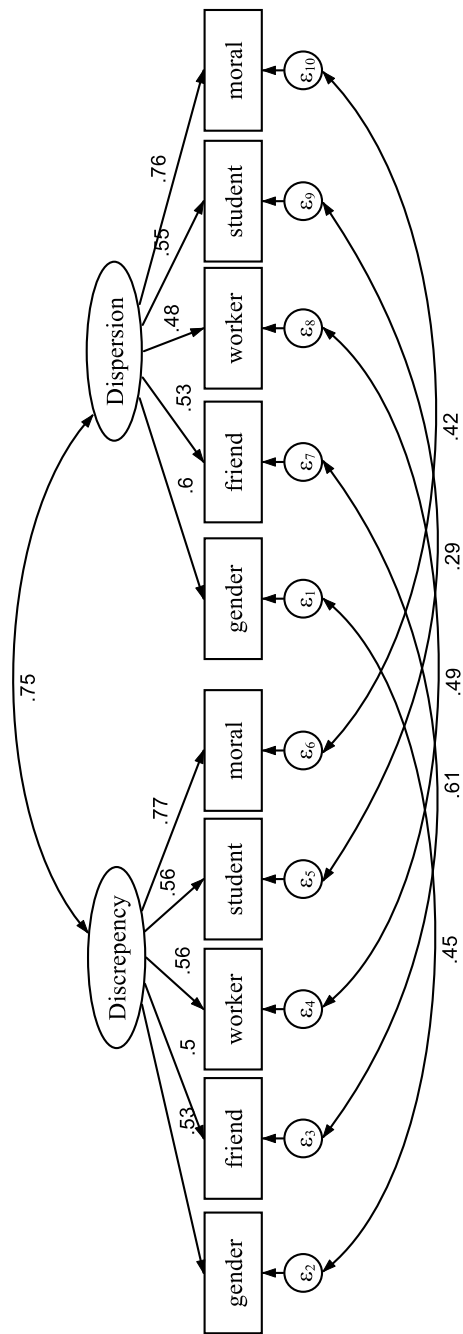
To bring these disparate results into a single analysis, the individual measures of identity dispersion across the identities were averaged into an identity dispersion score, and identity discrepancy measures across the five identities were averaged into an identity discrepancy score. An interaction term was then created by multiplying the average dispersion scores and the average discrepancy scores. To be sure that it makes sense to combine the different identity dispersion measures into a single factor and the different identity discrepancy measures into a second factor, a confirmatory factor analysis of the ten measures was performed extracting two correlated factors with no cross loadings. In this analysis, I allowed for the errors on dispersion and discrepancy to be correlated for the same identity. These results are presented in Table 5 and Fig. 2 where we see that the model fits the data well, that the dispersion measures have high loadings on the dispersion factor and zero loadings on the discrepancy factor, while the discrepancy measures have high loadings on the discrepancy factor and zero loadings on the dispersion factor.

Table 6 presents a test of the two hypotheses for each of the components of self-esteem and negative emotion using the combined measures of dispersion and discrepancy along with the interaction. The results show strong support for both hypotheses on all three components of self-esteem and negative emotion. Because the pattern of results for each of the separate identities was generally the same, combining the measure reduced measurement error and allowed us to see that pattern very clearly. We see the negative effects of dispersion in accordance with Hypothesis two. Persons with higher levels of identity dispersion have lower levels of all three components

**Table 5** Factor analysis of dispersion and discrepancy correlations across identities (N = 318)

	Dispersion	Discrepancy
Gender identity dispersion	0.60	0
Friend identity dispersion	0.53	0
Worker identity dispersion	0.48	0
Student identity dispersion	0.55	0
Moral identity dispersion	0.76	0
Gender identity discrepancy	0	0.53
Friend identity discrepancy	0	0.50
Worker identity discrepancy	0	0.56
Student identity discrepancy	0	0.56
Moral identity discrepancy	0	0.77
Reliability ( $\Omega$ )	0.74	0.77

Dispersion and discrepancy factors correlation: 0.75  
 Chi-square fit = 34.53, df = 29,  $p \geq 0.22$ ; RMSEA = 0.025  
 Not shown are the estimated error covariances between dispersion and discrepancy of the same identities



**Fig. 2** Confirmatory factor analysis of dispersion and discrepancy correlations across identities (N = 318) goodness of fit:  $\chi^2(6) = 34.53, p = 0.22, RMSEA = 0.025$

**Table 6** Effects of identity discrepancy and identity dispersion on components of self-esteem using combined measures (N = 318)

	Worth	Efficacy	Authenticity	Neg. emotion
Dispersion	-0.31**	-0.35**	-0.33**	0.41**
Discrepancy	-0.70**	-0.79**	-0.76**	0.40*
Interaction	0.67**	0.75**	0.72**	-0.46*

\* $p \leq 0.05$   
 \*\* $p \leq 0.01$

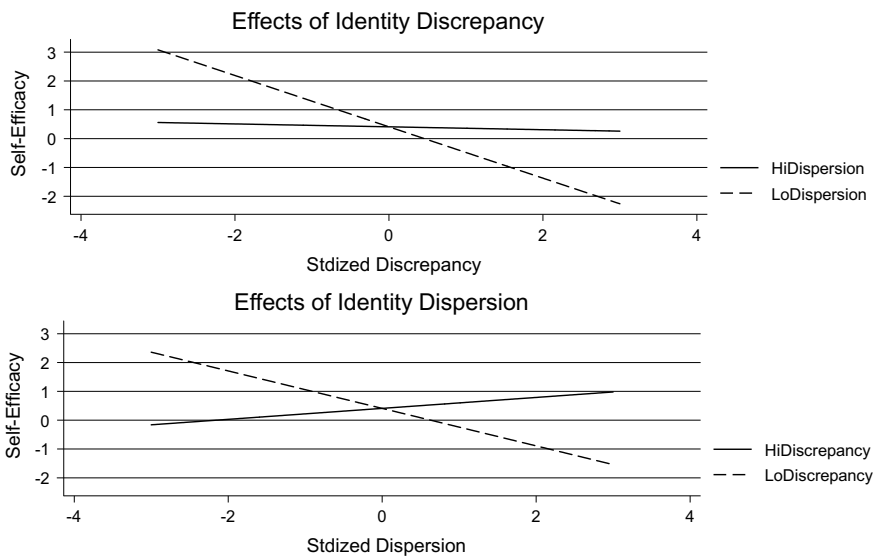
of self-esteem and higher levels of negative emotion. At the same time, we see the negative effects of identity nonverification (discrepancy) on all components of self-esteem when people have the average amount of dispersion, but this effect is reduced as the amount of dispersion increases so that the negative effect of discrepancy is removed for those who have dispersion one or two standard deviations above average. Thus, dispersion has a positive effect to reduce the negative impact of identity nonverification.

Dispersion, thus, has both positive and negative effects on emotion and the components of self-esteem. Now, the interaction term in the regression model, which has been interpreted as a moderator for the effects of discrepancy, can also be interpreted as a moderator for the effects of identity dispersion. Interaction terms can be viewed either way. The negative effect of identity dispersion on self-esteem shown in the tables, is the effect for persons with average levels of identity discrepancy or nonverification. As identity discrepancy diminishes from the average level by one standard deviation, that is, as identities become more verified, the negative effects of identity dispersion increase. To understand this, think of verified inconsistencies in contrast to unverified inconsistencies. Inconsistencies that are verified have a stronger negative effect.

Clearly, dispersion is particularly bad for persons with very high levels of identity verification. For example, with respect to efficacy as an outcome, the effect of a one standard deviation increase in dispersion at average levels of discrepancy in Table 6 is to decrease efficacy by 0.35. This effect becomes  $-1.10$  ( $= -0.35 - 0.75$ ) for persons who have one standard deviation more verification (less discrepancy) than average. On the other hand, the negative effects of identity dispersion are reduced for persons with a less well verified identity and may even become a beneficial effect of dispersion. For example, the effect of a unit change in dispersion is to decrease efficacy by 0.35 as already mentioned, but this effect becomes  $+0.40$  ( $= -0.35 + 0.75$ ) for persons who have one standard deviation greater discrepancy. Identity nonverification protects people from the negative effects of identity dispersion. These effects are shown graphically in Fig. 3.

This last set of analyses using the composite measures of dispersion and discrepancy across all five of the identities raises some interesting questions about the natures of dispersion and discrepancy. To create these composite measures, I first showed that the measures of dispersion across the different identities are all highly





**Fig. 3** Illustrating how identity dispersion moderates the effects of identity discrepancy and identity discrepancy moderates the effects of identity dispersion

correlated as are the measures of discrepancy across the different identities. Indeed, the omega reliability for each combined construct is about 0.77. What are the implications of the fact that if a person has a high (or low) dispersion on one identity, that person likely also has a high (or low) dispersion on another identity; similarly, for identity discrepancy?

Having a high or low dispersion or a high or low discrepancy score seem to be characteristics of a person—some people have greater (or lesser) dispersion in all their identities, and some people seem to be able to verify (or not) all their identities. Indeed, we saw that dispersion and discrepancy are moderately correlated (.75 in Table 5). Is it possible that difficulty in verifying an identity leads one to have a more dispersed set of identity meanings as they explore creating identity meanings that will be verified? Is it also possible that having a more dispersed identity results in greater difficulty verifying the identity? Study 2 explores these issues. Data from the marital roles study, a longitudinal study carried out annually over three years (Tallman et al. 1998) will allow us to understand these processes better and see the impacts of dispersion and discrepancy on each other over time. With measures of the spousal identity over three points in time, Study 2 can begin to disentangle the causal impacts of dispersion and discrepancy on each other.

## 7 Study Two

The marital roles study was a longitudinal study that investigated marital dynamics in the first three years of marriage (Tallman et al. 1998). The sample was drawn from marriage registration records in 1991 and 1992 in two mid-sized communities in Washington state. It consists of couples who were over age 18, who were involved in their first marriage, and who had no children. The data for the current analysis are based on information from the interviews in all three data-collection periods.

### 7.1 Sample

There were 574 couples applying for marriage licenses who appeared to be eligible for the sample. Of these, 286 couples completed all the data-collection in the first round. A 15% attrition occurred from Year 1 to Year 2, and an additional 4.2% attrition from Year 2 to Year 3. These numbers do not include the 13 couples who were separated or divorced after Year 1, nor the 16 couples who were separated or divorced after Year 2, who were no longer included in the sampling frame. Couples who dropped out of the study after the first or second year were more likely to be young ( $p < 0.01$ ), less highly educated ( $p < 0.01$ ), and of lower socioeconomic status ( $p < 0.05$ ) (Burke and Stets 1999).

### 7.2 Measures

Eight items were used to measure the spousal identity (Burke and Stets 1999). These items, their factor loadings, and reliability are given in Table 7. Respondents rated

**Table 7** Items, factor loadings, and reliabilities for items measuring spouse identity (N = 624)

Item	Loading
1. Cleaning the house	-0.67
2. Preparing and serving meals	-0.73
3. Washing, ironing and mending the clothes	-0.79
4. Home repair	0.83
5. Yard work	0.72
6. Shopping for groceries	-0.67
7. Providing the family income before children are born	0.67
8. Providing the family income after children are born	0.77

Spousal identity ( $\Omega = 0.91$ )

each of 8 spousal role activities in terms of the degree to which they felt that they themselves *should engage in that role activity* (own identity standard), and the degree to which they felt that their spouse should engage in that activity. Responses ranged from a low of doing “none of the activity in the household” to doing “all of the activity in the household” (coded 0–4). Following the earlier procedures of Study 1, the means of the eight (standardized) items were used to measure the spouse identity standards for everyone. To measure spouse identity dispersions, the same procedures that were indicated in Study 1 were used to measure the variability of the eight items around the mean rating.

The spouse identity discrepancy was measured as the difference between the self-rating of how much individuals should engage in the activity and the rating on that item showing how much their spouse felt they should engage in the activity.<sup>2</sup> These scores were then squared and averaged to provide the measure of discrepancy.

Measures of two esteem components previously used by Cast and Burke (2002) were also included: self-worth and efficacy. The self-worth scale consisted of seven items and had an omega reliability of 0.88. The efficacy scale consisted 9 items and had an omega reliability of 0.85. These scales were developed from items included in the self-administered portion of the interview.

### 7.3 Analyses

With this new identity and data set, I want to first try to replicate the effects we found in Study 1 showing the impact of identity dispersion, identity discrepancy, and the interaction of the two on the self-esteem components.<sup>3</sup> I then explore the effects of identity dispersion on identity discrepancy as well as the effect of discrepancy on dispersion over time to understand the positive relationship between these two constructs. With measures gathered at three points, each separated by a year, it is possible to estimate the separate effects of each variable on the other.

## 8 Results

Before looking at the causal relationships of dispersion and discrepancy, Table 8 presents the results that replicate the findings in Study 1 showing the effects of dispersion, discrepancy, and their interaction on the two components of self-esteem that were measured: self-worth and efficacy. This analysis was carried out three times, once for each year of the longitudinal study. We see in these results that the earlier effects are replicated. Persons with higher levels of dispersion suffer a loss of both self-worth and efficacy. We also see that identity discrepancy has a negative effect on worth and efficacy, and the significant interaction shows that this effect is diminished for persons who have higher dispersions in their spousal identity. We can

**Table 8** Effects of spouse identity discrepancy and identity dispersion on components of self-esteem (N = 623)

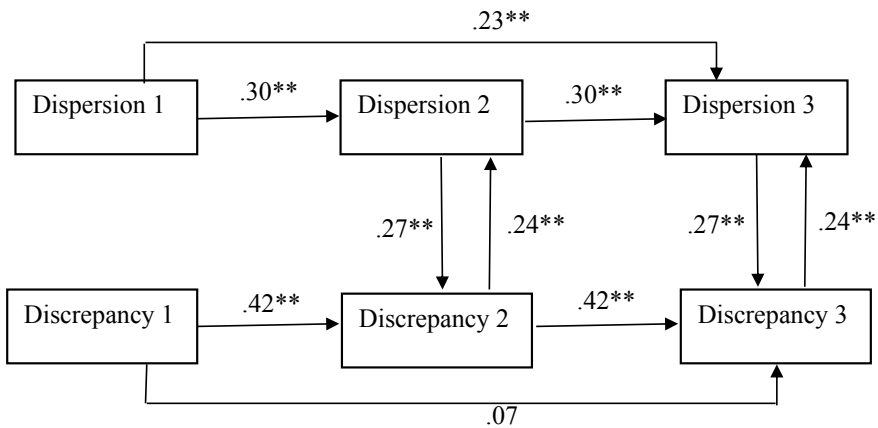
	Year 1	Year 2	Year 3
<i>Self-worth</i>			
Dispersion	-0.12**	-0.16**	-0.15**
Discrepancy	-0.13**	-0.14**	-0.16**
Interaction	0.11*	0.14*	0.16*
<i>Efficacy</i>			
Dispersion	-0.13**	-0.19**	-0.15**
Discrepancy	-0.14**	-0.16**	-0.15**
Interaction	0.08*	0.18*	0.11*

\* $p \leq 0.05$   
 \*\* $p \leq 0.01$

now examine the mutual effects of dispersion and discrepancy on each other over the three time-periods.

The model that was used to estimate the causal relationships between dispersion and discrepancy is given in Fig. 4 along with the results. Not shown are the correlated error terms for dispersion and discrepancy, which were not significant, indicating that these causal relationships between the two fully explain their positive correlation. These results show that dispersion has a moderate and positive effect on discrepancy and discrepancy has a roughly equal effect on dispersion. These effects are the same at both time 1 to time 2 and time 2 to time 3.

I also note that the stability coefficients, that is the effects of each variable on itself one time-period later, for both discrepancy and dispersion appear to be moderately



**Fig. 4** Mutual effects of discrepancy and dispersion of spouse identity over time. Goodness of fit:  $\chi^2(6) = 2.26, p = 0.90$ . Not shown are the non-significant error covariances between discrepancy and dispersion at time points two and three

**Table 9** Transitions among high and low identity dispersion groups between first and final interview

First interview	Final interview		Total
	Low dispersion	High dispersion	
Low dispersion	158 (77%) (63%)	47 (23%) (30%)	205 (100%) (50%)
High dispersion	98 (47%) (37%)	111 (53%) (70%)	209 (100%) (50%)
	256 (60%) (100%)	158 (39%) (100%)	4144 (100%) (100%)

strong. Indeed, remembering that the time points are separated by a year, the equivalent *monthly* stability coefficients are 0.87 for dispersion and 0.93 for discrepancy. These stabilities indicate that it takes some time for exogenous factors to modify dispersion or discrepancy over time. For comparison, I calculated the stability coefficients for the spouse identity standard over the three years. This effect was very large: 0.83, which translates to a monthly stability of 0.98. The spouse identity standard is almost unchanging from month to month. This is considerably more stable than either the dispersion or discrepancy measures.

To gain another view of the stability of the spousal identity dispersion over time, the dispersions of the spousal identities for all time periods were divided into high and low dispersion at the median across time. A cross-tab of the high/low split at the beginning of the study and the end of the study was created to see the extent to which individuals change from high to low dispersion or low to high over the interval, and the extent to which individuals remained high or remained low. These results are given in Table 9.

We see in Table 9 that the stability of the identity dispersion measure over the three years occurs primarily because those who had less than average identity dispersion tended to remain low dispersion over that time (77%). Of those who had high identity dispersion at time one, about half (47%) became low dispersion by the third interview. It thus appears that there is a tendency for low identity dispersion persons to stay low, but for persons with high spouse identity dispersion to become low dispersion. This would be consistent with high identity dispersion being an aversive state from which people generally try to escape and move to low dispersion. There is some movement from low dispersion to high dispersion over the three-year period (23%), due, perhaps, to problems with verifying their spouse identity (recall that problems of verification lead to an increase of identity dispersion). Indeed, the persons who changed from low to high identity dispersion over that time had significantly higher levels of spousal identity discrepancy (non-verification) at time 1 ( $p \leq 0.001$ ).

We also see in Table 9 that about half (209) of the respondents had above average levels of spousal identity dispersion at the start of the study and only 39% (158) had above average levels of dispersion by the final interview, with the movement of persons from high to low dispersion being significantly greater than the movement

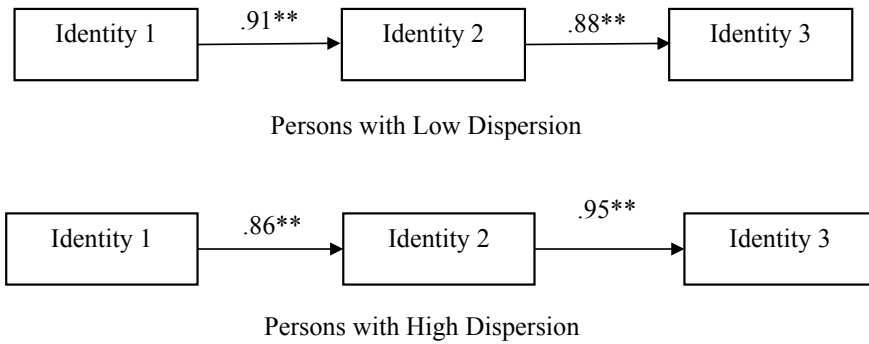
from low to high dispersion. An important question is why there were so many high dispersion respondents at the beginning of the study.

Perhaps the biggest factor for the initial dispersion measures is that the spousal identity is a new identity for all the respondents; the respondents had been recruited because they were just married within the past few months and had never been married before. This new identity is just being formed. Self-meanings are changing from whatever they were to what they are now with this new status. What does it mean to be a spouse? With a new identity, it is to be expected that there would be some initial uncertainty and/or flexibility with respect to the identity that would likely diminish over time.

In addition, I found that those respondents with higher education levels had less identity dispersion ( $p \leq 0.01$ ), as did those with higher occupational status ( $p \leq 0.01$ ) or age ( $p \leq 0.01$ ). Many of these respondents initially were still in school, so that by the last interview they had significantly higher levels of education, occupational status, as well as age, than at the beginning. These factors would lead to higher levels of dispersion at the beginning with the levels diminishing over time. Since having more or fewer resources is an individual characteristic, this would affect all the identities held by the individual. An analysis of dispersion as a function of having a baby among these newly married couples during the three years of the study showed that individuals who experienced the birth of a child also experience an increase in the level of dispersion in their spouse identity ( $p \leq 0.01$ ). Thus, disruptive life events can result in increased identity dispersion, and this would likely be true for all the identities the individual holds.

A final analysis may shed some light on the nature of the dispersion and the question of whether it represents uncertainty or flexibility. Looking at the spousal identity itself (rather than the dispersion or the discrepancy) over time, I have shown that the spouse identity has a very high stability coefficient of 0.83 over a year, or 0.98 over a month. I now repeat this analysis, but for two groups: those with higher than average dispersion of the spouse identity at the beginning of the study and those with lower than average dispersion. The results, as given in Fig. 4, show high levels of stability for both groups. Indeed, there is no significant difference in the stability coefficients between the two dispersion groups, or between the time 1 to 2 coefficients and the time 2 to 3 coefficients. The pooled estimate for this year-long stability is 0.90. An equivalent month-long stability coefficient would be 0.99 (Fig. 5).

These results raise the question that if a high dispersion represents uncertainty, then how are such high stabilities over the course of a year possible? Persons with above average dispersion have equally stable spouse identities as persons with low dispersion; stable almost to the point of unchanging. The respondents seem to be quite sure what their spousal identity is a month later, and even a year later. Perhaps the dispersion is not due to uncertainty, but rather is the result of a mixture of identity meanings about which the person is certain, but which are not fully consistent with one another. This would be harmonious with the idea that it is the *incongruity* of the different meanings defining the identity (responses to different items), rather than uncertainty, that produces the lower self-worth and efficacy, even if the persons are certain that those meanings define who they are as spouses. These incongruities could



**Fig. 5** Stability effects of spouse identity over time for persons with low dispersion (Top Panel) and persons with high dispersion (Bottom Panel) with no constraints. There were no significant differences in the coefficients between the two groups

create a degree of cognitive dissonance, a strongly aversive state (Festinger 1957). Perhaps over time the incongruities diminish as each of the components changes to be more like the others as has been suggested in earlier work (Burke 2003).

## 9 Discussion

It has been a long journey through this research, with many findings. I started with the idea of identity dispersion, or the variability of identity meanings around the central point of the identity standard, which has recently become of interest from two theoretical approaches. Identity theory views dispersion as resulting from the flexibility of an individual to interact in a variety of situations, each requiring slightly different self-in-role meanings (Burke 1980). Uncertainty-identity theory (Hogg 2007) views an individual's uncertainty with respect to their self-meanings resulting in greater identity dispersion. Identity uncertainty would result in negative outcomes for self-esteem, while identity flexibility would result in positive outcomes protecting against the negative effects of identity non-verification.

The present research began by examining both interpretations of dispersion for five different identities: gender, friend, worker, student, and moral. The results appeared to support both hypothesized effects, positive and negative. Dispersion, controlling for discrepancy, has a negative impact on all three components of self-esteem (worth, efficacy, and authenticity) and emotion. At the same time, it has the positive impact of reducing the negative effects of identity nonverification (discrepancy) on esteem components and emotion. It appears that dispersion has both the hypothesized negative and beneficial effects on emotions and esteem.

However, further examination of the dispersion and discrepancy measures across the five identities in Study 1 showed three additional important results. First, dispersion in one identity was correlated with dispersion in the other identities. Second,

discrepancy in one identity was correlated with discrepancy in the other identities, and third, identity dispersion is positively correlated ( $r = 0.6$ ) with identity discrepancy or nonverification. The first two of these results imply that levels of identity dispersion and identity discrepancy are characteristics of persons and are manifest in many or all of their identities; A person who has high (low) dispersion (discrepancy) on one identity likely has a high (low) dispersion (discrepancy) on other identities. The third result suggests that there is some sort of causal connection between dispersion and nonverification leading us to wonder whether difficulty in verifying an identity leads to a greater dispersion in the meanings of that identity or having a higher dispersion of meanings in one's identity makes it more difficult to verify the identity?

Study 2 pursued an examination of the nature of the causal connection between dispersion and discrepancy using longitudinal data from the marital roles study (Tallman et al. 1992, 1998). It appears that both causal processes are operative. Higher discrepancy or nonverification at one time appears to increase dispersion later, and, independently, higher dispersion at the earlier time increases discrepancy at the later time. Additionally, it was found that both dispersion and discrepancy have moderately high stability coefficients from one year to the next. The implied stability coefficient for one month indicates a very high level of stability for both dispersion and discrepancy. Thus, not only are dispersion and discrepancy the result of some personal characteristic, that characteristic seems quite stable over a time-span of two or three years.

Perhaps most revealing of the nature of dispersion was another finding in Study 2 that the stability of the spouse identity itself was very high: 0.90 for a year, implying a stability of 0.99 for a month. This level of stability for the spouse identity raised some serious questions about the nature of the dispersion. If dispersion represented uncertainty about the identity as suggested by Hogg (2007, 2009), this high level of stability of the spouse identity standard would not exist, that is, people would not be consistent from year to year. These results also call into question the interpretation of dispersion as an aversive state that is the result of uncertainty about one's identity. It may be aversive, but it is not the result of uncertainty. A different interpretation is called for, one that accounts for the stability of dispersion, its positive consequences of reducing the negative effects of nonverification, as well as the negative consequences of its being an aversive state.

I suggest that identity dispersion is due to varying amounts of real inconsistency in the identity meanings that people hold. Some people seem to incorporate more inconsistency in their identity meanings than do others—and they seem to do it with many or all their identities. These inconsistent identity meanings are held with high levels of certainty. Because the level of certainty is high, these meanings can be reproduced on a survey even a year later. This level of inconsistency of meanings in the high dispersion identity, however, would lead to cognitive dissonance and produce the aversive state that results in lower self-esteem and more negative emotion.

At the same time, the array of (inconsistent) meanings in the more dispersed identity would also reduce the impact of nonverification because the identity is, in fact, defined with a wider array of meanings held by the person. With the wider

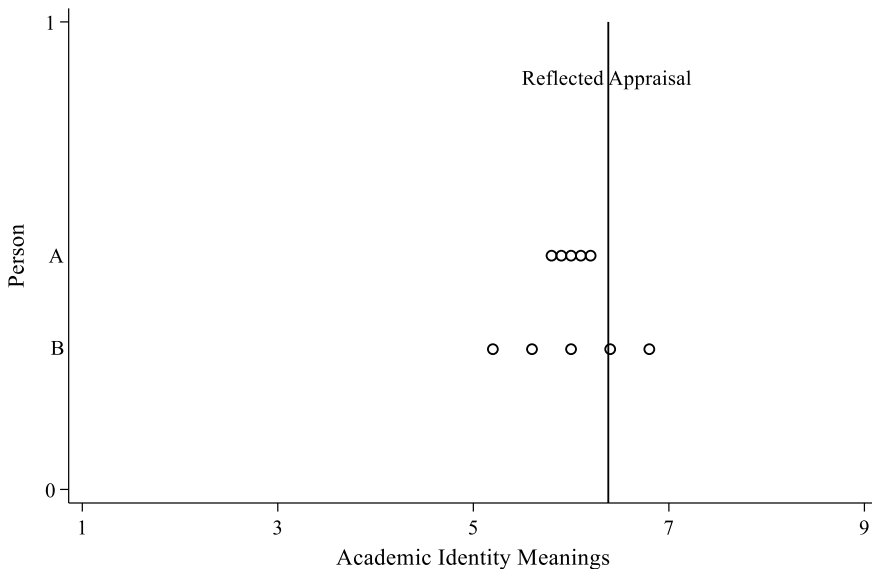


array of meanings, any reflected appraisal that was nonverifying for one of the held meanings, may be verifying with respect to another, thus making at least partial verification more likely. With a narrow range of self-meanings in the identity, any reflected appraisal that was nonverifying for one identity meaning would likely be nonverifying for most identity meanings.

This is illustrated in Fig. 6, which shows two persons with different identity dispersions for the academic identity, but with the same midpoints and the same reflected appraisals. The reflected appraisals miss the meanings for the person with the narrow dispersion (A) but come close to some of the identity meanings for the person with the wider dispersion (B).

In this way, both the aversive character of identity dispersion due to cognitive dissonance among the meanings and its protective character because of the wider spread are accounted for. And, because the meanings are strongly held, the high level of stability of the identity itself is also explained.

The causal analyses in Study 2 showed that identity dispersion is maintained by trouble in verifying those identities. Or, to put it another way, verification (low discrepancy) reduces the level of dispersion. This can be understood by recalling that when identities are not verified, people begin to act to reduce the discrepancy between reflected appraisals and the identity standard, but at the same time, the identity standard begins to slowly shift toward the meanings in the reflected appraisals (Burke 2006; Burke and Stets 2009; Cast et al. 1999). When verification occurs in an identity that has wider dispersion, some of the identity meanings will be verified, but



**Fig. 6** Range of academic identity meanings for two persons, showing same reflected appraisals for each

those that are not verified will begin to adjust toward the reflected appraisal meanings bringing them toward convergence and reducing the dispersion.

Individuals with more resources will have the power to keep reflected appraisals toward the center of the spread of identity meanings compared to individuals with few resources. This would result in persons who have more resources, because of their position in the social structure, holding identities that have lower dispersion, as was observed in Study 2. And, this presence or absence of resources would result in most of their identities being less or more dispersed, accounting for the individual characteristic of holding many high or low dispersion identities. This makes it appear that dispersion is an individual characteristic, when it is likely due to an individual's location in the social structure and the resources they control as well as the events that happen because of that position.

Let me summarize where we are after all of this. Identity dispersion is the distribution of the meanings of an identity along a semantic dimension rather than being at a single point. High identity dispersion is an aversive state for a person that decreases positive emotion and self-esteem. In the present study, dispersion is not the result of a person's uncertainty about the meanings in an identity or of their being comfortable with a distribution of meanings, but, rather, of holding disparate meanings with a high degree of certainty. It is the cognitive inconsistency of the disparate identity meanings that likely produces the aversive state.

These results do not have implications for uncertainty identity theory because, as it turned out, dispersion in this study is not the result of uncertainty. The evidence is that uncertainty (whether or not associated with dispersion) itself is an aversive state (Hogg 2007, 2009), just as is cognitive dissonance (Festinger 1957).

Identity dispersion is both a cause and consequence of identity nonverification (high discrepancy). Like identity discrepancy, identity dispersion is a stable and persistent condition, though high dispersion tends to diminish over time. Identity dispersion and identity discrepancy are characteristics that tend to be shared across the different identities of an individual. High dispersion is a condition that tends to protect individuals against the negative impact of identity nonverification. This effect appears to be due not to people being comfortable with a range of identity meanings, but rather because the nonverification of one identity meaning in the dispersion is likely to be verification of another identity meaning, thus reducing the overall negative impact of the nonverification.

In sum, identity dispersion is an important characteristic of an identity that seems to have both negative and positive effects on self-verification and self-esteem. The present research has shown that because of its central role in self-processes, future research should take it more into account to gain a better understanding of these self-processes.

## Endnotes

1. BayesACT, a generalization of affect control theory, holds a third understanding of dispersion as informational uncertainty that has neither positive nor negative impact on one's subjective experience (Schröder et al. 2016). Because no impact on the self or self-esteem is expected, this view of dispersion is not discussed.
2. We would ideally like to have measured how each participant thought their spouse evaluated them, but this data was not available. Instead, we use the actual appraisals of the spouse as a proxy for the reflected appraisals.
3. There was no measure of emotion in this data.

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# Competing Identity Standards and Managing Identity Verification



Jessie K. Finch and Robin Stryker

**Abstract** Using courtroom observations, in-depth interviews, and third-party media accounts, we examine identity management by lawyers facing challenges to verification of prominent role and social identities implicated by participation in Operation Streamline. A controversial criminal procedure in which undocumented border crossers are processed *en masse*, Operation Streamline provides a strategic case for theory building integrating internal and external role and social identity processes. Relying on systematic interpretative methods to refract non-laboratory data through the conceptual lens of identity theory, we found that defense attorneys participating in Operation Streamline experienced substantial role strain, that is, felt problems in meeting role expectations, because they were torn between role-related values of substantive justice and formal legality that could not be satisfied simultaneously. However, they also perceived these two values to provide culturally available and positive but competing role identity standards to draw from as resources to deflect potential non-verification of their professional identities. Latino/a lawyers—who faced intensified professional role strain and also conflict between a role identity standard of formal legality and meanings and expectations associated with their racial/ethnic identity—perceived culturally available, competing social identity group standards based on race/ethnicity and citizenship. Faced with challenges to positive identity confirmation, attorneys pushed back against role and social identity group standards whose adoption would lead to non-verification and adopted instead the competing

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standards facilitating verification. Based on our findings and conceptual scope conditions pertaining to our empirical case, we propose three theoretical propositions that may link internal, perceptual control and external, social structural identity processes and can be tested in further research.

**Keywords** Role identity · Social identity · Group identity · Self · Competing identity standards · Identity management · Identity challenge · Multiple identities · Law · Lawyer · Legal resources · Formal legality · Substantive justice · Race/Ethnicity · Citizenship · Immigration · Perceptual control · Social structure · Identity standard · Identity verification · Non-verification · Reflected appraisal · Role strain · Role conflict · Role extension · Identity change · Identity salience · Identity prominence · Identity dispersion · Commitment · Identity control · Identity theory · Emotion · Cognition · Operation Streamline · Cultural sociology · Social boundary construction

## 1 Introduction

Interactions between self and other are fraught with the peril of identity non-verification. Prior research in identity theory shows that individuals are motivated to verify their identity standards. Non-verification of meanings incorporated in situationally relevant identity standards for self tends to produce negative emotion and require enhanced cognitive processing (Kalkhoff et al. 2016; Stets and Burke 2005, 2014). When identity non-verification occurs, individuals initiate strategies to increase alignment between their identity standards and their reflected appraisals (Stets and Serpe 2013). Although different strands of identity theory—including the “external” and “internal,” and those pertaining to role and social identity—are being brought together in an increasingly integrated and cumulative research program, much remains to be done (Burke and Stryker 2016).

Examining identity management strategies employed by defense lawyers who participate in Operation Streamline, a controversial criminal procedure in which undocumented border crossers are processed *en masse*, we contribute to more integrated theorization of internal and external identity processes involving both role and social identities. Interpretive analysis of empirical data gathered from multiple sources allows us to conceptualize identity management strategies used by Operation Streamline defense lawyers threatened with non-verification of positive role and social identities. Using the lens of identity theory, we conceptualize key elements of the situational challenges faced by these lawyers, the constraints and opportunities on their responses, and the identity management strategies they adopt. This allows us to specify and empirically ground testable theoretical propositions inter-relating multiple identity standards and types of identities while further integrating identity theory’s external and internal strands.

## 2 Theoretical Background

### 2.1 Identity Theory

Building on the meta-theoretical framework provided by George Herbert Mead (1934), Stryker's (1968, 2002 [1980]) conceptualization of identity theory focused on role identities, presuming that these are a function of the structural locations that individuals occupy in social institutions including work, family, politics and religion. Individuals organize these identities into a hierarchy of salience. Salience is shaped by role commitment—later disaggregated into two dimensions, interactive and affective commitment—and vice versa over time (Stets and Serpe 2013; Stryker 2002; Stryker and Serpe 1994). As research progressed to test and further specify theoretical propositions linking identity to role structures and social networks, Burke (1991) initiated a complementary research program based on conceptualizing the internal control processes individuals use to assess match or mismatch between their internalized identity standards and their situationally-rooted reflected appraisals. Important behavioral consequences follow from this assessment (Burke and Stryker 2016; Stets and Serpe 2013; Stryker and Burke 2000).

Though Burke's (1991) theory originally was called identity control theory to distinguish it from Stryker's (1968, 2002) structural variant of identity theory, the two now are considered complementary aspects of a unified identity theory, with structural and perceptual research agendas (Stets and Serpe 2013). A key goal has been to broaden and deepen integration between the two strands, while simultaneously pursuing enhanced theory specification and testing within each (Burke and Stryker 2016; Stets and Serpe 2013; Stryker and Burke 2000). This makes sense because a key concept in Stryker's (1968, 2002) social structural and mostly external formulation involves the organization of identities internal to the person. Meanwhile, Burke's (1991; Stets and Burke 2014) mostly internal control system cannot function without input based on externalized social interaction.

All identities are sets of meanings, but there are multiple types of identities. Some are attached to social structural roles (role identities), some are attached to key social categories or groups to which individuals belong (social identities and group identities respectively), and some are attached to qualities or characteristics individuals perceive themselves to have (person identities) (Stets and Burke 2000; Stets and Serpe 2013). From theory and research in identity theory's perceptual control strand, we know that individuals are motivated to verify their identity standards; these are the meanings that individuals attribute to self in association with a particular identity (Stets and Burke 2014; Stets and Serpe 2013). All social interaction gives rise to reflected appraisals—self's perceptions of the evaluative feedback self is receiving from others (Stets and Burke 2005, 2014; Stets and Serpe 2013). With reflected appraisals as the perceptual input, individuals compare the reflected appraisal to their identity standard. If the two match, the identity standard is verified/confirmed. If the two do not match, the identity standard is non-verified/disconfirmed (Stets and Burke 2005, 2014).

Identity verification versus non-verification has important emotional, cognitive, and behavioral consequences. Where identity verification produces positive emotions, non-verification of meanings incorporated into situationally relevant identity standards for self leads to negative emotions (Burke and Stryker 2016; Stets and Burke 2005, 2014; Stets and Serpe 2013). Research suggests that negative emotions typically occur especially—but not exclusively—when identity non-verification is in a negative direction (Kalkhoff et al. 2016; Stets and Burke 2014). Recent research based on electroencephalography suggests that, whereas identity verification activates brain structures involved in unconscious processing that is ongoing and automatic, non-verification activates a brain region known to be associated with conscious, effortful processing (Kalkhoff et al. 2016).

Substantial research suggests that when identity non-verification occurs, individuals initiate strategies to increase alignment between their identity standards and their reflected appraisals. As Stets and Serpe (2013, 35) explain, “[w]hen there is a non-correspondence between input and identity standard meanings, output [behavior] will be modified in the situation in an attempt to change input meanings to match the identity standard meanings.” Negative emotion experienced as a function of non-verification “will create a greater pressure or drive to reduce the non-correspondence between input and identity standard meanings. Behaviorally, this translates into individuals working harder to resolve the non-correspondence or discrepancy, doing whatever it takes to facilitate congruity, assuming that there are no significant situational constraints” (Stets and Serpe 2013, 35). Depending on the identities at stake and the situations individuals are in, individuals are more or less free to—or constrained from—increasing alignment between identity standards and their reflected appraisals by exiting interactions that produce non-verification (see Brenner et al. 2018; Stryker 1980).

Periodic literature reviews and looks forward by central scholars prodded researchers to work not only toward integrating internal, perceptual control and external, structural strands of identity theory, but also to consider how multiple identities and types of identity work in tandem (see Burke and Stryker 2016; Stets and Burke 2000; Stets and Serpe 2013; Stryker and Burke 2000). For example, researchers considered implications of persons’ multiple identities for mental and behavioral outcomes (e.g., Burke 2003; Robertson 2009, 2011; Smith-Lovin 2003; Stryker 2000; Thoits 2003). Applying identity theory to help explain behavior of attorneys who violate professional ethical standards, Robertson (2009) argued that serious lapses in ethical judgment are likely when corporate or government attorneys are cast in the role of organizational policy makers simultaneous with being cast in the role of providing legal advice to their organizational clients.

Robertson (2011) also drew on identity theory to suggest sets of ethical problems created when professionals draw on competing professional and organizational identities at work. She argued that organizational strategies can be invoked to mitigate these problems. Robertson (2011, p. 603) suggested that when professionals do have competing identities—the one reflecting professional membership and the other reflecting support for the “organizational mission” of their work—and both these identities are activated simultaneously, professionals are likely to act in accord



with the identity that is more salient. To reduce the risk that professionals will violate ethical codes, organizations should promote adoption of an identity salience hierarchy that places professional identity above organizational identity (Robertson 2011).

Burke and Cerven (2015) suggested that “having more identities increases positive emotions, reduces negative emotions and enhances self-esteem, but only if those identities are verified” (Burke and Stryker 2016, 665). In contrast, the accumulation of non-verified identities leads to “heightened negative emotions and lowered self-esteem” (Burke and Stryker 2016, 665).

Below, we report on a study of defense attorneys that examines strategies for managing potential identity non-verification in situations of multiple, competing identity standards for professional identity, and in situations in which professional and social identities may compete. Like Robertson (2009, 2011), we focus on legal professionals working within particular organizational contexts and constraints. Like Burke and Cerven (2015), we are interested in implications of identity management for individuals, rather than for the organizations in which they work. We follow Stets and Burke (2000) and Stets and Serpe (2013) in incorporating social identities into identity theory. Both social identity theory and classic identity theory posit that people value positive identities. Further theorizing the interplay of role and social identities is especially important for research on lawyers working in arenas in which social identities figure prominently as objects of law making and law enforcement.

In this chapter, we use the term social identity to refer to identities grounded in race/ethnicity and citizenship. Consistent with Tajfel (2010), these social categories serve as a basis for moral boundary construction and the attribution of social meanings. Quite often, and still consistent with Tajfel’s (2010) perspective, these categories also lead to identification of, and with in-groups and out-groups, as well as to ensuing interaction patterns of preference, exclusion, solidarity, enmity, and conflict. When they do, the line between “social identity” and “group identity” becomes blurred since what began as a social category “grouping” becomes, for identity theory, a full blown social “group” (see, Stets and Serpe 2013). Consistent with this blurriness, group identities originally stemming from identification with a social category may become claimed by self, as well as attributed by others. It then becomes reasonable to presume that there are identity standards for self and for generalized other-based reflected appraisals that become associated with race/ethnicity and citizenship.

In what follows, we first discuss role identity issues and processes pertaining to *both* white and Latino/a defense attorneys participating in Operation Streamline. Once we have shown how our data evidence role identity processes across both whites and Latinos/as, we move on to show how race/ethnicity shapes these and other identity processes.

## 2.2 *Competing Role Identity Standards for Legal Professionals*

Lawyers may embrace a multitude of professional identity standards for role performance. Some of these standards are specific to the particular position occupied in the legal profession. For example, in adversary systems such as that operating in the United States, lawyers representing litigants are expected to represent zealously the interests of their clients within the ethical standards of the profession. Judges are expected to be neutral, reasoned arbiters of the procedural rules of litigation (Maroney 2017; Stryker et al. 2012).

Here, as the basis for relevant role identity standards, we focus on two overarching, competing concepts of law and justice institutionalized within U.S. legal culture, consciousness and institutions. These are formal law and substantive justice (Pedriana and Stryker 2017; Sutton 2001). The first emphasizes autonomy of law from extrajudicial, including moral, concerns, and status-neutral enactment of procedures with the formal imprimatur of legality (Stryker 2007; Weber 1978). The second, consistent with what Scheingold and Sarat (2004) labeled cause lawyering, emphasizes the justice or lack thereof of procedures used and results achieved through law; justice is evaluated by social, political, economic and/or moral criteria outside of the formal law (Stryker 2007; Weber 1978). Both these orientations provide culturally available role identity standards for U.S. lawyers, including defense attorneys (Bliss 2017; Scheingold and Sarat 2004).

As many studies of lawyers' professional socialization document, norms and values of formal legality dominate strongly in both the professional socialization supplied by law schools and in subsequent legal practice (Bliss 2017; Granfield 1992; Mertz 2007; Schleef 2006). But norms and values of substantive justice also are present in law schools and among practicing lawyers (e.g., Bliss 2017; Scheingold and Sarat 2004). Indeed, law students, especially those who are members of a minority group, often bring to law school with them an anticipatory role identity standard grounded in substantive justice (Bliss 2017; Scheingold and Sarat 2004). Weber (1978) originally presented the contrast between formal and substantive law as an ideal-typical characterization useful in the comparative study of legal systems. However, as we show, this contrast also shapes the social construction of lawyers' role identities and role performances.<sup>1</sup> In particular, lawyers may experience role strain because it often will be impossible to satisfy simultaneously the role-related values of formal legality and substantive justice.

### 3 Empirical Background

#### 3.1 Operation Streamline

Created in 2005 by the U.S. Departments of Justice and Homeland Security, Operation Streamline (OSL) is “a controversial “zero-tolerance” immigration policy designed to increase the criminal prosecution of undocumented border crossers” (Finch 2015, 19). In 2005, OSL procedures replaced an earlier strategy commonly known as “catch and release,” in which undocumented crossers caught by Border Patrol agents either were repatriated voluntarily to their home countries or were processed through civil proceedings and then deported. Pursuant to Title 8, sections 1325-1326 of the U.S. Criminal Code—these pertain to illegal entry and illegal re-entry and have been on the books since 1952—the government designed the new streamlined policy in order to criminalize *all* undocumented border crossers.

Despite insufficient institutional capacity to process all undocumented migrants with OSL procedures, once these were implemented, they *did* create a substantial uptick in criminal immigration cases. As Finch (2015, 20) documents: “[i]n 2012, immigration related offenses—such as illegal entry or reentry after removal—accounted for 40.6% of all federal cases in the U.S.—up from just 13.4% in the previous decade in 2002. Between 2000 and 2010, federal prosecutions for petty immigration-related offenses increased by over 330%.”

To deal with this upsurge, courts taking part in OSL conduct *en masse*, compressed group procedures frequently decried as “assembly line justice” (Lydgate 2010). From its beginning in Del Rio, Texas, OSL spread to 8 of 11 federal district courts along the U.S. Mexico Border (the other three districts, two in California, opted out). Since OSL’s implementation, the “Tucson Sector” of the U.S. Border Patrol often had the most migrant apprehensions and the most migrant defendants charged with petty misdemeanors in the United States (Finch 2015). Arizona’s version of OSL, to which our research pertains, began in January 2008, in the federal district court in Tucson.

There have been some procedural changes in Arizona’s version of Operation Streamline over time, but the basic *en masse*, compressed nature of the procedures remained constant. From April 2013 to September 2014, Finch observed prosecution and sentencing of over 4,200 defendants. During this time, the Tucson Federal District Court conducted “streamlined” legal hearings combining what otherwise would have been 3–5 distinct court appearances—initial appearance, preliminary hearing, detention hearing, change of plea and sentencing—into one court appearance completed in less than a day.

Up to 70 defendants, most of whom are Latino males from Mexico, are processed simultaneously.<sup>2</sup> Charged with federal criminal misdemeanors, and subjected to a brief, routinized, mostly non-individuated proceeding, they are sentenced to between 30 and 180 days in prison. After serving their time, they typically are formally deported through civil proceedings (Finch 2015). By March 2013, more than 73,000 undocumented border crossers had been processed in Tucson (Trevizo 2013). On any given day, defendants, who had not yet showered or changed clothes since their

apprehension within the past 48 hours, were restrained with wrist manacles, leg irons, and belly chains. They were represented by 12–15 defense attorneys, each assigned to some sub-group of defendants (Finch 2015).

Although one might imagine otherwise, OSL's *en masse* proceedings have been judged to meet formal-legal standards of constitutionality. In litigation challenging the constitutionality of Operation Streamline under the due process clause, the Ninth Circuit Court of Appeals held that group hearings do not violate Fifth Amendment due process rights as long as defendants have the opportunity to affirm or deny *individually* the waiver of their right to trial in favor of a guilty plea.<sup>3</sup> Similarly, Ninth Circuit rulings interpreting Rule 11 of the Federal Rules of Criminal Procedure have limited somewhat the *en masse* nature of the plea procedure.

In a series of four cases, the Ninth Circuit clarified what could be done *en masse* consistent with Rule 11's requirement that courts address the defendant personally in open court.<sup>4</sup> The rulings require the judge to ask each defendant individually whether he/she/they waive the right to trial and accept the guilty plea, rather than allowing the judge to accept an attorney-designated yes answer on behalf of the entire group of defendants. The rulings permit the judge to advise large groups of defendants of their rights collectively, so long as the judge does not combine advice for groups of defendants who are subject to imprisonment and groups of defendants who are subject only to fines. As well, only a brief amount of time can elapse between the collective advisement and the judicial questioning of each individual defendant about whether rights and consequences of a guilty plea are understood, and whether he/she/they accept to plead guilty.

In short, while there are some individualized elements of OSL, the proceedings overall are highly routinized and standardized,<sup>5</sup> and courts have given the formal imprimatur of legality to the *en masse* procedures as a whole. Different Tucson judges asked defendants different numbers of questions—the minimum observed in field work was two—and likewise differed in which questions they asked to each individual defendant versus the entire group. Nonetheless, OSL procedures are far less individualized than are other federal criminal proceedings, in which individual defendants are processed one at a time with several separate court appearances.

### ***3.2 Protests Against Operation Streamline***

Immigrant rights activists are harshly critical of these proceedings charging that their “assembly line justice” (Lydgate 2010) provides “an inferior standard of due process” (Grassroots Leadership 2012) and “a bastardization of the American legal system” (End Operation Streamline Coalition Activist, Finch Field Notes August 25, 2014). Although some activists wrote letters to Attorney General Holder or other top officials calling for an end to the program and some participated in protests designed to attract national media attention to program injustices, the bulk of immigrant rights activism centered on personal attacks and communication with the individual lawyers and judges participating in Tucson's OSL proceedings. The basis for these individualized

attacks has been that OSL violates the standards of justice to which those who take on the professional roles and identities of attorneys are required to adhere.

Indeed, mobilizing culturally and professionally-resonant meanings attached to being a good lawyer (Bliss 2017; Scheingold and Sarat 2004), activists relentlessly attacked Operation Streamline defense lawyers and judges, urging them to refuse to participate in proceedings that the activists see as amounting to a gross miscarriage of justice (Finch 2015). The following e-mail communication to Tucson sector OSL defense lawyers and judges provides an example:

Dear Operation Streamline Lawyer,

I am writing because I think you care as much as I do about justice for defendants who appear in court. Operation Streamline was invented purely for the mass prosecution of immigrants as criminals. This fast-track system is wrong and must be stopped. I ask you to resign your participation in this court proceeding that [sic] has huge costs for our country in terms of violated constitutional principles and millions of dollars a year in court and prison costs. I urge you to resign from your participation in Operation Streamline, and to encourage your colleagues to join you.

Thank you.

(Member of the End Operation Streamline Coalition, e-mail correspondence in Finch Field Notes, February 19, 2014).

These letters were part of an online petition campaign directed by a coalition of activists formed from members of other immigrant rights groups including *Coalición de Derechos Humanos*, *No More Deaths/No Mas Muertes*, *Tucson Samaritans*, and *Humane Borders*. The letters were sent to the individual attorneys and judges for the expressed goal of ending OSL in Tucson. A given target might receive this same e-mail up to 40 times in a day, each message signed by a different activist. Every time a new electronic signature was added to the online petition, the e-mail went out to the full list of attorneys and judges that activists had identified as working in Operation Streamline. Emphasizing caring about “justice for defendants” as an essential positive role expectation, activists called out the role identity of a professional lawyer, instructing that the ethical legal professional would refuse to participate in such unjust proceedings. As we show below, social movement activists’ individually-targeted criticism created role strain and identity verification challenges for OSL attorneys.

Prior research has shown that, by pulling legal professionals in conflicting directions for action, competing values of formal legality and substantive justice create role strain for attorneys and judges in situations of restorative justice (Olson and Dzur 2003). Here, although federal courts had affirmed the formal legality of OSL proceedings, activists drew on competing standards of substantive justice to call out the proceedings and the participating legal professionals. One End Streamline Coalition letter to judges stated: “It is a fundamental responsibility of every judge and magistrate to refuse to participate in any proceeding that does not comport with constitutional, ethical, or due process principles” (quoted in Finch 2015, 31). Activists not only targeted OSL judges and attorneys in writing, they also regularly attended court proceedings to try and engage OSL legal professionals in person (Finch 2015).

Indeed, several activist groups scheduled regular volunteers to attend OSL proceedings and activists attended 67% of the observed proceedings. These activists varied in their activities. Some sat and tallied cases quietly during court, others engaged with defense attorneys in person before or after the proceedings. Some defense attorneys refused to engage with activists, while others spoke with activists to try and explain the proceedings or answer questions.

In addition, some members of the End Streamline Coalition, albeit without the Coalition's full formal support, created a website—StreamlineLawyers.com, no longer active—that listed names of about 35 defense attorneys with the caption “Can you trust them to defend you?” and accused the attorneys of violating “principles of law” and the State Bar of Arizona's Rules of Professional Conduct. The website linked to where viewers could file a complaint against these attorneys with the American Bar Association.

In short, activists repeatedly questioned the justice of OSL lawyers' work and explicitly invoked lawyers' professional code of conduct to criticize OSL attorneys' participation in OSL. As well, activists' charges and critical media coverage highlighted the systemic racism inherent in OSL proceedings. For example, many critical media reports contrasted the immigration and criminal justice systems' treatment of minorities and noncitizens relative to whites and citizens (Finch 2015). Echoing these criticisms, one activist who regularly attended court proceedings emphasized that defendants were being “railroad[ed] because they were a “mostly Mexican and all brown population.” All people should care about this egregious legal process, she argued, because it would be “hardly any time at all” before citizens would be similarly targeted (quoted in Finch 2015, 36). As we will see, this aspect of activists' and media critiques intensified role strain among Latino/a defense attorneys and created additional challenges for identity verification that white attorneys did not have to confront. Yet challenges to role identity verification grounded in the perceived failure of OSL to live up to the values of substantive justice pertained to both Latino/a and white attorneys.

## 4 Methods

### 4.1 *Operation Streamline as a Strategic Case for Identity Research*

We have suggested that day-to-day role performance in Operation Streamline invokes competing role expectations and identity standards pertaining to formal legality and substantive justice. This should be especially so, given that social movement activists relentlessly placed substantive justice front and center in their interactions with OSL legal professionals. Thus, we expected OSL to provide a strategic case to examine identity management strategies of defense attorneys placed in a work situation likely to cause role strain.

Because some of the OSL defense attorneys were Latino/a while others were white, OSL also provided an opportunity to examine variability in identity management strategies between Latino/a lawyers—who might be expected to be particularly sensitive to racism in criminal justice—and whites (e.g., Bliss 2017; Newport 2014). Because research shows that on average, minority law students and attorneys are more drawn to role identity standards based on substantive justice than are whites, we expected that substantive justice-based critiques of OSL might represent a more serious problem for the role identity verification of Latino/a attorneys than for whites.

We also expected that Latino/a, but not white, defense attorneys would face substantial conflict between their racial/ethnic identity and adopting a role identity standard based solely on formal legality, because being a good “co-ethnic” may be perceived to require showing solidarity with other members of one’s ethnic group (Tajfel 2010). Both self and others (including immigrant rights activists and many Latino/as whether or not they are active supporters of rights for the undocumented) might find it hard to align Latino/a legal professionals’ participation in *en masse*, scripted and perfunctory proceedings invariably ending in jail sentences and likely deportation, with enacting solidarity with undocumented border crossers who share their race/ethnicity. We therefore expected Latino/a attorneys to find identity verification for their racial/ethnic social identity, as well as their professional role identity, especially problematic.

## 4.2 *Research Questions and Data Sources*

In sum, potential identity implications of both white and Latino/a attorneys’ structural positions within Operation Streamline made it strategic to conduct research on the challenges to identity verification that they perceived and the solutions they crafted to meet these challenges. Theoretically speaking, their professional role and the combination of this with variable racial/ethnic social identities put Operation Streamline defense attorneys in a situation with the following characteristics.

First, the role identity for all, and the racial/ethnic identity especially for Latino/as, are relevant and likely to be salient. Second, there are competing, culturally available identity standards that can be used as resources for evaluating the same role performance. This is true for all attorneys no matter their race/ethnicity, but as we will show, race/ethnicity shapes the degree to which these competing standards for evaluating role performance create role strain. Third, the confirmation of positive role identity and positive racial/ethnic identity may call for conflicting behaviors depending upon the meanings encompassed by identity standards held by self and/or mobilized by others to further others’ goals. Here, we will see that perceived conflicts between fulfilling professional role obligations and maintaining a positive racial/ethnic identity pertain especially to Latino/a attorneys. Fourth, highly persistent, visible and vociferous others are working proactively to threaten all OSL attorneys’ capacities for identity verification. Through in-depth interviewing, field observations and document analysis, we collected and analyzed data to answer the following research

questions: *What identity management strategies were open to OSL defense attorneys and what strategies did they adopt? What might this imply more generally for identity verification and identity theory?*

Unlike much research on the implications of identity verification and non-verification that has been done in the laboratory with directly assessed identity standards for a single identity or identity type, we examine identity management in a naturally occurring setting, based on field observations of courtroom proceedings as well as in-depth interviews with Operation Streamline defense lawyers. Third party media accounts and the verbal attacks and written documents produced by immigrant rights activists to protest against Operation Streamline provided data for our analysis of the situation in which identity confirmation challenges arise for OSL attorneys and these attorneys undertake strategies to manage the challenges.

Our research strategy does not allow for strict testing of hypotheses formulated prior to examination of the data. Nor does it allow us to know with certainty the identity standards held by each lawyer interviewed prior to the interview itself. However, data collection and textual and observational analyses do allow us to engage in theoretically-informed meaning interpretation. Using the lens of identity theory, we interpret the meaning of the variable patterns of defense lawyers' courtroom behavior by race/ethnicity that we observed during Operation Streamline proceedings. We also interpret the patterned similarities and differences we found in the identity challenges voiced, emotions articulated, and identity management strategies exhibited by all Operation Streamline defense attorneys during our in-depth interviews.

### ***4.3 Observations and In-Depth Interviews***

Over an 18-month period from April 2013 through September 2014, one of the authors (Finch) conducted ethnographic research on 66 Operation Streamline proceedings at the Evo A. DeConcini U.S. Courthouse in Tucson, Arizona. This permitted extensive observation of social interactions among attorneys, judges, and OSL defendants during the processing and sentencing of over 4200 defendants. As well, Finch conducted in-depth interviews with seven of eight magistrate judges and 45 defense attorneys working within Operation Streamline. Here, we focus on results for the OSL defense attorneys.

Constrained by the routinized script for court proceedings, OSL lawyers and judges observed were not noticeably influenced by the presence of a researcher conducting unobtrusive observation. Observation of focal actors in their day-to-day work setting not only enhances the validity of our research, it also allowed Finch to build rapport with OSL lawyers and judges. This in turn facilitated her participation in lunches, presentations, meetings, and other events, providing additional data sources outside the formal interview.

Five of the attorneys interviewed were public defenders. Although there are about 35 attorneys at the Federal Public Defenders Office (FPD) in Tucson, the FPD is reluctant to participate in OSL. In 2014, the FPD provided just one attorney per



week to participate (Finch 2015). As a result, 98% of defense attorneys participating in OSL on a regular basis are private, contracted attorneys through the Criminal Justice Act (CJA) Panel. The 40 such attorneys interviewed represent 70% of this group.

We worked hard to minimize potential non-response bias. However, although only four panel attorneys refused interviews, another 17 who agreed to be interviewed could not be interviewed because of repeated scheduling conflicts (Finch 2015). Happily, there was only minimal difference in the racial/ethnic composition of the group of panel attorneys interviewed and those not interviewed; Latino/as were 66% of non-respondents relative to 64% of respondents (Finch 2015). Sex/gender composition of respondents versus non-respondents was different, but not wildly so. In each sub-group, three-quarters or more were male; those interviewed were 73% male whereas those not interviewed were 86% male (Finch 2015).

Of panel attorneys interviewed, just two (4.4%) were non-Latina females but this represents all potential interviewees in this subgroup. Nineteen respondents (42.2%) were Latino males, 14 respondents (31.1%) were non-Latino males, and 10 respondents (22.2%) were Latina females. Given that Tucson's judicial workers, including judges, magistrates, attorneys and others, are about 6% Latino/a—in Arizona as a whole they are 6.6%—Latino/as are dramatically *over-represented* among OSL panel attorneys. In part, this may be because all OSL defense lawyers, whether panel lawyers or public defenders, must pass a Spanish language proficiency test.<sup>6</sup> It also may be because Latino/as typically have fewer professional options in law than do whites given long-standing issues of structural racism, so Latino/a lawyers' work choices are more constrained.

Because we only interviewed lawyers working in Operation Streamline and not lawyers who had the opportunity to work for OSL but opted not to do so, we cannot know whether, of lawyers offered a job in OSL, Latino/a lawyers anticipated higher role strain in the job than did whites and so disproportionately chose other professional jobs. Identity theory suggests that such selection bias should be at work. If those Latino/as who anticipated the greatest role strain opted out of participation, this would make it *less*, rather than more, likely that our interview data would confirm our assumptions about challenges to role identity and social identity verification. Thus, we can be confident that the white/Latino/a differences we find in role strain, perceived identity challenges and identity management strategies are meaningful.

Our in-depth interviews focused on perceptions of Operation Streamline and interviewees' professional work within it, as well as interviewees' background and professional training. For example, we asked interviewees how they decided on a law career and what their friends and family thought of this career path. We also asked specifically about how interviewees became involved in Operation Streamline, what they saw as their role within it, whether their legal background prepared them for their OSL work, what they liked and disliked about Operation Streamline and their work within it, and what their families and friends thought of their job within OSL and more broadly.

Interview questions moved from more general and diffuse to more specific and pointed, with open-ended responses probed for whether and how interviewees' experiences and perceptions had been influenced by aspects of their professional and social identities. We did not explicitly invoke concepts or terms from identity theory, but we did cue respondents' consideration of their reflected appraisals based on interactions with friends and families. Reflected appraisals based on interactions with social movement activists are important to our conclusions about challenges to identity verification. Indeed, before we could cue explicitly for these reflected appraisals, *almost all* of our interviewees articulated reflected appraisals reflecting social movement activists' critiques. Equally important for our inferences about challenges to identity verification, *almost all* of our interviewees took the lead in bringing these critiques and their reactions to them to the fore in the in-depth interviews.

We waited until late in the interview to probe for whether respondents had experienced any conflicts about their job. We broached the sensitive issue of race/ethnicity at the end of the interview and we did so at first indirectly. We provided a vignette, and then asked all of our interviewees to consider what the hypothetical lawyer's response to the hypothetical belligerent Operation Streamline defendant in the vignette should be. We held all elements constant except the race/ethnicity of the hypothetical OSL lawyer in the vignette, who was sometimes given the name Manuel Martinez and other times given the name Jason Johnson.

Our original idea in using the vignette was to conduct a quasi-experiment deriving from differences in lawyers' racial/ethnic backgrounds. However, responses showed that our interviewees did *not* take the role of the hypothetical lawyer in the vignette. Instead, they opted to discuss their *own* experiences with obstreperous clients. Thus, the vignette functioned as a jumping off point for discussion of the more general relevance of race/ethnicity in shaping defense lawyers' interactions with OSL defendants.

After some conversation elicited by the vignette, we asked our respondents some direct questions pertaining to race/ethnicity. These included asking whether racial/ethnic issues had arisen at work, probing for whether others had brought up race/ethnicity in relation to OSL, when race/ethnicity might have posed a problem in their work with OSL and beyond, and how the interviewee had handled this. We also probed for whether interviewees ever had been offended by what others said about race/ethnicity as it relates to Operation Streamline.

#### **4.4 Coding and Analysis**

Consistent with Stryker's (1996) strategic narrative methodology, we conducted interpretive content coding and analysis of interview data and also of the observational data gathered through field notes. To enhance systematization, we used the computer-aided qualitative data analysis software ATLAS.ti.

Consistent with our identity theory conceptual framework, we examined our data for several identity-related themes. Themes included indications that respondents

experienced role strain, and for what reasons, indications that they perceived and/or adopted various identity standards, the content of their reflected appraisals, indications that they experienced positive or negative emotion, and for what reasons, and indications that they did, or did not, experience conflict between identities rooted in race/ethnicity and their professional identities. Having identified textual passages implicating these ideas—all suggesting challenges to identity verification—we used key words and phrases representing these ideas and sometimes relevant conjunctions and disjunctions of words and phrases capturing the way these ideas were expressed, to search systematically for and code all similar passages.

When the data indicated challenges to identity verification, we also coded for identity management strategies. We identified inductively the key strategies, including identity standards adopted. We then performed additional appropriate systematic searches and reviews of textual passages in context, to further conceptualize and—for our in-depth interview data—arrive at counts for numbers of interviewees with varying characteristics or in varying situations who employed diverse identity management strategies. For example, we analyzed whether and how both identity challenges and management strategies varied by and within race/ethnicity of OSL defense attorneys.<sup>7</sup> Search terms we relied on to help us systematize our coding and interpretive analysis included such words as justice/injustice or legal/legality/legalistic, constitution(al)/unconstitutional, due process, fair/unfair, Streamline, race/racism, ethnicity, citizenship, Mexico/an, white, gringo, Latino/a, role, client(s), defendant(s), judge(s), attorney(s), lawyer(s) and activist(s) or activism as well as specific activist groups named.

Exemplifying our analytic coding rules, we first tagged any interview passage in which attorneys explicitly discussed problems related to their own role or work with Operation Streamline as an instance of role strain. This included any explanation of flaws seen in OSL and descriptions of how the interviewee would change or improve the program. We then sub-categorized this topic code to capture instances of role strain specifically related to issues of substantive justice versus formal legality. Interviewees often discussed the Ninth Circuit Court rulings as providing formal-legal endorsement of OSL procedures. When they contrasted such formal legality with the substantive justice-based activist critique or with contrasting reflected appraisals pertaining to the interviewee's role or social identity, we interpreted this as awareness of multiple available but competing identity standards. When they went further, to indicate "a felt difficulty in fulfilling role obligations" (Stryker 2002 [1980], 76) because they perceived that enacting formal legality in their role performance conflicted with enacting substantive justice, we interpreted this as demonstrating that they experienced role strain related to competing professional values of substantive justice and formal legality.

Because only one of us coded interviews and field notes, we cannot provide inter-coder reliability scores. However, the systematic nature of our coding—in which we used repeated checks to increase the precision of our coding rules and, for the interview data, having both of us review exemplary text passages for potential alternative interpretations of meaning—lends confidence to our findings.

In conducting field research, Finch took detailed notes while observing in the courtroom and used these to compile field notes for each day. She also documented her informal interactions in the courtroom and elsewhere with relevant others, including attorneys, judges, and immigrant rights activists. For this chapter, we predominantly rely on interview data, but we also mine observational data for indicators of solidarity and distancing between OSL defense attorneys and defendants. We presume that such strategies—exhibited both in the interviews and in observations—represent the two sides of boundary making through identity construction. That is, they express alignment or distinction between self and other based on role identity standards of formal legality and substantive justice, and social identity standards based on race/ethnicity and citizenship.

In short, our coding and interpretive analysis proceeded iteratively. We queried the data with prior concepts from identity theory in mind, and used these concepts as organizing topic codes. We then further specified our coding scheme and coding rules inductively, to identify challenges, options, and identity management strategies, including ones that we had not anticipated in advance. Thus, our iterative strategy allowed for new discovery and grounded our resulting theoretical propositions, while also being guided by prior theory.

## 5 Results

### 5.1 *Role Strain and Challenges to Role Identity Verification*

Based on our in-depth interview data, we found that almost all OSL defense attorneys interviewed understood OSL procedures and their professional role within these procedures in terms of the competing ideal-typical identity standards of formal law/legality and substantive justice. Moreover, most perceived that enacting formal legality in their role performance conflicted with enacting substantive justice, thus creating stresses and difficulties in fulfilling role expectations. It was clear that for almost all our interviewees, immigrant rights activists' relentless mobilization of substantive justice cued the process of reflected appraisal. Moreover, because we asked follow up questions that focused on any stresses and conflicts that our respondents indicated they experienced, and because such a focus likely encourages reflection on the *causes* of those stresses and conflicts, our own questions too were likely to have cued processes of reflected appraisal.

When we asked about what interviewees liked and disliked about Operation Streamline, and what they perceived to be the best and worst parts of their jobs, these queries often prompted interviewees to discuss role strain. In this context as well, and unprompted by us, interviewees usually discussed reflected appraisals arising from activists, the media or other attorneys. Later in the interview if this topic had not already been discussed, we would ask explicitly how others perceived the

interviewee's work with OSL. This frequently prompted additional discussion of activists' critiques and interviewees' reflected appraisals.

Activists' challenges gave rise to reflected appraisals emphasizing the importance of adhering to standards of substantive justice. Depending on the perceived perspective taken by the *particular* media commentary or attorney interaction referenced, reflected appraisals arising from these sources could emphasize adhering to formal legality or to substantive justice. The key point here, however, is that, because interviewees almost universally recognized that formal legality and substantive justice offered competing standards for evaluating their role performance, discussing reflected appraisals from *any* source probably cued feelings pertaining to these competing orientations to law and justice. Moreover, because preoccupation with the content of activists' criticisms and of the media critics who did label OSL systemically unjust was virtually universal among our respondents, we especially focused on the content of these criticisms as a key source of both role strain and of the reflected appraisal inputs for identity verification processes.

Using the definitions and coding criteria we outlined, 43 of 45 (95.5%) of attorneys *did* express *some* form of role strain. Beyond this, interviewees' discussions of the competing standards provided by formal law and substantive justice came through repeatedly in the interviews, as did experiencing strain specifically resulting from these competing standards. For example, according to one federal public defender:

How can we say that this [OSL] isn't violative of the constitution when we are specifically impacting a specific population of foreign nationals? It may not be a violation of due process because there's a neutrality in the law, but in it's application, it's illegal [...] it's an evolution of racism, but no one will call it racist, because on its face, the law is {gives air quotes} 'race neutral.' So, I mean, it's just disgusting. (Valentina,<sup>8</sup> Latina, FPD)

Valentina's proclaimed "disgust" with a program in which she continues to work demonstrates role strain because she sees the work as "racist" or not meeting the role obligation of providing substantive justice. However, she also sees that others continue to verify their identities from the available identity standard of commitment to formal justice. Thus, we see the explicit link between experiencing role strain and that formal legality and substantive justice function as competing identity standards.

Beyond interviewees' invocation of competing identity standards, some attorneys highlighted how reflected appraisals evaluating criticisms by social movement activists influenced their own capacities for identity verification. For example, when one attorney, Leo, was asked about his likes and dislikes (this was asked well before any prompting about reflected appraisals), he immediately stated that he disliked being a "target" for activist groups based on his involvement in OSL. He stated:

I don't have a problem with the activists [...] but the problem I have is the twist where all of a sudden we, the defense lawyers, have become the target. You can't win. You really can't. There's no way to win in this situation. So I've kind of come to terms with it. I used to talk – and I know you know this – I used to talk to everybody. I'm more cautious about it now. [...] But I think that's a political choice. And as long as the political branches have decided that this is what's going to happen, you know, you're part of a legal system. That means that you're buying into the legitimacy of these decisions, even though you don't agree with them. So I don't feel guilty from my – I don't feel like I, you know, lower myself or I'm a traitor or

anything like that participating in Streamline because I think it's a perfectly – it's a perfectly legal process. Whether it's politically smart or, you know, from a policy standpoint, which I guess are two different things. I don't, you know. I think it's highly stupid and I think it's a waste of money, but as long as they do it, you know, I can have my opinions as a U.S. citizen and take those with me when I vote, but it's not my job to walk away from these clients.” (Leo, Latino, CJA)

In Leo's statement, we see the link between experienced role strain and processes of identity verification, because Leo is reflecting on his perception of activists' critiques. Leo explicitly compares these critiques to his own self-evaluation of his role performance and the demands of his role. Because there is a discrepancy between Leo's self-view and the reflected appraisals based on activists' critiques, Leo is in danger of identity non-verification.

In sum, we found that almost all OSL defense attorneys interviewed experienced role strain and most perceived that enacting formal legality in their role performance conflicted with enacting substantive justice and vice versa. Defense attorneys, almost all of whom, like Leo, voiced activists' criticisms, risked non-confirmation of their role identities based on these critiques. At the same time, OSL attorneys' recognition that both formal legality and substantive justice were appropriate positive role identity standards meant that defense attorneys had available to them multiple, competing role identity standards to draw from as resources to deflect critiques and forestall potential identity non-verification. Indeed, by 'working' the competing identity standards, they could convert identity non-verification to verification.

## ***5.2 Managing Role Identity Verification***

Quitting the job in the face of activists' drumbeat of substantive justice-based critiques might have been an “objectively possible” means of identity management for OSL defense attorneys. However, none of our interviewees chose to quit their jobs because of role strain and potential identity non-verification.<sup>9</sup> Based on regulations imposed by the Federal Court, private Criminal Justice Act (CJA) attorneys involved in OSL were only permitted to participate in OSL one day a week. Many attorneys explained that this was their most “assuredly lucrative day of the week” (Tiffany, non-Latina, CJA), creating a pecuniary incentive for participation. Some interviewees mentioned being more or less involved with Operation Streamline at different times in their own careers, and one—Estelle, a Latina defense attorney whose views we discuss further below in showing how race/ethnicity shaped the experience of strain and identity verification processes—indicated that she sometimes felt like a “traitor” for participating in OSL. But the majority of interviewees expressed being mostly comfortable with participating one day a week despite the negative reflected appraisals of the activists.

Indeed—and though respondents never invoked the concept of an identity standard nor did we use the term—respondents tended to mobilize norms and values pertaining to formal legality to defend their work in Operation Streamline. This allowed them

to deflect<sup>10</sup>—at least somewhat—the identity non-verification that would have come from embracing an identity standard emphasizing substantive justice. Such deflection was a general strategy among both white and Latino/a attorneys defending their role as against activists’ criticisms. For example, in stating “I mean it’s fine if you might think it’s [OSL is] unjust, but it’s perfectly legal,” Mickey, a non-Latino panel attorney, recognized the legitimacy of the substantive justice concerns expressed by others, while deflecting to retain his own sense of positive legal identity by emphasizing the formal legality of OSL procedures. This parallels Leo’s more extensive comments, quoted above.

More generally, the most obvious indicators of defense through invocation of an identity standard based on formal legality and the deflection of one based on substantive justice come from quotes such as those of Mickey and Leo that highlight narratives of the “legal” versus narratives of the “just.” Some interviewees emphasized fairness, as well as or instead of justice. For example, in describing OSL from an outsider’s perspective, Walter, a non-Latino panel attorney stated:

I guess I was uncomfortable – the thing that I didn’t like about it – well, I mean I, I was troubled at first by the notion of a room full of 70 people in chains. [...] And I had mixed feelings about the prosecution of a lot of the people. When I first started doing Streamline, the typical defendant was a beggar – I guess I shouldn’t use that term but – a large percentage of the people were rural, extremely desperate, just the most unfortunate people that you’d ever sort of want to meet. And I always felt bad that they were in that situation. I don’t give a fuck how legalistic your brain works, you’re going to say that stinks. It’s not fair. Which is why the activists come after Streamline so hard. But it has changed since the beginning and now it’s usually people with criminal histories and they’ve improved the legal aspect through the Ninth Circuit rulings, so it got easier over time. (Walter, non-Latino, CJA)<sup>11</sup>

Overall, of the 43 out of 45 interviewees indicating role strain, 27 (63%), including *both* Latino/as and whites, indicated some embrace of an identity standard of formal legality as a strategy of identity management. This facilitated their continued work within Operation Streamline, even when they themselves had some substantive justice concerns. It also allowed these OSL defense attorneys to confirm—at least substantially—their sense of being a good lawyer.<sup>12</sup>

### ***5.3 Heightened Potential for Identity Non-verification for Latino/as Versus Whites***

We found that being a Latino/a, relative to white OSL defense attorney, tended to increase role strain and the potential for identity non-verification. The only two attorneys who showed no role strain were white. Compared to whites, Latino/as were more likely to express concern—and to exhibit greater intensity of concern—about Operation Streamline’s lack of substantive justice. For example, “Latino/as were more likely to say they had insufficient time with clients” (Finch 2015, 130).

Not only did Latino/as spend more time speaking about substantive justice and substantive justice-based attacks by social activists, they also were more likely to

use negative metaphors to describe their role in OSL. For example, one attorney highlighted his work as being a low-level “cog,” a dismissive description used by six of 29 Latino/a interviewees. Oscar emphasized his agreement with activists that OSL lacked substantive justice, while also implicitly suggesting the availability of formal legality to construct and verify his role identity.

But I called them [the activists] back and I told them, you know, I understand what your goal is. And that’s fine, I am not against you on principle. But that’s not – that’s not what we do. We don’t write laws. I would like to write laws, but they won’t let me. You know, so I – I’m a very low level cog in the system, and I may agree with a lot of their ideas, and even, you know, and a lot of times I don’t agree with a lot of their ideas. But even some of my clients would prefer Streamline than the – than the other options that are currently available. (Oscar, Latino, FPD)

#### ***5.4 Managing Role and Social Identity Verification by Race/Ethnicity***

Given that Latino/a defense attorneys in OSL share their racial/ethnic identity with undocumented border crossers, but their work in Operation Streamline typically results in prison terms and later deportation of their clients, exercising their professional role performance constrains the degree to which Latino/a attorneys can express solidarity with undocumented co-ethnics. In addition, as we showed earlier, these attorneys are faced with immigrant rights activists’ attacks and critical media coverage emphasizing the systemic racism involved in subjecting people of color to treatment that may well not have been tolerated had the undocumented border crossers been white (Finch 2015). Precisely because such attacks may encourage Latino/a defense attorneys to think of themselves as part of a Latino/a *group* expected to exhibit solidarity with fellow co-ethnics, it should bring racial/ethnic identity to the fore and make the situation ripe for non-verification of a positive racial/ethnic identity for Latino/a attorneys. Charges of systemic racism cued reflections on substantive justice and the opportunity for non-confirmation of a positive role identity for all attorneys, even though such criticisms had special resonance and intensified role strain for Latino/a attorneys. At the same time, however, white attorneys would not be expected—nor expect themselves—to show special sensitivity to this, nor to identify with defendants based on shared race/ethnicity. Thus, potential social identity non-verification pertaining to race/ethnicity pertained solely to Latino/a attorneys.

Estelle, a Latina lawyer, gives voice to all this in discussing her decision to become an attorney. Because Estelle’s statement came at the very start of the interview, before she was asked about her work with OSL or others’ views of OSL, Estelle’s invocation of the activist perspective on Operation Streamline speaks loudly to the cognitive implications of reflected appraisals.

So I actually already knew about Streamline and had observed it as a law student ‘cause I was really involved with immigration law clubs and you know different things going on so



I went to it before. So I knew about it before even getting my actual certification or my bar card but I didn't, I guess I was a little torn about trying to become a part of it [...] It doesn't really seem right or like real justice, to me, in my opinion. [...] So, yah, sometimes I feel like a traitor and you know it's not how I like to see myself so I struggle with that. (Estelle, Latina, CJA)

Later in her interview, Estelle also noted that her racial/ethnic background creates a different interaction dynamic with clients:

A lot of people that I represent – there's not necessarily the assumption of like "You're a part of my people" per se but, um, I think it helps because I am brown and then they do think that I know more about their situation perhaps because they know I come from a Latino/a heritage, whatever they have in mind. You know maybe they're like "Okay well, I can understand and hear her a little bit better." I hope they feel a little bit more comfortable speaking to me knowing that there's perhaps a similar background and cultural connection.

It's still a little bit different [be]cause they don't really believe I'm one of them—I'm still "the other" but not like, you know the white guy kind of "let me sell you a car" type of attorney. I hope that they feel a little bit more comfortable or that I'm more approachable because I'm not completely different and it's not like I have no connection, even though I am helping them through this terrible system that I sort of represent. I try to let them know I'm there for them, not the system. (Estelle, Latina, CJA)

As shown above, both Latino/a and white OSL defense lawyers deflected their professional identity standard from substantive justice to formal legality. For Latino/as, however, this strategy did not just convert potential role identity non-verification to verification. By resisting concerns with substantive justice, it also decreased the situational relevance of race/ethnicity because formal legality emphasizes the importance of ignoring all social class and status distinctions, including those based on race/ethnicity. At the same time, Estelle's perception that her clients' comfort level might be greater because she was brown rather than white reduced the extent of non-verification of racial/ethnic identity by signaling her perception that clients would infer empathy based on shared skin color.

Latino/a attorneys relative to whites disproportionately took yet other steps to help verify a positive racial/ethnic identity and—within constraints of their professional role—show that they empathized with their clients' situation. They disproportionately recounted to us and were observed enacting courtroom and client-oriented behaviors that non-Latino/as tended not to enact. Working to express solidarity with defendants allowed Latino/a OSL attorneys to confirm a positive racial/ethnic identity, while also allowing them to extend their professional role as lawyers beyond its formal job requirements, even though they were constrained from providing what they perceived as full substantive justice.

For example, Latino/a attorneys enacted shared social identity with their clients by routinely engaging in and welcoming diverse types of human contact. Relative to whites, they disproportionately took the time to see if their clients were as comfortable as possible given the situation (such as offering water, adjusting client's chains, or assisting with translation headphones). Latino/a attorneys also showed more empathy and understanding for their clients' "border crossing while undocumented" behavior (highlighting that they would likely behave in the same way were they in their

position), and disproportionately *refrained* from using the hand sanitizers placed in the courtroom when shaking hands with their clients. As well, 14 of 29 (48%) of Latino/a attorneys made it a point to call and inform defendants' family members of what was happening, whereas only 2 of 16 (12.5%) of non-Latino attorneys did so.

In short, enacting solidarity through physical contact and professional role extension to incorporate empathetic human touches beyond the routine, were identity management strategies disproportionately expressed and exhibited by Latino/as. All of these strategies likewise implicitly signaled that, for these attorneys, race/ethnicity served not only to mark membership in a social category, but also to designate them as group members with a race/ethnic group-based identity. As well, and consistent with identity theorists' assumption that non-verification may lead self to behavioral push back against non-verifying reflected appraisals, the professional role extension exhibited here might also be interpreted as a strategy short of role exit to demonstrate commitment both to racial/ethnic solidarity and to substantive justice.

### 5.5 *Citizenship Over Race/Ethnicity*

Finally, we found that some Latino/a legal professionals participating in Operation Streamline also deflected potential non-verification of social identity by diminishing the prominence and salience of their racial/ethnic identity, shared with defendants, and elevating the prominence and salience of their American citizenship, not shared with Operation Streamline defendants. One Latino/a attorney, reversing common discourse, called himself "American-Mexican," in reference to living on land annexed during the Treaty of Guadalupe-Hidalgo in 1848 or bought during the Gadsden Purchase in 1853. He thus considered himself as among "the first Americans."

When explaining how he deflects the critiques he receives about Operation Streamline from pro-immigrant activists, a Latino judge we interviewed highlighted his American citizenship even more dramatically.

People say, "Well how can you do that?" Like to me, as a judge, sentence these people to time. I look at them and I say, "I'm an American. The problem is this: you think I'm Mexican." There are people who look at you and say, "Wait a minute, you should care about Mexicans" and it's like "Wait a minute, No." This is not class, this is not ethnic, it doesn't matter.

This judge reacted to the social boundary construction of OSL critics attributing to him a shared social identity with undocumented border crossers in his courtroom based on race/ethnicity, by elevating the prominence and salience of his American citizenship. At the same time, he reconstructed social boundaries so he is one with fellow American citizens who are rendered socially distinct from OSL defendants.

Meanwhile, in managing criticism from OSL *supporters*, Emiliano, a Latino CJA attorney, also resisted attributions from others that highlighted his racial/ethnic sameness with undocumented border crossers. He articulated instead his pride at being an OSL defense lawyer, emphasizing that the US constitution—a powerful symbol

of US collective identity—makes it profoundly American to provide legal counsel to those charged with crimes.

I always got it from the conservative groups, “Why do you represent these criminals, these illegals? Why do you help these people out – just because you’re all Mexicans?” And I tell them “I believe in the constitution of the United States.” The thing that makes our country so much better than all the other countries in the world is the fact that we provide defense attorneys here, with CJA and the Sixth Amendment. You look at all these other countries and the legal systems are almost identical. Even look in Mexico, our legal system is almost identical to Mexico, except for two things, one thing is a legal thing that you wouldn’t care about, but the second thing is you don’t have the right to a lawyer. So you don’t have the right to a lawyer if you go to all these other countries and lawyers are there to protect people’s rights in America. And it doesn’t matter if you’re not an American or if you’re Mexican, or if I’m Mexican, you still get these rights. So to me, that’s the most important part of what I do. Usually my biggest defense all the time against very conservative people who really don’t understand the way this country works is that this is probably the most American thing you can do as a job and I’m very proud of it and I’ve always been very proud of being a CJA Panel attorney. (Emiliano, Latino, CJA attorney)

Overall, fifty-five percent of Latino/a attorneys invoked American citizenship as a culturally available identity (16 out of 29 respondents). While four different white attorneys mentioned their own citizenship, none of them used their citizenship to defend their participation in Operation Streamline. That no white OSL attorneys felt the need to highlight their American citizenship suggests that they took their “American-ness” for granted, and did not need to redraw social boundaries to diminish the salience of their racial/ethnic identity. Only Latino defense attorneys participating in OSL had such a need and they invoked their American citizenship to verify social identity.

In the prior subsection we saw that when Latino/a attorneys practiced professional role extension to reassert a positive identity based on race/ethnicity, implicitly they also converted their social category membership to a group-based identity. Latino/a attorneys elevating the prominence and salience of their American citizenship are engaging in a different identity management strategy in the face of a different kind of threat of identity non-verification. However, they too are implicitly converting membership in a social category to a social group-based positive identity.

In sum, elevating the prominence and salience of citizenship identity while lessening the prominence and salience of racial/ethnic identity allowed some Latino/a legal professionals in Operation Streamline to differentiate and distance themselves from undocumented border crossers. It also facilitated verification of a more central and salient social identity. Because we collected data only on legal professionals involved in Operation Streamline, we could not compare their identity management strategies with those of Latino/a lawyers who might have taken these professional positions but chose not to do so. We suspect that Latino/a attorneys who took jobs working within Operation Streamline were more likely than those who did not do so to have citizenship identities that *already* were more prominent and salient than was their racial/ethnic identity. Over time, participation in Operation Streamline probably further elevated American citizenship over race/ethnicity in the prominence and

salience hierarchies of these attorneys, again making it easier for them to achieve social identity verification.

## 6 Discussion and Conclusion

In this chapter, we used in-depth interview data, supplemented by data from courtroom observations and some media accounts, to investigate identity management strategies employed by legal professionals who faced challenges to verification of prominent role and social identities made relevant by their participation in Operation Streamline. We found that 95.5% of the OSL defense attorneys we interviewed experienced role strain, defined as felt problems or difficulties in meeting obligations of their professional roles. For most such attorneys, being torn between values of formal legality and substantive justice was a key source of role strain. However, these attorneys also perceived the two values to offer available and positive but competing role identity standards to draw from as resources to deflect potential non-verification of their professional role identities. Sixty three percent of OSL defense attorneys who experienced role strain, including both Latino/as and whites, mobilized an identity management strategy that substantially embraced an identity standard based on commitment to formal legality.

Latino/a defense lawyers faced intensified professional role strain and also conflict between a role identity standard of formal legality and their racial/ethnic identity. Latino/as thus had increased potential for identity non-verification. Latino/a OSL attorneys relative to white OSL attorneys expressed greater concerns about substantive justice. At the same time, when Latino/as deflected these concerns by adopting a role identity standard based on commitment to formal legality, this strategy also diminished the extent to which their racial/ethnic social identity was situationally relevant because formal legality emphasizes the importance of ignoring all social class and status distinctions, including those based on race/ethnicity. Latino/as relative to whites disproportionately took various steps to confirm a positive racial/ethnic identity. These included welcoming physical contact with clients in the courtroom and calling clients' family members to inform them about what was happening, both behavioral strategies seeking to confirm a positive Latino/a racial/ethnic identity.

Many Latino/a attorneys and judges participating in Operation Streamline also deflected threats to non-verification of their social identity by elevating the prominence and salience of their citizenship-based identity while lessening the prominence and salience of their racial/ethnic identity. White attorneys appeared to take their American citizenship for granted, and in any case participating in OSL did not present challenges to maintaining a positive sense of white racial identity. Meanwhile, fifty-five percent of Latino/a attorneys invoked their American citizenship as a culturally available and positive social identity standard and they did so in a way that suggested that the social category of citizenship for them had become the basis for a very meaningful group-based identity.

In sum, faced with challenges to confirming a positive identity, legal professionals pushed back against role and social identity standards whose adoption would lead to non-verification. They often rejected role identity standards that would lead to non-verification and instead adopted culturally available competing role identity standards that facilitated identity verification. Within the constraints of remaining in their jobs, Latino/a attorneys also engaged in behavioral strategies to promote positive racial/ethnic identity verification, while also nodding in the direction of performing more substantive justice. With specific respect to choosing a social identity standard implicating race/ethnicity versus one implicating American citizenship, push back by many Latino/a attorneys' also entailed a process of *reconstructing* social boundaries invoked by others in social interaction to protect a positive sense of self and identity. This highlights the utility of forging explicit conceptual links between identity theory in social psychology and the study of social boundary construction in cultural sociology (Finch 2015; Stryker and Stryker 2016). Our research also bridges to research in the sociology of law, sociology of the professions and organizational sociology while building on and extending knowledge about how lawyers build a sense of positive professional identity and work actively to maintain it in the face of challenges.

The most important contribution of our research, however, is that it allows us to ground empirically a set of new general hypotheses that link the internal, perceptual control, and external, structural strands of identity theory and also further specify the interplay between role and social identities. We conclude by suggesting the following hypotheses for future empirical testing.

H1: In situations of competing identity standards, self may manage stress occasioned by occupying structural positions conducive to role strain and role conflict by drawing from among culturally available positive and competing role identity standards those standards that are more, rather than less, likely to enable identity confirmation (in this case commitment to formal justice in place of commitment to substantive justice).

H2: Professional actors who cannot or do not wish to exit their work role, and who are confronted by others' strong negative feedback suggesting they are violating a culturally-accepted positive role identity standard (in this case commitment to substantive justice), and who have accessible to them a competing but also culturally accepted positive role identity standard (in this case commitment to formal justice), will seek to verify their role identities by deflecting the first standard and adopting the second.

H3: Those professionals who cannot verify conflicting relevant role and social identity standards simultaneously (as was the case for OSL defense attorneys who are Latino/a), and who are able to draw on other social identities that they *can* verify (in this case being a U.S. citizen), will deflect potential social identity non-verification by increasing the prominence and salience of *another* social identity, specifically one for which the social identity can be verified consistent with also verifying the role identity.

H1 specifies one way in which internal and external identity processes may interrelate under conditions of competing role identity standards. H2 specifies the combination of internal and external identity-related conditions that predict deflection of a culturally available role identity standard that makes it harder to achieve identity verification in favor of a competing culturally available role identity standard that

makes it easier to achieve identity verification. The result of this identity management strategy is the increased likelihood of achieving identity verification. Finally, for those with conflicting role and social identities, H3 specifies conditions likely to promote devaluation of the prominence and salience of one available social identity and a corresponding elevation of another available social identity. This permits simultaneous verification of the role identity and the more salient and prominent social identity.

Our methodology precludes stating with certainty that strategies of deflection and strategies of devaluing or elevating the prominence and salience of one identity relative to another represent *identity change* in the face of potential identity non-confirmation, because we cannot know with any certainty what identity standards and salience/prominence hierarchies our interviewees embraced prior to the identity challenges they experienced. However, even if those who made use of these management strategies tended to have pre-challenge identity standards emphasizing formal legality rather than substantive justice or citizenship over race/ethnicity, we suspect that the identity challenges they experienced promoted identity change in the following sense. That is, at the very least, these challenges probably solidified formal legality as the basis for maintaining a positive sense of professional self, and further elevated citizenship-based identity relative to race/ethnic-based identity in the hierarchy of social identity prominence and salience.

Substantial research within the identity theory tradition explores responses to identity non-verification including initial behavioral push back and over time adaptation of one's identity standard to conform more closely to reflected appraisals (Stets 2018; Stets et al. 2020). However, to our knowledge we are first to explore identity management and identity change under conditions of *competing, culturally available* role identity standards for maintaining a positive sense of professional self. Our exploration has identified a specific form of identity change that is possible under these conditions, and the further conditions of identity challenge under which such a strategy is likely to be employed. Whether professions beyond law also are subject to such strongly institutionalized-yet-competing values as formal legality and substantive justice that function as the basis for competing role identity standards, we leave to those who study other professions and professionals. However, to the extent this is so, our study has correspondingly broader implications.

## Endnotes

1. Within identity theory, identities typically are presumed to have multiple dimensions, with each dimension subject to an identity standard. For example, the student role involves identity standards pertaining to such dimensions as academic responsibility and intellectual curiosity. An individual student's identity standard for each dimension can be represented by a point signaling the degree to which he/she/they view the self as incorporating the characteristic represented by the dimension (Cantwell 2011). Individuals also have been observed to have variable dispersion of meanings around the center point representing their identity standard for a given dimension of a given identity (Cantwell 2016; Stets

- 2018; Burke 2020). We considered defining a single “commitment to justice” identity standard for the lawyer role, with very strong commitment to formal legality and very strong commitment to substantive justice occupying two poles along a continuum of dispersion in meanings. However, such a definition unreasonably distorts accumulated conceptual and empirical knowledge within the sociology of law, in which substantive justice and formal legality are understood as qualitatively distinct concepts that compete or conflict, and between which individual lawyers may be torn. We therefore prefer to define each as a separate dimension and the basis for separate and competing role identity standards.
- OSL was designed to process 100 defendants a day, with hopes of expanding still further. But because of limited capacity, numbers remained capped at 70 per day. What was intended to operate as a zero-tolerance policy can process only about 10–40% of immigration offenders (Finch 2015).
  - See *U.S. v Escamilla-Rojas*, 640 F. 3d 1055 (9th Cir. 2011); *U.S. v Diaz-Ramirez*, 646 U.F 3d 653 (9th Cir. 2011), *cert. denied* Diaz-Ramirez v. U.S., 531 U.S. 1041 (2012). For example, in the latter case, in which the Supreme Court denied plaintiffs’ petition for certiorari to overturn the Ninth Circuit ruling, the judge introduced himself to the entire group of defendants collectively, instructing them to stand and get his attention if they were having problems with their headphones or wanted to consult their attorneys. After informing defendants collectively of their rights, the charges against them, and the consequences of pleading guilty, the judge asked defendants collectively if they had understood, eliciting a general yes answer from all. Before taking pleas, the judge asked all who wanted a trial to stand and no one stood. He asked each defendant individually how he wished to plead and whether the alleged facts of the charge against him were true. After the pleas, the judge asked that all who believed they had a legal right to remain in the United States stand. No one stood.
  - See *U.S. v Roblero-Solia*, 588 F 3d 692 (9th Cir. 2009); *U.S. v Escamilla-Rojas*, 640 F 3d 1055 (9th Cir. 2011); *U.S. v Aguilar-Vera*, 698 F. 3d 1196 (9th Cir. 2012); *U.S. v Arqueta-Ramos*, 730 F. 3d 1133 (9th Cir. 2013).
  - Standardization has increased over time. When OSL first began in 2008, attorneys and judges had more autonomy. Defense attorneys could argue for variation in sentencing based on mitigating circumstances, and judges often gave time served to first time offenders. However, these unscripted portions disappeared over time. By 2013–14, government prosecutors made standardized use of change of plea procedures using specific “equations” to stipulate sentences. Judges no longer make sentencing decisions, but instead serve merely to assure that defendants have understood their rights. Generally, prosecutors use the lower bound sentence—30 days—when a defendant has only one prior deportation and no criminal history. The sentence typically is doubled if the defendant already has been through a Remote Repatriation Program. Additional time is added for additional misdemeanors. Yet more time is added for prior felonies, until the defendant has maxed out at 180 days of incarceration (Finch 2015).
  - Most OSL defendants are native Spanish speakers and many do not speak English. We conducted our interviews of OSL lawyers primarily in English,

though Finch is fluent in Spanish and this facilitated communication about some issues, especially the role of language. We asked questions pertaining to learning and using Spanish-language skills, to help shed light on how language influences social identity and the management of competing identities.

7. Although we also examined whether and how challenges and strategies varied by gender, the gender results are presented in another paper. Likewise, results pertaining to patterns of variation by generational status within the set of Latino/a attorneys are presented elsewhere.
8. We have changed interviewee names to protect confidentiality.
9. As noted above, we suspect that lawyers anticipating very high levels of role strain were disproportionately likely to avoid working in Operation Streamline.
10. Here we use the term deflection not in the technical sense in which it is used in engineering or in affect control theory in social psychology, but rather in the ordinary sense of deflect as moving away from. When self deflects criticism, self prevents that criticism from landing on or affecting self.
11. Walter's reference to activists was unprompted, since at this point in the interview he had been asked only the general question about his likes and dislikes.
12. The perceptual control strand of identity theory posits that non-verification of self's identity standard leads self to change behavior to conform more to their own identity standard, or to identity change, or perhaps to a time sequenced combination of both (Stets and Serpe 2013; Stets et al. 2020). As we indicated earlier, we suspect that those attorneys who might have experienced the most intense role strain and greatest discrepancy between their own substantive justice-based identity standard and activists' substantive justice based critiques selected out of participation in OSL. While none of our interviewees had opted out of OSL despite repeated urgings of activists that they do so, we come back to the issue of behavioral "push back" to reflected appraisals in discussing the influence of race/ethnicity in shaping identity processes of OSL defense lawyers. The identity management strategy of deflection voiced in the interviews may or may not also represent identity change from an identity standard held earlier in time. We cannot know, because we have no data on what any given respondent's role identity standard was prior to experiencing activists' criticisms. Nor do we have any independent assessment of what interviewees' role identity standards were at the beginning of their participation in OSL. The most we have are the recollections of some respondents that, prior to becoming part of OSL, they were concerned about a lack of substantive justice.



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# Racial Identity Among White Americans: Structure, Antecedents, and Consequences



Matthew O. Hunt

**Abstract** In this chapter, I examine the structure, determinants, and selected attitudinal consequences of racial identity among white Americans. In 2014, the General Social Survey included five items tapping five aspects or dimensions of racial identity: prominence, salience, private self-regard, public self-regard, and verification. These items reflect our understanding of identity as a multidimensional phenomenon and are useful to a research agenda casting racial identity in such terms. However, given the inherent limitations of single-item indicators of various aspects of identity, and in light of the underdevelopment of research on white racial identity, exploration of multi-item measurement strategies for racial identity is also warranted. I use factor and reliability analyses to examine the structure of white racial identity, finding sufficient inter-item consistency to support creation of a five-item “identity intensity” index ( $\alpha = 0.84$ ). I then use regression analysis to expand our understanding of white racial identity as both “social product and social force” (Rosenberg 1981), by modeling how it is shaped by sociodemographic factors, while also carrying implications for whites’ racial policy attitudes.

**Keywords** Racial Identity · Racial Attitudes · White Americans · Identity Theory

## 1 Introduction

Sociologists have long been interested in the relationship between objective and subjective status (Jackman and Jackman 1973; Stryker 1980; Rosenberg 1981). Interest in mapping connections between aspects of society (e.g., social structure) and persons (e.g., beliefs, motivations) was central to the work of the classical social theorists (House 1981). Examples include Marx’s writings on alienation and class consciousness under capitalism (Marx 1972a, b), Weber’s research showing links between persons’ social locations and their motives, beliefs, and values (e.g., the Protestant ethic) (1958), and Durkheim’s insights into how institutions shape individual subjectivities in ways that preserve the social order (1915, 1933).

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Identity Theory and its parent structural symbolic interactionism (Stryker 1980; Stryker and Burke 2000) share this classical concern, cast in Median terms as “society shapes self shapes social behavior.” That is, Identity Theorists are interested in how our positions in larger/external social structures constrain and facilitate more proximal social involvements which, in turn, shape our self-concepts (including our identities). Our self-conceptions/identities correspondingly shape our thinking and action. Rosenberg (1981) captured this duality in conceiving of the self as both “social product and social force.”

Despite much research supporting the notion that society shapes self shapes social behavior, we know relatively little about how racial identities (particularly among whites) (1) are shaped by external social structure and (2) influence other subjectivities such as racial attitudes. As McDermott and Samson (2005) note, “Theoretical reflections on whiteness have far outpaced empirical investigations of the construction, experiences, and meanings of white racial identity in the United States today” (p. 256). In addition, we know relatively little about how racial and other social identities may work in tandem to shape inequality-related outcomes such as racial attitudes and stratification beliefs (Hunt 2003). I draw on data from the 2014 General Social Survey (GSS) to advance our understanding of these issues.<sup>1</sup> I focus here on white Americans given their relative neglect in the literature on racial identity. I ask three research questions:

1. *What is the structure of white racial identity?* The 2014 GSS offers measures of five aspects or dimensions of racial identity: prominence, salience, private self-regard, public self-regard, and verification. Identity *prominence* refers to the importance persons attribute to an identity (McCall and Simmons 1978; Rosenberg 1979). Identity *salience* concerns the likelihood of an identity being invoked cross-situationally (Stryker 1980; Burke and Stets 2009). *Private self-regard* (Oney et al. 2011) concerns the degree to which persons feel good/bad about their group, including the extent to which they feel pride as group members (Luhtanen and Crocker 1991). *Public self-regard* refers to the perception of how others see a person’s group—i.e., the degree to which persons believe that others value or esteem the group to which the person claims membership. And, *verification* concerns the extent to which an identity claim is confirmed by others—i.e., the degree of congruence between self-views and others’ view with respect to an identity (Burke and Stets 2009). We know from past work that these items are positively correlated with one another (Hunt and Reichelmann 2019). What is less clear is whether they may be usefully combined in a measurement strategy tapping a shared, underlying dimension of racial identity intensity or strength.
2. *How is white racial identity distributed in the social structure?* This question concerns white racial identity as a “social product” (Rosenberg 1981). Scholars have recently lamented the paucity of work on the situated nature of white racial identity, noting that “attempts at specifying concrete ways in which the process of white racial identity formation varies or experiences of whiteness differ have been considerably lacking” (McDermott and Samson 2005, 956). To advance

our knowledge on this front, I analyze white racial identity in relation to an array of sociodemographic and value-orientation factors to assess whether and how whites' racial self-understandings vary by social and cultural location.

3. *Does white racial identity impact racial policy attitudes?* This question concerns white racial identity as a "social force" (Rosenberg 1981). Hunt and Reichelmann (2019) demonstrate the relevance of particular racial identity elements (e.g., prominence, private self-regard) for whites' racial attitudes. My focus here is whether any such associations manifest when employing a multi-item measure of white racial identity intensity. Further, do racial and social class identities compete or intersect in shaping such policy support?

## 2 Background

### 2.1 Identity Theory

For social psychologists, the self-concept refers to the set of views persons hold regarding who and what they are (Rosenberg 1979, 1981). Rosenberg captured the essence of the sociological perspective on the self in conceiving of it as both "social product and social force." The former refers to its production in society and social interaction. The latter refers to its influence on persons' thoughts, feelings, and behavior (Owens 2003). Identity theory, as formulated by Stryker and colleagues, frames identities as internalized self-designations traceable to our role and social group involvements (Stryker and Burke 2000). From this perspective, the self is multifaceted and comprises as many identities as positions (roles) we occupy and social groups we belong to. Such ideas are traceable to Mead's (1934) and James' (1890) views that self-structure reflects social structure. In highly differentiated societies, self-structures tend to be more highly differentiated; in less complex societies, selves are correspondingly less complex.

One of Stryker's lasting legacies is the call to take "larger social structures" (or "external social structure") seriously in social psychological research. Stryker steadfastly maintained that this was sociologists' primary responsibility, and most important potential contribution to, the interdisciplinary field of social psychology. I recall regular and repeated overtures by Stryker in seminars on this topic: "If we don't do it, who will?" and "If we don't, we have damn little to offer social psychology." At the same time, Stryker and colleagues were also focused on demonstrating how self and identity are relevant (i.e., not epiphenomenal) to social behavior and other outcomes. That is, a core tenet of self-concept theory and research is that the self *matters*.

A key insight for Stryker was that the multiple identities that comprise the self are organized into a "salience hierarchy" (Stryker and Burke 2000). Identities corresponding to role and social involvements that we are most strongly committed to reside at the top of the hierarchy, and are more likely to be invoked cross-situationally. Empirical research supports these contentions (Stryker and Serpe 1982), though a

consistent criticism of such interactionist approaches to the self is their insufficient attention to issues of power and inequality (Howard 2000; Callero 2003). Hunt (2003) argues that our knowledge of the inequality-identity nexus could be augmented with more studies of (1) how external social structure shapes identity processes, and (2) how identity is relevant for stratification processes, including perceptions of inequality and related subjectivities. Further, such research should move beyond rudimentary conceptualizations of the self that examine only single aspects of self-feeling (e.g., self-esteem) or single identities in isolation from others (Hunt 2003). The 2014 GSS offers data to accomplish such aims, including a multidimensional approach to racial identity alongside measures of external social structure, other social identities, and a host of relevant outcomes allowing for robust examination of racial identity as both “social product and social force.”

## 2.2 *White Racial Identity*

Race is fundamental to the history and contemporary organization of American society. Understanding how people think about themselves in racial terms is important for social science; we can construct better explanations of how and why race matters if we understand the antecedents and consequences of racial self-understandings. Despite this promise, the incorporation of race into social psychological theory and research remains underdeveloped (Hunt et al. 2000, 2013). Research on racial and ethnic identity represents an exception to this broader neglect, though research has been uneven in its incorporation of different ethno-racial groups; most research on racial identity has focused on minority populations (especially blacks—e.g., see Rowley et al. 1998; Sellers et al. 1998) in part owing to the ways “whiteness” has been cast as a monolithic or even “invisible” category in prior research (McDermott and Samson 2005).

Despite the comparative neglect of white racial identity, there has been an upsurge of interest in this topic following decades of work on white *ethnic* identity (Thomas and Znaniecki 1927; Whyte 1943; Gans 1962). McDermott and Samson (2005) attribute this over-time shift to the declining relevance of ethnicity in white Americans’ lives. By the late 20th century, scholarly opinion pointed to the “the minimal impact of European ancestral origins on the daily life of most Americans” and to the conclusion that “the assimilation of European immigrants into American society was found to be all but complete” (Alba 1990; Waters 1990). A second factor underlying growing interest in white racial identity is demographic changes in the United States (e.g., growing Hispanic and Asian populations), resulting in greater ethno-racial diversity and projections of whites’ shrinking share of the U.S. population (McDermott and Samson 2005). Such shifts undermine and challenge the historical “invisibility” of whites (accompanying their social and numerical dominance) leading to possible shifts in whites’ racial self-awareness (or lack thereof) (Hartmann et al. 2009).

Despite the uptick in attention to whiteness (Hyde 1995; Hartigan 1999; Frankenberg 1993; Lewis 2004), scholars still lament the lack of systematic, empirically-based work on the antecedents and consequences of white racial identity.<sup>2</sup> McDermott and Samson (2005) note, for example, that “we have no standard way of classifying how whiteness, or any other dominant group identity, is experienced. There is agreement that white racial identity is not the same for all groups at all times, but just how this identity differs remains unclear” (p. 256). Hartmann et al. (2009) take steps to remedy this, showing that white racial identity is more salient than prior scholarship (much of it in the humanities) had generally assumed. These authors found, for instance, that nearly two-fifths of white respondents in a nationally representative survey considered their racial identity “very important.”

Croll (2007) takes research a step further demonstrating that white racial identity *prominence* (importance) is influenced by sociodemographic factors (e.g., education, region) and is associated with a range of sociopolitical attitudes. Regarding the latter, Croll (2007) observes both “progressive” and “defensive” manifestations of strong white racial identities. The former includes heightened support for structuralist beliefs about inequalities (e.g., blaming black disadvantage on poor schooling and social connections), believed to flow from some whites’ awareness of the historical and contemporary inequalities that undergird their privilege. Defensive manifestations of white racial identity include heightened support for conservative ideologies stressing blacks’ supposed personal or cultural shortcomings (e.g., family upbringing) as responsible for their disadvantage.

Hunt and Reichelmann (2019) build on Croll’s work by examining racial identity prominence alongside the four other aspects of white racial identity offered by the 2014 GSS, in relation to a range of racial attitude outcomes (social distance preference, racial stereotypes, and racial policy attitudes). We find evidence for defensive manifestations of white racial identity in the roles of (1) racial identity *prominence* shaping whites’ reports of, and preferences for, social distance from blacks, and (2) *private self-regard* (pride) in shaping whites’ opposition to affirmative action and government aid to blacks. In addition, we observed some limited evidence for a progressive manifestation of whiteness in the form of higher white racial identity *verification* increasing support for government aid to blacks (but not affirmative action). A key question for the current study is whether the five aspects of racial identity included in the 2014 GSS interrelate, and whether they demonstrate sufficient inter-item consistency to form a multi-item measure of overall identity intensity. This is an important consideration given the reluctance of some social scientists and psychologists to rely on single-item indicators, since individual items may not as effectively capture a construct of interest.

### **3 Research Questions and Aims**

#### ***3.1 What Is the Structure of Racial Identity?***

As noted, Hunt and Reichelmann (2019) observed that the five racial identity elements offered by the 2014 GSS are positively correlated. They also demonstrate the utility of the individual items given their differential predictive power in predicting different types of racial attitude outcomes. However, the question remains: do factor and reliability analysis support the construction of a five-item index to gauge overall racial identity strength or intensity? And, does such an index have utility above and beyond the story the individual items can tell? The answer to both questions is yes (as demonstrated below), and I argue that both multi-item and single-item approaches to modeling racial identity should be utilized at this stage of knowledge-development.

#### ***3.2 How Is White Racial Identity Distributed in the Social Structure?***

A central goal of Identity Theory is understanding how identity processes are shaped by proximate and larger social structures. I examine white racial identity in relation to a set of socio-demographic (and value-orientation) factors, several of which have been associated with white racial identity prominence in past work (Croll 2007). Specifically, I examine education, income, gender, region, age, urbanicity, religious fundamentalism, and political ideology (liberalism/conservatism). Croll (2007) found that white racial identity prominence was maximized among white Americans with lower levels of education and residents of the U.S. South. Gender, age, income, and political party affiliation did not register significant associations with white racial identity prominence in Croll's study. I add urbanicity, religious fundamentalism, and political ideology (in place of party identification) to Croll's set of predictors given the utility of these variables in past racial attitudes research. This approach allows us to (1) determine whether the GSS produces similar patterns for prominence seen in past work, and (2) expand our knowledge of the social bases of white racial identity beyond the prominence indicator.

#### ***3.3 Does White Racial Identity Shape Racial Policy Attitudes?***

A central goal of Identity Theory, and self-concept research more generally, is demonstrating that self and identity “matter”—i.e., are not epiphenomena—in social life.



This final research question takes up the call of prior work to examine more systematically the implications of identities for inequality-related processes (Hunt 2003). White racial identity is a prime candidate for such work, given past findings that white Americans are particularly likely to adopt color-blind and individualistic accounts of racial inequality (Hartmann et al. 2009) known to underlie opposition to race-targeted public policies (Bobo et al. 2012). A key question for the current research is: does white racial *identity* help us further unpack variation in whites' racial policy attitudes? Hunt and Reichelmann (2019) demonstrate that private self-regard, and to a lesser extent, verification, shape whites' racial policy views. What role, if any, does white racial identity intensity play?

I also explore the implications of racial identity alongside those of social class identification (Jackman and Jackman 1983; Hunt and Ray 2012). Any main effects of these social identities, after controlling for sociodemographic differences, are important in and of themselves in demonstrating that identities matter in social life. Analyzing their effects simultaneously also helps us move beyond work that analyzes the consequences of such identities in isolation from one another (Hunt 2003). Specifically, the GSS allows for examination of (1) whether these identities matter differently across different versions or conceptions of race-targeted policy, and (2) whether they interact in shaping such outcomes—that is, does racial identity matter differently depending on how persons identify in social class terms? And, do any such dynamics vary across racial policy outcome framings?

## 4 Data and Methods

### 4.1 Sample

I use data from an Identity Module fielded as part of the 2014 GSS. Conducted by the National Opinion Research Center (NORC), the GSS is designed to yield a representative sample of English-speaking adults, 18 years and older, living in non-institutionalized settings within the United States. I limit analyses to Non-Hispanic whites given my interest in examining the antecedents and consequences of white racial identity in the United States. Non-Hispanic whites are respondents who identified as “white” on the GSS race measure, and who said they were not Hispanic on the GSS Hispanic ethnicity measure. I use the “WTCOMBNR” weighting variable following NORC’s recommendations for use of files combining cross-sectional and panel cases.<sup>3</sup>

## 4.2 *White Racial Identity*

I examine five aspects of racial identity: prominence, salience, private self-regard, public self-regard, and verification. *Prominence* (or centrality or importance) is measured with the question: “How much is being white an important part of how you see yourself?” *Salience* is measured with the question: “In general, how much do you find that being white influences or guides how you behave?” *Private self-regard* is measured with the question: “How proud are you to be white?” *Public self-regard* is gauged with the question: “How much do you think people in the U.S. respect whites?” And, *verification* is measured with the question: “How much do you think your friends see you as white?” Response options for each of the five questions ranged from 0 (“not at all”) to 10 (“completely”).

## 4.3 *Sociodemographic Variables*

The regression models used to answer the second and third research questions contain a standard battery of sociodemographic and value-orientation measures used in the racial attitudes literature (Bobo et al. 2012). Family income contains twelve categories ranging from “under \$1000” to “\$150,000 or over.” Education and age are measured in years. Gender is categorized as female (coded 1) or male (coded 0). Conservative is a seven-point scale ranging from extremely liberal (coded 1) to extremely conservative (coded 7). Religious fundamentalism was captured with an item classifying denominations into liberal, moderate, and fundamentalist subgroups (see Smith 1986) which I recoded as fundamentalist = 1, and liberal and moderate = 0. South is coded 1 if the respondent resides in the South Atlantic, East South Central, or West South Central categories, and 0 otherwise. Urban is coded as 1 if the respondent lives in a city whose population is >50,000, and 0 otherwise. I introduce Social Class Identification in the final analyses predicting racial policy support; this variable asks respondents whether they identify as Lower Class, Working Class, Middle Class, or Upper Class. Given the small numbers of respondents identifying as lower or upper class, I dichotomize this measure assigning codes of Middle/Upper = 1, Working/Lower = 0.

## 4.4 *Racial Policy Attitudes*

The outcomes examined for the final research question involve support for policies designed to ameliorate racial inequality. I chose indicators that vary in their framing. The first emphasizes a “zero-sum” framing of racial policy and has respondents estimate the likelihood of actual harm to whites, asking: “What do you think the chances are these days that a white person won’t get a job or promotion while an

equally or less qualified black person gets one instead?” Response options were: not very likely (1), somewhat likely (2), and very likely (3). This coding reflects my reversal of the original coding scheme for consistency with other outcomes wherein higher values represent the more conservative response.

The second outcome gauges respondents’ stated opposition to (or support for) affirmative action in the form of hiring preferences for blacks, asking: “Some people say that because of past discrimination, blacks should be given preference in hiring and promotion. Others say that such preference in hiring and promotion of blacks is wrong because it discriminates against whites. What about your opinion—are you for or against preferential hiring and promotion of blacks?” Responses range from “strongly support” (1) to “strongly oppose” (4), thus higher values indicate greater opposition to affirmative action.

The third question gauges opposition to governmental assistance aimed at raising blacks’ living standards via the question: “Some people think that Blacks have been discriminated against for so long that the government has a special obligation to help improve their living standards. Others believe that the government should not be giving special treatment to Blacks. Where would you place yourself on this scale, or haven’t you made up your mind on this?” Responses on the five-point scale range from “government should help blacks” (coded 1), to “agree with both” (coded 3), to “no special treatment” (coded 5). As with the two prior outcomes, higher values indicate greater opposition to policies intended to ameliorate racial inequality.

## 5 Findings

### 5.1 What Is the Structure of Racial Identity?

To answer my first research question, I conducted a principal components analysis of the five GSS racial identity items. This analysis revealed a single factor (eigenvalue = 3.05) explaining 60.99% of the variance. Factor loadings are shown in Table 1.<sup>4</sup> Separate reliability analysis of the five items produced a Cronbach’s alpha score of

**Table 1** Principal components loadings for identity elements (Non-Hispanic Whites, 2014 GSS, N = 794)

GSS item	Component 1
Prominence	0.855
Saliency	0.836
Private self-regard	0.796
Public self-regard	0.588
Verification	0.801
Eigenvalue	3.05
Explained variance (%)	60.99
Cronbach’s alpha	0.84

0.83, indicating strong internal consistency amongst the items. I created an additive index by summing scores for the five items, and dividing the product by 5 to return the measure to the metric of the original items (0–10). I interpret the resulting index as a measure of overall white racial identity intensity or strength. Higher scores indicate greater identity intensity since people who score higher view their identity with more importance, say it guides their behavior more strongly, feel greater pride in their identity, feel others view it with greater esteem, and report that others verify this identity at higher rates.

Before turning to answers to the other two research questions, I briefly present descriptive statistics for all study variables (in Table 2). As Hunt and Reichelmann (2019) have noted, scores on prominence (5.31) and salience (5.11) are just above the mid-point of 5 on the offered scale, while scores on the other three elements are somewhat higher: private self-regard = 6.34, public self-regard = 6.41, and verification = 6.36. The Intensity index mean is 5.91. Respondents average just above 51 years of age, are just over half female, one quarter reside in urban areas, one fifth are religious fundamentalists, and just over a third reside in the U.S. South. Family income averages in the \$40,000–49,999 range, while respondents have just over 14 years of education on average. Respondents score just above the midpoint of 4 on the self-reported political ideology scale (4.15) which is slightly more conservative

**Table 2** Descriptive statistics for all study variables (Non-Hispanic Whites, 2014 GSS)

Variable	Mean	S.D.	Range	N
Prominence	5.31	3.39	0–10	794
Salience	5.11	3.31	0–10	794
Private self-regard	6.34	3.34	0–10	794
Public self-regard	6.41	1.96	0–10	794
Verification	6.36	3.40	0–10	794
Intensity index	5.91	2.44	0–10	794
Age	51.53	15.82	23–89+	787
Female	0.53	0.50	0–1	794
Urban	0.25	0.43	0–1	794
Fundamentalist	0.20	0.40	0–1	771
South	0.35	0.48	0–1	794
Family income	18.46	5.22	1–25	752
Education	14.21	2.73	3–20	793
Conservative	4.15	1.43	1–7	781
Social class identification	0.51	0.50	0–1	793
Whites hurt by affirmative action	1.73	0.66	1–3	492
Opposite hiring preferences for blacks	3.33	0.87	1–5	523
Oppose Govt. aid to blacks	3.78	1.14	1–5	532

than liberal. And, just over half of respondents identify as middle or upper class (versus lower or working class). Finally, on the racial policy attitudes, respondents score above the midpoints (i.e., toward the racially conservative pole) of each indicator. For the outcome gauging perceptions of whites' potential for being hurt by affirmative action, the mean is 1.73; for the indicator assessing opposition to hiring preferences for blacks in light of past discrimination, the mean is 3.33; and, for the indicator gauging opposition to government intervention to raise blacks' living standards, the mean is 3.78.

### 5.2 How Is White Racial Identity Distributed in the Social Structure?

Table 3 presents results of the individual identity elements and the intensity index regressed on the set of sociodemographic and value-orientation predictors. I analyze this set of outcomes because the individual elements tell a more detailed story than can be captured by the index, while the index is valuable for its parsimony (and is

**Table 3** OLS estimates for regression of white racial identity elements and index on socio-demographics (Non-Hispanic Whites, 2014 GSS)

Independent variables	Dependent variables					
	Prominence	Salience	Private S.R.	Public S.R.	Verification	Index
Education	-0.110* (0.047)	-0.121* (0.048)	-0.292*** (0.046)	-0.006 (0.028)	-0.106* (0.049)	-0.125*** (0.034)
Income	0.000 (0.024)	0.017 (0.025)	-0.026 (0.024)	0.016 (0.015)	-0.003 (0.026)	0.005 (0.018)
Age	0.061*** (0.007)	0.044*** (0.008)	0.035*** (0.007)	0.012** (0.004)	0.030*** (0.008)	0.039*** (0.005)
Female	0.670** (0.237)	0.368 (0.240)	0.533* (0.232)	0.549*** (0.143)	0.725** (0.249)	0.567** (0.173)
Urban	0.193 (0.274)	0.189 (0.277)	-0.165 (0.267)	-0.140 (0.165)	0.431 (0.289)	0.082 (0.201)
South	0.464 (0.255)	0.430 (0.258)	0.355 (0.250)	-0.253 (0.154)	0.950*** (0.269)	0.442* (0.187)
Fundamentalist	0.121 (0.315)	0.197 (0.318)	0.718* (0.308)	0.118 (0.189)	-0.070 (0.328)	0.182 (0.228)
Conservative	0.025 (0.085)	-0.071 (0.086)	0.245** (0.083)	-0.067 (0.051)	0.007 (0.089)	0.021 (0.062)
R-squared	0.11	0.07	0.15	0.04	0.06	0.12
N	763	762	760	744	743	719

Note Unstandardized coefficients reported. Standard errors in parentheses

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

used in subsequent analyses). While Croll (2007) reported that education and region were key predictors of white racial identity prominence in the American Mosaic Project Survey, the current analysis replicates only the education finding: lower levels education correspond with higher racial identity prominence among whites. In addition, the GSS data suggest that older whites and females are significantly more likely than their younger and male counterparts respectively to view their racial identity as important.

Turning to the other four identity elements, we see consistent effects of education, age, and gender, with a few exceptions. Education fails to significantly shape public self-regard, and being female does not significantly impact white racial identity salience. Otherwise, lower education, more advanced age, and being female are associated with higher scores on each identity indicator. These findings also register for the identity intensity measure. Regarding other significant predictors, we see a region effect for verification and intensity: Southern whites report higher identity verification and score higher on the measure of overall identity strength. In addition, religious fundamentalists and self-reported conservatives score significantly higher than their more liberal counterparts on private self-regard; that is fundamentalists and conservatives have higher white racial pride. These religion and ideology effects do not register for the intensity measure, but are of interest for the story they tell about the social bases of key elements of whiteness.<sup>5</sup>

### ***5.3 Does White Racial Identity Intensity Shape Racial Policy Attitudes?***

The final research question concerns whether racial identity intensity shapes racial policy attitudes. I approach this question while also considering the potentially competing effect of social class identification, given past calls for research analyzing the simultaneous effects of key social identities (Hunt 2003) and given past findings on the role of self- and group-interest in the racial attitudes literature (Sears et al. 2000). Table 4 shows results for the regression of three indicators of opposition to race-targeted policy.<sup>6</sup> There are two models for each outcome; the first contains racial identity intensity and social class identification, along with all Table 3 predictors as controls. The second model adds an interaction term for racial identity intensity  $\times$  social class identification. I show only the identity effects given the focus of my research question.

Looking first at the outcome gauging whites' perception of the likelihood that in-group members are hurt by policies that favor the promotion of equally- or less-qualified blacks, Model 1 shows that racial identity intensity, but not social class identity, significantly shapes this outcome. Specifically, whites who score higher on the intensity index are significantly more likely to report believing that whites suffer as a result of race-targeted policies in the workplace. Model 2 shows that there is no significant interaction between the two identity indicators. These results indicate a

**Table 4** OLS estimates of policy attitudes regressed on racial and class identity and sociodemographic controls (Non-Hispanic Whites, 2014 GSS)

Independent variables	Dependent variables					
	Whites hurt by affirmative action		Oppose hiring preferences for blacks		Oppose government aid to blacks	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
White racial identity (WRI)	0.044** (0.013)	0.052** (0.019)	0.001 (0.016)	-0.028 (0.022)	0.025 (0.021)	-0.012 (0.028)
Social class identification (SCI)	-0.008 (0.071)	0.089 (0.164)	-0.223** (0.083)	-0.574** (0.201)	-0.199 (0.113)	-0.695* (0.267)
WRI * SCI		-0.017 (0.025)		0.060 (0.031)		0.083* (0.040)
R-squared	0.08	0.08	0.15	0.16	0.19	0.20
N	454	454	472	472	478	478

*Note* Unstandardized coefficients reported. Standard errors in parentheses. These models also control for all Table 3 predictors

\* $p < 0.05$ , \*\* $p < 0.01$

defensive manifestation of white racial identity; those who feel their whiteness most strongly are, correspondingly, most likely to see affirmative action as zero-sum such that hiring practices that favor blacks invariably hurt whites.

The analyses for the second outcome reveal a different story. Regarding stated opposition to policies mandating preferential hiring for blacks in light of past discrimination, we see an effect of social class identification but not racial identity intensity. Specifically, Model 1 shows that self-identified members of the middle and upper classes are significantly less likely than their lower and working class counterparts to oppose affirmative action in this form. As with the prior outcome, there is no statistical interaction between the two modeled identities. These results show that opposition to preferential hiring, as presented by this GSS item, is particularly pronounced amongst whites who see themselves as occupying the lower reaches of the social class hierarchy.

The analyses for the third outcome tell a different story still. For the item gauging opposition to government assistance to raise blacks' living standards, Model 1 shows no effect of either racial identity intensity or social class identification. However, Model 2 shows a significant interaction ( $b = 0.083$ ,  $p < 0.05$ ) between these two identities such that, as social class identification increases, so does the tendency of racial identity intensity to predict opposition to government intervention on behalf of blacks. The main effect of racial identity intensity in Model 2 can be understood as the effect of this factor amongst the excluded category on the social class identification measure (i.e., self-identified members of the lower and working classes). Thus, the effect of racial identity intensity is essentially null among the self-identified lower and working classes ( $b = -0.012$ , n.s.); however, among self-identified middle and upper class whites, as racial identity intensity increases, so does opposition to government aid to blacks. Collectively, these results suggest that question wording/framing in

measuring support for race-targeted policies matters. They also suggest the need for more research on the apparently complex intersection of racial and social class identities shaping white Americans' racial politics.

## 6 Discussion and Conclusions

In this chapter, I asked three questions about white racial identity. First, what is its structure—and, specifically, do the five GSS items produce a reliable instrument measuring overall white racial identity intensity? Answer: yes. Second, what are the social bases of white racial identity, as gauged both by the five individual elements and the intensity index? Here, results suggest that education, age, and gender are the most consistent and potent predictors, while region, religious fundamentalism, and political ideology also register selected effects. Third and finally, does racial identity intensity predict opposition to race-targeted public policies when taking into account the effect of social class identification (and a range of sociodemographic controls)? And, do these two key social identities intersect in shaping such opposition (or support)? The story here is mixed, with racial identity intensity showing a main effect on the perception of whites being hurt by racial policy, no effect on opposition to affirmative action in the form of preferential hiring for blacks in light of past discrimination, and an interaction effect with social class identification in shaping opposition to government aid aimed at raising blacks' living standards.

The finding that the five GSS items form a reliable index is important for research on white racial identity. Scholars over the past decade have lamented the lack of systematic empirical means to study the “situated” nature of whiteness—that is, the way white racial identity varies across social structural and other contexts. The GSS provides a treasure-trove of information to answer potential research questions on white racial identity, and future researchers would wise to further explore the determinants and consequences of both the set of individual identity elements and the multi-item intensity measure. The former remain valuable because each taps a separate theoretically-grounded and important construct (prominence, salience, etc.); thus the five items offer the opportunity to see what identity dimensions (1) matter for different outcomes and (2) correspond to more general identity intensity (index) effects (e.g., see Table 3 where the region effect on verification appears to underlie the overall effect of region on the intensity index). Regarding the multi-item index, future work should analyze whether the *structure* of racial identity varies across racial and other social structural lines.

The finding that education, gender, and age are key sources of variation in white racial identity advances our understanding of the social structural antecedents of this outcome. This is important both to the Identity Theory project of demonstrating how external social structure shapes identity processes, and to broader calls for analyses of how components of the social structure shape individual-level processes (House 1981; McLeod and Lively 2003). Future research using other nationally representative data sets should seek to add to the growing set of researching findings



in this area (Croll 2007; Hunt and Reichelmann 2019). In so doing, future work should seek to expand analyses to include non-white populations. Here, key questions become: are there racial group differences in the individual identity elements (i.e., levels) and/or in the structure of racial identity (inter-item associations)? Do SES and other sociodemographic factors shape racial identity above and beyond the effects of race? And, do these non-race predictors matter differently across racial/ethnic lines?

Finally, demonstration that racial identity intensity matters for whites' racial policy attitudes is important for Identity Theory, as it shows that the self is not epiphenomenal for whites' racial politics. The finding that racial identity intensity matters differently across three distinct framings of racial policy, including vis-à-vis persons' self-assessments in social class terms, suggests the need for more research on the meaning of racial identity as it pertains to the racial politics of white Americans at different social and cultural locations. Theories of group competition/threat/deprivation could be useful in this endeavor.

Regarding the finding that *racial* identity is key to understanding whites' assessments of the likelihood that fellow whites are harmed by affirmative action, whereas perceived social *class* location is key to explaining whites' stated opposition to such policies, this suggests that the former question-framing is sufficient to tilt the scale from class to racial identity as the key (identity-based) explanatory factor. That is, when asked about the likelihood that members of their own racial group are negatively impacted by hiring practices favoring blacks (i.e., "What are the chances these days ...?"), the race-based nature of group competition/threat/deprivation is made salient, perhaps via activation of a sense of linked-fate or group solidarity among self-identified whites.

In contrast, when whites are asked about their opinion toward (i.e., "do you support or oppose?") a policy of preferential hiring for blacks in light of past discrimination, group competition/threat appears more likely to manifest in economic and/or (non-racial) social status terms. Specifically, whites who perceive themselves as lower on the social class ladder (i.e., those whites who, on average, have lower-quality employment or no employment) appear most negatively predisposed toward hiring and promotion preferences benefitting another group (in this case, blacks). The hypothesis that question-wording matters in this way could be tested with a survey-based experiment wherein the researcher could vary the wording of the described policy intervention to try to further unpack why identifying in racial vs social class terms is key to explaining whites' racial policy attitudes pertaining to workplace policies.

More complex still is the observation that racial identity intensity matters differently by level of class identification in shaping opposition to a more generalized conception of government aid to blacks. Here, the focus on raising blacks' "living standards," and the absence of specific reference to workplace practices, may be important for understanding why the statistical interaction (as opposed to main effects of racial or class identity) appears. For self-identified lower and working class persons, racial identity intensity is not significantly associated with this outcome. For those identifying as middle and upper class, stronger racial identities predict greater opposition to such government intervention (i.e., the "no special treatment" option in

the question). One possibility is that the reference to living standards triggers images of taxation and redistribution that strongly-identified whites who reside higher in the class structure are particularly opposed to (perhaps following self-interest, since they control more of what would be redistributed).

Future research should explore the possible role of “symbolic racism” in understanding the role of racial and social class identities (including their apparent interaction) in shaping whites’ racial policy attitudes—particularly those aimed at redistribution. Symbolic racism (Kinder and Sears 1981), or “racial resentment” (Kinder and Sanders 1996), represents a blend of anti-Black affect and beliefs that blacks violate traditional American values such as hard work and self-reliance in making illegitimate claims on the state. Racial resentment is also a known predictor of opposition to racial policy. Such work could add an important identity-based component to our models of whites’ racial attitudes—a potentially important contribution to the effort to demonstrate that the self “matters” for socially-relevant outcomes, and for our understanding of the roles of both race and class in shaping whites’ racial politics in the 21st century.

## Endnotes

1. The GSS has been conducted by the National Opinion Research Center in most years since 1972, and it is designed to yield a representative sample of English-speaking adults 18 years and older living in non-institutionalized settings within the United States. Typical sample size was approximately 1500 until 1994, after which it increased to approximately 3000 when the GSS became biennial. Response rates have varied between 60 and 82%. For more background on the GSS, see: <http://gss.norc.org/>.
2. However, a growing body of work by psychologists on white racial identity is worth noting. For instance, Goren and Plaut (2012) demonstrate the implications of different white identity “forms” for attitudes toward diversity. And, Knowles et al. (2014) argue that whites manage a privileged racial identity by either *denying* such privilege, *distancing* themselves from whiteness, or seeking to *dismantle* systems conferring such privilege—an image reminiscent of Croll’s (2007) argument that white racial identity (prominence) has both defensive and progressive implications.
3. From 2006 to 2014, the GSS fielded both a nationally-representative cross-section and a repeating panel. See NORC’s “Release Notes for the GSS 2014 Merged File” for more background on weighting with the 2014 merged data. See Appendix A of the GSS codebook for full details on sample design and weighting. The WTCOMBNR variable additionally corrects for non-response occurring during the two-stage subsampling process the GSS introduced in 2004.
4. The somewhat lower factor loading for public self-regard is worth noting. One possible explanation of this pattern is that some respondents who strongly identify as white also believe their group is viewed and treated unfairly (e.g., leading to higher scores on items such as prominence or private self-regard, but lower

- scores on public self-regard). Future studies should explore this possibility more systematically.
5. Additional analyses run without the fundamentalism and conservatism predictors produced the same overall set of results, with two exceptions: for the prominence and private self-regard outcomes, omission of fundamentalism and conservatism yielded positive, statistically significant ( $p < 0.05$ ) associations with Southern residence.
  6. Given the nature of the dependent variables here, I also ran Table 4 models using ordinal logistic regression. These analyses produced a similar overall set of results, though the interaction for the third outcome (see Table 4) was only marginally significant ( $p = 0.07$ ).

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# Mathematics Identity, Self-efficacy, and Interest and Their Relationships to Mathematics Achievement: A Longitudinal Analysis



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**Abstract** Using the overlap sample of about 3500 students who participated in both the High School Longitudinal Study of 2009 and the 2013 grade 12 National Assessment of Educational Progress (NAEP) mathematics assessment, this study investigates the relationships of mathematics identity, efficacy and interest to mathematics achievement in high school. Role identities, such as having a mathematics identity, as well as mathematics efficacy and interest are hypothesized to be important motivators of role-related behavior. Using a structural equation modeling approach, measures of these constructs at grades 9 and 11 are related to grade 12 NAEP mathematics

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The supplementary materials are available online directly from the authors URL: [https://www.researchgate.net/publication/340076921\\_Mathematics\\_Identity\\_Self-Efficacy\\_and\\_Interest\\_and\\_their\\_Relationships\\_to\\_Mathematics\\_Achievement\\_A\\_Longitudinal\\_Analysis-Extra\\_Materials\\_2020](https://www.researchgate.net/publication/340076921_Mathematics_Identity_Self-Efficacy_and_Interest_and_their_Relationships_to_Mathematics_Achievement_A_Longitudinal_Analysis-Extra_Materials_2020)

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achievement, simultaneously taking into account grade 9 mathematics achievement, high school mathematics coursetaking, educational expectations at grades 9 and 11 and student and school background factors. The results indicate that a mathematics identity and educational expectations at grade 11 are statistically and substantively significant predictors of grade 12 mathematics achievement in the presence of these other factors, whereas neither of the other two motivation factors—grade 11 mathematics self-efficacy and mathematics interest—were shown to have direct effects on grade 12 mathematics achievement. However, mathematics self-efficacy at grade 9 was shown to have an indirect effect on grade 12 mathematics achievement through grade 11 mathematics identity. The implications of these findings for identity theory are discussed.

**Keywords** Mathematics identity · Mathematics self-efficacy · Mathematics interest · Identity theory · Mathematics achievement · High School Longitudinal Study

## 1 Background

The importance of academic identity for understanding students' academic success and persistence has been long understood (Marsh et al. 1988; Marsh 1990, 1993). More recently, researchers have shown the importance of content-specific identities (e.g., mathematics identity, science identity, engineering identity) to understanding academic performance, including how these identities relate to minority and female students' academic performance and choices in Science, Technology, Engineering and Mathematics (STEM) related fields (Stets et al. 2017; Godwin et al. 2013; Cass et al. 2011; Chemers et al. 2011; Syed et al. 2011; Hazari et al. 2009; Carlone and Johnson 2007).

This study takes a symbolic interactionist perspective, in which identities are a function of the meanings that persons attach to the roles that they play—roles such as student, father, priest, grandmother, and so on (Stryker and Burke 2000). Identities are formed and shaped throughout life via interactions with significant others (e.g., peers, parents, and teachers). According to Stone (1962), identities are established when significant others use the same words to describe someone as a person uses for him- or herself. Thus, to be identified, claims made for oneself must be legitimated and supported by significant others. For example, a student's mathematics identity is based not only on self-perceived mathematics capabilities and accomplishments, but also on the perceptions of others.

Identities can be classified into multiple types, including social, role, and personal (Burke and Stets 2009). Social identities are associated with membership categories such as gender, race, and class (category identities may or may not become full blown group identities); role identities are associated with roles embedded in the

larger social structure; and personal identities are associated with personal characteristics (e.g., smart, punctual, introverted). In this study, the focus is on mathematics identity—a role identity associated with being a student.

Role identities are the key component of the self in the structural symbolic interactionism tradition, in that the self is composed of a hierarchy of identities where the more prominent and/or more salient the identity, the higher it is in the hierarchy (McCall and Simmons 1978; Stryker 1968). This study focuses on the influence of a mathematics identity on mathematics achievement during the high school years.

## 2 Conceptual Model

This study’s hypothesized conceptual model takes a comprehensive perspective in investigating the relationships among mathematics achievement, mathematics motivation, educational expectations, and mathematics coursetaking<sup>1</sup> as students move from grade 9 to grade 12 (see Fig. 1). It also takes into account student and school background factors. It is designed to represent a series of sequential paths based on evidence-based hypotheses about how students’ mathematics motivation and educational expectations in their freshman year of high school relate to mathematics motivation, educational expectations, and mathematics coursetaking in grade 11, and how these in turn relate to mathematics achievement in grade 12.

The study uses data from a longitudinal study described below. While a longitudinal design does not allow one to draw firm causal inferences, it can provide much stronger evidence of the temporal ordering among variables than a cross-sectional design. A longitudinal design can undercover developmental processes and confirm

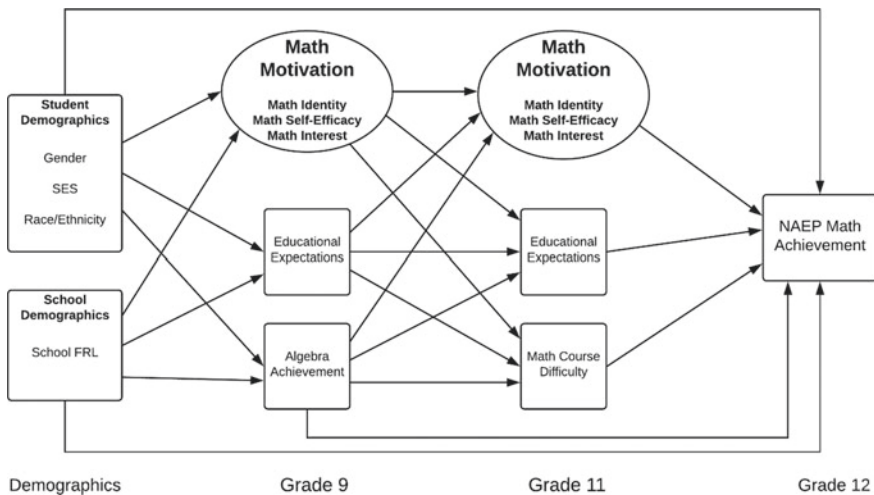


Fig. 1 Schematic of conceptual model



whether the findings are consistent with a conceptual model and the hypotheses embodied within it.

### 3 Components of the Conceptual Model

In the section that follows, components comprising the conceptual model used in this research study are discussed, beginning with the outcome of interest—grade 12 mathematics achievement.

#### 3.1 *Mathematics Achievement*

***Grade 12 Mathematics Achievement*** Grade 12 mathematics achievement is the outcome variable in this study because research shows that high school mathematics achievement is not only an important predictor of attendance at 4-year colleges and universities (Adelman 2006), but also success in the other STEM fields—science, technology, and engineering (Rose and Betts 2001). As such, mathematics is arguably the most important STEM subject area (Cribbs et al. 2015).

***Grade 9 Algebra Achievement*** While the focus of this study is on grade 12 mathematics achievement, an important predictor of later mathematics achievement is earlier mathematics achievement. For example, Wang (2013) found a strong relationship between grade 10 and grade 12 mathematics achievement using data from the Education Longitudinal Study of 2002. Gamoran and Hannigan (2000) noted that performance in grade 8 algebra was related to enrollment in and grades earned in more advanced mathematics courses in high school and college. Siegler et al. (2012), using nationally representative data from the United States and the United Kingdom, found that students' knowledge of fractions and division predicted later mathematics achievement in high school. Especially important for this study is a measure of mathematics achievement at grade 9, the baseline year of the study.

#### 3.2 *Motivation*

For the purposes of this study, motivation is comprised of three components—mathematics identity, mathematics self-efficacy, and mathematics interest (Eccles et al. 1983). All three are seen as playing a motivating role in decisions related to studying mathematics in high school.

**Mathematics Identity** As discussed previously, identities are important for students' persistence and success. As such, identities are an important motivational construct, impacting goal attainment.

Identities grow out of interactions with others. Research shows that how parents, teachers, and friends view someone in relation to mathematics has an impact on that person's perceptions of his or her mathematics competence (Cribbs et al. 2015; Bleeker and Jacobs 2004; Bouchey and Harter 2005). Wenger (1998), for example, found that one's perception of his or her mathematics identity was influenced by others' perceptions and evaluations in the community. This in turn influenced participation within that community. Research also finds that significant and supportive others including mentors, role models, and other supportive networks are important for the development of a science identity (Merolla et al. 2012; Syed et al. 2011). Having a supportive mentor aids academic achievement and the pursuit of further education. Mentoring, as well as participation in networks of students also interested in STEM, can be especially important for women and minorities (Estrada et al. 2011; Merolla et al. 2012; Merolla and Serpe 2013). In addition, significant others (e.g., mathematics or science teachers, academically oriented peers) may see skills and abilities in someone that one may not see in oneself, at least initially, and that so help ensure that support for those skills and abilities gets communicated to oneself. The stronger this support, the more likely it is that one will make identity claims for oneself. That is, the development of a mathematics identity, as is true for any role identity, is a reciprocal and developmental process between oneself and significant others over time.

**Mathematics Self-efficacy** Bandura (1994) defined self-efficacy as "... people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves, and behave ...." (p. 71). Zimmerman (2000) argues that self-efficacy measures focus on performance capabilities rather than personal qualities, such as physical or psychological capabilities. That is, when faced with a task, one judges the degree to which one has "what it takes" to be successful in it. Research by Pajares and collaborators (Pajares 1996; Pajares and Miller 1994; Pajares and Kranzler 1995) shows a strong relationship between self-efficacy and mathematics achievement. Using a national longitudinal study of students in high school and then college, Wang (2013) found a strong positive direct relationship between mathematics self-efficacy in high school and intent to major in a STEM field as well as an indirect effect on entrance into a STEM field of study.

**Mathematics Interest** Hidi and Renninger (2006) defined interest as a learner's predisposition to engage and reengage with specific disciplinary content (e.g., mathematics, science) over time, as well as the psychological state that accompanies this engagement. Under the framework of expectancy-value theory (Eccles et al. 1983), mathematics interest emphasizes the enjoyment of mathematics; in this regard, the construct is similar to intrinsic motivation in self-determination theory (Ryan and Deci 2000; Schiefele 2001). When students intrinsically value mathematics, they

are more likely to deeply engage in mathematics activities and be resilient in the face of difficulty while doing mathematics thinking. Atwater et al. (1995) found that students with a greater interest in mathematics tended to enroll in more mathematics courses and earn higher grades in mathematics than those with less interest in it.

***Relationships Among the Motivational Constructs*** While each of these three components—mathematics identity, self-efficacy, and interest—are theorized as being important for understanding grade 12 mathematics achievement in the conceptual model used in this study, they are also seen as having important relationships with one another and with themselves over time.

***Relationship Between Identity and Self-efficacy*** A role-specific identity (e.g., a mathematics identity) is important for motivating individuals to engage in role-specific behaviors that can further reinforce that identity. For example, if one has a chess player's identity, one will seek out situations in which one can demonstrate one's ability at chess. And to the degree that one is successful in doing so, it builds a sense of efficacy around playing chess. This in turn reinforces the identity that one is good at chess and others will see that one is good at it as well; that is, it reinforces the chess player identity. More generally, self-efficacy is important for the behaviors in which individuals choose to engage since it represents one's perceived ability to influence their environment (Brenner et al. 2018). Stets and Burke (2000) explain the intimate tie between identities and self-efficacy as follows. Self-efficacy is increased by self-verification of an identity in that it leads to a sense of control over individuals' role-related environment. But that sense of control also is motivating in leading individuals to engage in behaviors that provide the opportunity to verify their identities. It is in this sense that Ervin and Stryker (2001) postulated that self-efficacy is both an antecedent of as well as a consequence of role-related identity behaviors.

Brenner et al. (2018) examined the reciprocal relationship between role-specific self-efficacy, identity prominence and identity salience using four waves of data from the Science Study.<sup>2</sup> In their conception, identity prominence is seen as the affective component of identity; that is, it is the subjective value assigned to an identity (McCall and Simmons 1978). By contrast, identity salience is defined as the probability that a given identity will be enacted in a particular situation or setting (Stryker 1968, 2003, 2004). Brenner et al. (2018) found that science self-efficacy was related to identity prominence which in turn was related to identity salience. While the overtime direct relationships of prominence and salience back to role-specific self-efficacy were statistically significant, both relationships were weak.

Cribbs et al. (2015), using structural equation modelling to analyze the cross-sectional data from the Factors Influencing College Success in Mathematics (FICS-Math) project,<sup>3</sup> examined the relationships between competence/performance (analogous to self-efficacy), mathematics interest, mathematics recognition (from significant others), and mathematics identity. The model that best fit the data indicated that instead of competence/performance having a direct effect on mathematics identity, its effects were indirect, mediated by mathematics recognition and mathematics interest. However, the data used in this study are cross-sectional, making drawing causal inferences hazardous. Indeed, the difference in fit between the model described above

and one in which mathematics interest, recognition, and competence/performance were seen as antecedent to mathematics identity was quite small.

Godwin et al. (2013) used the same types of measures as Cribbs et al. (2015) with data from another cross-sectional national study—the Sustainability and Gender in Engineering survey. This study also surveyed students in 2- and 4-year colleges and universities but in this case chose students who were enrolled in the various institutions' required freshman English course. The researchers were interested in the relationships of physics, mathematics, and science identities on having an engineering identity and how having an engineering identity was related to students' choice of an engineering career. Following Cribbs et al. (2015), they modeled competence/performance as causally related to interest and recognition, which in turn were seen as causally related to identity. This model supported the hypothesis that having a physics, mathematics, and/or science identity were all related to having an engineering identity. While the fit indices for this model were all in the acceptable range, the difficulty of drawing causal inferences from cross-sectional data is an issue in this study as in the Cribbs et al. (2015) study.

***Relationship Between Self-efficacy and Interest*** Theoretical work has also shown important connections between self-efficacy and interest. According to Eccles's expectancy-value theory (Eccles et al. 1983) and Bandura's self-efficacy theory (Bandura 1994), self-efficacy beliefs influence interest beliefs. Over time, particularly in the achievement domain, children begin to attach more value to activities in which they do well. As a result, self-efficacy beliefs and interest become positively related to one another over time. Simpkins et al. (2006) found that students' mathematics self-efficacy and valuing of mathematics (which is similar to having an interest in mathematics) were positively correlated with achievement—students with higher degrees of mathematics self-efficacy who also highly valued mathematics were more likely to do well in mathematics than those without these characteristics.

As mentioned above, the Cribbs et al. (2015) study examined the relationship of mathematics interest to competence/performance (self-efficacy) and, after trying to fit a couple of different models, came to the conclusion that competence/performance created mathematics interest and simultaneously led to recognition from one's peers which in turn led to having a mathematics identity. Again, as noted above, these analyses were done with cross-sectional data from which defensible causal conclusions are difficult to draw.

Given their prominence in the research literature on academic and occupational outcomes, the current study also examines the roles of educational expectations, the difficulty of mathematics courses taken in high school, and student and school socio-demographics (sex, race/ethnicity, etc.).

### 3.3 Educational Expectations

The status attainment literature (Sewell and Shah 1968; Sewell et al. 1970; Gasson et al. 1972) demonstrates the role that educational expectations play in status attainment (e.g., educational attainment, occupational attainment). High school seniors' educational aspirations (as part of the Wisconsin Longitudinal Study of 1957) were the best single predictor of educational outcomes seven years later (Gasson et al. 1972; Sewell et al. 1970; Sewell and Shah 1968). Ou and Reynolds (2008) investigated the relationship between student educational expectations and educational attainment among 1,286 low-income, minority students who grew up in an urban area. The study found that students' expectations were one of the strongest predictors of educational attainment.

How do educational expectations affect educational attainment? Research suggests that students' educational expectations influence their academic-related decisions and activities, such as taking a higher-level mathematics course in high school, thus shaping their academic achievement and ultimate educational attainment. Beal and Crockett (2010) conducted a longitudinal study of 317 adolescent students and found that their educational expectations significantly predicted their educational achievement and attainment, mediated by their participation in extracurricular activities.

Burke and Hoelter (1988) argue that the status attainment model is incomplete because it omits the concept of identity as a key variable in examining the relationships between socio-economic status (SES), significant others, and the development of educational and occupational aspirations. Burke and Hoelter's theoretical argument is that significant others' appraisals directly affect one's identity which in turn affects one's educational and occupational aspirations. Using questionnaire data from grade 12 students in the Louisville Public School System, Burke and Hoelter showed the key role that having an academic identity plays in educational aspirations. The finding held for both males and females, including Black females, but not for Black males. Based on additional analyses using the same dataset, Burke (1989) showed that identity did not relate well to aspirations for Black males because of the meaning they attributed to going to college. Students could be classified into college going for occupational or social reasons, and for the latter there was no direct impact of academic identity on college plans regardless of race. However, Black males were more likely than others to indicate an interest in going to college for social reasons, accounting for the finding in the Burke and Hoelter (1988) study of no relationship between academic identity and aspirations for Black males. Based on these results, Burke's conclusion was that it is not race that directly influences the relationship between academic identity and college plans; rather it is the *meaning* associated with college going that matters (Burke 1989).

### 3.4 *Mathematics Coursetaking*

Mathematics coursetaking is an important factor in influencing a student's achievement and other educational outcomes. Wang and Goldschmidt (1999) found that students taking elective mathematics courses had higher mathematics standardized test scores and higher growth rates in mathematics learning than their peers. In addition, students taking advanced mathematics courses, particularly those beyond algebra II, had a substantially higher probability of attending college, and in particular, of attending a selective college or university (Schneider et al. 1997). Wang (2013) also found a strong relationship between exposure to mathematics courses and grade 12 mathematics achievement, as measured in the Education Longitudinal Study of 2002. However, Horn (1990) showed that the types of mathematics courses taken by high school students varies by race/ethnicity. On average, White and Asian students are more likely to take advanced courses than Black and Hispanic students, resulting in mathematics performances gaps across racial/ethnic groups.

### 3.5 *Student and School Socio-demographics*

Finally, it is important to include both student and school socio-demographic characteristics in the conceptual model because students' motivational beliefs develop under the influences of various social contexts, including family and school. It is also important to include both student and school demographic variables since they serve as proxies for measures not included in the dataset—measures such as neighborhood characteristics, educational values of the student's family, participation in organizations, and school quality—all of which can contribute to developing and maintaining social capital (Coleman 1988).

***Student Socio-demographic Factors*** Student demographics are included in the conceptual model since studies have shown that students with high SES were more likely to earn higher mathematics test scores (Coley 2002; Gregory and Weinstein 2004) and to participate in and finish advanced mathematics classes (Sciarra 2010) than were students with low SES. Students with high SES tend to have greater learning opportunities and a more supportive academic environment at home than those with low SES. Finally, in their study of Louisville 12th graders, Burke and Hoelter (1988) show that SES is related to coursetaking and having an academic identity.

Other research has shown that Black and Hispanic students are less likely to see themselves as “a math person” or as fitting into a STEM profession, outcomes which Seymour and Hewitt (1997) attribute to a lack of exposure to Black and Hispanic role models in STEM fields. Black and Hispanic students also suffer more from negative stereotypes about their mathematics achievement than students of other races/ethnicities (Steele 2011). This results in them being more likely to doubt their

mathematical competence which can lead to a disengagement from mathematics tasks and activities.

Hazari et al. (2009) found that females score significantly lower on measures of mathematics and science identity than males. Cvencek et al. (2011) demonstrated that the stereotype that “math is for boys” emerges as early as second grade, and among elementary students grades 1–5, boys identified more strongly with mathematics than girls. Despite this, girls’ and boys’ mathematics performance is virtually identical by the end of high school (Lindberg et al. 2010; Linn 2006).

**School SES** School context is also an important factor in understanding student achievement. Perry and McConney (2010) found that school SES was significantly associated with students’ academic achievement, regardless of student SES. Rumsberger and Palardy (2005) used the National Education Longitudinal Survey of 1988 to examine individual and school effects on achievement growth between grade 8 and grade 12 in mathematics, science, reading, and history. They found that school-level SES had as much impact on students’ achievement as the students’ individual-level SES did, after controlling for other background factors.

## 4 Hypotheses

Based on the various paths shown in the conceptual model in Fig. 1 above:

1. Educational expectations, mathematics coursetaking difficulty level, and all three measures of mathematics motivation are hypothesized to account for grade 12 mathematics achievement after taking into account student socio-demographics and school SES. No direct paths from the grade 9 endogenous variables are assumed to be needed, except algebra achievement which is a proxy for past mathematics achievement. Other than algebra achievement, the effects of the grade 9 endogenous variables on grade 12 mathematics achievement are hypothesized to be totally mediated through the grade 11 endogenous variables.
2. Grade 9 algebra achievement is hypothesized to be causally related to all three components of mathematics motivation as well as to educational expectations at grade 11. The assumption here, drawn from the research literature, is that positive mathematics performance reinforces and further develops a mathematics identity, an increased sense of efficacy in doing mathematics, an increased interest in the subject, and higher educational expectations.
3. Mathematics motivation, educational expectations, and grade 9 algebra achievement are hypothesized to have causal impacts on students’ mathematics coursetaking at grade 11. The assumption is that students who have done well in mathematics in the past have a mathematics identity, feel efficacious about doing mathematics, are interested in mathematics, and have high educational expectations, are more likely to take additional and more challenging mathematics courses in the future.

4. The three components of mathematics motivation as well as educational expectations at grade 9 are hypothesized to be causally related to mathematics motivation and educational expectations at grade 11. In addition, educational expectations at grade 9 are hypothesized to be causally related to the three motivational components as well as to themselves at grade 11. In other words, the three mathematics motivation constructs as well as educational expectations are hypothesized to be positively related to themselves and to each other over time.
5. Students' SES, sex, and race/ethnicity, along with their school SES, are hypothesized to lead to the development and support of educational expectations, algebra achievement at grade 9, and the three components of mathematics motivation.

These five interrelated hypotheses generated the conceptual framework for the study. The proposed model delineates the development of mathematics motivation and educational expectations across the high school years as they contribute to mathematics achievement in grade 12.

## 5 Method

This section describes the variables, their measurement, and the analytic methods used to test the study's hypotheses.

### 5.1 Variables and Their Measurement

This subsection summarizes endogenous and exogenous variables used in the current study based on the hypothesized conceptual framework and how they were assessed. Using the standard notation for structural equation modeling, the latent endogenous variables are represented by  $\eta$ s, the observed endogenous variables by  $y$ s, and the observed exogenous variables by  $x$ s.

#### 5.1.1 Endogenous Variables

**Grade 12 Mathematics Achievement** The National Assessment of Educational Progress (NAEP) reports periodically on 12th graders' performance in mathematics and reading including in 2009, 2013, and 2015. Grade 12 mathematics achievement, the dependent variable in this study, is measured using results from the 2013 grade 12 NAEP mathematics assessment. The NAEP mathematics score is a composite of five subscales: (a) number properties and operations; (b) measurement; (c) geometry; (d) data analysis, statistics, and probability; and (e) algebra. The overall score has a range of 0–300. The mean score on the 2013 assessment for this sample was



155.84 with a standard deviation of 28.07.<sup>4</sup> *Grade 12 mathematics achievement* is represented in the model by  $y_1$ .

**Motivation** Student mathematics motivation was measured both at grades 9 and 11 by the developers of the High School Longitudinal Study of 2009 (HSL:09) with items assessing mathematics identity, self-efficacy, and interest. The 11 items were analyzed using both exploratory and confirmatory factor analyses at both grades 9 and 11. Two of the items were posited as measuring *mathematics identity*—"You see yourself as a mathematics person" and "Others see you as a mathematics person."<sup>5</sup> Four items were used to measure *mathematics self-efficacy*. The items were asked with reference to the mathematics course students were currently enrolled in—"You are confident that you can do an excellent job on tests in this course," "You are certain that you can understand the most difficult material presented in the textbook used in this course," "You are certain that you can master the skills being taught in this course," and "You are confident that you can do an excellent job on assignments in this course." *Mathematics interest* was assessed by five items asked in the context of the mathematics course in which they were currently enrolled: "You are enjoying this class very much," "You think this class is a waste of your time," "You think this class is boring," "You really enjoy mathematics," and "What is your favorite school subject?" All the items had four response options ranging from "Strongly disagree" to "Strongly agree" and were coded from 0–3 except for the last item measuring mathematical interest which was coded "3" if mathematics was chosen as their favorite course and "0" otherwise.

The results from a confirmatory factor analysis of the items are shown in Appendix B in the Online Extra Materials. The last item ("What is your favorite school subject?") measuring mathematics interest described above was eliminated based on its low loading in the exploratory factor analyses. The fit of the remaining ten items to a three-factor solution was excellent at both grades 9 and 11 whether using the results from the Comparative Fit Index (CFI), the Tucker-Lewis Fit Index (TLI), or the Root Mean Square Error of Approximation (RMSEA). For example, the TLI at both grades 9 and 11 were 0.98, and the respective RMSEA were both under 0.05. However, the interest item, "You really enjoy mathematics," loaded on the identity factor rather than on the interest factor. After consideration, it was decided to eliminate the item rather than adding it to the identity factor given that, definitionally, it is not a measure of identity. Based on the results of the confirmatory factor analyses, the following latent variables are used in the model: *Mathematics identity* is designated by *mathidentity* in the models' equations as well as by  $\eta_2$  at grade 11 and  $\eta_7$  at grade 9; *Mathematics self-efficacy* is designated by *mathselfefficacy* in the equations as well as by  $\eta_3$  at grade 11 and  $\eta_8$  at grade 9; and *Mathematics interest* is designated by *mathinterest* in the equations as well as by  $\eta_4$  at grade 11 and  $\eta_9$  at grade 9.

**Educational Expectations** Students' educational expectations were also surveyed both at grades 9 and 11. Students were asked "As things stand now, how far in school do you think you will get?" The options for this question ranged from "Less than high school" to "Complete a Ph.D., M.D., law degree, or other high-level professional

degree.”<sup>6</sup> *Educational expectations* are designated by *educational expectations* in the model’s equations as well as by  $y_5$  at grade 11 and  $y_{10}$  at grade 9.

***Mathematics Course Difficulty at Grade 11*** The grade 11 follow-up asked students to indicate which mathematics courses they were currently taking. These courses were grouped into six categories from least advanced to most advanced. For example, a pre-algebra course was assigned a 1 whereas an Advanced Placement calculus course was assigned a 6. Each student was assigned a value between 1 and 6 based on the most advanced course he or she had taken at the time of the HSLs:09 follow-up in grade 11. See Appendix C in the Online Extra Materials for a list of mathematics courses and the corresponding difficulty level. *Mathematics course difficulty at grade 11* is designated by *mathcourse difficulty* and  $y_6$  in the model’s equations.

***Mathematics Achievement at Grade 9*** Another important endogenous variable was students’ mathematics achievement, as measured by an assessment of algebra reasoning administered to the HSLs:09 sample in the fall of 2009, when the students were in grade 9. The algebra assessment covered six topics: (a) the language of algebra; (b) proportional relationships and change; (c) linear equations, inequalities, and functions; (d) nonlinear equations, inequalities, and functions; (e) systems of equations; and (f) sequences and recursive relationships.<sup>7</sup> It is closely based on the NAEP frameworks as they pertain to the assessment of algebra. *Mathematics achievement at grade 9* is represented in the model by *mathachievement* and  $y_{11}$ .<sup>8</sup>

### 5.1.2 Exogenous Variables

The study used two sets of exogenous variables: (1) student demographics and (2) a school SES variable.

***Student Demographic Characteristics*** Student demographic variables, all collected with the NAEP student contextual questionnaire, included sex, race/ethnicity, and SES. Sex was coded 1 = female, 0 = male. Race/ethnicity was represented by four dummy variables with White being a reference group: Black, Hispanic, Asian/Pacific Islander, and Other.<sup>9</sup> These dummy variables are represented in the model’s equations by *Female*, *Black*, *Hispanic*, *Asian/Pacific Islander*, and *Other*.

SES is a composite index created using the following items collected from the NAEP contextual questionnaire: National School Lunch Program eligibility (i.e., free or reduced-price lunch); parental education level; number of books in the home; whether there is a computer in the home; whether the family has access to the Internet; whether the family has its own clothes dryer; whether the family has a dishwasher; whether the family has more than one bathroom; and whether the student has their own bedroom. This composite was scored on a range from 0 to 16. (The scoring for this measure can be found in Appendix D in the Online Extra Materials.) The internal consistency reliability of the measure is 0.62 as measured by Cronbach’s alpha (Cronbach 1951). SES is represented in the equations by *SES*.

**School SES** School SES in this study measures school poverty and looks at it as the percentage of students participating in the National School Lunch Program<sup>10</sup>—a program that provides free or reduced-price lunches (FRL) for students from families that qualify by meeting certain income requirements. This measure has a theoretical range of 0 to 100; however, it was recoded into a 9-ordered categorical variable with 1 = 0%, 2 = 1–5%, 3 = 6–10%, 4 = 11–25%, 5 = 26–34%, 6 = 35–50%, 7 = 51–75%, 8 = 76–99%, and 9 = 100%.<sup>11</sup> School SES is represented in the model's equations by *SchoolFRL*.

## 5.2 Data Source and Sample

The study uses the special overlap sample of approximately 3,480 students that participated in the HSLs:09 and also took the 2013 grade 12 NAEP Mathematics Assessment. The HSLs:09 base year took place in the 2009–10 school year. HSLs:09 employed a two-stage design. At stage 1, a random sample of eligible high schools was selected and at stage 2 a randomly selected sample of fall-term grade 9 graders was chosen from within the selected schools. As part of the HSLs, the students took an algebra assessment and a survey online in their schools. The first follow-up of HSLs:09 took place in the spring of 2012, when most participants were in the spring of 11th grade. The NAEP-HSLs:09 overlap sample chose a sample of students from HSLs:09 in 2013, and they were administered the grade 12 NAEP mathematics assessment.

Student mathematics motivation data (which includes the measures of *mathematics identity*, *mathematics self-efficacy*, and *mathematics interest*) were collected in the HSLs:09 student questionnaire. About 20 students who did not answer any mathematics motivation questions for grade 9 and grade 11 were excluded from the final analytic sample. In addition, about 230 students who did not have grade 9 algebra achievement data were also removed from the final analytic sample. As a result, the final analytic sample was composed of 3,230 students who participated in both the HSLs:09 and grade 12 NAEP mathematics assessment in 2013. Table 1 presents the distribution of the final analytic sample by sex, race/ethnicity, and eligibility for free or reduced-price lunch at the school level.

Appendices E-1 and E-2 in the Online Extra Materials display the comparison of the final analytic sample to the original NAEP-HSLs:09 overlap sample, and the HSLs:09 and NAEP full samples. The results show that the final analytic sample was quite similar to the original overlap sample in terms of basic demographic characteristics. However, compared to the HSLs:09 and NAEP full samples, the final analytic sample had a higher percentage of White students and a lower percentage of students who were eligible for a free or reduced-price lunch. But the mean NAEP mathematics performance of the final analytic sample was similar to that of the original NAEP-HSLs:09 overlap sample and the full NAEP and HSLs:09 samples. As would be expected, the standard errors of the final analytic sample and the original

**Table 1** Basic demographic characteristics for the final analytic sample by sex, race/ethnicity, and eligibility for free or reduced-price lunch (FRL)

Student demographic characteristics	Unweighted number of students	Unweighted percentage	Weighted percentage <sup>a</sup>	
			Weighted percentage <sup>b</sup>	Standard error
Total	3230	100.00	100.00	
<i>Sex</i>				
Male	1640	50.67	50.91	1.85
Female	1590	49.33	49.09	1.85
<i>Race/ethnicity</i>				
White	1980	61.39	68.63	2.76
Black	340	10.41	10.86	2.12
Hispanic	450	14.04	12.70	2.30
Asian/Pacific Islander	390	11.96	5.63	0.58
Other	70	2.20	2.17	0.65
<i>Eligibility for FRL</i>				
Eligible	1120	34.68	36.69	1.96
Not eligible	2110	65.23	63.24	1.96

<sup>a</sup> Weighted using the grade 12 NAEP survey weights

<sup>b</sup> "No information" category is not shown

Note: NSLP is the National School Lunch Program. Numbers may not add to 100 due to rounding  
 Source U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study (HSLs:09), the HSLs:09 First Follow-up, the 2013 Update Restricted-Use File, and the National Assessment of Educational Progress (NAEP) Grade 12 Mathematics Assessment

NAEP-HSLs:09 overlap sample were larger in all cases in comparison to those in the NAEP sample, given the overlap sample is considerably smaller in size.

### 5.3 Model Specification

The study uses structural equation modeling (Bollen 1989, 1993) to examine the relationships among mathematics motivation at grades 9 and 11, educational expectations, mathematics course difficulty, the other contextual variables, and grade 12 mathematics achievement. The structural equation models estimated in the current study comprised both a measurement model and a structural model. For the measurement model, *mathematics identity*, *mathematics self-efficacy*, and *mathematics interest* are treated as latent unobserved variables measured by the items discussed above. The measurement model consists of nine measurement equations at grade 9 and another nine at grade 11. In addition to the 18 measurement equations, 11 structural equations were defined, and their parameters estimated based on the conceptual

model shown above. The details of model specification are provided in Appendix F in the Online Extra Materials.

## 6 Results

### 6.1 Measurement Model

An important question is whether the items at grade 11 are measuring the same constructs at grade 9. Stated more precisely, can measurement invariance be shown over time? There are three types of longitudinal invariance that can be investigated. The first type examines whether the pattern of the  $\lambda_{ij}$ s, the coefficients linking the items to the underlying latent variables, is the same in 2011 as in 2009, but without the requirement that the  $\lambda_{ij}$  associated with a given item is equal across the two years. This model of pattern invariance is the study's *baseline model*. If the data do not fit it, the study cannot proceed because there is no evidence that supports the assumption that the items are measuring the same construct over time. The second type of invariance, *metric invariance*, provides even stronger evidence that the same items are measuring the same constructs over time with the same magnitude of relationship between the item and the construct. In particular, metric invariance requires that the  $\lambda_{ij}$  associated with a given item can be constrained to be equal from 2009 to 2011 without significantly reducing the fit of the data to the model. Finally, the most stringent type of longitudinal invariance is *scalar invariance*. Scalar invariance requires that the  $\mu_i$  for a given item can be constrained to be equal from year to year. When scalar invariance has been established along with metric invariance, one is able to compare the means of the latent variables over time (Byrne et al. 1989).<sup>12</sup>

While the  $\chi^2$ -associated with the scalar invariance model is statistically significant ( $\chi^2 = 351.38$ , degrees of freedom (DF) = 123), this is not unexpected with a sample size of over 3200 observations. For this reason, it is customary to use other measures to evaluate the fit of the data to the models including the RMSEA, the CFI (Bentler 1990), and the TLI (Tucker and Lewis 1973). Generally, a RMSEA of 0.05 or less is considered a good fit and a RMSEA of 0.01 or less an excellent fit (MacCallum et al. 1996). The RMSEA for the scalar invariance model is 0.02, which indicates a very good fit. Fits of 0.90 or greater for the TLI and 0.95 or greater for the CFI are also considered good fits (Hu and Bentler 1999). The fit statistics for the scalar invariance model in this case were 0.96 for the CFI and 0.95 for the TLI. Considered collectively these results suggests that the overall fit of the data to the scalar measurement model associated with the three latent motivational constructs as measured longitudinally is judged to be very good, if not excellent. The  $\lambda$ s and  $\mu$ s associated with the scalar longitudinal invariance model are shown in Appendix G in the Online Extra Materials.

## 6.2 Structural Model

The means, standard deviations, and correlations for both the exogenous and the endogenous variables can be examined in Table 2. There are a few things to note. While the results for the measurement model clearly indicate that *mathematics identity*, *mathematics self-efficacy*, and *mathematics interest* are distinct constructs, as can be seen in the table, they are highly related to each other. The intercorrelations among the three grade 9 mathematics motivation constructs ranged from 0.65 to 0.66. The intercorrelations for grade 11 mathematics motivation constructs ranged from 0.67 to 0.71. These are the correlations among the three *latent* constructs, that is, the correlations that take measurement error into account.

It is also of interest to look at the relationship of each of the measures in the model to grade 12 mathematics achievement. As can be seen in Table 2, at both grades 9 and 11, *mathematics identity* is more highly correlated with grade 12 *mathematics achievement* than either of the other two constructs are. Other correlations between selected endogenous variables and grade 12 *mathematics achievement* were grade 9 *algebra achievement* (0.78), grade 11 *mathematics course difficulty* (0.47), and grade 11 *educational expectations* (0.42)—all sizeable.

### 6.2.1 Overall Fit

The fit of the overall structural model assuming scalar longitudinal invariance for the measurement model was also close to excellent (see Table 3). While the  $\chi^2$  associated with the overall fit of the model (which includes both the structural and measurement components) is statistically significant ( $\chi^2 = 846.98$ ,  $DF = 309$ ) given the large sample size, the other three measures, the RMSEA (0.02), the CFI (0.94), and the TLI (0.92), all suggest that the data fit the model well.

### 6.2.2 Parameter Estimates for the Structural Model

The results for the estimated structural parameters are shown in three separate tables—one for the results for the grade 12 equation (Table 4), one for the grade 11 equations (Table 7), and one for the grade 9 equations (Table 8).

**Testing Hypothesis 1** All three measures of grade 11 mathematics motivation, educational expectations, and mathematics coursetaking difficulty level were hypothesized to account for grade 12 mathematics achievement after taking into account student socio-demographics and school SES. No direct paths from the grade 9 endogenous variables were hypothesized to be needed, except algebra achievement which is a proxy for past mathematics achievement. Other than algebra achievement, the effects of the grade 9 endogenous variables on grade 12 mathematics achievement were hypothesized to be totally mediated through the grade 11 endogenous variables.

**Table 2** Weighted means, standard deviations, and correlations of variables included in analysis of the structural model

	Grade 12		Grade 9					Grade 11					Sociodemographic variables						
	NAEP math		ID	SE	INT	EXP	ALG	ID	SE	INT	EXP	Course	Sex	Black	Hisp.	A/PI	Other	SES	School FRL
G12 NAEP math	1.00																		
G9 ID		1.00																	
G9 SE			0.66	1.00															
G9 INT			0.65	0.66	1.00														
G9 EXP			0.09	0.07	0.05	1.00													
G9 ALG			0.08	0.09	0.05	0.20	1.00												
G11 ID			0.61	0.42	0.32	-0.08	-0.08	1.00											
G11 SE			0.38	0.34	0.20	-0.07	-0.05	0.67	1.00										
G11 INT			0.40	0.32	0.36	-0.02	-0.21	0.71	0.69	1.00									
G11 EXP			0.07	0.14	0.12	0.53	0.32	0.08	0.20	0.15	1.00								
G11 course			0.01	-0.02	0.03	0.19	0.38	0.04	-0.08	0.02	0.32	1.00							
Sex			-0.05	-0.19	-0.07	0.10	0.01	-0.08	-0.12	0.00	0.14	0.03	1.00						
Black			0.15	0.16	0.15	0.09	-0.20	0.12	0.10	0.13	0.02	-0.13	0.01	1.00					
Hisp.			0.07	0.07	0.07	-0.04	-0.05	0.06	0.07	0.10	-0.07	-0.06	0.01	-0.13	1.00				
A/PI			0.06	0.05	0.08	0.04	0.16	0.02	0.01	0.07	0.08	0.14	0.02	-0.09	-0.09	1.00			

(continued)

**Table 2** (continued)

	Grade 9					Grade 11					Sociodemographic variables							
	Grade 12	ID	SE	INT	EXP	ALG	ID	SE	INT	EXP	Course	Sex	Black	Hisp.	A/PI	Other	SES	School FRL
Other	NAEP math	0.05	0.05	0.01	0.06	0.01	0.04	0.06	0.06	0.06	0.04	-0.03	-0.05	-0.06	-0.04	1.00		
SES		-0.07	-0.02	-0.05	0.18	0.31	-0.16	-0.06	-0.05	0.28	0.16	0.09	-0.25	-0.32	0.05	0.07	1.00	
School FRL		0.12	0.07	0.20	-0.01	-0.18	0.07	0.01	0.10	-0.03	-0.12	0.01	0.06	0.24	-0.06	0.04	-0.32	1.00
<i>Weighted descriptive statistics</i>																		
Mean <sup>a</sup>		155.84	0.00	0.00	6.01	0.22	-0.15	-0.18	-0.27	5.60	3.57	0.49	0.11	0.13	0.06	0.02	11.54	4.50
S.D.		28.07	0.82	0.61	0.68	0.66	1.00	0.74	0.79	2.74	1.07	0.50	0.31	0.33	0.23	0.14	3.52	2.44

ID Mathematics identity, SE Mathematics self-efficacy, INT Mathematics interest, EXP Educational expectation, ALG Algebra achievement, Course Mathematics course difficulty, Hisp. Hispanic, A/PI Asian/Pacific Islander, Other American Indian/Alaska Native and students who are unclassified, FRL Free or reduced-price lunch

<sup>a</sup>Means of 9th grade latent mathematics motivation factors were constrained to be zero to estimate mean change overtime as a part of the scalar longitudinal measurement invariance model



**Table 3** Model fit for the overall structural and measurement model combined

Sample size	3200
Degrees of freedom	309
Chi-square	846.98
Root Mean Square Error of Approximation (RMSEA)	0.02
Comparative Fit Index (CFI)	0.94
Tucker-Lewis Index (TLI)	0.92

Scalar longitudinal measurement invariance is imposed. Unweighted number of students are rounded to the nearest 100

As can be seen in Table 4, when taking the other variables in the model into account, only grade 11 *mathematics identity* among the three motivational latent variables was statistically significant; it is substantively important as well given its standardized coefficient of 0.27. Although substantially correlated with grade 12 *mathematics achievement* (as seen in Table 2), neither the estimated coefficient associated with grade 11 *mathematics self-efficacy* nor that associated with grade 11 *mathematics interest* was significantly related to grade 12 *mathematics achievement* when taking the other variables in the model into account. Also, grade 9 *algebra achievement* was significantly related to grade 12 *mathematics achievement* as hypothesized. Not surprisingly, its standardized coefficient was the largest at 0.52 of any in the estimated model. Also, as hypothesized, students' grade 11 *educational expectations* were significantly related to grade 12 *mathematics achievement*, although the relationship was modest (standardized coefficient of 0.13). *Mathematics course difficulty* at grade 11 was also hypothesized to be related to grade 12 *mathematics achievement*; it was, but its relationship was also modest (standardized coefficient of 0.11).

The model also allowed for effects from both student and school level socio-demographics, and such effects were found. For example, being *Black* or *Hispanic* was significantly negatively related to grade 12 *mathematics achievement* and both effects were quite large (standardized coefficients of  $-0.44$  and  $-0.25$ , respectively); *student SES* was positively related to grade 12 *mathematics achievement* (0.09); and the percentage of students eligible for free or reduced-price lunch at school (*School-FRL*) was significantly negatively related to grade 12 *mathematics achievement* (standardized coefficient of  $-0.07$ ). That is, the higher the percentage of students on free or reduced-price lunch in a school, the less well students in that school did on grade 12 *mathematics achievement* taking the other variables in the model into account. Finally, the model assumed no direct effects from the grade 9 latent motivational variables to grade 12 *mathematics achievement*. As was seen from the fit statistics in Table 3, the model fit well without these paths.

Having a *mathematics identity* clearly is an important predictor of mathematics performance. Given this, how common is it to have a *mathematics identity*? Perhaps it is only a very small percentage of students who have one. To examine this question, an

**Table 4** Unstandardized and standardized structural coefficients associated with the grade 12 NAEP mathematics achievement

Grade 11, demographic variables and grade 12 NAEP	Unstandardized coefficient	S.E.	Standardized coefficient
Grade 11 mathematics identity ( $\eta_2$ )	8.29*	1.63	0.27
Grade 11 mathematics self-efficacy ( $\eta_3$ )	-1.54	1.92	-0.04
Grade 11 mathematics interest ( $\eta_4$ )	1.40	2.13	0.04
Grade 11 educational expectations ( $y_5$ )	1.32*	0.33	0.13
Grade 11 mathematics course difficulty ( $y_6$ )	2.79*	0.84	0.11
Grade 9 algebra achievement ( $y_{11}$ )	22.20*	1.36	0.52
Female ( $x_1$ )	-2.86	1.56	-0.10
Race/ethnicity: Black ( $x_2$ )	-12.40*	2.41	-0.44
Race/ethnicity: Hispanic ( $x_3$ )	-6.87*	2.43	-0.25
Race/ethnicity: Asian/Pacific Islander ( $x_4$ )	-2.08	2.12	-0.07
Race/ethnicity: Other ( $x_5$ )	-8.41	4.76	-0.30
SES ( $x_6$ )	0.74*	0.23	0.09
School level % of students eligible for FRL ( $x_7$ )	-0.85*	0.35	-0.07

For race/ethnicity, White was the reference group. The NAEP Grade 12 Mathematics scale ranges from 0 to 300. The SES measure is a composite created using the following items collected from the NAEP contextual questionnaire: NSLP eligibility; parental education level; number of books in the home; whether there’s a computer in the home; whether the family has access to the Internet; whether the family has its own clothes dryer; whether the family has a dishwasher; whether the family has more than one bathroom; and whether the student has their own bedroom. This composite was scored on a range from 0 to 16. School-level percent free or reduced-price lunch is coded into 9 categories. See text for coding

*FRL* Free or reduced-price lunch

\* $p < 0.05$

*Source* U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09); National Assessment of Educational Progress (NAEP), 2013 Grade 12 Mathematics Assessment

index with the two items used to measure *mathematics identity* was constructed: “You see yourself as a mathematics person” and “Others see you as a mathematics person.” As seen in Table 5, the percentage of 6s—those who definitely see themselves as mathematics persons and who report that others see them the same way—is 8.8% at grade 9 and 8.0% at grade 11. That is, the percentage with a strong *mathematics identity* is relatively small, but seemingly very stable across this two-year period. If one includes the 5s as well, the percentage with a *mathematics identity* rises to 15.7%

**Table 5** Distribution of mathematics identity index scores at grades 9 and 11

Identity index category	Grade 9		Grade 11	
	%	Grade12 NAEP score	%	Grade12 NAEP score
0	11.7	139	17.6	137
1	5.2	144	6.2	147
2	24.0	147	23.4	146
3	14.8	152	13.8	158
4	28.6	162	23.3	164
5	6.9	167	7.7	171
6	8.8	177	8.0	183

The identity index was created by summing up the two identity items (each of which range from 0 to 3) for each grade separately. The 2013 grade 12 NAEP mathematics assessment scale ranges from 0 to 300

*Source* U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSLs:09); National Assessment of Educational Progress (NAEP), 2013 Grade 12 Mathematics Assessment

at both grades 9 and 11—a result that again suggests the stability of the *mathematics identity*.

An examination of stability also requires looking at a cross-tabulation of the index from grade 9 to grade 11. Before examining this cross-tabulation, note in Table 5 that average grade 12 *mathematics achievement* increases monotonically as the index scores increase, with one small exception—the difference between a 1 and 2 at grade 11. Especially noteworthy is the substantial jump that occurs between scoring 5 versus 6 on the index—10 points at grade 9 and 12 points at grade 11 (well over a third of a standard deviation); a strong mathematical identity is powerfully related to grade 12 *mathematics achievement*.

A related question is whether the means for the *mathematics identity* index remain stable as well. The means for the index at grades 9 and 11 were 3.0 and 2.7, respectively, with standard deviations of 1.7 and 1.8, respectively. That is, there was a small drop of just under a fifth of a standard deviation between grades 9 and 11. An examination of Table 5 indicates that the drop occurred primarily in changes in the 4 and 0 categories. The percentage of 4s dropped by about 5% points and the zeros—those who say they are definitely *not* a mathematics person and report that others see them the same way—increased by 6% points from grade 9 to grade 11.

The cross-tabulation of the 0–6 identity index for 2009 and 2011 is shown in Table 6. The percentages shown are conditioned on the grade 9 identity score. For example, converting the percentages to probabilities, given a student was a “0” in grade 9, the probability of being a “0” (self and other strongly agree that one is not a mathematics person) in grade 11 is 0.44, and the probability of being a 0 or 1 at grade 11 is 0.55. At the other end of the scale, the probability of being a 6 (self and other strongly agree that one is a math person) at grade 11 given a student was a 6 at grade 9 is 0.36, and the probability of being a 5 or a 6 at grade 11 is 0.59. Thus,

**Table 6** Grade 11 mathematics identity index scores related to grade 9 index scores

		Grade 11 mathematics identity index						
		0	1	2	3	4	5	6
Grade 9 mathematics identity index	0	44.3%	10.9%	24.5%	10.4%	8.3%	0.5%	1.0%
	1	34.3%	8.7%	35.5%	19.2%	1.7%	0%	0.6%
	2	27.2%	8.1%	36.4%	14.5%	7.6%	2.0%	4.2%
	3	12.2%	8.5%	26.2%	18.4%	27.4%	3.3%	4.1%
	4	7.1%	4.1%	19.1%	13.5%	40.4%	9.6%	6.2%
	5	1.3%	0.9%	6.6%	15.0%	31.0%	26.1%	19.0%
	6	2.4%	1.0%	2.0%	5.1%	30.0%	23.9%	35.5%

The identity index was created by summing up the two mathematics identity items (which ranges from 0 to 3) separately for grades 9 and 11. Note also that each of the row values sums to 100.0% *Source* U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009 (HLS:09) and first follow-up and 2013 update restricted-use file

the analysis shows there is considerable stability, but it is not perfect. Nor would one expect it to be perfect since the result does not take into account the role that mathematics course taking in high school and grades earned in those courses most certainly plays in the stability of the identity, for example.

An examination of the latent means of the three motivation variables shows a similar pattern as is seen when examining their index-based means—all three of the latent means decreased and all three of the decreases were statistically significant. The means were fixed at zero at grade 9 so that changes are to be understood taking this into account. As can be seen from the second to last line in Table 2, the largest decrease was in *mathematics interest* with a value of  $-0.27$ . That is, the latent mean decreased 0.40 of its grade 9 standard deviation (0.68). The decrease for *mathematics self-efficacy* was  $-0.18$  or just under a third of its grade 9 standard deviation (0.61), and the smallest decrease was for *mathematics identity* with a change of  $-0.15$  which is just under a fifth of its grade 9 standard deviation (0.82).

Finally, returning to Table 4, note that when examining the unstandardized coefficients, it is important to call attention to those associated with being *Black* and *Hispanic*. Taking into account all the other variables in the model, *Blacks* on average score 12 points lower on grade 12 *mathematics achievement* than *Whites* (which is 0.44 of a standard deviation). The comparable value for *Hispanics* is 7 (about 1/4th of a standard deviation). That is, even with all the variables in the model, these two groups, and especially the *Black* students, score significantly lower than the *White* students on grade 12 *mathematics achievement*.

To summarize, of the three measures of grade 11 mathematics motivation, unlike what was hypothesized, only *mathematics identity* was significantly related to grade 12 *mathematics achievement* taking into account the other variables in the model. However, as was also hypothesized, grade 11 *educational expectations* and *mathematics course difficulty* were significantly related to grade 12 *mathematics achievement* after taking into account student socio-demographics and school FRL. No direct

paths from the grade 9 endogenous variables to grade 12 *mathematics achievement* were posited except for grade 9 *algebra achievement*. The latter was strongly related to grade 12 *mathematics achievement* as hypothesized. Finally, the model fit was excellent without including paths from the grade 9 endogenous variables to grade 12 *mathematics achievement*. That is, the results are consistent with the hypothesis that the effects of the grade 9 endogenous variables on grade 12 *mathematics achievement* are entirely mediated by the grade 11 endogenous variables save for grade 9 *algebra achievement*.

**Testing Hypothesis 2** Grade 9 algebra achievement was hypothesized to be causally related to all three components of mathematics motivation as well as to educational expectations at grade 11. The assumption here, drawn from the research literature, is that positive mathematics performance reinforces and further develops a mathematics identity, an increased sense of efficacy in doing mathematics, an increased interest in the subject, and higher educational expectations.

Table 7 presents the results for the relationships among the five endogenous variables measured at grade 11 and the grade 9 endogenous variables. Recall that the endogenous variables at grade 11 are assumed to be unrelated to the student and school demographic variables except through their relationships to the endogenous variables measured at grade 9.

As hypothesized, grade 9 *algebra achievement* was significantly related to grade 11 *mathematics identity* (standardized coefficient of 0.18), *mathematics self-efficacy* (standardized coefficient of 0.11) and *educational expectations* (standardized coefficient of 0.21) lending support to Bandura (1994); however, the hypothesis that grade 9 *algebra achievement* is also significantly related to grade 11 *mathematics interest* was not borne out (standardized coefficient of 0.04, not statistically significant).<sup>13</sup>

**Testing Hypothesis 3** Mathematics motivation, educational expectations, and grade 9 algebra achievement were hypothesized as having causal impacts on students' mathematics coursetaking at grade 11. The assumption is that students who have done well in mathematics in the past, have a mathematics identity, who feel efficacious about doing mathematics, who are interested in mathematics, and have high educational expectations are more likely to take additional and more challenging mathematics courses in the future.

As seen in Table 7, save for two exceptions, Hypothesis 3 was not supported in this dataset. None of the three grade 9 motivational measures were significantly related to grade 11 *mathematics course difficulty*. However, as hypothesized, both grade 9 *algebra achievement* and *educational expectations* were significantly related to mathematics course difficulty with standardized coefficients of 0.34 and 0.10, respectively.

**Testing Hypothesis 4** The three components of mathematics motivation as well as educational expectations at grade 9 were hypothesized to be causally related to mathematics motivation and educational expectations at grade 11. In addition,

**Table 7** Unstandardized and standardized structural coefficients associated with the grade 11 endogenous variables

Grades 9 and 11 key variables	Unstandardized coefficient	S.E.	Standardized coefficient
<i>Grade 11 mathematics identity (<math>\eta_2</math>)</i>			
Grade 9 mathematics identity ( $\eta_7$ )	0.62*	0.09	0.57
Grade 9 mathematics self-efficacy ( $\eta_8$ )	0.18*	0.08	0.13
Grade 9 mathematics interest ( $\eta_9$ )	-0.18	0.09	-0.14
Grade 9 educational expectations ( $y_{10}$ )	0.00	0.01	-0.01
Grade 9 algebra achievement ( $y_{11}$ )	0.25*	0.05	0.18
<i>Grade 11 mathematics self-efficacy (<math>\eta_3</math>)</i>			
Grade 9 mathematics identity ( $\eta_7$ )	0.23*	0.07	0.27
Grade 9 mathematics self-efficacy ( $\eta_8$ )	0.29*	0.10	0.25
Grade 9 mathematics interest ( $\eta_9$ )	-0.16	0.09	-0.16
Grade 9 educational expectations ( $y_{10}$ )	0.00	0.01	0.01
Grade 9 algebra achievement ( $y_{11}$ )	0.11*	0.04	0.11
<i>Grade 11 mathematics interest (<math>\eta_4</math>)</i>			
Grade 9 mathematics identity ( $\eta_7$ )	0.16*	0.07	0.18
Grade 9 mathematics self-efficacy ( $\eta_8$ )	0.04	0.09	0.04
Grade 9 mathematics interest ( $\eta_9$ )	0.23*	0.09	0.22
Grade 9 educational expectations ( $y_{10}$ )	0.02	0.01	0.07
Grade 9 algebra achievement ( $y_{11}$ )	0.04	0.05	0.04
<i>Grade 11 educational expectations (<math>\eta_5</math>)</i>			
Grade 9 mathematics identity ( $\eta_7$ )	-0.08	0.21	-0.02
Grade 9 mathematics self-efficacy ( $\eta_8$ )	0.29	0.29	0.07

(continued)

**Table 7** (continued)

Grades 9 and 11 key variables	Unstandardized coefficient	S.E.	Standardized coefficient
Grade 9 mathematics interest ( $\eta_9$ )	0.30	0.30	0.08
Grade 9 educational expectations ( $y_{10}$ )	0.44*	0.03	0.46
Grade 9 algebra achievement ( $y_{11}$ )	0.86*	0.16	0.21
<i>Grade 11 mathematics course difficulty (<math>\eta_6</math>)</i>			
Grade 9 mathematics identity ( $\eta_7$ )	0.11	0.09	0.08
Grade 9 mathematics self-efficacy ( $\eta_8$ )	-0.05	0.14	-0.03
Grade 9 mathematics interest ( $\eta_9$ )	0.02	0.13	0.01
Grade 9 educational expectations ( $y_{10}$ )	0.04*	0.02	0.10
Grade 9 algebra achievement ( $y_{11}$ )	0.54*	0.07	0.34

\* $p < 0.05$

Source U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09); National Assessment of Educational Progress (NAEP), 2013 Grade 12 Mathematics Assessment

educational expectations at grade 9 were hypothesized to be causally related to the three motivational components as well as to themselves at grade 11. In other words, the three mathematics motivation constructs as well as educational expectations were hypothesized to be positively related to themselves and to each other over time.

As hypothesized, and as seen in Table 7, there was a strong relationship between *mathematics identity* at grade 9 and grade 11 (standardized coefficient of 0.57). The other significant predictors of grade 11 *mathematics identity* were grade 9 *algebra achievement* (standardized coefficient of 0.18) and grade 9 *mathematics self-efficacy* (standardized coefficient of 0.13). The relationship of *mathematics self-efficacy* at grade 9 with itself at grade 11 was also significant (standardized coefficient of 0.25), but substantially smaller than the relationship of *mathematics identity* with itself over time. The only other significant predictor of grade 11 *mathematics self-efficacy* was grade 9 *mathematics identity* (standardized coefficient of 0.27). Interestingly, this coefficient is slightly larger than the coefficient linking *mathematics self-efficacy* with itself between grades 9 and 11 (standardized coefficient of 0.25).

The relationship of *mathematics interest* at grade 9 with itself at grade 11 was statistically significant, but with a standardized coefficient of only 0.22. The only

other significant predictor of grade 11 *mathematics interest* was grade 9 *mathematics identity* (standardized coefficient of 0.18).

Grade 9 *educational expectations* were strongly related to grade 11 *educational expectations* (standardized coefficient of 0.46) but were not related to any of the other three grade 11 motivational variables as had been predicted. The only other significant predictor of grade 11 *educational expectations* was grade 9 *mathematics achievement* (standardized coefficient of 0.21).

In summary, the three motivational variables as well as *educational expectations* were related to themselves over time, but by far *mathematics identity* and *educational expectations* displayed the strongest relationships with themselves over time. In addition, *mathematics identity* at grade 9 was also a significant predictor of grade 11 *mathematics self-efficacy* and vice versa—grade 9 *mathematics self-efficacy* was a significant predictor of grade 11 *mathematics identity*. That is, there was a reciprocal relationship between the two constructs over time. Interestingly, *mathematics interest* only predicted itself from grade 9 to 11 but was also predicted at grade 11 by *mathematics identity*. Finally, grade 9 *educational expectations* were unrelated to any of the three motivational variables at grade 11.

**Testing Hypothesis 5** Students' SES, sex, and race/ethnicity along with their school SES were hypothesized to lead to the development and support of the three components of mathematics motivation, educational expectations and algebra achievement at grade 9.

As seen in Table 8 when examining the standardized results, *females* scored lower on the grade 9 *mathematics identity* latent variable than *males* (−0.29). *Asian/Pacific Islanders* scored significantly higher than *Whites* (0.51), but interestingly, *Blacks* scored significantly higher than *Whites* as well (0.25). The relationship for *Hispanics* was also positive (0.17), but the relationship was not statistically significant. Student SES was also significantly related to grade 9 *mathematics identity* (0.10) but the percentage of students on free or reduced-price lunch at their school was not.

The pattern of relationships between the socio-demographics and *mathematics self-efficacy* was quite similar. Again, being *female* was negatively associated with *feeling efficacious about doing mathematics* (−0.36) but being *Black* or *Asian/Pacific Islander* was positively related (0.44 and 0.43, respectively). And as was true for having a mathematics identity, *mathematics self-efficacy* was related to student SES (0.13) but not to the percentage of students in their school on free or reduced-price lunch.

The pattern of relationships between the socio-demographic variables and *mathematics interest* was a bit different from the other two. What was similar is that being *Black* or *Asian/Pacific Islander* was positively related to having *an interest in mathematics* (0.47 and 0.51, respectively) as was student SES (0.11). However, being *female* was not related to *mathematics interest*. However, the percentage in one's school on free or reduced-price lunch was significantly related but in an unexpected way—the higher the percentage on free or reduced-price lunch the greater the interest in mathematics (0.21).



**Table 8** Unstandardized and standardized structural coefficients associated with the grade 9 endogenous variables

Demographic variables and grade 9 key variables	Coefficient	S.E.	Standardized coefficient
<i>Grade 9 mathematics identity (<math>\eta_7</math>)</i>			
Female	-0.24*	0.07	-0.29
SES	0.02*	0.01	0.10
Race/ethnicity: Black	0.21*	0.10	0.25
Race/ethnicity: Hispanic	0.15	0.12	0.17
Race/ethnicity: Asian/Pacific Islander	0.42*	0.07	0.51
Race/ethnicity: Other	0.29	0.16	0.34
School level % of students eligible for FRL	0.02	0.01	0.06
<i>Grade 9 mathematics self-efficacy (<math>\eta_8</math>)</i>			
Female	-0.23*	0.05	-0.36
SES	0.02*	0.01	0.13
Race/ethnicity: Black	0.27*	0.07	0.44
Race/ethnicity: Hispanic	0.14	0.09	0.23
Race/ethnicity: Asian/Pacific Islander	0.27*	0.07	0.43
Race/ethnicity: Other	0.24	0.15	0.38
School level % of students eligible for FRL	0.01	0.01	0.05
<i>Grade 9 mathematics interest (<math>\eta_9</math>)</i>			
Female	-0.06	0.07	-0.09
SES	0.02*	0.01	0.11
Race/ethnicity: Black	0.33*	0.09	0.47
Race/ethnicity: Hispanic	0.18	0.10	0.26
Race/ethnicity: Asian/Pacific Islander	0.36*	0.07	0.51
Race/ethnicity: Other	0.06	0.17	0.09
School level % of students eligible for FRL	0.06*	0.01	0.21
<i>Grade 9 educational expectations (<math>y_{10}</math>)</i>			
Female	0.41	0.23	0.14
SES	0.20*	0.03	0.24
Race/ethnicity: Black	1.44*	0.35	0.50
Race/ethnicity: Hispanic	0.43	0.33	0.15
Race/ethnicity: Asian/Pacific Islander	0.65*	0.27	0.23
Race/ethnicity: Other	1.05*	0.45	0.37
School level % of students eligible for FRL	0.05	0.05	0.05

(continued)

**Table 8** (continued)

Demographic variables and grade 9 key variables	Coefficient	S.E.	Standardized coefficient
<i>Grade 9 algebra achievement</i> ( $y_{11}$ )			
Female	-0.02	0.05	-0.03
SES	0.05*	0.01	0.26
Race/ethnicity: Black	-0.24*	0.07	-0.36
Race/ethnicity: Hispanic	0.10	0.09	0.15
Race/ethnicity: Asian/Pacific Islander	0.39*	0.07	0.59
Race/ethnicity: Other	-0.02	0.10	-0.02
School level % of students eligible for FRL	-0.03*	0.01	-0.10

For sex, male was the reference group. For race/ethnicity, White was the reference group. The SES measure is a composite created using the following items collected from the NAEP contextual questionnaire: National School Lunch Program eligibility; parental education level; number of books in the home; whether there’s a computer in the home; whether the family has access to the Internet; whether the family has its own clothes dryer; whether the family has a dishwasher; whether the family has more than one bathroom; and whether the student has their own bedroom. This composite was scored with a range from 0 to 16

FRL Free or reduced-price lunch

\* $p < 0.05$

Source U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09); National Assessment of Educational Progress (NAEP), 2013 Grade 12 Mathematics Assessment

*Blacks* indicated higher grade 9 educational expectations than *Whites* (0.47) and finally *Asians/Pacific islanders* and those of *Other* race/ethnicity had significantly higher educational expectations than *Whites* (0.23 and 0.37, respectively). Student SES was positively associated with grade 9 educational expectations (0.24). It is worth noting that the relationship of SES to grade 9 educational expectations was about twice the size of its relationship to any of the three measures of mathematics motivation—*mathematics identity* (0.10), *mathematics self-efficacy* (0.13) and *mathematics interest* (0.11).

Finally, the strongest relationship with grade 9 mathematics achievement was being *Asian/Pacific Islander* as compared to being *White* (0.59). Being *Black* (compared to being *White*) was negatively related as well (-0.36) as was the percentage of students in one’s school on free or reduced-price lunch (-0.10). Student SES was positively associated with grade 9 algebra achievement (0.26).

The results based on all five hypotheses aggregated together can be seen graphically in Fig. 2. Only the statistically significant results are shown, and they are expressed in standardized units thereby allowing for easy interpretation of the relative strength of each variable in the model.

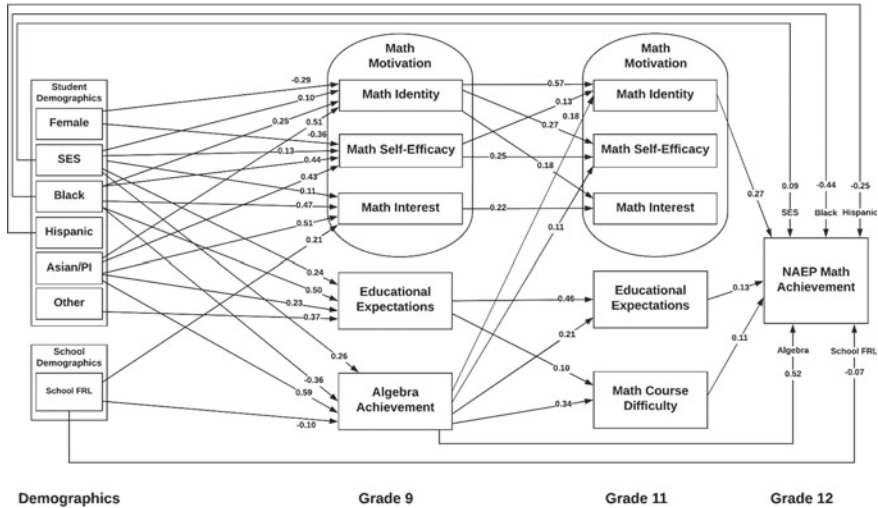


Fig. 2 Conceptual model displaying statistically significant standardized regression coefficients

## 7 Discussion

This study was designed to examine the role of motivation in the prediction of academic achievement. In particular, a conceptual model was designed to evaluate the roles of mathematics identity, self-efficacy, and interest in the prediction of high school mathematics achievement. Mathematics was studied because of the critical role that it plays in who majors in a STEM subject and who, in turn, chooses a STEM occupation. What was found?

### 7.1 On the Role of Identity

This study provides additional evidence of the importance of role-based identities for understanding role-related behaviors. The evidence from this study for the importance of having a mathematics identity at grade 11 for grade 12 mathematics achievement is strong even when taking into account other mathematics-related motivational factors, the rigor of mathematics courses taken in high school, and grade 9 mathematics achievement. These results align with those of Stets et al. (2017), Chemers et al. (2011), Cass et al. (2011), Hazari et al. (2009) and Carlone and Johnson (2007) in showing the importance of having a STEM-related identity in the choice of pursuing a STEM occupation. Taken together, these studies provide a growing corpus of work showing the important role that identity plays in role-related achievements that either end in or are related to occupational outcomes.

## 7.2 *On the Role of Self-efficacy*

As argued in the development of the conceptual model that motivated this study, identity is not the only motivator that the literature has shown to be important in the prediction of role-related behaviors. Among the longitudinal studies reviewed, Stets et al. (2017) and Wang (2013) included measures of self-efficacy. The current study did as well. Stets et al. found that when taking identity into account, self-efficacy was not a statistically significant predictor of choosing a STEM-related occupation. A similar finding was observed in the current study—self-efficacy as measured at grade 11 was unrelated to mathematics achievement at grade 12 when taking the other variables into account. While Wang (2013) found that self-efficacy was a significant predictor in choosing a STEM major, her study did not include a measure of identity. As a result, it is not clear how important self-efficacy would have been had she had a measure of identity. Chemers et al. (2011) found that when controlling for science identity, science self-efficacy had a small, but statistically significant effect on commitment to a science career. This was true both in their sample of undergraduates and their sample of graduate and post-doctoral students. But their study was based on a cross-sectional sample. Furthermore, unlike Stets et al. (2017) and the current study, the Chemers et al. (2011) analyses were devoid of socio-demographic controls. Whether using socio-demographic controls would have changed the findings on the role of self-efficacy in their results is unknown.

The current study found that self-efficacy as measured at grade 9 was a significant predictor of identity at grade 11. That is, feeling efficacious about one's ability to do mathematics is an important mediating variable in that it reinforces one's mathematics identity. Stets et al. (2017) failed to find a significant relationship between these two constructs over time. In their study, science self-efficacy at wave 6 was unrelated to having a science identity at wave 8 when taking the other variables in the model into account. However, Brenner et al. (2018) using the same dataset as Stets et al. (2017) (but using earlier waves of the data) found that science self-efficacy at wave 1 was positively related to identity prominence (the affective component of identity) at wave 2 which in turn was positively related to identity salience (the probability of the identity being enacted) at wave 3 which in turn was related to science self-efficacy at wave 4. This latter relationship, however, while statistically significant, was weak—the standardized regression coefficient was 0.10. Using cross-sectional data, Cass et al. (2011) and Hazari et al. (2009) found the best fit was a model that posits competence/performance (which is similar to self-efficacy) as causally prior to interest and recognition (from significant others) which in turn are posited to predict identity which in turn predict the choice of a STEM occupation. These results, while not based on longitudinal data, are consistent with the results from the current study in that the effects of self-efficacy on identity-related behaviors are only indirect.

Theoretically, as argued earlier, it makes sense that self-efficacy should support an identity over time and that was what was found in the current study. Indeed, what was impressive was the reciprocal relationship between self-efficacy and identity over time, supporting Ervin and Stryker (2001) who argue that they should operate

together. It is not clear why the same finding was not found in the Stets et al. study. And it may be of importance that the Brenner et al. (2018) study did not relate their measures of identity and self-efficacy to a role-related behavior.

### 7.3 *On the Role of Interest*

In developing the conceptual model for this study, the role of interest was seen as important as a motivator leading to mathematics achievement. Expectancy value theory (Eccles et al. 1983) argues that when students are interested in mathematics, they are more likely to engage in mathematics related activities and to be more resilient when facing difficulty while doing mathematics. And as indicated earlier, Atwater et al. (1995) found that having an interest in mathematics was a significant predictor of enrollment in mathematics courses as well as performance in those courses, compared to those with less interest in mathematics. However, in the current study, mathematical interest had neither direct nor indirect effects on mathematics achievement in grade 12. Grade 9 mathematics interest was also unrelated to grade 12 mathematics identity and self-efficacy. It was also unrelated to the difficulty of mathematics courses taken through grade 11. It was only related to grade 11 mathematics interest and even that relationship was weak.

In summary, among the three mathematical motivation measures employed in this study, only mathematics identity had a direct effect on grade 12 mathematics achievement. And while mathematics self-efficacy had an effect, it was indirect and only through mathematics identity at grade 11. Finally, being interested in mathematics had neither direct nor indirect effects on grade 12 mathematics achievement. Why might this be? Interest in an activity requires little engagement. It does not require deep knowledge or understanding of what it takes to accomplish an activity compared to self-efficacy and identity which do require knowledge and understanding. To have the confidence that one *can* accomplish a task (a feeling of efficaciousness) and to believe that one will be *good* at doing the task requires an understanding of what it takes to accomplish that activity. One can be interested in music without any expectation that one will be accomplished in performing it. Musical performance requires knowledge about music and an investment in the practice that leads to feeling certain one can carry out a performance. And carrying it out well leads to both self-confidence and acclamation from others, which in turn leads to seeing oneself as a musician and having others do the same thereby legitimating the identity. Again, the development of self-efficacy and identity requires investment whereas interest does not.<sup>14</sup> It may be for this reason that mathematics interest is not causally related to performance. Instead, interest, while correlated with identity and self-efficacy, does not necessarily translate into accomplished role-related performances.

## 7.4 *On the Role of Educational Expectations*

Other than the current study, none of those reviewed included educational expectations as a predictor in their models. In the current study, educational expectations appear to be a *general motivator* rather than the role-related motivators that identity and self-efficacy are. That is, while educational expectations at grade 9 were positively related to the difficulty of mathematics courses taken through the end of grade 11 as well as to educational expectations at grade 11, grade 9 educational expectations were not related to any of the three role-related grade 11 motivators (identity, self-efficacy, interest) in the prediction of grade 12 mathematics achievement as had been hypothesized. If educational expectations are a general motivator, one would predict that they are significantly related to whatever coursetaking leads to the educational outcomes aspired to; that is, coursetaking is viewed instrumentally to achieving one's educational aspirations. Identity (and self-efficacy) motivate one in a narrower way than educational expectations do. Importantly, this is not meant to imply that role-related motivations are unimportant; indeed, the results from this study demonstrate that *both* educational expectations and role-related motivators are important for grade 12 mathematics achievement, but they appear to operate independently of each other. Evidence for this claim is provided by the finding that grade 9 mathematics identity, self-efficacy, and interest were unrelated to grade 11 educational expectations in this study.

The most surprising finding was that none of the three measures of motivation (mathematics identity, self-efficacy, or interest) at grade 9 were related to the difficulty of the mathematics courses taken by grade 11. It was thought that perhaps there were substantial zero-order correlations between the three motivational measures and the mathematics coursetaking variable—correlations that were substantially reduced when taking the other variables in the model into account. However, an examination of the zero-order correlations of the three motivational variables with the mathematics coursetaking variable (Table 2) shows that all three are virtually zero. In the absence of a replication study, this result remains a mystery since it seems only logical that having a mathematics identity and feeling efficacious about doing mathematics would lead to taking challenging courses in mathematics.

Before moving to a discussion of the roles that previous mathematics achievement, mathematics coursetaking, and the socio-demographic variables played in the model, it is important to comment on the way that *mathematics self-efficacy* was measured in the current study. Rather than use a set of items that captured Bandura's (1994) definition, that is, measures of one's belief in one's ability to succeed in specific situations or accomplish a task, the items that were designed as part of the HSLS were specific to the mathematics class that a student was taking at the time of the administration of the survey. That is, self-efficacy might have referred to a student's feeling of efficacy about one student's Algebra I class in 2009 but another's Geometry class in 2009. It was further complicated because some students were not enrolled in a mathematics course at the time they were surveyed—this was more so in 2011

than in 2009. A preferred measure would have been based on items referring to self-efficacy in doing mathematics in general, that is, without reference to a particular course. There is no way to know whether the role of self-efficacy would have changed if it had been measured less situationally.

The same comment applies to the measurement of mathematical interest in this study. That is, the way that mathematics interest was measured might have referred to a student's interest in their geometry class in 2009 but in their calculus course in 2011, unless they were enrolled in no mathematics class, in which case they were surveyed about their interest in mathematics more generally.

### ***7.5 On the Role of Previous Mathematics Achievement***

Not surprisingly, the role of previous mathematical achievement, measured as performance on an algebra test given as part of the HSLs:09 survey in 2009, was the most potent predictor of mathematics achievement in grade 12. This finding is in line with the research literature which finds that students' early mathematics achievement plays a significant role in later mathematics achievement. As mentioned in the literature review, Gamoran and Hannigan (2000) found that eighth-grade algebra achievement scores were substantially associated with enrollment and achievement in advanced mathematics courses in high school and beyond. And Siegler et al. (2012), using nationally representative data from the United States and the United Kingdom, found that students' knowledge of fractions and divisions significantly predicted student's algebra and overall mathematics achievement in high school, after controlling students' other cognitive ability and social-demographic background.

### ***7.6 On the Role of the Difficulty of Mathematics Courses Taken***

As noted in the literature review, research by Wang and Goldschmidt (1999) found that the higher the level of mathematics courses taken, the better was students' later mathematics achievement. This finding was corroborated in the present study where it was found that the rigor of the mathematics courses taken through the end of grade 11 had a positive effect on grade 12 mathematics achievement, net of the motivational measures, educational expectations, grade 9 mathematics achievement, and the socio-demographic variables. However, the net standardized coefficient for this variable was relatively small—0.11. It is both surprising and of interest that the effect of the difficulty of the mathematics courses taken was smaller, and substantially smaller than that associated with grade 11 *mathematics identity* which had a coefficient of 0.27.

## 7.7 *On the Role of Student and School Socio-demographics*

As is found often in other studies (but interestingly, not in the Stets et al. (2017) study), the socio-demographic variables also had a direct effect on grade 12 mathematics performance. Among the sociodemographic variables in the current study, student SES is among the most prominent in importance. The higher the student SES, the stronger the student's mathematics identity, self-efficacy, and interest. However, as was noted above, SES was more strongly related to educational expectations than it was to the three measures of mathematics motivation. This suggests that educational expectations are more rooted in and influenced by one's family than are mathematical motivations. The latter are probably more influenced by school related experiences, including grades received and teacher and peer influences; however, the data needed to support this assertion were not included in this study.

It was also found that females on average scored *lower* than males on the study's measures of mathematical identity and self-efficacy, but not on having an interest in mathematics. These results are quite consistent with the results of other studies. For example, Hazari et al. (2009) found that males scored almost a full half standard deviation higher on their measure of physics identity than females. And Eccles and Wang (2016) found in a study of college bound students that women were less likely than men to report having a positive mathematics ability self-concept, but the authors found no difference in women's levels of interest in mathematics. Interest was also not a significant factor in the prediction of having a STEM occupation by age 29 in the Eccles and Wang (2016) study, paralleling the finding in the current study that mathematics interest was unrelated to mathematics achievement. The fact that women score lower than men on measures of mathematics identity, self-efficacy, and interest is perplexing given that women's mathematics achievement is nearly equal if not equal to that of men (Lindberg et al. 2010; Linn 2006).

The role of race/ethnicity in the current study is an interesting one: Black, Asian/Pacific Islander and Hispanic students all were more likely to express an interest in mathematics, to feel efficacious about doing mathematics and to have a mathematics identity than Whites at grade 9—a finding that calls into question the results reported by Seymour and Hewitt (1997). But the presence of these positive motivational factors for Blacks and Hispanics, in comparison to Whites, did not translate into positive direct effects on mathematics performance. An in depth study of the relationships among race/ethnicity, mathematics motivations, and coursetaking and how these translate or fail to translate into mathematics performance was beyond the scope of the current study, but more work in this area is clearly needed.



## 8 Unanswered Issues and Next Steps

Clearly, the important takeaway from this study is the importance of identity for role-related performances. Given the importance of a mathematics identity for mathematics achievement, an obvious question is: What can be learned from this study about how a mathematics identity is developed? Unfortunately, the variables included in the current analysis did not allow us to examine this question in any real detail—variables such as experiences with parents, peers, teachers, and mentors that could explain how interest, efficacy, and identity begin to form and develop over time (see Hazari et al. 2009) are needed and would include the types of interactions and networking experiences noted by Estrada et al. (2011), Merolla et al. (2012), Merolla et al. (2013) and Syed et al. (2011); also important are the career awards expected from majoring in a STEM course as found in the Hazari et al. (2009) study on the development of a physics identity.

One potentially promising approach for the development of academic identities is called identity education (Schachter and Rich 2011). Schachter and Rich present a theoretical framework that that can help students develop identities that can be used to help them achieve their educational goals. Research is needed to evaluate the effectiveness of this approach, however.

Of special promise is research being done at the High Tech High Graduate School of Education. Teachers from 17 K–12 schools in Southern California are part of a network called the Mathematical Agency Improvement Community (MAIC). Using student-centered practices, the goal of MAIC is for students to develop a sense of agency for doing mathematics (Sharrock and Rubenstein 2019). Premises being researched are: (a) The more students perceive that the purpose of classroom discussion is to learn different strategies to solve a mathematics problem, the more likely they are to believe that anyone can be a mathematics person, and (b) The more students perceive that the purpose of classroom discussion is to understand another's thinking, the more likely they are to believe that anyone can be a mathematics person. Research in progress suggests that these strategies are resulting in the development of mathematics identities for the participating students, although the full set of results was not released at the time of the writing of this chapter.<sup>15</sup> While this effort seems promising, future research needs to address the issue of how science, mathematics, and engineering identities can be developed through new curricula and classroom practices.

Another important issue is the degree to which the model presented in this paper applies to important subgroups. That is, does the model hold for both sexes, and does it hold as well for Blacks and Hispanics as it does for Whites? Also, given the concern about whether Black males' academic performance differs from that of Black females, the model needs to be examined to determine whether the model fits equally well for both these subgroups. Such an analysis would also allow for a closer examination of the positive relationship found in the current study between being black and grade 9 mathematics identity and self-efficacy but negative direct effect of being black on mathematics performance.

Finally, with the anticipated release of the next wave of data from the HSLS, plans are under way to examine college STEM course-taking and majoring in STEM subjects using not only the variables in this model, but to expand it to include science motivation measures that parallel those included in the present study measuring mathematics motivation. The richness of the variables collected as part of the HSLS will allow for an examination of whether science and mathematics identities differentially predict majoring in science and mathematics, respectively, for example. And does the choice of an engineering major require not only a science identity, but a mathematics identity as well?

Aside from the theoretical contributions these studies make to the literature on the role of identity in understanding role-related behaviors, they will also contribute to an understanding, more generally, of how it is through the early life course, from grade 9 to age 30, that some choose STEM majors and occupations and others do not.

## Endnotes

1. The variable “mathematics coursetaking” refers to the difficulty level of math courses taken.
2. The Science Study is following roughly 1,400 underrepresented minority students from college to STEM careers.
3. FICSMath was a national study in which data were collected from students enrolled in a single-variable calculus class at 2- and 4-year colleges and universities across the U.S. in 2009.
4. NAEP scale scores are reported as “plausible values” because, by the NAEP assessment design, students are administered only a small subset of the total pool of assessment items, not representing the whole assessment domain. Multiple imputation procedures are then used to produce a set of twenty “plausible values” (e.g., plausible scores) for each student taking the mathematics assessment. In generating the plausible values, NAEP uses a “conditioning model” that includes all the variables from the various contextual questionnaires NAEP collects along with the responses of students to the particular portion of the assessment items that they are assigned. The proper analysis of NAEP data requires that the variables included in the analysis are also included in the conditioning model. This requirement posed a problem for the analyses in this study given that many of the variables came from the HSLS:09 questionnaires. In order to test whether the use of NAEP plausible values that have not been conditioned previously with the contextual variables from the HSLS:09 might have led to biased results, models that included all the variables in the final analyses as the independent variables and NAEP performance as the dependent variable were run in two ways: (1) using plausible values not conditioned with the contextual variables from HSLS:09, and (2) direct estimation where these HSLS:09 variables are included. (Direct estimation refers to using raw NAEP scores instead of NAEP plausible values to conduct analyses by using AM software.) Results revealed that using the NAEP plausible values not conditioned on

variables from the HSLs:09 contextual student questionnaire produced biased results. Therefore, a new set of plausible values conditioned on all variables used in the current study (both those from NAEP and those from HSLs:09) was produced. The technique used to generate the new set of plausible values is discussed in Appendix A in the Online Extra Materials.

5. The use of these two items as measures of identity fit well with the symbolic interaction approach in that identity not only depends upon one's own sense of self, but also on what Cooley (1902) and Mead (1934) call "reflected appraisals" which are the *perceptions* of others' appraisals. That is, our perceptions of others' appraisals are viewed as more important for the development of the self than others' actual appraisals.
6. The "I don't know" option was coded as 0.
7. More information about the algebra assessment can be found at: [http://nces.ed.gov/surveys/hsls09/pdf/2011328\\_1.pdf](http://nces.ed.gov/surveys/hsls09/pdf/2011328_1.pdf).
8. A more difficult version of the algebra test, but one that was vertically aligned with the grade 9 assessment, was administered at grade 11 as well. Including it instead of the grade 12 NAEP mathematics assessment as the outcome of interest would have meant that the motivation variables of interest (i.e., mathematics identity, self-efficacy, and interest) were measured at the same point in time as the mathematics outcome variable rather than prior in time, making causal inferences from the data risky if not impossible. By contrast, the use of the grade 12 NAEP mathematics assessment allowed for defensible causal conclusions, since mathematics achievement was measured one year later than the motivational measures.
9. Other includes Native American/Alaska Natives and students who are unclassified.
10. For the details of the requirements to participate in the National School Lunch Program, see <https://www.fns.usda.gov/school-meals/income-eligibility-guidelines>
11. Because School SES is defined by the percentage of students who receive free or reduced-price lunch, it will be negatively correlated with the student SES measure.
12. To identify the model, one must either set the variance of the  $\eta$ s to some value (typically 1.0) or set one of the  $\lambda$ s associated with a given  $\eta$  equal to 1.0. Doing so sets the metric of the  $\eta$  to that of the item to which one has set the  $\lambda = 1.0$ . The latter alternative was employed in this study.
13. The correlations among the residual terms of the endogenous variables can be found in Appendices H-1 and H-2 in the Online Extra Materials.
14. While the results in this study show the primacy of mathematics identity over self-efficacy and interest in the prediction of grade 12 NAEP mathematics performance, this should be interpreted with caution. As was seen when the correlations in Table 2 were examined, there is substantial multicollinearity among the three measures. Gordon (1968) has pointed out that errors in drawing substantive conclusions about the importance of a variable can be made easily in the presence of high multicollinearity. This suggests the importance of additional

research to examine the primacy of identity over self-efficacy in the prediction of role-related behaviors.

15. Personal communication with Daisy Sharrock, June 24, 2018.

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# **Building Further Bridges**



# The Role of the Other: How Interaction Partners Influence Identity Maintenance in Four Cultures



Dawn T. Robinson, Lynn Smith-Lovin and Jun Zhao

**Abstract** Since its inception, identity theory has emphasized the crucial role of relationships with others in shaping social behavior. Sheldon Stryker's original formulation of identity theory gave a central role to social networks in determining structural commitment to identities. Research in the identity theory tradition explicitly considers interactional partners as occupants of counter-roles and as sources of reflected appraisals. Implicitly, identity theory research also considers the identities and actions of others as environmental input into the identity verification process. Affect control theory offers a somewhat more elaborated specification of the influence of interaction partners in the identity control process. Others serve both as a source of impression-change in social situations, and as a resource for identity maintenance as the objects of new actions. Recent cross-cultural work in the affect control theory tradition points to important cultural variations in that influence of the other in identity maintenance. In high context cultures like Egypt and Morocco, for example, the identity and actions of one's interaction partner play an even larger role in shaping one's identity-situated behavior than in low context cultures like the United States. In this chapter, we present a series of simulations that illustrate the impact of interaction partners on identity maintenance in the United States, China, Egypt, and Morocco.

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Sociologists understand identities to be fundamentally social projects (Owens et al. 2010). The presence of others, and what they do, matters. Social interaction partners aid in the constitution, reinforcement, and challenging of identities. Even so, in this chapter we argue that identity theories would do well to make more explicit the contribution of interaction partners in identity dynamics. We argue that *who they are* also matters.

This is not a new argument. In 1964, Kuhn offered a similar sentiment: “I wish to observe at the outset that while *the other* plays an incontestably crucial role in the conceptions of Cooley, Dewey, Mead, Faris, and the other writers who developed the symbolic interaction orientation, nevertheless *the other* is never attended to with the discerning and analytic interest which they give to the actor (p. 6, emphasis in original).” Symbolic interaction has advanced a great deal since then, but contemporary work continues to pay disproportionate attention to the actor, leaving the role of interaction partners somewhat under-theorized. We begin this chapter by reviewing the ways in which identity theories *do* concretely incorporate social interaction partners into predictions about identity and behavior. Then, we call for incorporating the identities of interaction partners explicitly into formal models of social interaction and describe some contributions of affect control theory as a starting point. In particular, we argue that cross-cultural variation in the role that interaction partners have in shaping the meaning of social interaction highlights the importance of interaction partners in identity-motivated behavior more generally. We then present a series of computer simulations that show how cultures vary in their understanding of the implications of interaction partners for identity dynamics. These simulations suggest that the identity meanings of interaction partners are important cross-culturally—but in some cultures more than others. Moreover, the results highlight differences in identity fluidity across cultures in ways that are consistent with cross-cultural research, but could be better incorporated into contemporary identity theories.

## 1 Interaction Partners and Identity

Contemporary theory and research on identity processes rest on a foundation of symbolic interactionist thought that incorporates the notion of the other into our understanding of identity in a variety of ways. Sociological theories of identity consider the presence of others, the actions of others and, to a less developed extent, the content of others’ identities, in shaping the behavioral enactment of identities.

## 1.1 Presence of Others

Social identities take form in comparison with and in contrast to the social identities of others. Role theorists coined the concept of counter-role to capture the idea that the role of doctor requires the role of patient to truly actualize (Moreno 1961). To understand the identity of a university student necessarily implicates an understanding about the role identity of a professor. The university student identity also gets meaning from comparison with those enacting relevant alternative identities (e.g., high school students, college-age non-students) (Reitzes and Burke 1980). Stryker's (1980/2000) initial formulation of identity theory focused heavily on the importance of interaction partners in establishing identity meanings and, in particular, their contribution to shaping identity salience hierarchies. According to this theory, others in the social environment serve as sources of interactional commitment. Interactional commitment derives from the potential social loss one could incur from failing to appropriately confirm an identity and leads to identity salience (instantiation). This model incorporates the notion of counter-role and generalizes it to less institutional domains where our interaction partners still, by their very presence in our lives, help to invest us in performing some identities more than others.

Stryker's early statement about social relationships as the basis for structural commitment to identities was pretty straightforward. The more social ties one has to interaction partners whose relationship depends on the enactment of a particular identity, the more one is interactionally committed to that identity. The more valued the ties are that depend on a particular identity enactment, the more affectively committed one is to that identity. Stryker further argued that identity commitment (affective and interactional) increases identity salience (likelihood of enactment). Walker and Lynn (2013) investigated these arguments using a more elaborated network approach. While they found no support for the direct influence of interactional commitment and affective commitment, they did find support for the importance of immediate social networks. Importantly, they found that measures of embeddedness, the patterns of relationships *among* one's social interaction partners, were better predictors of identity salience.

Stryker et al. (2005) elaborated this structural component of identity theory and located identity processes within a set of nested social structures (large, intermediate, proximate). They argued that role identities derive from the process by which large (e.g., race, class, gender) and intermediate (e.g., neighborhood, school) social structures shape proximate social structures (e.g., families, clubs, teams, interpersonal networks). A recent wave of research has focused on the importance of these proximate social structures in shaping identity salience (behavioral enactment) and identity commitment (attachment to identity-relevant others). Merolla et al. (2012) showed that university students' participation in science-training programs increased commitment to a science identity as well as future career intentions (salience). Participation in these proximate social structures (science-training programs) specifically foster the kinds of relationships and interactions with social others that increase a student's investment in an identity as a future scientist.

## 1.2 *Actions of Others*

Sociologists have always recognized the impact of others' behaviors in shaping our conception of ourselves, most directly through the socialization process. Cooley (1964/1902) noted that our self-understandings come from seeing ourselves through the mirror of others' treatment of us, resulting in what he called the *looking-glass self*. Sullivan (1953) coined the term *reflected appraisals* to describe the actions of others in shaping the looking-glass self. Symbolic interactionist Gregory Stone (1981/2006) argued that identities are considered to be established when others use the same words to identify us that we use to identify ourselves. Referring to identity claims (including matters of appearance) as *announcements* and the treatment of others (reflected appraisals) as *placements*, Stone argued that identities take form in the coincidence between announcements and placements (p. 143).

The other can influence one's identity by means other than validating one's own identity claims, however. Sometimes, placements can be strategic. We might assign someone else an identity in order to shape or constrain their behavior. Weinstein and Deutschberger (1963) coined the term *alter-casting* to refer to strategic projections of identities onto others—for one's own self-serving purposes. In this case the actions of the other do not just have the added consequence of confirming/disrupting our own identity announcements, they are explicitly geared toward placing us into an identity for the *other's* own purposes ("You are such a generous colleague with your time. Would you mind commenting on this paper for me?"). Whether implicit validation or strategic projection, reflected appraisals have become a crucial component of contemporary sociological theories of identity, serving as feedback in the negative-feedback systems postulated by both identity theory (Burke 1991) and affect control theory (Heise 1979, 2007; MacKinnon 1994; Smith-Lovin and Heise 1988).

A study by Cast and Cantwell (2007) illustrates the ways that reflected appraisals might impact identity development over time. In a longitudinal study of newly married couples, the authors measured identity meanings for both self and spouse over time and found that identity meanings are responsive to (presumed) feedback from spouses. When spouses disagree about identity meanings for a member of the couple, each spouse changes their identity meanings over time to become more consistent with the others' views. The presumed mechanism is reflected appraisals—either directly through communication, or indirectly through action.

## 1.3 *The Identity of Others*

The notion of altercasting makes apparent that the content of an interaction partner's identity affects behavior in interaction—especially when one is trying to manage that person's identity. In another salient example of how the content of an interaction partner's identity affects one's own identity, Francis (1997) presented an ethnographic study of the process of interpersonal identity management in support groups for those

who had lost a spouse to divorce or death. Francis focuses on how individuals can manage the emotions (in this case suffering) of others by managing their identities. Her findings highlight the importance of the others' identity in shaping one's own identity process in a number of ways. In one of the support groups, Francis found that a key technique was to redefine the situation of divorce first by re-imagining the other (ex-spouse) with a weakened identity (fish, as in "plenty of fish in the sea"), and subsequently discarding the other entirely and replacing him/her with a different identity (God, as in God is challenging me to be a better person). By invoking a new interaction partner (God), Francis argues that the support group techniques help participants move away from repeated interactions in situations likely to recreate the same disturbing feelings about self.

Thoits (this volume) points out that empirical support for the link between identity importance and identity salience varies widely in magnitude, and she offers a potential explanation based on measurement context. This explanation rests in part on the recognition of the importance of the other in defining a salient identity. Thoits points out that when respondents are asked about their likelihood of mentioning an identity (a common measure of salience) to someone new who does not share that identity, they may be more likely to respond positively. In contrast, when asked the same question in a social context where all would be expected to share the identity (would you mention your identity as a college student when interacting with a fellow student in a class?), respondents may be less likely to imagine that sort of identity claim (announcement, in Stone's terminology). In addition to having important consequences for thinking through strategies for measuring identity salience, this line of thought reinforces the importance of the social other in shaping identity-related behaviors (in this case, identity announcements).

Affect control theory assumes that we manage others' identities at the same time as we manage our own (Smith-Lovin and Robinson 2006). Actually, the theory assumes that we manage meanings associated with the entire situation at the same time. This means that the same person with the same identity meanings activated, the same levels of commitment to that identity, and the same degree of prominence associated with that identity would be predicted to direct *different* behaviors to confirm that identity, depending on the identity of the interaction partner.

Wiggins and Heise (1987) conducted a laboratory experiment that graphically illustrates how different others can act as resources for maintaining identities. This is because of a basic consistency principle—we seem nicer when we do nice things to positively evaluated others than when we do nice things to stigmatized others. This consistency between an action and its object yields predictions about how someone will act depending on their potential alters and their momentary self-esteem.

Wiggins and Heise created a laboratory situation in which a student research participant was in a "communications study" with another person. That other person was described to them as either another university student (an identity that was quite positively evaluated) or a delinquent from a neighboring high school (a stigmatized other). The key dependent variable was how the student acted toward the other (the university student or the delinquent) after the student was either appreciated or humiliated.

An experimenter came in and introduced the study, then left. A secretary then came in and gave the two participants in the communications study forms to fill out. The experimenter, the secretary, and the other person (university student or delinquent) were all confederates. The actual research participant was given a pen and a deliberately confusing questionnaire. When the secretary returned to collect the forms, she either appreciated or humiliated the research participant. When she appreciated the participant, she was generally supportive and complimentary. When the secretary was humiliating, she berated the participant for using a pen rather than a pencil to fill out the questionnaire and complained that he was too slow. After her nice/nasty behavior, the secretary left the room. Therefore, the other participant (a confederate occupying the identity of university student or delinquent) was the only other person available for identity-restoring social action.

Thus, the experiment had a  $2 \times 2$  design—secretary: nice versus nasty and other “participant”: valued other (university student) versus disvalued other (delinquent). The naïve research participants were 52 freshmen and sophomore students at a large Southeastern state university. The theoretical prediction was that the consistency principle would dictate that the identity of the other would influence what behavior would best maintain or restore the research participant’s identity. The dependent variable was the ratings by 12 judges (six males and six females) of the research participant’s videotaped behavior. The judges could only see the real participant; they were, of course, blind to condition. They rated the behavior of the research participant toward the other on two evaluation scales, a potency scale and an activity scale. As predicted, when the research participant had been mistreated and his/her self-identity damaged, s/he was significantly more nice and pleasant toward the other who was labelled a university student, while those who thought they were interacting with a delinquent were at best neutral in their behavioral responses. When research participants had been treated nicely by the secretary, they behaved more positively in general, but also much more similarly toward the two differently labeled others.

The Wiggins and Heise (1987) laboratory experiment is distinctive in that it explicitly considers how the identity of the other influences self-identity restorative actions following the same sort of identity deflection. Wiggins and Heise also conducted two vignette experiments to study intentions and expectations about behavior toward a variety of others. Again, these studies are striking in that they consider specifically how the identity of the other people in the situation, and the actions of those people, can determine sequences of action. The reason why these studies can make theoretical predictions in such complex scenarios is that they use affect control theory, a formal theory that links all aspects of the situation in the same meaning space and predicts that people operate to maintain the cultural meanings of all parts of the situation. Therefore, affect control theory can offer a much more complex, complete description of how the other person and his or her actions influence behavior. We now turn to a more complete description of that theory to illustrate how it might inform our consideration of the role of the other.

## 2 Affect Control Theory

Affect control theory more fully elaborates the impact of interaction partners in identity processes by taking into account the meanings of an action (behavior), its performer (actor) and the receiver of that action (object) in its predictions about identity confirmation and change within social interactions. More complete descriptions and reviews of the empirical literature can be found elsewhere (MacKinnon and Robinson 2014; Robinson and Smith-Lovin 2018). Here we focus attention on the elements of the theory that allow it to develop the impact of the other in identity maintenance.

Affect control theory rests on the assumptions that (1) actors react to social situations in terms of symbols, and the meanings that those symbols carry for them, (2) symbolic meanings are largely shared within a culture, leading actors to be able to role-take, viewing the situation from the position of other actors and anticipating their reactions to the interaction, (3) actors are motivated to maintain meanings associated with activated identities of self and other, (4) meanings can shift within situations as a result of one's own or others' actions. The theory uses the dimensions of evaluation, potency, and activity to index the meanings of behaviors and identities. The fact that all elements of a situation can be mapped into the same three fundamental dimensions of meaning allows the theory's formal expression.

### 2.1 Sentiments

*Evaluation, potency, and activity* are universal dimensions identified by Charles Osgood and colleagues (Osgood et al. 1957, 1975; Osgood 1962) that describe affective meaning of lexicons in more than 20 national cultures. These three fundamental dimensions of meaning capture cultural sentiments toward elements of an interaction—identities, behaviors, emotions, and settings. The evaluation dimension captures the amount of goodness or badness we associate with a concept. Its meanings range from *nice, warm, good* to *nasty, cold, bad*. The potency dimension captures the amount of powerfulness or weakness we associate with a concept. Its meanings range from *big, strong, powerful* to *small, weak, powerless*. The activity dimension captures the amount of liveliness or quietness we associate with a concept. Its meanings range from *fast, noisy, lively* to *slow, quiet, inactive*.

While the dimensions themselves are universal across cultures, sentiments are products of a culture. While individuals may vary in attitudes toward their own mothers, members of the mainstream U.S. culture basically agree that the general meaning of the role-identity of mother is good, powerful, and moderately active. Sentiments can vary cross-culturally, however. Affect control theory researchers have used evaluation, potency, and activity ratings to index meanings in a variety of different cultures, including the United States (Robinson et al. 2016), Canada (MacKinnon 2006), Japan (Smith et al. 2006) Germany (Schröder 2013), China/Mandarin (Smith

and Cai 2006), Northern Ireland (Willigan and Heise 2006), India/Bengali (Mukherjee and Heise 2017), Egypt (Smith-Lovin et al. 2016a) and Morocco (Smith-Lovin et al. 2016b). Within each culture, average evaluation, potency, and activity ratings are compiled into cultural “dictionaries” that contain generalized, widely shared meanings. These dictionaries index three-number evaluation-potency-activity profiles for hundreds of identities, behaviors, traits, emotions, and settings within each culture. These evaluation-potency-activity profiles represent all of the elements of a social interaction using the same metric, which allowed Heise (1979, 2007) and Smith-Lovin and Heise (1988) to develop a mathematically specified theory of social interaction.<sup>1</sup>

## 2.2 Impressions

The theory rests on a set of impression change equations that describe the way that affective meanings shift as a result of interactions. These equations are mathematically manipulated to implement the affect control principle: the assumption that individuals behave to maintain or restore affective meanings associated with activated labels.

After we define a social situation using culturally meaningful labels, the affective meanings can change as social interaction occurs. The affect generated by the labels university student and secretary help us know what actions we expect the two occupants of those identities to take toward one another. When the secretary embarrasses the university student, our feelings about that secretary, that university student, and perhaps even what it means to embarrass someone, are altered because of our observation of that event (including our labeling of the action). In affect control theory, we call these situated meanings transient impressions. These impressions are contextualized affective meanings that come from viewing symbolic labels in specific social events. Importantly, they are measured on the same three dimensions: evaluation, potency and activity.

In affect control theory, impressions are calculated using a set of regression equations (1969, 1979; Heise and Smith-Lovin 1981) that have the following general form:

$$A' = c + b_1A + b_2B + b_3O$$

$$B' = c + b_1A + b_2B + b_3O$$

$$O' = c + b_1A + b_2B + b_3O$$

where  $A$ ,  $B$ , and  $O$  represent the Actor, Behavior, and Object, and weighted combinations of the general sentiments toward the actor (secretary), behavior (embarrass) and object (university student) are used to predict the in-context impressions of the



actor/behavior/object. Each of the elements (actor, behavior, object) vary in all three affective dimensions (evaluation, potency, and activity), so there are 9 equations ( $A'_e$ ,  $A'_p$ ,  $A'_a$ ,  $B'_e$ ,  $B'_p$ ,  $B'_a$ ,  $O'_e$ ,  $O'_p$ ,  $O'_a$ ) to describe impression change in an actor-behavior-object event. Elements with primes (e.g.,  $A'_e$ ) are transient impressions after an event, while nonprime elements are the sentiments before an event occurs.

Consider the event created in the Wiggins and Heise experiment, “secretary embarrasses the university student.” Impressions of that particular university student after that event are likely to be different than our generalized sentiments about university students. We can regress our generalized sentiments about *secretary*, *to embarrass someone*, and *university student* on the situated impressions ( $O'_e$ ,  $O'_p$ ,  $O'_a$ ) of the *university student* who was embarrassed by the secretary to learn more about how these social elements combine to form new impressions during social interactions. These equations use both the main effects of the generalized sentiments (e.g.,  $A_e$ ,  $O_p$ ) as well as culturally relevant two- and three-way statistical interactions between the sentiments of different features of the situation (e.g.,  $B_eO_e$ ) to predict the new impressions arising from the social interaction (e.g.,  $O'_e$ ).

These impression-change equations operate as a system and the theory needs all nine equations at a time to predict how meanings change in the context of a social interaction. Moreover, each term in an equation operates within the context of all of the other terms in these equations. So, we should cautiously interpret the meaning of any term outside of that context. However, focusing on some of the relevant terms can help us see how these equations capture general cultural rules about how we make sense of social interactions.

In the United States equations (Heise 1979, 2007; Smith-Lovin 1987; Rogers 2018), there is a large positive effect of  $A_e$  predicting  $A'_e$ . This captures the idea that social actors seem nicer when they are occupying identities that the culture evaluates positively (like friend). In contrast, someone occupying a negatively evaluated identity, like a gossip, might seem relatively unpleasant no matter what s/he did and to whom. This term is called the *stability* effect. In the U.S. equations, all nine of the stability terms are statistically significant and among the largest of all of the terms. This gives some stickiness, or inertia, to the sentiments attached to labels. We start every interaction with some credit, or blame, based on the sentiments attached to the identities that are activated.

There is also a large, positive  $B_e$  coefficient predicting  $A'_e$  (actor’s goodness). This term reflects how much nicer an actor seems when he or she is behaving in nice ways. People seem nicer when they appreciate someone (a very positively evaluated act) than when they embarrass them (a mildly negative behavior). This is a type of consistency term that we call a *morality* effect. The effect of behaving nicely ( $B_e$ ) on  $A'_e$  is qualified by a sizable positive interaction, the  $B_eO_e$  effect. This interaction (called a *consistency* term) captures the idea that social actors seem especially nice when they behave nicely toward good others (or badly toward nasty others) (Heise 2007, p. 39). Social actors seem less good when they are either mean to good others or nice to bad others. A parallel term,  $A_eO_e$ , significantly predicts impressions of the object’s goodness ( $O'_e$ ). Social objects occupying good identities seem even nicer

when a good actor does something to them and are somewhat stigmatized when a bad person does something to them. This is also a consistency term.

Together, a full set of impression-change equations predict changes in the impressions of actors, behaviors, and objects on evaluation, potency, and activity ( $A'_e$ ,  $A'_p$ ,  $A'_a$ ,  $B'_e$ ,  $B'_p$ ,  $B'_a$ ,  $O'_e$ ,  $O'_p$ ,  $O'_a$ ) as a result of their combination in social events. They capture important information about how social events temporarily transform the meanings of the symbolic labels that we use to define events. Along with the sentiment dictionaries, these equations provide the empirical basis for the theoretical predictions made by affect control theory.

### 2.3 *The Affect Control Process*

Affect control theory proposes that actors work to experience transient impressions that are consistent with their fundamental sentiments (the affect control principle). Sentiments are the culturally shared, fundamental meanings that we associate with social labels. Impressions are the more transient meanings that arise as social interactions unfold. Discrepancies between sentiments and impressions (called deflection in affect control theory) tell us something about how well interactions that we experience are confirming cultural prescriptions. When people experience deflection in an interaction, they generate new events to bring the impressions back in line with cultural sentiments associated with the labeled identities in the situation [see Robinson (2007) for a more general description of control models and affect control theory's control system].

In affect control theory, we operationalize deflection as the sum of the squared differences between the general sentiments and resulting impressions of each element of a situation (actor, behavior, object) on each dimension of meaning (evaluation, potency, activity). This allows manipulation of the impression-change equations to implement the affect control principle. A computer software program (INTERACT) that houses the equations and sentiment dictionaries can solve for a three-number evaluation-potency-activity profile that minimizes deflection. We can predict the optimal behavior (in the form of a three-number profile) for an event (with a given actor and other) that will produce impressions as close as possible to the initial cultural sentiments.

A few key features of affect control theory's mathematical specification are especially relevant to the consideration of interaction partners in identity processes. First, the involvement of the identity of the social other is specified throughout the impression-change equations. In a typical interaction, individuals trade behaviors and thus take turns as actor and object over the course of an interaction. So, in this formulation actors serve as "the other" for influencing the objects' identity meanings and objects serve as "the other" for influencing actors' identity meanings. More specifically, the object terms, and various multiplicative terms involving the objects, shape the impressions of the actors who are behaving toward them, and the actor terms, and various interactions involving actors, shape the impressions of those who

are the objects of those actors' behaviors. Moreover, these influences are concretely specified within cultural models with specific coefficients.

The second key feature of the theory that is relevant to this argument is that the unit of the analysis in this theory is an interpersonal event—with an actor-identity, a social behavior, and an object-identity (for simplicity: actor, behavior, object). That means that predictions for responses to social events (predicted behaviors, emotions, new attributions) involve information about all of the event elements (actor, behavior, object) simultaneously. For example, Freeland and Hoey (2018) use the amount of affective deflection created by an event “Occupation 1 defers to Occupation 2” as a measure of occupational status. It is the culturally confirming or disturbing nature of the entire event that tells us about the relative occupational status of the two occupations.

The impression formation equations are estimated using observed inputs (in the form of sentiment dictionaries and ratings of events) within a particular culture. Therefore, both cultural sentiments and rules for combining sentiments into impressions can vary cross-culturally and reveal normative cultural information about the shape of routine social actions (Heise 2001, 2010, 2014; Heise and Lerner 2006; Kriegel et al. 2017; Robinson 2014; Schneider 1996; Schröder 2011; Schröder et al. 2013; Smith et al. 1994; Zhao and Smith-Lovin 2018; Zhao 2017). Recent comparisons of impression change equations between China and the U.S. (Zhao 2017) and between the U.S., Egypt, and Morocco (Smith-Lovin 2015) call our attention to differences in the role that interaction partners play in shaping identity impressions and highlight the importance of more rigorous attention to interaction partners in identity research.

### 3 Interaction Partners in Impression Change Cross-Culturally

Between 2010 and 2014, Lynn Smith-Lovin spearheaded a new wave of data collection in the United States, Egypt, and Morocco to update the sentiment dictionaries (Robinson et al. 2016) and impression-change equations in the United States (Rogers 2018) and produce new sentiment dictionaries and impression-change equations for the two North African cultures (Kriegel et al. 2017; Smith-Lovin et al. 2016a, b).<sup>2</sup> See Smith-Lovin (2015) for details about the sampling and instrumentation for these new data sets. Following Morgan et al. (2016), the new impression change equations were specified using Bayesian model sampling techniques to reduce the false discovery rate and lead to more stable model specifications. They were then estimated using OLS regressions that included all terms with a posterior inclusion probability (PIP) of higher than 0.5 [see Morgan et al. (2016) for more details about these procedures and their advantages]. Comparative analyses of these new impression-change equations revealed patterns of differences that highlight how interaction partners' identities can play different roles cross-culturally (Smith-Lovin 2015).

One of the main findings in this new cross-cultural comparison was that there is a great deal of commonality in the impression-change equations across the three cultures. There was a substantial amount of cross-cultural consensus about what shapes interaction outcomes—down to the magnitude of the effects. A second main finding was a consistent pattern of lower levels of stability coefficients in the two Arab cultures. While identity meanings have some stability in all three cultures, the coefficient sizes for the actor and object identity impression stabilities are considerably higher in the U.S. than in Egypt and Morocco. These differences were the strongest in the equations predicting object sentiments.

The lower stability effects in the two Arab cultures seem to be empirical evidence of what the anthropologist Hall (1966) referred to as the “high context” character of Arab cultures. According to these equations, the identity meanings in these cultures are much more fluid and responsive to what happens in the interaction. In contrast, the U.S. identity meanings are considerably more rigid and robust against the details of an interaction. This pattern is especially true of the object-person equations.

Other cross-cultural differences in these equations also were concentrated in the object evaluation equations—where more than half of the terms differed between the U.S. and the two Arab cultures (which did not differ from each other). In the U.S. equation the largest predictor of an object-person’s goodness ( $O'_e$ ) was the evaluation of that object-person’s identity ( $O_e$ )  $b = 0.595$ , followed by  $B_e$  (behavior goodness),  $b = 0.362$ . In other words, the best way to be seen as good in the U.S. cultural model is to instantiate a positive identity, but receiving positive acts from others also helps. We tend to stigmatize the victim of negative actions. In Egypt and Morocco, these same effects were important but their relative size was reversed. The largest predictor of object goodness was behavior goodness ( $B_e$ ),  $b = 0.517$ , followed by the stability term ( $O_e$ ),  $b = 0.243$ . In the two Arab cultural models, the character of behavior *directed at one* has a considerably larger influence (more than double) on one’s identity meanings than one’s own activated identity. This again is consistent with Hall’s notion of a high-context culture. Simply operating within a culturally-valued identity confers some esteem, but the actions of others matter more.

Another factor influencing object-persons’ goodness is the evaluation associated with the identity that is behaving toward them ( $A_e$ ). This term was also more than twice as large in Egypt and Morocco ( $b = 0.314$ ) than in the U.S. model ( $b = 0.133$ ). So, interaction partners matter more to one’s identity in the Egypt and Morocco models than in the U.S. model. Note also, that means that in the Arab models, *the goodness of the person directing the act toward you has a greater effect than the goodness of your own identity*.

The importance of the other can also be seen in the effect of  $O_e$  on the evaluation of the actor ( $A'_e$ ). This effect is quite a bit larger in the Arabic speaking countries than in the U.S., another indication that who you interact with has more impact in those high-context cultures. Now we turn to another language culture to illustrate that these variations in the effects of the other are not unique to Arabic cultures.

Zhao (2017) used Bayesian model sampling techniques to specify new impression-change equations for archived data from the People’s Republic of China (Smith and Cai 2006) and compared them to new estimates from the 1978 U.S. affect

control theory data (Smith-Lovin and Heise 1988). The differences reported by Zhao were somewhat more subtle and complex than those between the U.S., Egypt, and Morocco, and she devotes considerable attention to analyzing and interpreting the moral implications for a particular *balance* term ( $A_e B_e O_e$ ) that switches signs when predicting actor goodness in the U.S. and China. However, with respect to stability, Zhao found a very similar pattern of differences between the U.S. and China that Smith-Lovin (2015) reported between the U.S., Egypt, and Morocco. Once again, the U.S. equations showed higher stability terms than China across eight of the nine equations (as with the Arab comparisons, all but for  $B'_e$ ).

These new cross-cultural comparisons, based on more rigorous modeling approaches, call our attention to what appear to be robust differences in the way that members of U.S. culture respond to features of the situation when forming/altering identity impressions compared to China, Egypt, and Morocco. To further investigate the implications of these differences for cross-cultural variation in the role of interaction partners in shaping our identities, we explored these new equations in a series of computer simulations.

## 4 A Cross-Cultural Investigation of the Role of Interaction Partners in Shaping Identity: A Simulation Study

The specific pattern of differences in the parameter estimates across these four cultures points to more rigidity in the definition of the situation, including identity meanings, in the U.S. than in the other cultures. And, while the equations for all four cultures point to the importance in interaction partners in predicting one's identity meanings from ongoing social interaction, these effects seem larger in Egypt and Morocco than in the U.S. However, since these equations operate together as a system, the best way to explore their implications is to make use of them as a system—by simulating social interactions. To explore the implications of the cross-cultural variations in the fluidity of object-identities, we conducted a series of simulations using the affect control theory sentiment dictionaries and equations for the United States (Smith-Lovin 2015; Robinson et al. 2016), Egypt (Smith-Lovin et al. 2016a), Morocco (Smith-Lovin et al. 2016b), and China (Smith and Cai 2006; Zhao 2017). We conducted the simulations using INTERACT (Heise 2001). Full details of the results of the simulations are available from the authors.

### 4.1 *Simulation Design*

*Concept selection.* We focus our simulations on the role-identity of *father* as a focal identity, because it has widely shared meanings across the four cultures. Since the relationship between the character of a behavior and the other at whom it is directed is

so important for interaction dynamics, we selected one evaluatively positive behavior (to *defend* someone) and one evaluatively negative behavior (to *kick* someone) that have relatively similar sentiments across the four cultures. As interaction partners in these simulations, we selected one positively evaluated identity (*neighbor*) and one negatively evaluated identity (*criminal*) which also have fairly similar sentiments across the cultures. Exploring positive and negative interactions between the father and the two differentially evaluated others will allow us to demonstrate the cross-cultural differences in the impression change equations, since the sentiments for all of these event elements are largely shared among the four cultures. Finally, to illustrate the effects of cultural differences in sentiments in the context of these impression-change dynamics, we selected one additional interaction partner identity (*politician*) whose meanings vary cross culturally. Table 1 shows the average evaluation, potency, and activity sentiments for these six concepts in the four cultures.

*Events.* Using the concepts from Table 1, we simulated 48 actor-behavior-object events in a 2 (father as actor/father as object)  $\times$  3 (interaction partner: neighbor/criminal/politician)  $\times$  2 (behavior: defend/kick)  $\times$  4 (culture: U.S./China/Egypt/Morocco) design.<sup>3</sup>

## 4.2 Results

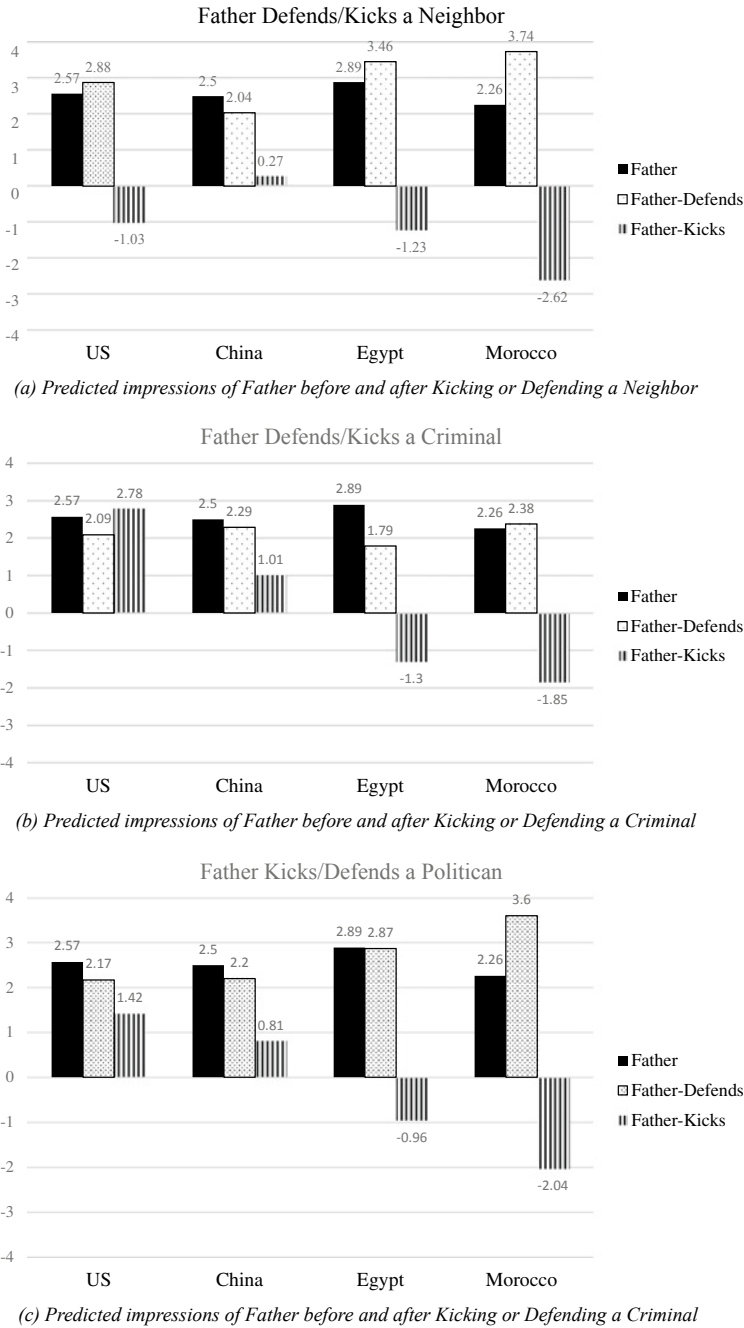
*Father as actor.* Figure 1 shows the results of the simulations involving a father behaving toward an interaction partner. For each simulated event, the figure shows the predicted actor evaluation associated with the father for simulated interactions in which the father either defends or kicks an interaction partner, using cultural sentiments and impression change equations from the United States, China, Egypt, and Morocco. In all three panels, the bars on the left of each cluster show the out-of-context evaluation associated with father in each culture. The middle bar shows the impressions of the simulated father after he defends his interaction partner; and the bar on the right shows the impressions of the father after he kicks his interaction partner.

Figure 1a shows the predicted impressions when a father behaves positively or negatively toward his neighbor, a positively evaluated identity in all four cultures (see Table 1). Fathers are good identities all four cultures, and still seem good after defending a neighbor. In the U.S., Egypt, and Morocco, a father's identity is slightly enhanced by doing this positive action to an esteemed other. In China, there is no predicted enhancement. In contrast, in all four cultural models, a father loses considerable esteem if he kicks a neighbor. This effect is especially strong in the Arabic countries, probably because of their lower stability coefficients. In China, differences in consistency, congruency and balance effects lead to a much smaller impact of both the positive or negative behaviors on the father's evaluation in the context of these events.

Figure 1b shows how differently this operates when the interaction partner is operating in a negative identity. Kicking a criminal damages a father's identity in the

**Table 1** Evaluation, potency, and activity sentiments associated with identities and behaviors used in simulations across four cultures

	Culture															
	United States				China				Egypt				Morocco			
Identities	Father	2.57	2.85	0.63	2.50	2.63	0.54	2.89	2.53	-0.34	2.26	1.84	-1.00			
	Neighbor	1.45	0.52	0.16	1.50	0.63	1.02	1.33	1.09	-0.59	1.02	-0.04	-0.24			
	Criminal	-2.58	-0.25	0.59	-2.27	0.73	-0.56	-2.85	-1.62	1.47	-2.33	-1.35	1.65			
	Politician	-0.90	2.20	1.42	-1.54	0.45	-0.20	0.79	1.13	0.51	0.92	1.28	0.15			
Behaviors	Defend	2.69	2.77	1.61	1.18	1.24	1.05	2.79	2.43	-0.22	2.56	2.45	-0.24			
	Kick	-2.53	0.85	1.83	-1.15	0.72	0.36	-2.06	-0.22	1.89	-2.30	-0.47	1.55			



**Fig. 1** Evaluation of father in four cultural models before and after simulations of a father performing actions toward a neighbor, criminal, or politician



China, Egypt, and Morocco models, but is predicted to *slightly enhance* a father's identity in the U.S. model. In the U.S. model, even though the father loses esteem from the bad act of kicking someone (the Be term), the strong stability effect ( $A_e$ ), the  $B_e O_e$  congruency term and the balance term ( $A_e B_e O_e$ ) mitigate these main effects and serve as protection for the actor's identity.

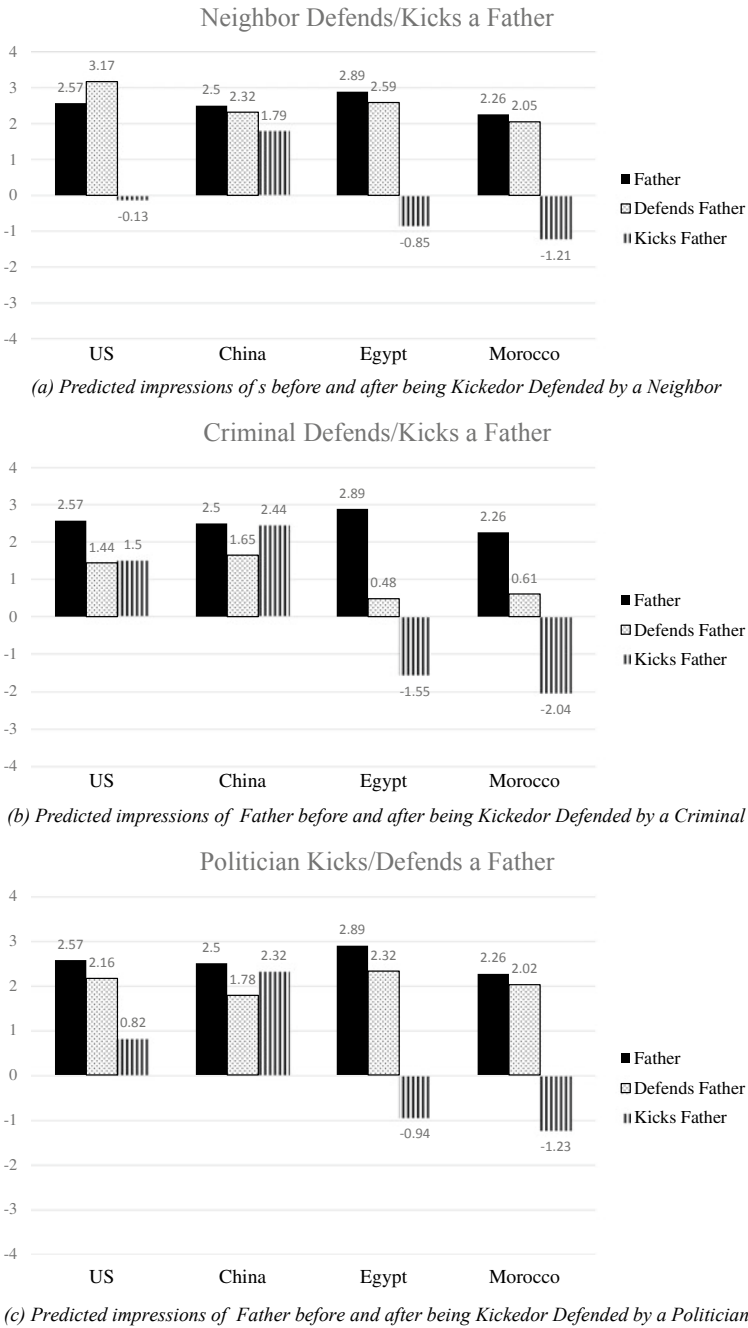
Figure 1c shows the predictions when the father behaves toward an identity that considered somewhat negative in the U.S., very bad in China, and somewhat positive in Egypt and Morocco. Defending a politician can be stigmatizing or identity enhancing, depending on the culture. In the United States, where politicians are somewhat negatively evaluated, the benefit of being nice to someone is undermined by the cost of the congruency and balance terms and the cost of being mean to someone is conversely offset by those terms. So, both effects are somewhat weakened. In contrast, in Morocco, where politicians are positively evaluated, there is an even greater cost to behaving badly when you do it to a good person (kick a politician) and a greater identity-reward for behaving positively toward a good person (defending a politician).

Looking across the three panels, we can see the effects of interaction partners coming through—and being conditioned somewhat by impression change dynamics and cultural sentiments. Behaving badly toward a good person is always identity-damaging; but behaving badly toward a bad person can be costly (China, Egypt, Morocco) or beneficial (U.S.), depending on the culture. And, of course, who is considered good or bad can vary culturally as well.

*Father as object.* Figure 2 shows the results of 24 simulations between the same interaction partners and events, but with the father being kicked or defended by the neighbor, criminal, or politician. Figure 2 shows the predicted object evaluations associated with the father for simulated interactions in which the interaction partner (neighbor, criminal, politician) either defends or kicks a father, using cultural sentiments and impression change equations from the United States, China, Egypt, and Morocco. As in Fig. 1, in each panel the bars on the left of each cluster show the out-of-context evaluation associated with father in each culture. The middle bar shows the impressions of the simulated father after he is defended by his interaction partner; and the bar on the right shows the impressions of the father after he is kicked by his interaction partner.

When a neighbor defends a father (Fig. 2a), the father retains his high regard across all four cultures, while being kicked by a neighbor is stigmatizing in all four cultural models. It is striking how ubiquitous this “blaming the victim” phenomenon is. However, we note that it varies considerably in its strength: it is very strong in the Arabic countries, moderate in the US, and much more muted in China.

In contrast (Fig. 2b) being defended by a criminal somewhat diminishes the esteem of a father in all four cultures, but being kicked by a criminal has different consequences in the different cultures. In the U.S. and China, it is not much different in consequence from being defended—perhaps slightly better. In Egypt and Morocco, a father who gets kicked by a criminal seems extraordinarily bad. Therefore, the blaming the victim phenomenon is not just stronger in the Arabic cultures, but has a distinctly different character. In particular, there seems to be both a strong negative



**Fig. 2** Evaluation of father in four cultural models before and after simulations of a father being acted upon by a neighbor, criminal, or politician

effect of associating with the negative actor and of being treated in a disparaging way.

Figure 1c shows again the complexity introduced when considering culturally varying rules of interaction and culturally varying sentiments at the same time. Politicians are seen as somewhat bad but powerful in the U.S., bad but not particularly powerful in China, and good and slightly powerful in Egypt and Morocco. This variation complicates interpretation across the simulated events even further by conflating initial sentiment differences with differences in impression dynamics. Even though politicians are viewed positively in Egypt and Morocco and negatively in the U.S. and China, the effect of being defended by a politician is just slightly denigrating in all four cultures. It appears that the different meanings of the actor and the differences in the equations are canceling each other out. When it comes to negative behavior, though, the earlier pattern re-emerges. Being kicked by a good person (a politician in Egypt or Morocco) is much more stigmatizing than being kicked by a bad person (a politician in the U.S. or China).

Across all 24 event simulations with father as an object, in only one event was a father expected to seem more positive after the interaction—the U.S. model of a neighbor defending a father (Fig. 2a). For the most part, the evaluation of father is relatively stable after being defended by a politician, and becomes stigmatized after being defended by a criminal (Fig. 2a). In the Chinese model, this stability extends to the experience of being kicked by a politician, neighbor, or criminal. In the Egypt and Morocco models, a father loses considerable status after being kicked, and especially by a criminal. In the U.S. model, however, a father loses the most status after being kicked by a positively evaluated interaction partner—a neighbor.

Together, these simulation results point to the importance of explicitly taking into account the identities held by interaction partners when theorizing about social action and identity meanings. In 11 of the 12 simulations where a father kicked someone, the impressions that father declined at least somewhat in evaluation. The only exception to this is in the simulation of “father kicks criminal.” In the U.S. model, performing a harsh act toward a stigmatized interaction partner can actually protect one’s identity from the negative identity consequences of that action. In the simulations based on models from Egypt and Morocco, we also see the consequences of the lower levels of actor identity stability. Kicking someone, anyone, makes even a father seem bad in these Arabic-speaking cultures. In contrast, a father who kicks a criminal or politician is predicted to seem good in the U.S. model. Only fathers who kick their neighbors are predicted to have situated identity evaluations less than neutral. And, in the China models, a father who kicks someone loses esteem, but not so much as to become negatively evaluated.

The results of these simulations are complex. The basic principle of affect control theory (and of symbolic interactionist approaches more generally) is simple—that people act to maintain meanings associated with their identities and other parts of their definition of the situation. However, affect control theory’s formal, mathematical statement and explicit consideration of the identities and actions of others generates patterns that are not easily summarized as simple propositions. Indeed, it is clear that the entire system needs to be considered simultaneously, rather than interpreting

individual impression change parameters or theoretical postulates. In affect control theory, the identities of all people involved in an interaction matter in interpreting events and responding to them.

## 5 Discussion

Stryker launched the tradition of structural symbolic interactionism with an attempt to understand what has become a paradigmatic question: What determines the choice of a man, who sees himself as both a father and a golfer, to spend an afternoon with his kids at the zoo, versus on the golf course with his friends (1980, p. 30)? In one sense, this is a question about competing identities. Stryker developed his theory of identity salience hierarchies as a means for adjudicating between such competitions. In another sense, this is also a question about competing relationships. Stryker's incorporation of structural commitment takes relationships specifically into account to predict identity salience. The number and importance of social relationships that depend on a particular identity affect the relative likelihood of enacting that identity, compared to other relevant identities.

We began this chapter by reviewing a number of additional ways in which identity theories have acknowledged the importance of *the other* in predicting an actor's behavior. Others help to define our identities (as role partners or reference group members) in situations. Interactions with others help to determine how committed we are to identities and how frequently we choose to enact them. The reflected appraisals of others tell us how well we are maintaining those identities, and may motivate us to change their meanings or leave them entirely.

Stets and colleagues have taken interaction partners extremely seriously by extensively investigating identity-related behaviors and emotions within the context of romantic relationships (e.g., Stets 1997; Ellestad and Stets 1998; Stets and Burke 2005). Nonetheless, many other identities studied in the identity theory tradition are presented as more individual in focus. In a more modal style of work, Bohrnstedt et al. (this volume) provide another powerful demonstration of the importance of identity for predicting role-based performances in their investigation of how math identity predicts mathematical achievement. In fact, considering only the identity of a single actor at a time, and using others primarily as sources of information about the endorsement or challenges to that identity, has yielded a substantial amount of knowledge in the nearly forty years since the publication of *Symbolic Interactionism: A Social Structural Version* (Stryker 1980).

Some identities incorporate the identity of the other into their instantiation. Being a parent implies having children. However, one's identity as a parent might still be enacted differently while interacting with one's child or with the child's teacher. One's identity as a judge might be confirmed differently based on whether one was interacting with a witness, a juror, a plaintiff, an attorney, or a voting constituent. Moreover, cross-cultural research suggests that all identities vary in their degree of dependence on others across various cultures. Thus, in this chapter we joined with

Kuhn (1964) in saying that we think that scholars can still do *more* to explore the importance of the other in maintaining or challenging identities.

The theory that we have explored here takes one approach. As a theory that uses culturally grounded information about how people respond to social events to make predictions about identity-related behaviors, emotions, and perceptions, affect control theory is a good place to begin exploring the variation in how interaction partners shape identities across cultures. Culture “gets in” to social interactions in two ways in affect control theory: First, through the deep cultural rules that govern interaction, captured in the impression change equations; Second, through the cultural attitudes toward concepts that are captured in the sentiment dictionaries. Our simulations revealed some implications from the culturally-specific impression change equations and sentiment dictionaries that form the engine of the affect control theory model.

Examining simulated interactions with identities (father, neighbor) and behaviors (kick, defend) that have largely similar meanings across cultures, we were able to see some of the subtler outcomes that arise from the differences in cultural rules. Examining interactions with an identity that varies in sentiments across cultures (politician), allowed us to see some of the more dramatic effects that can arise from cross-cultural differences in identity sentiments. In all cultures, behaving nicely toward others, operating in a positively evaluated identity, and being on the receiving end of nice behaviors all confer positive meanings on one’s identity. However, these basic effects are qualified by a number of other aspects of the interaction—particularly by information about the identity of one’s interaction partner. Behaving nicely toward good others enhances one’s identity in the U.S., Egypt, Morocco. However, in China, there is no such enhancement. Behaving cruelly toward nice others is damaging to one’s identity in all cultures, but most pronouncedly in Egypt and Morocco. Behaving nicely toward a devalued interaction partner slightly sullies one’s identity in the U.S., China, and Egypt. In contrast, behaving harshly toward a devalued interaction partner more seriously damages one’s esteem in China, Egypt, and Morocco, while slightly *enhancing* one’s identity in the United States. The anomalous response in the United States is being driven by the so-called “balance” term. In the context of China, Zhao (2017) has argued that showing kindness to stigmatized others is a sign of a deeply moral person in Confucian culture. Failure to do so, sullies one’s reputation.

Our simulations also revealed strong evidence for what cross-cultural researchers refer to as the difference between “high context” and “low context” cultures (Hall 1966; Gudykunst et al. 1988). In the United States, once an identity label is activated in an interaction, that has strong consequences for the ways the holder is perceived. In the two high context Arab cultures we examined, those identity meanings were more fluid—more prone to being influenced by the actions delivered or received, and by the identity of the interaction partner.

One key difference between affect control theory and Stryker’s original formulation of identity theory (and most of the work that grew out of that tradition) is in what is being explained. In identity theory, the focus is on how differential investment in particular identity labels leads to their instantiation. In affect control theory, the

focus is on what the instantiation of a particular identity means for the interaction that ensues.

Affect control theory views the entire situation as a set of culturally shared sentiments (for identities of self *and* other, actions that are taken, and even personal characteristics, social settings, and non-verbal behaviors) (MacKinnon and Robinson 2014). Furthermore, it estimates impression change equations that show how all of those things affect each other in the course of social interaction. The result is a dynamic system which can only be understood as a system rather than as a list of postulates.

This characteristic has obvious advantages in its ability to deal generatively with a wide range of situations and cultures. It also has disadvantages in the sense that a great deal of modeling is necessary to explore the implications of changes in sentiments or impression change structures. We have been able to provide only a small taste here of its potential. However, we hope we have illustrated two important features. First, the identities of interaction partners (the other) represent important resources for maintaining and restoring self-identities and important qualifiers of the actions that are received in social encounters. Second, cultures vary substantially both in the meanings and in the identity processes that they display.

We suggest that identity theories that grow out of the symbolic interactionist tradition need to deal explicitly with these two issues. We do not suggest that affect control theory's dynamic control system approach is the only way to approach the problem of the other. However, we do encourage other theoretical research programs to both make their treatment of interaction partners explicit and to explore the generality of the hypotheses that they have tested in the U.S. through studies in other cultural settings.

## Endnotes

1. A new development in affect control theory, called Bayes ACT, acknowledges that sentiments can be a probability distribution of evaluation-potency-activity meanings (Schröder et al. 2016).
2. See Smith-Lovin (2015) for details about the sampling and instrumentation for these new data sets.
3. Our simulations used concept sentiments that were averaged across ratings by male and female respondents from the various data sets. When the concepts are rated during the sentiment dictionary collection process, there is no gender assigned to the concept. Some concepts (e.g., Father, Criminal) may implicitly evoke a gender or a gendered prototype when respondents are rating them. So, gender may be built into these ratings, and built into some concepts more than others.

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# Embeddedness, Reflected Appraisals, and Deterrence: A Symbolic Interactionist Theory of Adolescent Theft



Ross L. Matsueda, Kate K. O'Neill and Derek A. Kreager

**Abstract** This chapter builds on work by Matsueda (1992) by incorporating expected consequences of behavior into a symbolic interactionist theory of reflected appraisals and delinquency. Following Granovetter (1985), we frame the problem of integrating a theory of the self and rational choice as specifying how decisions are embedded in the structure of social relations. We argue that Mead's (1934) theories of the self and role-taking provide a theory of decision-making that incorporates social relations concretely in the social act and abstractly through taking the role of the generalized other. We derive several testable hypotheses from a theory of delinquency based on Mead, and test them using longitudinal survey data from the Denver Youth Survey. Using random-effects negative binomial models for counts of self-reported acts of theft, we find general support for our model: Theft is strongly related to reflected appraisals as a rule violator, as well as to the expected costs and rewards to theft. We also find that the deterrent effect of arrest is weaker for youth who see themselves as rule violators.

**Keywords** The self · Identity · Delinquency · Theft · Longitudinal design · Embeddedness · Symbolic interactionism · Rational choice · Deterrence · Reflected appraisals · Panel model

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## 1 Introduction

The problem of social control—how society controls the behavior of its members—has traditionally been at the heart of sociology as a discipline (Ross 1901). Research in criminology has examined the problem of controlling crime, exploring two forms of social control: formal control by the legal system, and informal control by social groups. Under formal control, the state threatens offenders with punishment, including arrest, conviction, and incarceration, to deter them from unlawful behavior. Undergirding the legal system is a set of behavioral principles rooted in the classical ideas of the Enlightenment period, which assume people are rational actors calculating costs and benefits associated with all behavior, including crime. It follows that threats of punishment will deter crime by increasing its costs. Historically, sociological criminologists have been skeptical of rational actor models, and therefore, tended to deemphasize the deterrence question. This changed in the late 1960s, as the United States embarked on a policy of mass incarceration to stem the rising tide of crime. Stimulated by Gary Becker's (1968) seminal paper, which applied standard economic utility theory to the question of criminal deterrence, a large body of individual-level survey research has examined deterrence from a neoclassical economic perspective (e.g., Piliavin et al. 1986; Nagin 1998). That research finds consistent but modest effects of the certainty (but not severity) of punishment on offending (see Pratt et al. 2006). Such research has led criminologists, including sociologists, to reconsider rational choice theories of crime (e.g., Cornish and Clarke 1986; Opp 2020).

Sociological criminologists have traditionally emphasized the informal control of crime, in which social groups such as families, schools, peers, and neighborhoods curtail criminal behavior. Research has demonstrated the importance of early childhood socialization by families and peers, as well as informal controls in schools and communities, in launching trajectories of offending. More specifically, research has examined the role of the self—a person's subjective awareness of themselves as an object, including awareness of their abilities, behaviors, and unique characteristics—as a mechanism explaining how social relationships influence delinquent behavior (e.g., Schwartz and Stryker 1970; Matsueda 1992; Heimer and Matsueda 1994; Maruna 2001; Giordano et al. 2002; Paternoster and Bushway 2009). We build on this line of research by specifying a sociological theory of delinquency that integrates a symbolic interactionist conception of the self with rational action.

Previous research incorporating formal and informal controls has often relied on an ad hoc integration of concepts and variables into a statistical model. Typically, a rational choice model of deterrence and crime is specified and then variables representing informal control are added to multivariate models (e.g., Grasmick and Bursik 1990; Nagin and Paternoster 1994). Such research has failed to specify, theoretically, exactly how social relationships enter into decisions about crime. This is an important theoretical question because it asks how utility maximization—an economic concept—can accommodate sociological concepts of social relations, social organization, and the social self.

Our theoretical task is to incorporate social relationships into a model of decision-making. In economics, Akerlof and Kranton (2000, 2010) have incorporated the concepts of social interaction and social identity within a standard neoclassical utility model, treating identity as another argument in the utility function. We take a different strategy, specifying a thoroughly sociological model of social relations and decision-making based on George Herbert Mead's (1924–25, 1934) theory of the self and social control. We then apply the model to the empirical case of the control of delinquent behavior (see Matsueda 2006a).

Our theoretical framework unfolds in five steps. First, we draw on Granovetter's (1985) embeddedness thesis, which critiques utilitarian models for failing to specify how actors' decision-making is embedded in social relations, and which delineates the requisites for a theory of decision-making that includes social relations without reverting to an oversocialized conception of human behavior. Second, we show that Hirschi's (1986) integration of social control theory and rational choice incorporates social relations into decision-making; however, by rejecting the possibility of normative conflict and embeddedness in criminal networks, the control-choice theory is incompatible with embeddedness. Third, we argue that a theory of the self based on Mead is consistent with normative conflict, embeds decision-making in social relations through the generalized other, and provides a theory of information and preference formation.

Fourth, we discuss the development of the self from childhood to adulthood. Adolescence, we argue, is a transitional period in which more complex forms of social organization appear in decision-making through the development of the generalized other. Finally, we apply this symbolic interactionist theory to explain delinquent behavior among adolescents. In contrast to an interpretive symbolic interactionism that uses qualitative methods to explore how meanings are negotiated in interaction (Blumer 1969), we follow the work of Sheldon Stryker (1980) and adopt a structural symbolic interactionism that emphasizes the patterned meanings, selves, and purposive actions that persist across situations and are amenable to quantitative analysis. We argue that the self is a reflection of appraisals by significant others, and that incentives and reflected appraisals may affect delinquency both additively and interactively.

We provide a preliminary test of these ideas using longitudinal data from the Denver Youth Survey (DYS). Although our interactionist model implies dynamic processes involving interactions between individuals with feedback, it also has strong implications for static hypotheses specified for individuals without feedback. We use panel models with lagged covariates to test several key static individual hypotheses.<sup>1</sup>

## 2 Embeddedness, Social Control, and Differential Social Organization

### 2.1 *The Problem of Embeddedness and Rational Choice*

Granovetter (1985) provided a seminal critique of the neoclassical economic model for failing to incorporate social relationships, social organization, and social structure—in short, the stuff of interest to sociologists.<sup>2</sup> Central to this critique is the Hobbesian problem of order: How does society control acts of force and fraud—acts conventionally defined as unlawful? Granovetter restates, approvingly, Wrong's (1961) critique of sociology as guilty of positing an “oversocialized conception of man,” in which people are motivated solely by the desire to achieve a positive image of self in the eyes of others, behavior is determined by internalizing consensual norms and values, and conduct is totally shaped by institutionalized patterns. This “oversocialized conception” was popularized by Parsons (1937), whose theory of social action was, in turn, an attempt to solve the problem of order by transcending the atomized utilitarian model favored by Hobbes and other Enlightenment scholars. Absent in such a conception is human agency, choice, and conflict.

In the spirit of Wrong's (1961) critique, Granovetter (1985) calls the utilitarian economic model, an “undersocialized conception of human action,” because it ignores the role played by social structure, social organization, and social relations in shaping purposive action. Instead, the utilitarians assume that individuals independently pursue self-interest, resulting in atomization. For Hobbes (1651 [1996]), the pursuit of self-interest results in a war of all against all, pitting atomized individuals against each other and generating a breakdown in social order. The Hobbesian solution to the problem of order is autocratic authority: Members of society agree to a social contract, in which they give up some liberty in exchange for protection of individual rights by the state.

By contrast, neoclassical economics—and classical liberalism—assume social order is achieved through perfect competition under full information (Granovetter 1985). Competitive markets eliminate force or fraud in the long run: When market actors encounter malfeasance, they can simply move their transactions to market sectors containing trusted actors. Order is maintained not by social relations, but by the invisible hand of the market and coercive action of the state. Here, social relations are not only unnecessary for social control, they create friction in transactions, impeding the efficiency of perfect markets. Because frictionless markets are only an ideal realized in the long term, small amounts of unwanted behaviors will be endemic to the system. Those behaviors will be deterred by the threat of punitive sanctions by the state, which is a last resort, rather than a principal mechanism of control. When economists recognize that force and fraud appear to persist in competitive markets with state-sanctioned punitive sanctions, they posit that trust is replaced either by institutional arrangements or a generalized morality (reputation) (Granovetter 1985).

Between the polar opposite cases of over- and undersocialized conceptions of human activity lies embeddedness. For Granovetter (1985, 487):

Actors do not behave or decide as atoms outside a social context, nor do they adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy. Their attempts at purposive action are instead embedded in concrete, ongoing systems of social behavior.

The problem of embeddedness in social relations suggests that a model of criminal decisions can rest neither on the assumption of atomistic rational actors maximizing utility (undersocialized man), nor the internalization of norms and values by actors motivated solely by the opinions of others (oversocialized man). Instead, scholars must recognize that actors are capable of exercising agency and making choices, but at the same time, are interdependent and embedded in social relations. But, does this simply replace one functionalist solution (frictionless market competition, clever institutional arrangements, generalized morality) with another (social relations)? For Granovetter, the answer, for three reasons, is no.

First, social relations do not guarantee the absence of fraud and trust, but instead can increase opportunities for malfeasance by creating more interpersonal trust. Second, force and fraud are most efficiently committed by teams or groups, which require internal trust. In other words, there is “honor among thieves.” Third, social relations create the potential for far greater disorder than envisioned by Hobbes, who described a war of all against all involving atomized individuals acting on their own self-interest, which at times conflicts with interests of others. By contrast, embeddedness creates the possibility of the formation of coalitions with structurally antagonistic interests. The extreme case of two competing coalitions containing bonding ties within groups and few bridging ties across groups can result in extreme conflict, as in war between nation-states (Granovetter 1985). In contrast to atomistic individuals pursuing myriad forms of self-interest, here we have two groups in structural normative conflict, and their competing coalitions characterized by what criminologist Sutherland (1947) termed, “differential group organization”: conflicting coalitions differentially organized against each other.

Granovetter (1985, 486) suggests a potential solution to the problem of embeddedness when he argues for a sophisticated conception of culture based, for example, on symbolic interaction:

Culture is not a once-for-all influence but an ongoing process, continuously constructed and reconstructed during interaction. It not only shapes its members but also is shaped by them, in part for their own strategic reasons.<sup>3</sup>

We build on this suggestion by developing a symbolic interactionist theory of the self, identity, and decision-making and apply it to the control of delinquent behavior. Specifically, we draw on Mead’s (1934) writings on the self and social control, which begin with—as the unit of analysis—the social act, consisting of concrete social relations. This makes Mead’s (1934) view consistent with an embeddedness argument. Before presenting Mead and symbolic interaction, however, we first critically evaluate an integration of social control and rational choice theories to explain crime proposed by criminologist Travis Hirschi (1986).

## 2.2 *Social Control Theory, Rational Choice, and Embeddedness*

Hirschi (1986) argued that his control theory of crime offers a way of integrating social relations and rational choice. We maintain that this approach is not fully compatible with an embeddedness approach, because it rejects the possibility of normative conflict in favor of normative consensus. Hirschi (1969) distinguishes his social control theory—including self-control theory (Gottfredson and Hirschi (1990)—from all other sociological theories of crime by four key assumptions. First, society contains a single moral order (normative consensus), rather than competing subcultures (normative conflict). Second, because of human nature, animal impulses, or the Freudian id, all human beings are equally and naturally capable of committing crime. Crime is not learned behavior, but is rather inherent in all humans. Thus, the motivation to deviate from consensual norms is *constant across persons*, and therefore, is not an explanatory *variable*. Crime is assumed or taken for granted; what is problematic and in need of explanation is conformity. Given human nature, why do some people conform to the law? Third, individuals conform because they are strongly bonded to the single moral order and capable of self-control in the face of deviant opportunities. Fourth, low self-control or weak bonds to society free individuals to violate the law if it is in their interest to do so.

Hirschi (1986) formalized an integration between control and rational choice with the concepts of “criminality”—stable individual propensities to commit crime—and “criminal events,” the situational opportunities to commit crime (see also Gottfredson and Hirschi 1990). Accordingly, control theories explain criminality (crime propensity) by virtue of the inculcation of strong bonds to conventional society, including attachment to others, involvement and commitment to conventional activities, and strong moral beliefs. Rational choice theories explain criminal events (a situational decision to commit crime) using the concepts of objective opportunities to violate the law and the costs and returns to crime present in the situation (e.g., Clark and Cornish 1985). Thus, lucrative criminal opportunities, energy required to sustain a criminal act, and sudden threats of punishment change situations, and accordingly appear in rational calculations by individuals. For Hirschi, such situational inducements and disincentives will have stronger effects on the weakly bonded (because they are susceptible to temptation) than the strongly bonded (because they are already dissuaded from crime).

Social relations enter into this formulation in two ways. First, attachment to others, a key element of the social bond, dissuades individuals from crime: in situations of temptation, those attached to family, friends, and colleagues will consider the reactions of those others, which will always be negative, and thereby deter them from crime. Insofar as commitments and involvements in conventional activities involve interactions with others, those others will be negatively associated with crime. Second, in criminal situations, the presence of others can both increase and decrease the utility of crime. Criminal companions can increase opportunities for crime by serving as sentinels or lookouts. Other individuals present in criminal situations can

decrease criminal opportunities by serving as potential guardians of targets, acting as witnesses to crime, and calling authorities, such as police. These others exert an indirect effect on behavior by influencing a criminal's expected utility function. In sum, control theory contains a theory of social relations that explains conformity; for individuals freed from the restraints of social relations, rational choice explains decisions to commit crime.

This conception of social relations and criminal decision-making is not fully compatible with an embeddedness thesis. Recall that control theory assumes all people are equally motivated to commit crime, society consists of a single moral order, and severed social bonds free individuals to commit crimes if it is in their interest to do so. Control theory regards deviant subcultures as non-existent or impotent, and deviant organization as mythical (Kornhauser 1978; Gottfredson and Hirschi 1990). Hirschi's integrated control-choice theory rules out organization among criminals, and thereby precludes the possibility that embeddedness of criminals may facilitate force or fraud. Instead, criminals are atomized actors unable to form trusting relationships or commit crimes efficiently through teams. Social relationships cannot facilitate crime; Granovetter's (1985) claims notwithstanding, there is no honor among thieves. For Hirschi, like Hobbes, the breakdown of social integration produces a society of atomistic individuals pursuing self-interest independently. The assumption of consensus, which rules out normative conflict, precludes the possibility that disorder is intensified by competing coalitions clashing over norms and interests. In sum, a control theory of crime integrates social relations with rational choice using the functionalist solution of a unidimensional generalized morality embedded in social relations. By contrast, to be compatible with embeddedness, we need a theory of crime and decision-making that allows for the possibility of normative conflict, deviant subcultures, and criminal organization.

### ***2.3 Normative Conflict and Differential Social Organization***

Long ago, Sutherland (1947), influenced by the Chicago school of sociology, argued that crime is rooted in normative conflict within society. Primitive, undifferentiated societies consist of relative uniformity in beliefs, norms, and values (absence of normative conflict) along with very little crime. Modern industrial societies, by contrast, consist of groups conflicting over beliefs, norms, and values (presence of normative conflict) along with substantial crime. Moreover, social groups not only can be organized against crime, they can be organized in favor of crime. Sutherland (1947) gave the name, "differential social organization" to explain the crime rate of a group or society: The extent to which a group is organized against crime versus organized in favor of crime determines its crime rate. For example, the Mafia is strongly organized in favor of racketeering and weakly organized against racketeering (Cressey 1969). Sex workers and their clients are organized in favor of sex work and weakly organized against sex work. By contrast, moral crusaders are organized against sex work, and the two groups—sex workers and moral crusaders—are in normative conflict over



sex work. In short, crime is the result not only of weak organization against crime (social disorganization), as specified by control theory, but also of the strength of organization in favor of crime.

Social relations enter into decision-making through differential social organization: individuals are embedded in multiple intersecting social groups consisting of internal role-relationships. Those groups, in turn, are embedded in a wider network of social relations. Participation in social groups and networks structures individuals' understanding of expected role behavior, expected goals, attitudes, and views of the self. Differential social organization is compatible with embeddedness for three reasons. First, for differential social organization, social relations do not guarantee the absence of force or fraud, but instead can at times increase the likelihood of deviance by increasing trust and other forms of organization among criminals. Second, when organization among criminals is strong, crime is more efficiently carried out in groups (see Matsueda 2006b). Professional theft rings seek to commit crimes with impunity by dividing labor based on members' abilities, creating a rudimentary social organization, and by enforcing a common set of rules, such as "divide gains equally" (Sutherland 1937; Steffensmeier and Ulmer 2007). There can be honor among thieves. Third, normative conflict suggests the possibility of individuals coalescing into competing groups with antagonistic interests, creating far greater disorder than Hobbes's atomistic individuals whose interests occasionally conflict.

How does differential social organization produce individual criminal acts? Sutherland (1947) argued that individual criminal behavior is a result of differential association—having learned an excess of definitions favorable to crime—a functionalist solution to the problem of trust, analogous to general morality. We depart from this deterministic explanation and adopt a pragmatist perspective based on Mead (1934), in which decisions are rooted in social relations, the self is a reflection of social organization, and the duality of the self allows embeddedness and agency.

### **3 A Symbolic Interactionist Theory of Embeddedness, Role-Taking, and Social Control**

#### ***3.1 Mead's Analysis of the Social Act: Habit, Role-Taking, and Social Cognition***

Mead's (1934, 7) pragmatist theory of the self begins with methodological holism, in which "the whole (society) is prior to the part (the individual), not the part to the whole; and the part is explained in terms of the whole, not the whole in terms of the part or parts." The whole consists of organized groups, institutions, and societies. In analyzing cognition and decision-making, Mead assumes an organized society and asks the question, how is social interaction and decision-making influenced by organized groups? To answer this question, Mead uses as his unit of analysis, the social act, which is a transaction between two or more individuals. Therefore,

the analysis begins with embeddedness at two levels: Abstractly, individuals are embedded in the social relations and organized groups in which they participate. Concretely, the analysis begins not with an atomized individual, but rather with a transaction among individuals embedded in social relationships. Although Mead did not develop a theory of society, he constantly made reference to society and organized social groups. Organized groups contain multiple roles that are structured by mutual obligations, expectations, norms, and attitudes. Individuals fit their behavior into organized group activities by considering the expectations of the relevant group roles. Social organization enters into behavior through symbolic interaction.

Within an ongoing social process, social acts are built up by participants acting instrumentally to achieve tentative objectives, mutually adjusting their responses to each other, and jointly modifying, shaping, and creating an emerging goal or “end in view” (Dewey 1958).<sup>4</sup> The evolving responses shaping the goal constitute the evolving meaning of the social act. Symbolic interaction is possible when interactants use language, or significant symbols, which call out the same response in self as they do in others, allowing individuals to share meanings and perspectives.

When adjustments are smooth and routine—as in institutionalized settings—situations are non-problematic, behavior non-reflective, and habits dominant. For example, when insulted on the street, streetwise young men may follow the norms embodied in the “code of the street” and instantly retaliate with an in-kind insult or threat to maintain their street status (Anderson 1999). In such situations, the direction a transaction takes emerges from how each interactant—given their biographical histories embedded in social organization—responds to others in shaping emergent goals, ends, and objectives. Most behavior is unreflective and habitual—the scripted actions carried out with little consciousness, particularly in highly institutional settings. Actors respond automatically to each other and carry out scripted joint activities.

Habitual behavior no longer suffices when an actor’s response (impulse) is temporarily blocked, and the situation becomes problematic. Here, an emotion is released, and the impulse is transformed into an image of one’s self. The actor seeks solutions to the problematic situation by taking the role of others, viewing themselves as an object (the “me”) from the standpoint of relevant significant others.<sup>5</sup> That image is responded to by another impulse (the “I”) which carries the solution to overt behavior, combines the solution with another, or blocks the plan. If blocked, the situation remains problematic, and the actor again takes the role of others, and considers new alternatives from the perspective of those others. This serial process of cognition continues until the problem is solved or the act fades. The response of the “I” is a social one, including emotional responses, such as shame, repugnance, fear, and anger, as well as instrumental considerations, such as the anticipated consequences of behavior. Here, perceived costs and rewards enter decision-making: those alternatives that have negative consequences are less likely to solve the problem than those with positive consequences. For example, youth motivated by the excitement of committing crime with friends may suddenly fear getting caught—which they have learned in previous situations—and manage to convince their peers to cease the crime.

Mead termed the image (view of self from others) the “me” and the acting impulse the “I.” The duality of the “I” and the “me,” constitutes social cognition, an inner dialogue identical in form and content to conversations between concrete people, except that here it takes place in the mind between phases of the self. When problematic situations end, the results of social cognition, including the “I” are retained in memory as an updated “me”—a relatively enduring self—available to be called up to solve future problematic situations. Moreover, because interactants can share meanings via significant symbols, when social cognition is observable, its results can be retained as updated “me’s” by all interactants, who have now learned from the experience. For example, in considering stealing a car for joyriding, youth embedded in a delinquent peer network may fear getting caught, which blocks delinquent impulses, making the situation problematic. In response, youth take the role of the peer group and view themselves as “being cool” for committing the crime, and thereby choose crime. The idea of being seen as cool for joyriding is retained as part of the “me,” which helps shape habitual behavior and is available to solve problematic situations in the future.

When similar problematic situations are solved repeatedly in functionally identical ways (Miller 1973), they become progressively less problematic, and behavior becomes increasingly habitual and non-reflective. Thus, Mead specified a dual process model of social cognition—habit dominates in institutionalized settings and the duality of the self dominates in problematic situations—that presaged recent advances in dual process theories in cognitive psychology. (For a discussion of parallels between Mead’s model of cognition and recent dual process theories, see Stryker and Stryker 2016.) Mead’s theory is also consistent with research in cognitive psychology on the development of morality, in which cognitive moral responses are enabled by an inhibition mechanism, in which an aggressive or antisocial impulse is blocked, creating an aversive response and activating cognitive schemas. For example, Blair (1995, 3) argued that a “violence inhibition mechanism” is essential for the development of moral emotions, the inhibition of violent action, and distinctions among types of moral transgressions.

From this discussion, we can extract a decision-making model. Reflective decisions occur in problematic situations, in which an impulse or habitual response is blocked, causing individuals to take the role of the other and, in an imaginative rehearsal (Dewey 1922), consider alternatives from the standpoint of others. Decisions result from a dialectical relationship between the “me,” the self as an object representing the socially-derived possibilities and their embeddedness in organized social relations, and the “I,” the situational agent or acting subject. Thus, decision-making is embedded in larger socially-organized groups in which the individual participates.

Furthermore, decision-making consists of trying out possibilities sequentially in imagination before acting. Rather than maximizing utility among an indefinite number of alternatives, individuals consider the first salient alternative that comes to mind and choose the one that “works.” While most decisions are made quickly, involving but a few alternatives—particularly among adolescents—rare exceptions occur that require great deliberation, active searching for information, and consideration of many social consequences. Implicit in this model is a theory of information, which

derives from the accumulated history of participation in organized social groups and an implicit theory of preference formation. More light can be shed on the embeddedness question by illuminating the development of the generalized other over the life span.

### ***3.2 The Structure of the Self and Identity***

The enduring self, consisting of an individual's interactional history of "me's" has a definite structure, corresponding to the organization of groups in which the individual participates: "Inner consciousness is socially organized by the importation of the social organization of the outer world" (Mead 1912, 406). The extent to which an individual considers this social organization follows a developmental process of socialization, beginning with childhood. This developmental sequence is revealed by Mead's (1924–1925) analogy of "play" and "the game." While children learn to take the role of concrete others through play—playing a police officer, they arrest someone—adolescents begin to learn "the game," in which they take the role of the entire organized group or "generalized other."

Mead (1934) illustrates this distinction with a baseball game, in which participants are not only able to take the role of individual positions serially, such as pitcher, catcher, and first baseman, but also to take the role of all nine positions simultaneously, including how they relate to each other through role-expectations and informal rules. For example, when an outfielder throws home, the catcher knows the pitcher is required to back him up, which allows the catcher to swipe at the ball with his mitt, catching and tagging out the runner in one quick motion. Note, however, that if the catcher knows that today's pitcher, Smith, is notorious for forgetting to back up throws, he may adjust his behavior and not gamble on a single-motion swipe. In this way, players are able to modify abstract role-expectations with information about the concrete people occupying the roles.<sup>6</sup>

Over the life span, individuals become more proficient at taking the role of an increasingly abstract generalized other (Matsueda and Heimer 1997). While preschool children begin taking the role of concrete others within their sphere of family and friends, adolescents expand their sphere to the school and some aspects of the world of adults, and learn to take the perspective of organized social groups, including the rules, obligations, and expectations governing those groups. They begin to see themselves from the standpoint of parents, teachers, and peers. The self becomes a reflection of how significant others view the individual. Adults expand their social worlds further, to include other people they encounter in adult contexts, including work, community, and religious life. Adults come to understand not only the complex organization of role-relationships in such settings, but also how such settings are embedded in broader social institutions. These understandings constitute information for individuals to fit their purposive actions into organizations and institutions in a meaningful way. In the limiting case, a "fully-developed self" is one in which

the individual is able to take the role of all of humanity and adjust his or her lines of action to fit society by using a universal complex generalized other (Mead 1934).

By beginning with the whole (society) rather than the individual, analyzing individuals interacting in social transactions rather than in isolation, and by specifying the self as an object embedded in social relations, Mead's analysis of the social act is consistent with an embeddedness thesis. Does this lead to another oversocialized conception of human behavior by merely replacing generalized morality with role-relationships in a functionalist, deterministic model devoid of human agency? The answer, for three reasons, is no (see Stryker 1980). First, in contemporary complex societies, individuals participate in many overlapping social groups with varying levels of participation, which suggests that each individual will have a unique set of generalized others from which to draw. Second, the invocation of a specific "me" depends on the situation and the problem at hand. Third, the response of the "I" to the "me" is not deterministic, but rather is a dialectical relationship that entails an element of emergence, novelty, and creativity resulting in human agency (Matsueda 2006a). Thus, while the self maintains strong continuity over time, it is also being modified with each experience of role-taking in problematic situations. By using Mead's theory of the self and social cognition, we can specify a decision-making model explicitly embedded in the structure of social relations.

#### **4 Reflected Appraisals, Incentives, and Adolescent Theft**

The foregoing discussion of social cognition, role-taking, and habitual behavior implies three features for a theory of youth theft. First, when situations involving the possibility of theft are repeatedly solved with theft, stealing in those situations becomes habitual, automatic, and non-reflective, resulting in continuity in theft over time. Second, in problematic situations, the self as an object arises partly endogenously within situations, and partly exogenously from prior situational selves being carried over from previous experience (Matsueda 1992). Self-images ("me's") called up in a situation resemble previous "me's," while the "I" responds in novel ways. In problematic situations involving theft, youth who see themselves from the standpoint of others as a bad kid, a rule violator, and a troublemaker, are more likely to violate the law than youth who see themselves as a good kid, law abiding, and conformist. Third, when taking the role of the other and considering alternative solutions, the individual considers the anticipated consequences of theft, such as important expected costs and rewards from stealing. Fourth, anticipated consequences and views of the self may interact in their effects on theft. For example, the threat of sanctions may have a stronger deterrent effect for youth who see themselves as good kids from the standpoint of others; such youth may have more to lose by getting caught and punished for stealing.<sup>7</sup> Conversely, youth who think of themselves as bad may be less deterred by sanctions because they have less to lose. In applying these concepts to delinquent theft, we first discuss the self in adolescence.

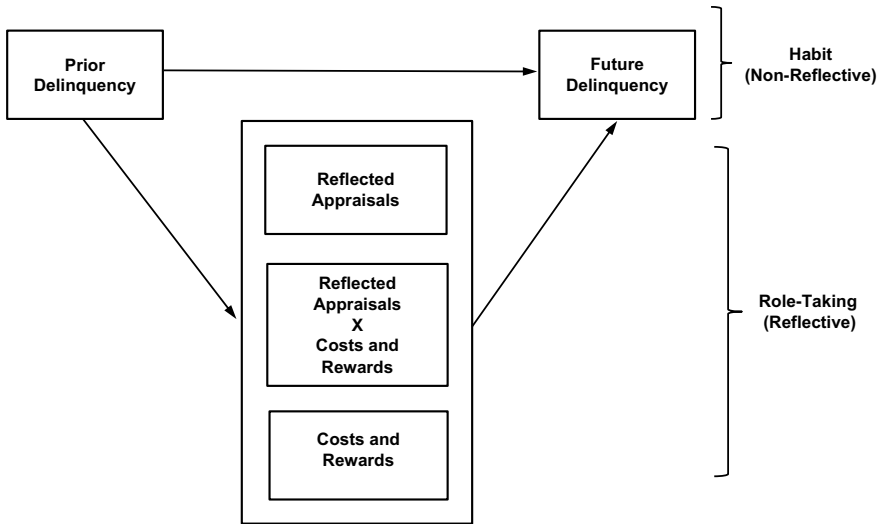
## ***4.1 Adolescence and Role-Taking***

We apply this model to moral decisions made during adolescence, a key period in transitioning from childhood to adulthood. We draw on the writings of developmental psychologist Kohlberg, who went beyond Mead's concepts of play and the game to describe stages of moral development from childhood to adulthood. For Kohlberg (1981), children first learn to obey authority figures to avoid punishment, and then learn the norm of reciprocity, allowing them to enter simple exchange relationships. During adolescence, youth begin to recognize that they are members of a larger group or society. They begin to form good relationships, showing concern for significant others, and developing trust, loyalty, and moral consciousness (Kohlberg and Gilligan 1971). They begin to place themselves in the shoes of others to evaluate their own behavior. Then, later in adolescence, they learn the laws of society in general, how rules and expectations govern role-relationships, and begin to take the role of the generalized other. Finally, in early adulthood, they can imagine what an ideal society looks like, come to appreciate the social contract and individual rights, and ultimately come to appreciate universal ethical principles of justice, which they recognize as undergirding the law.

Thus, adolescence is a period in which youth become embedded in social relationships, which expand beyond parents and peers to include other adults, such as teachers. In addition to avoiding punishment from authority figures, their moral decisions increasingly include social relationships. Those relations enter decision-making in problematic situations when youth take the role of the generalized other, see themselves as an object from the standpoint of others, and consider alternative lines of action. Thus, identities, a reflection of self from the standpoint of others, enter into social cognitive processes. Mead (1934, 142) termed this self "multiple personality" to emphasize that it is a reflection of multiple generalized others. McCall and Simmons (1978) and Stryker (1980) viewed it as "role-identities" to emphasize that it corresponds to multiple roles people play. Cooley (1902) termed it the "looking glass self" to emphasize that it is a mirror image of how others see one. Kinch (1963) conceived it as "reflected appraisals" to emphasize that it is a reflection of appraisals made by significant others (Matsueda 1992, 1582). We use the concept of reflected appraisals—the self as an object relevant to delinquency—as a reflection of appraisals of significant others.

## ***4.2 Youth Theft: Conceptual Model and Hypotheses***

We can now apply symbolic interaction to model adolescent decisions to engage in theft. The key concepts of our conceptual model appear in Fig. 1, which depicts habitual (non-reflective) behavior and role-taking (reflective) behavior. Youth are likely to engage in theft when they have stolen things in past situations and encounter similar situations in the future. Those situations, in which there are suitable targets



**Fig. 1** A symbolic interactionist theory of delinquency: habit, role-taking, and social cognition

to steal, such as being in a department store where they once experienced sneaky thrills from stealing or being with a group of friends with whom they stole, may trigger the habit to steal. When habits are strong, youth are more likely to have impulses to steal, and less likely to inhibit those impulses. The result is that prior delinquency will directly affect future delinquency, regardless of reflected appraisals or anticipated consequences. These mechanisms imply some stability in delinquent behavior over time.

Hypothesis 1 (Habit Formation): Delinquent theft will exhibit some stability due to habit formation.

Delinquency will not be perfectly stable, however, because habits fail to suffice when situations become problematic—even in situations repeatedly solved with delinquent behavior. A delinquent line of action can be inhibited by (1) a reaction internal to the individual; or (2) an external change in the objective situation that impedes the ongoing delinquent act. For example, an internal reaction might be a new feeling of guilt, fear of being caught, or skepticism about the morality of the act—each of which may have been learned in the past through symbolic interactions with parents, teachers, or other significant others. An external change in the objective situation might include the risk of arrest increasing by the new presence of capable guardians, the diminishing of rewards from the crime, or peer influence from a co-offender exhibiting second thoughts.

Once inhibited, the blocked delinquent act is transformed to an image, in which the youth takes the role of relevant others, forms an image of themselves—a reflection of how others view them—and considers alternative lines of action. Role-taking usually entails taking the role of members of reference groups, which serve as a

source of perspectives, attitudes, and evaluations of behavior (Shibutani 1961). For adolescents and young adults, reference groups include parents, friends, teachers, and co-workers, but also concrete organized groups (generalized others), such as gangs, peer groups, classmates, and families. With respect to illegal behavior, the key is the degree to which reference groups are organized against crime versus organized in favor of crime (Sutherland 1947; Matsueda 2006b).

When the reflected appraisal is congruent with a self that engages in delinquency, the youth is more likely to resolve the problematic situation using illegal behavior. Conversely, when the reflected appraisal is inconsistent with a self that commits delinquency, youth are less likely to deviate.

Hypothesis 2 (Reflected Appraisals): Delinquent theft is likely when youth see themselves from the standpoint of others consistent with one who commits delinquent acts, and inconsistent with one who conforms.

When delinquent situations remain problematic, youth may consider the consequences of their actions. For example, they may consider whether the illegal behavior would result in positive outcomes, as in immediate excitement or increases in social status, such as being seen as cool in the eyes of others. The greater the perceived likelihood of such returns, the more likely they will commit the delinquent act:

Hypothesis 3 (Rewards from Delinquency): Delinquent theft is likely when youth perceive positive returns from unlawful behavior, such as immediate excitement or increased social status from being seen as cool.

Conversely, youth may consider the likelihood of delinquency's negative consequences. Perhaps the most salient cost of delinquency is the threat of being caught, arrested or jailed for continuing the unlawful action, which reduces the likelihood of delinquency. This is the deterrence hypothesis, stated as certainty of sanction:

Hypothesis 4 (Costs of Delinquency): Delinquent theft is less likely when youth perceive that punishment is certain to follow law violation.

Finally, it may be that the threat of punishment deters some youth but not others, depending on their views of self from the standpoint of others. For example, youth who see themselves as "bad" and troublemakers from the standpoint of others may be beyond deterrence, as they discount consequences with long time horizons. For less-troubled youth, the threat of punishment may be sufficient to deter them from crime. Stated differently, the deterrent effect of threats of punishment may vary by identity because the meaning of punishment depends on identity: For youth with reflected appraisals as troublemakers, punishment may be seen as neutral or even a badge of courage; by contrast, youth who see themselves as good kids may view punishment as stigmatizing and aversive. The result is that deterrence is conditional on seeing oneself as a good kid:

Hypothesis 5 (Conditional Deterrence): The deterrent effect of certainty of sanction may be ineffective for youth who see themselves as bad from the standpoint of others.

We can specify a competing interaction hypothesis between threat of sanction and reflected appraisals. It could be that youth with strong reflected appraisals as



a good kid will conform to the law, and the threat of punishment is unnecessary. Conversely, youth with strong reflected appraisals as a bad kid may be destined to commit delinquent acts, unless something else stops them. Given that informal controls (inculcating a law-abiding identity) have failed, the threat of punishment by the state is a last resort preventing crime.

Hypothesis 6: (Deterrence as Last Resort): The deterrent effect of certainty of sanction may be effective only for youth who see themselves as bad from the standpoint of others.

## 5 Data, Measures, and Models

### 5.1 *The Denver Youth Survey*

To test our hypotheses about social cognition, deterrence, and social control, we use data from the Denver Youth Survey (DYS), a longitudinal study of delinquency and drug use in high risk neighborhoods in Denver (Esbensen and Huizinga 1990). High risk neighborhoods were chosen for two reasons: (1) the most serious problems of drugs, crime, and delinquency of interest to policy makers and social scientists tend to concentrate in these areas; and (2) these neighborhoods are likely to yield samples of individuals exhibiting substantial variation in delinquency. To identify high-risk neighborhoods, the Principal Investigators (PI's) cluster-analyzed block groups based on census variables (e.g., family structure, ethnicity, SES, housing, mobility, marital status, and age composition) and identified seven clusters (of which three were deemed disorganized). Within each of these three areas, they selected census block groups that fell within the top one-third of the distribution of arrests. This yielded a total of 99 block groups (out of 590 with nonzero populations in Denver) within 33 census tracts (out of 142 with nonzero population). Using vacancy and completion rates, the PI's selected 20,300 of 48,000 enumerated households from which they drew a stratified probability sample of households proportional to population size. Finally, they used a screening questionnaire to identify appropriately aged respondents (i.e., 7, 9, 11, 13 or 15 years old).

This procedure yielded a sample of 1,527 completed interviews in the first wave (1987), which constitutes a completion rate of 85% of eligible youths (see Esbensen and Huizinga 1990 for more details). Attrition rates were relatively low across waves (7–9%). The resulting sample is reasonably representative of neighborhoods at high risk of delinquency, where high risk is defined as socially disorganized high-crime neighborhoods. We will draw inferences from this sample to the population of youth within high-risk neighborhoods, and exercise caution in generalizing to low risk neighborhoods. We use the first five waves of annual data for youth beyond the age of culpability, and for which all of our measures are present. The age range of our sample covers the adolescent period (10–20 years of age).

### 5.2 Concepts and Measures

Figure 2 depicts our statistical model of role-taking, decision-making, and delinquency. The model consists of four blocks of variables: neighborhood-level control variables; individual-level control variables; measures of social cognition (role-taking), including reflected appraisals of the self; and consequences of illegal behavior, including perceived costs and returns to delinquency. Descriptions of our measures and concepts appear in the Appendix.

The first block of variables consists of neighborhood structural covariates known to affect criminal behavior. There are four contextual variables taken from administrative sources. Crime Rate 84 is the total number of crimes reported to the police per 10 residents by neighborhood in 1984. To measure neighborhood disorganization, we factor-analyzed four census block group variables, identified two dimensions found

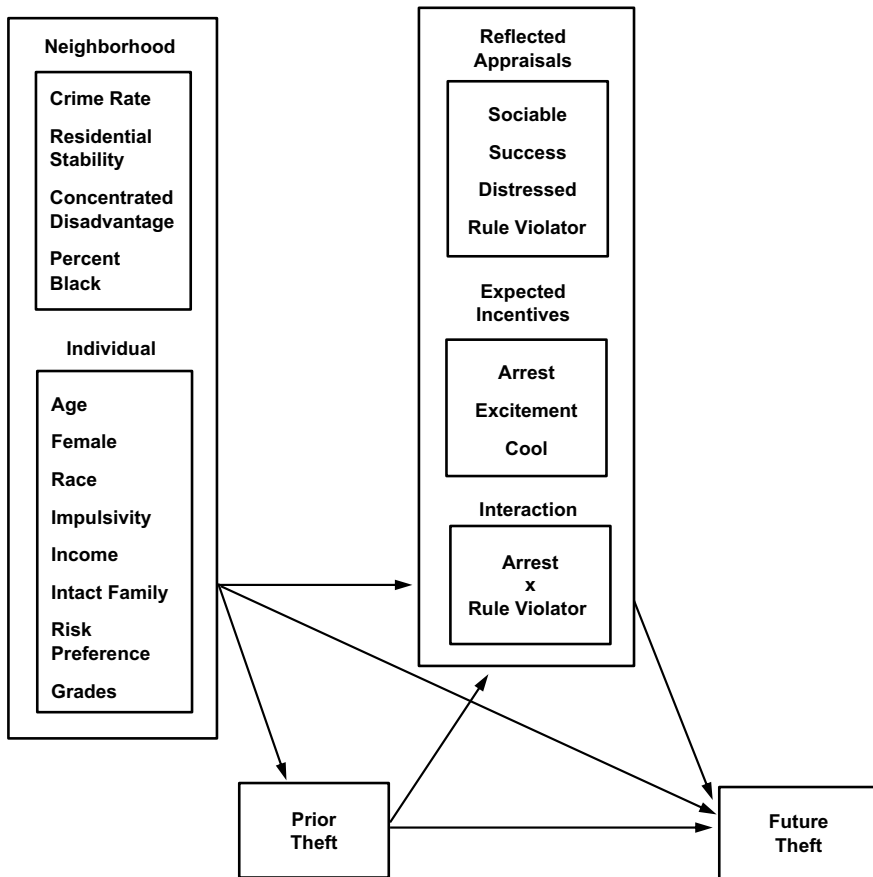
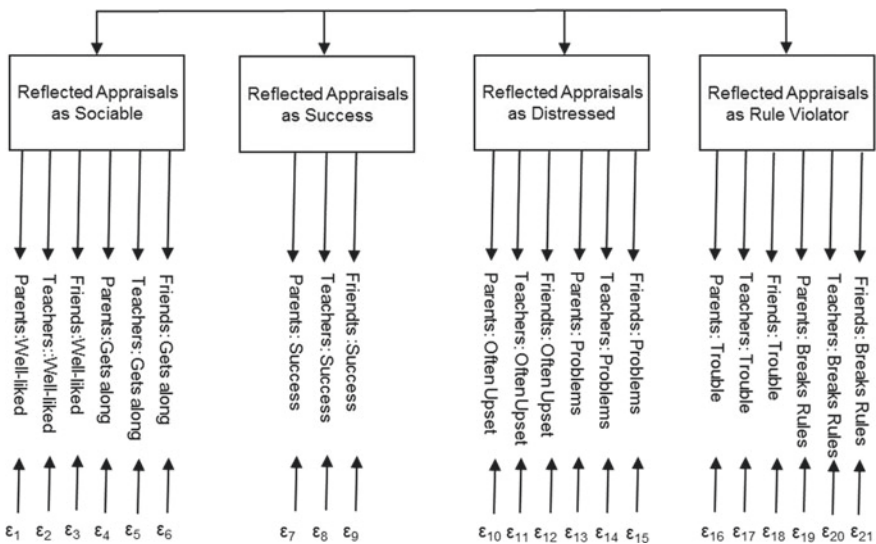


Fig. 2 A model of reflected appraisals, incentives, and delinquent theft

in previous studies, and created two scales: residential stability (percent homeowners and percent non-movers in the past 5 years), and concentrated disadvantage (percent poverty, unemployed, and female-headed households). We treat proportion Black in a neighborhood as a distinct covariate.

The second block of variables consists of individual-level demographic and behavioral characteristics known to covary with delinquency. Demographics include self-reports of gender, age, Black, Hispanic, income, and family structure. We use a dummy variable (not shown) to control for the eleven percent missing values on income. Following prior studies of impulsivity and crime, we also create a scale from four parent-reported measures in 1988 to capture early childhood impulsivity (see Appendix). Given our symbolic interactionist framework, this captures differences across individuals in the ability to block delinquent impulses. Self-reported preference or taste for risk is measured with the question: Do you agree with the statement, “I like to do daring things?” From a rational choice perspective, this captures individual variation in risk aversion. Previous research has consistently found measures of risk-taking to predict delinquency (Hagan et al. 1987; Matsueda et al. 2006). Measures of grades and employment capture commitment to conventional roles and the potential opportunity costs associated with delinquency. We include a dummy variable for missing values on grades due to high-school graduation or drop out. Finally, we control for prior behavior by including a measure of self-reported theft occurring in the previous year.

The third block of variables, reflective appraisals of the self, capture the process of taking the role of the other. Reflected appraisals capture a succession of relatively



**Fig. 3** Measurement model of reflected appraisals from the standpoint of parents, teachers and friends. Adapted from Matsueda (1992)

enduring “me’s” –appraisals of the self from the standpoint of others—invoked in past role-taking and available to solve future problematic situations. Given the self is multidimensional, it is important to identify key dimensions of the self for the domain of behavior (law violation) and period of the life-span (adolescence). Following Matsueda (1992), we examine four dimensions of reflected appraisals capturing both pro-social (sociable and success) and anti-social (distressed and rule violator) domains. Respondents were asked whether teachers see them as sociable (measured by well-liked and gets along with others), successful (measured by likely to succeed), distressed (measured by often upset and has a lot of problems), and rule violator (measured by breaks rules and gets in trouble). Matsueda’s (1992) respondents answered these questions with reference not only to teachers, but also to parents and friends. His confirmatory factor analyses found that items clustered by substantive domain (sociable, success, distressed, and rule violator) and not by significant others (teachers, parents, and friends) (Fig. 3). In other words, within each substantive domain, respondents reported relative consensus in appraisals by teachers, parents, and peers. We estimated a confirmatory factor model of the teacher items (see Fig. 4) and found a strong fit to the data and factor loadings nearly identical to those of teacher items estimated by Matsueda (1992).<sup>8</sup> From the confirmatory factor model, we calculated factor score regression weights for observable indicators and used them to create weighted factor scores for each of the reflected appraisal constructs.

Our principal hypothesis is that reflected appraisals as a rule violator will be positively associated with future delinquency. We also examine whether other dimensions of the self are associated with delinquency. For example, youth who see themselves (from the standpoint of others) as likely to succeed and sociable, may be likely to pass up delinquent behavior in favor of conventional acts more consistent with their reflected appraisals. By contrast, youth with reflected appraisals as upset and beset with personal problems, may be more susceptible to deviant temptations.

Our final block of variables captures expected consequences of behavior. We use three measures of expected costs and rewards from engaging in theft (see Matsueda et al. 2006). To capture the cost of crime, we use respondents’ perceptions of the likelihood of arrest for committing theft, measured on a 0–100 probability scale weighted by how good or bad an arrest would be for them. To measure the rewards of crime, we follow Katz’s (1988) qualitative study of theft among high school students in which he found that youth anticipated “sneaky thrills”—such as excitement and kicks—from stealing consumer goods. Our measure of rewards of crime asks respondents the likelihood of getting “excitement and kicks” from theft and then constructs a probability scale weighted by how good or bad excitement would be. We also use as a measure of rewards, perceptions of the probability of being seen as cool for committing theft weighted by how good or bad being seen as cool would be. This captures a potential increase in status in the eyes of one’s peers from committing theft.<sup>9</sup>

The final variable consists of the dependent variable for our analysis, self-reported theft, measured by eight items, each of which is measured by the number of offenses committed in the past year. The items are summed to provide an index of counts of theft.

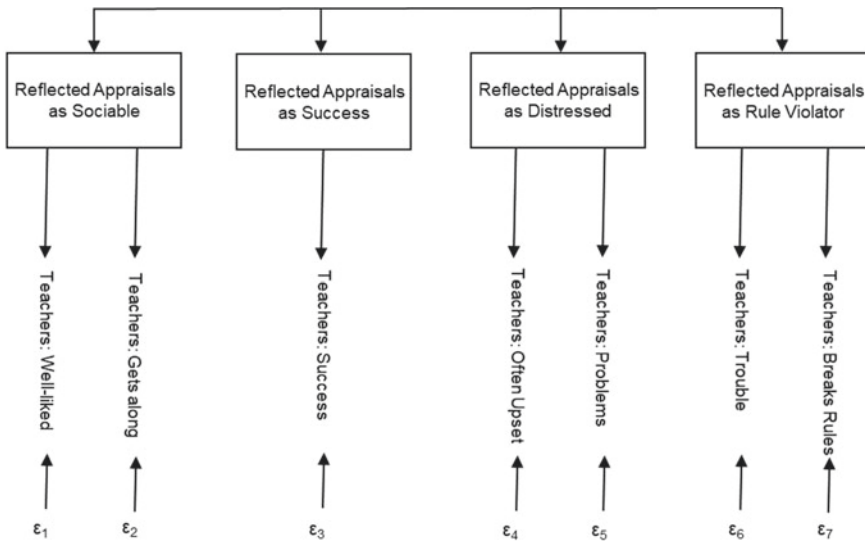


Fig. 4 Measurement model of reflected appraisals from the standpoint of teachers

### 5.3 Statistical Models

We pool our five waves to create a person-year dataset. We lose the first two waves because the model requires lagged-variables (and we examined second-order lagged delinquency as an instrumental variable, as well), yielding 2822 person-years for 1322 individuals. Using this pooled dataset, we estimate a panel model to address two potential problems of endogeneity: reciprocal causation and unobserved heterogeneity. To address possible reciprocal causation, we use first-order lagged predictors. Our lagged endogenous predictor,  $y_{it-1}$ , captures the stability of delinquency over time and tests the hypothesis of delinquency as habit. It also helps control for potential omitted-variable bias (unobserved heterogeneity) from possible unmeasured time-invariant individual characteristics.<sup>10</sup> We use lagged time-varying covariates,  $x_{it-1}$ , to insure that the temporal ordering of our variables is consistent with our theoretical specifications.

In our person-year dataset, person-years for the same individual will be more similar than person-years for different individuals, which violates the assumption of independent observations. To correct for this dependence, we estimate random effects models, which estimate person-specific random intercepts assumed normally distributed and orthogonal to time-invariant covariates. The random effects help overcome bias in the estimate of the effect of the lagged endogenous predictor,  $y_{it-1}$  (and therefore, other estimates) by allowing for approximately equal autocorrelations among disturbances (see Hausman et al. 1984).

Because our dependent variable, self-reported theft, is measured as counts of theft, treating it as continuous and linear may result in biased and inconsistent estimates of parameters. A better procedure would assume the counts  $y_{it}$  follow a Poisson distribution with parameter  $y_{it}$ . We estimated a Poisson regression and found over-dispersion—the variance exceeded the mean—due to a large number of zeros. Therefore, we use a negative binomial model, which allows for over-dispersion (Long 1997). Our model, then, specifies that  $y_{it}$  follows a gamma distribution with shape parameters  $(\gamma_{it}, \delta_i)$ , which produces the negative binomial distribution for  $y_{it}$ . We parameterize  $\gamma_{it}$  in the usual way as an exponential function of explanatory variables,  $\gamma_{it} = e^{x_{it}\beta}$ , where  $x_{it}$  is a vector of our predictor variables and  $\beta$  is a vector of coefficients. This model allows for overdispersion in the Poisson model with the inclusion of  $\delta_i$ , and then layers a random individual effect onto the negative binomial model by assuming  $\delta_i/(1 + \delta_i)$  follows a beta distribution with parameters  $a$  and  $b$  (Hausman et al. 1984). Unlike the random effects Poisson model, this model allows the rate to vary across individuals and time even if the  $x_{it}$ 's are constant because it is a realization from a gamma distribution each year.

## 6 Results

Table 1 presents results for our random effects negative binomial model of theft. We present five models, beginning with a baseline model of background variables, followed by adding, incrementally, the following variables: prior theft, reflected appraisals (sociable, success, distressed, and rule violator), and perceived costs and rewards from crime. Our final model adds a product term between rule violator and arrest certainty to test the hypothesis that the deterrent effect of arrest is conditional on reflected appraisal as a rule violator.

Model I regresses theft on background control variables. We find that theft is greater among males than females, and among Blacks and Hispanics relative to Whites. We also find theft greater among those with high impulsivity scores, as well as risk-taking scores, a finding consistent with psychological theories of low impulse control, economic theories of risk aversion, and criminological theories of low self-control (Gottfredson and Hirschi 1990). As expected, youth who come from non-intact families and who reside in higher-crime neighborhoods, tend to commit more acts of theft.

Model II adds prior theft to the equation and reveals significant and substantial stability in theft (standardized coefficient = 0.20).<sup>11</sup> This result is consistent with the symbolic interactionist notion of habit formation: As problematic situations involving potential stealing are repeatedly solved with theft, the situations become increasingly less problematic, and theft becomes increasingly non-reflective and habitual. Thus, we find support for Hypothesis 1.<sup>12</sup>

Model III adds our four reflected appraisal constructs to the equation for theft. As hypothesized, reflected appraisal as a rule violator is positively associated with theft; it has the largest relative effect in the model for theft (standardized coefficient of 0.24).

**Table 1** Random effects negative binomial model of role-taking, rational choice, and theft

Observations	2822				
Individual respondents	1322				
	Model I	Model II	Model III	Model IV	Model V
<i>Variables</i>					
Intercept	-1.32* (0.52)	-1.79*** (0.50)	-2.42*** (0.60)	-2.36*** (0.61)	-2.02*** (0.62)
Female	-0.56*** (0.11)	-0.47*** (0.11)	-0.41*** (0.11)	-0.36*** (0.11)	-0.37*** (0.11)
Age	-0.03 (0.02)	-0.04 (0.02)	-0.03 (0.02)	-0.03 (0.02)	-0.03 (0.02)
Black	-0.01 (0.20)	-0.07 (0.18)	-0.13 (0.18)	-0.14 (0.18)	-0.13 (0.18)
Hispanic	0.33* (0.16)	0.27 (0.14)	0.20 (0.14)	0.19 (0.15)	0.19 (0.15)
High impulsivity	0.28* (0.12)	0.24* (0.11)	0.19 (0.11)	0.19 (0.11)	0.18 (0.11)
Crime rate 1984	0.14* (0.07)	0.15* (0.06)	0.14* (0.06)	0.15* (0.06)	0.15* (0.06)
Concentrated disadvantage	-0.11 (0.07)	-0.10 (0.06)	-0.10 (0.06)	-0.10 (0.06)	-0.10 (0.06)
Percent Black	-0.14 (0.26)	-0.07 (0.24)	-0.06 (0.24)	-0.08 (0.24)	-0.07 (0.24)
Residential stability	0.12 (0.08)	0.11 (0.07)	0.10 (0.07)	0.12 (0.07)	0.12 (0.07)
<i>Lagged variables (t - 1)</i>					
Biological parents	-0.57*** (0.13)	-0.55*** (0.12)	-0.47*** (0.12)	-0.48*** (0.12)	-0.48*** (0.12)
Household income	-0.005 (0.004)	-0.004 (0.003)	-0.005 (0.004)	-0.006 (0.004)	-0.006 (0.004)
Grades	-0.08 (0.05)	-0.07 (0.05)	-0.04 (0.05)	-0.05 (0.05)	-0.05 (0.05)
Risk preference	0.48*** (0.12)	0.46*** (0.12)	0.40*** (0.12)	0.34** (0.12)	0.33** (0.12)
Prior theft	-	0.29*** (0.05)	0.23*** (0.05)	0.16** (0.05)	0.18*** (0.05)
Social	-	-	-0.58** (0.22)	-0.54* (0.22)	-0.56* (0.22)
Success	-	-	0.12* (0.06)	0.16** (0.06)	0.16** (0.06)
Distressed	-	-	-0.32 (0.27)	-0.32 (0.27)	-0.39 (0.28)

(continued)

**Table 1** (continued)

Observations	2822				
Individual respondents	1322				
	Model I	Model II	Model III	Model IV	Model V
Rule violator	–	–	0.94*** (0.18)	0.83*** (0.18)	0.49* (0.24)
Theft excitement	–	–	–	0.19** (0.06)	0.18** (0.06)
Theft arrest certainty	–	–	–	–0.09** (0.03)	–0.27*** (0.09)
Theft coolness	–	–	–	0.16*** (0.04)	0.15*** (0.04)
<i>Interaction terms</i>					
Rule breaker × Arrest certainty	–	–	–	–	0.20* (0.09)
Wald $\chi^2$ (df)	100.4 (13)	154.7 (14)	205.2 (18)	242.8 (21)	242.7 (22)
log-likelihood	–2250.0	–2237.3	–2218.1	–2201.0	–2198.5

Both findings replicate Matsueda’s (1992) most important result, found in national data, supporting a symbolic interactionist theory, and supporting Hypothesis 2. We also replicate his finding that, as expected, reflected appraisal as sociable is associated with fewer acts of deviance. Unlike Matsueda, whose models predicted a general index of delinquent behaviors, including violence, theft, and vandalism, we find that likely to be a success is associated with slightly more acts of theft. Thus, ambitious youth who see themselves as likely to succeed from the standpoint of teachers are more likely to steal, perhaps because of their early interest in pecuniary activities. Because our reflected appraisal variables intervene between prior and future theft, we can examine the possibility that the stability of theft is partially mediated by reflected appraisals. Additional analyses (not shown) reveal a significant indirect effect of prior theft on future theft through rule violator. Thus, the effect of prior theft on future theft is partly mediated by reflected appraisals as a rule violator. In other words, role-taking helps explain the continuity of acts of stealing over time.

Model IV adds perceived costs and benefits of theft into the model. As hypothesized, the certainty of arrest is associated negatively with theft, supporting the deterrence thesis, and Hypothesis 4. This is consistent with a subjective expected utility model of criminal behavior: youth who perceive greater certainty of arrest are less likely to engage in future acts of theft. Also as hypothesized, the expected probability of getting excitement and kicks from theft is positively associated with future counts of stealing. This finding is consistent with the rewards side of the expected utility equation, as well as a “sneaky thrills” hypothesis of stealing (Katz 1988). Furthermore, the reward to theft, probability of being seen as cool for committing theft, is also positively associated with future acts of theft. Thus, consistent with role-taking, youth who anticipate that their status among peers—being seen as “cool”—will



increase by committing theft are more likely to steal. Together, these two findings support Hypothesis 3 (Fig. 4).

Finally, we examined potential interaction effects between reflected appraisals as a rule violator, on the one hand, and perceived costs and benefits of theft. Model V shows the significant interaction between rule violator and arrest certainty. The positive coefficient (0.20) suggests that the deterrent effect of perceived certainty of arrest ( $-0.27$ ) decreases as rule violator increases. This interaction is graphed in Fig. 5, which depicts the deterrent effect of perceived arrest on future theft for various levels of reflected appraisals as a rule violator, when all other variables are held at their means. According to the graph, the effect of arrest certainty on rule violator is negative and substantial for youth who score at the mean of rule violator. For those who are one standard deviation below the mean (more conforming), the deterrent effect is slightly stronger; for those two standard deviations below the mean, the effect is again slightly stronger. In contrast, for those who score one standard deviation above the mean on rule violator, the deterrent effect is negligible; and for those two standard deviations above the mean, the effect actually reverses. Thus, for youth at the extreme of the distribution of rule violator, greater certainty of sanction increases acts of theft. Here youth with an extreme looking-glass self as rule violators may believe they will gain status from being arrested.<sup>13</sup> Consistent with Hypothesis 5, but inconsistent with Hypothesis 6, the deterrent effect of threat of sanctions is more effective for youth who do not see themselves as a rule violator from the standpoint of others.<sup>14</sup>

## 7 Conclusions

In sum, we find support for our model of social cognition, role-taking, and rational choice. Consistent with the concept of role-taking, our models find theft predicted substantially by reflected appraisals as a rule violator, and also as sociable and likely to succeed. Consistent with the rational choice aspect of our model, theft is predicted by perceived certainty of arrest, expectation to be seen as cool, and expected excitement and kicks. Finally, we find an interaction effect between perceived threat of sanctions and the reflected appraisal of being a rule violator. While the threat of sanctions deters good kids and non-rule violators—who have their conventional identities to lose by arrest—threat of sanctions fails to deter bad kids and rule violators, who have little to lose. Taken as a whole, these results provide evidence consistent with hypotheses drawn from a symbolic interactionist theory of role-taking, social cognition, and criminal theft, in which decision-making is embedded in social relations.

These empirical results have provided a first test of several key static hypotheses derived from an interactionist theory. Additional research, some of which requires different research designs, is needed to test other arguments derived from our perspective. First, our measures of the self as a reflection of appraisals of others, while tapping into multiple roles—rule violator, success, sociable, and distressed—has not captured the complex role-relationships embodied in organized groups. An important

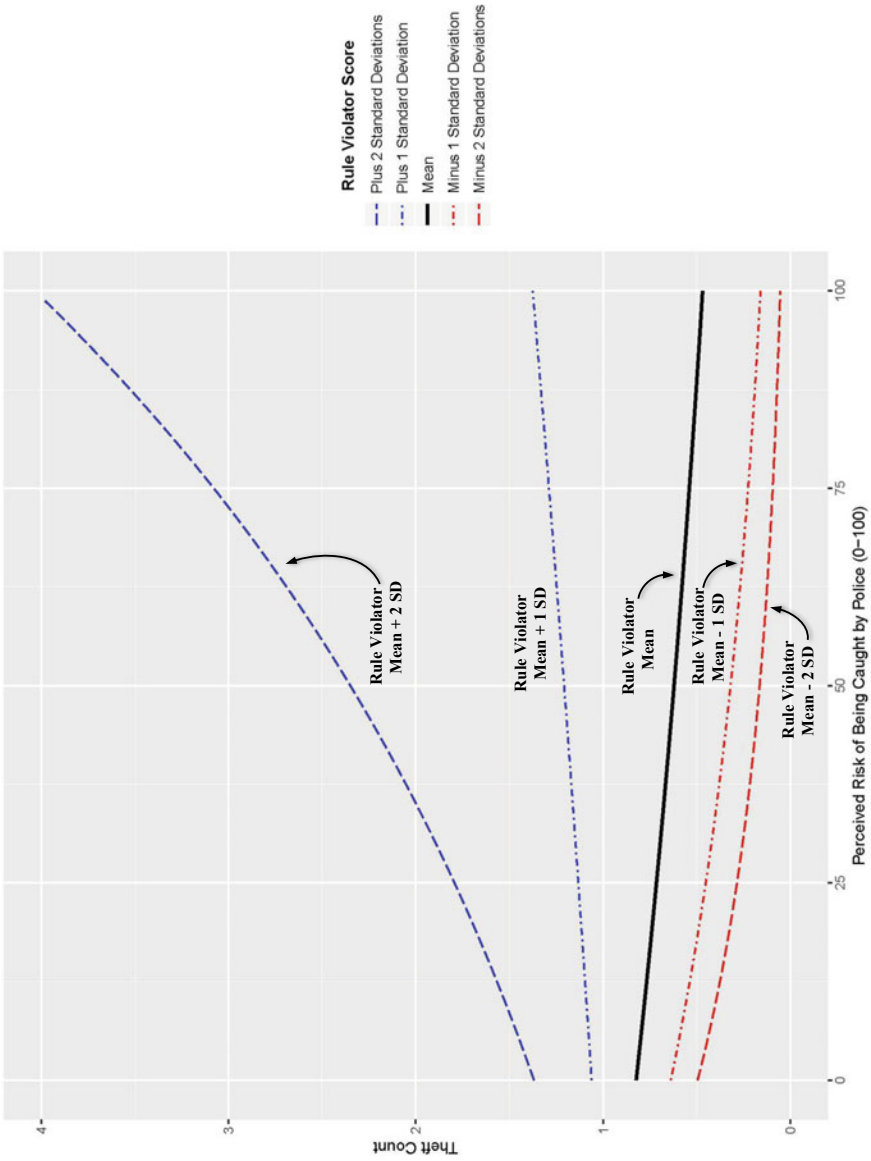


Fig. 5 Effect of risk certainty by values of rule violator in the model of theft

question is to what extent such complex role-relationships enter into decision-making at the adolescent stage of the life span. A survey approach to the self as a generalized other would pose new challenges, including identifying, for a sample of youth, relevant social groups, and, for each group, the youth's role and relationships with other roles, including norms, rules, and reciprocal role-expectations. Qualitative research within organized groups, such as delinquent gangs (e.g., Decker and Van Winkle 1996), is perhaps needed to identify interrelationships among roles, a prerequisite for measuring those role-relationships with surveys.

Second, while our theory of the self is rooted in Mead's (1934) analysis of the social act—a transaction between two or more individuals—our research design necessarily focuses on individuals, incorporating the influence of others via survey respondents' reports of perceptions of others. We applied that strategy to incorporate significant others into reflected appraisals and consequences of delinquency for social status. Additional research is needed to examine additional characteristics of peers, including their delinquent behavior and attitudes toward delinquency. Furthermore, research is needed to explore social networks of youth with other peers as well as adults, and consider the role-relationships within concrete groups arising within these networks.

Moreover, a stronger examination of concrete social relations would explore interactions among two or more individuals and capture the dynamics of social interaction. Such a study would require a different research design, such as a qualitative observation study. An excellent example of the latter is Short and Strodtbeck's (1965) classic mixed-methods study of delinquent gangs. Short and Strodtbeck analyzed qualitative data on a gang leader's decision to join an emerging gang fight. Consistent with our interactionist perspective, the authors identified two salient consequences of the decision to join the fight: (1) a loss of the social status enjoyed by the gang leader for failing to join the fight; and (2) the negative consequences of seriously injuring someone by shooting a gun, which would result in the leader's arrest. According to symbolic interaction, the gang leader takes the role of the gang, locates his position as leader, and considers alternatives from the standpoint of the gang. His reflected appraisal of the gang to his failing to join the fight is extremely negative, including a dramatic loss of personal social status and sense of self as a strong gang leader.

This rudimentary decision model in which arrest is considered against preserving a sense of self can be generalized to an *n*-person game, including utility functions for each individual combatant. If we had survey data on preference functions of individuals, we could use agent-based models to simulate outcomes under varying assumptions (for examples involving social identities, see Akerlof and Kranton 2000). Such simulations would more fully explore our symbolic interactionist theory of social cognition, reflected appraisals, and delinquency.

Finally, as we noted earlier, our model of decision-making and embeddedness derived from Mead is a thoroughly sociological framework, which contrasts with Akerlof and Kranton's (2000, 2010) economic model, which incorporates, into a standard economic model, Tajfel's (1974) and Tajfel and Turner's (1979) concept of social identity. The model incorporates social relations—as social categories—indirectly through the genesis and maintenance of social identities, which are specified

as arguments in the utility function. Concrete social relations in a situation also affect decision-making directly by influencing expected utility. Thus, the model is consistent with embeddedness.

Our sociological model based on Mead differs in three key ways. First, the self is based not on mere social categories, but derives from social roles embedded in social organization and enacted through role-taking.<sup>15</sup> Second, our decision model is based on a dual process model of social cognition; Akerlof and Kranton (2010), like most economists, are agnostic about cognitive theory.<sup>16</sup> Third, our pragmatist theory of cognition and choice, in which alternatives are considered serially and selected based on what “works” to solve the problem, is closer to “satisficing” under bounded rationality—including information limited by past selves—than utility maximization (Simon 1957; Tversky and Kahneman 1974; Kahneman 2011).

Future research is needed to explore these distinctions and in particular, examine whether these differences matter empirically. Does the distinction between habit and deliberation have important empirical implications? Is utility maximization a sufficient approximation of bounded rationality to ensure accurate predictions of behavior? Does the complexity of the fully developed generalized other in adults imply that social identity theory oversimplifies the role of identity in decision-making? Answers to these questions will help build on the results of this study. Our findings, that criminal theft is the result of both reflected appraisals and incentives, and that the deterrent effect of threats of sanction is weaker for youth who see themselves as bad, rule violators, and troublemakers, support our symbolic interactionist theory of delinquency. Our theory, in turn, integrates a structural symbolic interaction concept of self with rational choice principles in a way that retains the fundamental insight that individual decision making, like all behavior, is fundamentally embedded in social relations.

## Endnotes

1. Specifically, the dynamic implications of the model suggest that an actor’s moves are contingent on the moves of other actors, resulting in feedback across individuals. A test of these effects requires a different research design based on, for example, game theory.
2. The concept of embeddedness has not been thoroughly incorporated into criminological theory and research. For an early application of embeddedness in labor markets to unemployment and crime, see Hagan (1993).
3. See Fine and Kleinman’s (1979) symbolic interactionist treatment of subcultures.
4. Mead’s (1938) theory of the past, present, and future has strong implications for his analysis of the stages of the social act (see Matsueda 2006a).
5. Mead (1934) focused on the instrumental aspects of the social act, and left the analysis of emotions to Dewey (1958).

6. The important point of this example is that role-taking involves different levels of abstract groups, ranging from a concrete group bounded in space and time to an abstract social institution transcending time and space. Human beings are capable of moving seamlessly between different levels of abstraction.
7. Some anticipated consequences of behavior may have strong implications for the self, whereas others may have weak implications. For example, obtaining money is culturally valued because of what it can buy, an instrumental consequence not necessarily tied to a conception of self. By contrast, for those whose sense of self is strongly tied to being wealthy—and the power and status that accompanies wealth—accumulating money is essential for the self. The degree to which anticipated consequences of a particular behavior is imbued with self-value is an empirical question.
8. Note that if Matsueda's (1992) measurement model for parents, teachers, and peer significant others is properly-specified, our model for teachers will adequately capture the true reflected appraisals as a rule violator, successful, sociable, and distressed, even without data on parents and peers.
9. This measure has implications for identity: If one sees oneself as cool, or aspires to be seen as cool, and expects that stealing will cause others to see oneself as cool, stealing will confirm one's identity.
10. Controlling for prior self-reported behavior also helps control for potential response effects between our key endogenous predictors—reflected appraisals and incentives for delinquency—and future self-reported delinquency.
11. Following Long (1997), our standardized coefficients are  $\exp(\beta \sigma_x) - 1$ .
12. Alternatively, the finding of stability of stealing could be partly a methodological artifact, due to response effects in self-reported theft that remain invariant over waves or unobserved stable omitted individual characteristics. Our research design is unable to rule out these alternatives.
13. Alternatively, for extreme rule violators, the finding that offending increases with certainty of arrest could reflect defiance against conventional institutions (see Sherman 1993).
14. We did not find evidence of any other interaction effect among out reflected appraisals and incentives.
15. Akerlof and Kranton (2010) show how their utility function can be revised to incorporate a "looking glass self." On the differences between social identity and a symbolic interactionist conception of identity, see Stets and Burke (2000).
16. See Kahneman (2011) for a discussion of dual process models of cognition and rational choice.

## Appendix

### Concepts and measures

Variable	Description
<i>Background and contextual variables</i>	
Crime rate 84	Total crimes reported to police in 1984 by neighborhood
Residential stability	Sum of percent homeowners and percent in same household by census block group
Concentrated disadvantage	Sum of percent poverty, percent unemployed, percent female-headed households by census block group
Proportion black	Percent black by census tract
Female	Dummy variable for sex
Age	Age of respondent in 1988
Black	Dummy variable for blacks
Hispanic	Dummy variable for Hispanic origin
High impulsivity	Parent report of high impulsivity 1988 from items (1) can't sit still, restless, or hyperactive, (2) impulsive or acts without thinking, (3) wants to have things right away, (4) impatient
Income $t_{-1}$	Family income reported by parent (in thousands of dollars)
Family Structure $t_{-1}$	Dummy variable indicating living with biological parents
<i>Explanatory variables</i>	
Reflected appraisals	
Social $t_{-1}$	Weighted sum of two items: "How much would your teachers agree that you are (1) well-liked and (2) get along well with other people?"
Success $t_{-1}$	"How much would your teachers agree that you are likely to succeed?"
Distressed $t_{-1}$	Weighted sum of two items: "How much would your teachers agree that you (1) are often upset and (2) have a lot of personal problems?"
Rule Violator $t_{-1}$	Weighted sum of two items: "How much would your teachers agree that you (1) get into trouble and (2) break rules?"
Prior theft $t_{-1}$	The natural log of the sum of prior theft counts: (1) stolen less than \$5, (2) stolen between \$5 and \$100, (3) stolen between \$5 and \$100, (4) stolen over \$100, (5) shoplifting, (6) purse snatching, (7) auto larceny, (8) fencing
Risk preference $t_{-1}$	Do you agree with the statement, "I like to do daring things"
Grades $t_{-1}$	Self-reported grade-point average
Theft excitement $t_{-1}$	Probability of excitement for committing theft (0-100, 10 point increments) weighted by how good or bad it would be (5-point scale)

(continued)

(continued)

Variable	Description
Theft coolness <sub>t-1</sub>	Perceived probability of being seen as cool for committing theft weighted by how good or bad it would be
Theft arrest certainty <sub>t-1</sub>	Perceived probability of being picked up by the police for committing theft weighted by how good or bad it would be
<i>Dependent variable</i>	
Theft <sub>t</sub>	Sum of self-reported theft counts: (1) stolen less than \$5, (2) stolen between \$5 and \$100, (3) stolen between \$5 and \$100, (4) stolen over \$100, (5) shoplifting, (6) purse snatching, (7) auto larceny, (8) fencing

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# Immigration and Identity Theory: What Can They Gain from Each Other?



Kay Deaux

**Abstract** The study of immigration requires a multilevel framework that includes structural features, social interactions, and individual thoughts and actions—an ideal terrain for social psychological analysis. Drawing on the work of Sheldon Stryker and other identity researchers, I focus on the experience of immigrants as it reflects on both identity structure and process. Two areas in particular are enriched by an identity theory perspective: first, the multiplicity of identities, as exemplified in the immigrant experience by combinations of ethnic and national identity; and second, flexibility and change in identities across time, as illustrated by choices immigrants make to maintain, alter, and express various identity options in different contexts.

**Keywords** Immigration · Identity theory · Identity multiplicity · Identity structure · Identity presentation · National identity · Ethnic identity

## 1 Introduction

Stryker's identity theory, together with the family of identity theories that have developed over the past several decades, attests to the value of a multilevel approach to understanding personality and social structure. Consistent with this perspective is the framework offered by Pettigrew (1997), in which phenomena can be examined at three distinct levels of analysis, termed the macro, the meso, and the micro. Exemplifying the macro level are social structures, systems, institutions and norms, that is, the society of Mead's well-known trilogy and echoing Stryker's mandate that "in the beginning there is society" (Stryker 1996). The micro level of analysis focuses on individuals: their beliefs, values and—most relevant here—their self-defined identities and sense of self. Between these two is the meso level of analysis, which focuses on social interactions between people and within networks. Sociologists and psychologists differ to some degree in the priority they give these various levels, with sociologists traditionally more concerned with macro elements and psychologists focusing on the individual. At the same time, practitioners from both disciplines

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frequently find themselves theorizing at the meso level, bringing concepts of roles and social identities to the forefront. Moreover, sociologists often move to the individual level to describe internal processes such as verification and affect control (see Burke and Stets 2009; Burke and Stryker 2016; Deaux and Burke 2010; Robinson and Smith-Lovin 2006) while psychology-based social psychologists have become increasingly attentive to the macro-level influences of, for example, class (Fiske and Markus 2012) and income inequality (Payne 2017).

The study of immigration is especially suited for this kind of multi-level analysis, and movement between levels frequently characterizes the work of immigration scholars from a variety of disciplines (Foner et al. 2018). The demographics of immigrant flows form a macro-level background for any study of immigration, identifying key elements such as the countries and ethnicities of origin and destination, gender and family composition, as well as the educational and economic resources of the immigrant group. Government policies and practices, as they shape immigrant entry and affect the range of choices available to resident immigrants, are another influential macro-level element (for an example, see Menjívar and Lakhani 2016). Meso-level factors include interactions between immigrants and resident populations, civic engagement and political protest, as well as representations of immigrants in popular discourse. At the individual level, a wide range of attitudes and behaviors have gained the attention of immigration scholars, including psychological well-being, school achievement, and, especially relevant here, processes of identity development and change.

The centrality of identity processes to the immigrant experience, wherein identity serves as a critical link between demographic categories and individual processes, has been recognized with increasing frequency in recent years (see Deaux et al. 2018). For investigators wanting to find theoretical grounding for their ideas, the decades of work on identity concepts and theories, beginning with the foundational work of Mead, are a rich and very usable resource. As Burke and Stryker (2016) describe, Mead's influential writings can be used as the foundation for exploring two fundamental issues: one, identification of structural features that provide a relatively constant framework for individual identity processes, and the second, articulation of the subjective processes that help to account for the development and maintenance of personally-claimed identities.

Emerging from a different theoretical tradition is the concept of social identity, introduced by the European social psychologist Tajfel (1981) and used more often by psychology-trained social psychologists. Here the emphasis is also on individual processes (especially with the articulation of self-categorization principles of identity by Turner and his colleagues 1987), but specifically ones that are channeled by social groups and categories that operate in the culture and that have implications for interpersonal and intergroup relations. Similar in some ways to the structural features highlighted in some versions of identity theory, a person's social identity can be shaped by group features that do not depend on actual interaction with a member of the group. Yet like the more interactive models of identity developed by Burke and Stets (2009), as well as the earlier work of McCall and Simmons (1978), social identity researchers have also been interested in the interactions that people

use to verify and protect a claimed identity, as well as to contest an identity that may be assigned by others but not desired by the self (see Klein et al. 2007; Wiley and Deaux 2011). All of these formulations have much to offer to the study of immigrant identity.

In this chapter, I first provide a very brief background of immigration in the U.S. past and present, as well as a short account of my own initial attempts to use concepts of identity as a vehicle for studying the stability and change of ethnic identification. I then turn to the social psychological work on immigration, honing in on two areas that have particular relevance to identity theorizing: first, the idea of a multiplicity of identities, representing different aspects of self that may vary in importance/prominence and relevance/salience to a particular time or place; and second, a concern with the processes of choice and change that reveal the flexible and dynamic characteristics of identity. In thinking about these two areas of research, I will explore how identity theory in particular, as developed by Shel Stryker and others in this volume, can be applied to the issues of immigration and, in turn, how the work on immigration might be relevant to identity theorizing.

## **2 Immigration as a Domain for Identity Theory**

### ***2.1 A Brief History of Immigration***

Historically, the United States has been described as “a nation of immigrants” (Kennedy 1964), a country whose origin as a nation-state was the work of those born in other countries (see Miranda and McCarter 2016) (In a recent revisionist act of the current administration, that phrase been removed from the mission statement of the U.S. Citizenship and Immigration Services). Unrestricted immigration, first primarily from Great Britain and northern Europe and later from a far broader swath of countries and regions, contributed significantly to the growth of the United States in its early years. Those open doors for nearly all immigrants were replaced in the mid-1920s by more restrictive policies that kept immigration in check until the mid-1960s, when the enactment of pro-immigration policies effectively re-opened the doors. In 2016, immigrants represented approximately 14% of the US population (a figure similar to that of the early 20th century). If the children of immigrants (often referred to as second-generation immigrants) are included in the calculation, the figure reaches nearly 25%. As a consequence, a substantial portion of the U.S. population has experience with more than one ethnic identity and often with more than one national identity in their lifetime. And whereas in the past immigrants tended to concentrate in what have been termed “gateway cities”, such as New York and Chicago, immigrant communities now exist throughout the country, in both urban and rural settings, creating a nationwide sample of multi-ethnic people.

## 2.2 *What Policies and Demographics Mean for Identity Theorizing*

These policy decisions and demographic realities create a social psychological context that is filled with issues relevant to identity structure and process. First, given the significant numbers of Americans who have some connection to more than one ethnic or national tradition, the possibilities for multiple identities are widespread. The increasing rates of ethnic/racial intermarriage in the United States (Alba et al. 2018) also contribute to the number of those who have direct experience with multiple identities. This growing population creates questions for the validity and interpretation of the national census and the construction of policy (Bratter 2018; Perlman and Waters 2002) as well as for the ways in which race and ethnicity are conceptualized and used in common discourse and self-definition (Hochschild et al. 2012). Even for those who consider themselves to represent a single ethnicity or nationality, the increasing presence of other groups can cause a reassessment of the position that one's own group holds in the overall hierarchy (Craig and Richeson 2018; Knowles and Peng 2005). We could add to the current influences the growing popularity of companies such as *23andMe* and *Ancestry.com*, whose reports often reveal a set of identity alternatives not previously considered by the person who requested the assessment (see Roth and Lyon 2018). In sum, many—perhaps even a majority of U.S. residents—can be said to have multiple ethnic and national identities that they need to organize in some meaningful way.

For first-generation immigrants, identity multiplicity must be addressed in a context of change. Born in another country with a generally clear conception of their ethnic and national identity, as well as a social network consistent with and supportive of those identities, immigrants subsequently move to another country with its possibilities for a new national identity as well as possible challenges to their existing ethnic identity. There, new identity categories may be imposed, as for example when the previous citizen of Haiti or Trinidad becomes simply “black” in the United States (Waters 1999) or when the label “illegal” is applied, often generalized beyond particular circumstances to the characteristics of an entire group (Flores and Schachter 2018). In the new location, structural supports for previous identities are often lacking and the status hierarchy of groups, and thus one's position in the society, is likely to be different as well. Definitions and meanings of identity developed in a particular context of norms and practice become to some degree “unmoored” from their previous structural supports and need to be reformulated and removed in the new setting (Ethier and Deaux 1994).

In addition to structural issues of identity configuration, a focus on immigration also alerts us to the processes involved in the enactment of identity, both with in groups who share one's identity and with outgroups who represent different identity categories (Klein et al. 2007; Wiley and Deaux 2011). Here I shift into the language of social identity theory, with its emphasis on intergroup relations, as well as to the interpersonal relations that are affected by group membership. Issues of enactment and presentation can also be relevant to other theories of identity, however, insofar

as they speak to role relationships that are established and self-verification activities that are carried out for the purpose of clarifying the relationship between self and others. A key issue in several theories is the motivational aspect of this identity work, wherein people strategically choose occasions and locations to present a preferred identity to a particular audience.

For both issues of multiplicity and of identity performance, context is important—a position that Thoits (this volume) supports as well. It is common for immigrants, as well as other multiethnic and biracial people, to encounter situations that vary in ethnic composition, some that are consistent with the person's own ethnic identity and some that represent an "other". Choices to express ethnicity versus, for example, a more encompassing national identity, can readily vary between these two situations. Context can also be defined in broader terms: In the immigration field, we often refer to the context of reception, pointing to the attitudinal climate that an immigrant encounters. Contexts of reception can be defined in a variety of ways, from a macro-level focus on explicit state or national policies on immigration to more meso-level emphasis on direct contacts between the immigrant and residents of a community. In both cases, the context can be one that supports the immigrant's previously-established identity and/or encourages the acquisition of a new American identity; alternatively, features of the context can convey rejection of the ethnic identity and/or hostility toward the acquisition of an American identity. These contrasting environments have been shown to influence the feelings of belonging, which in turn are likely to encourage the adoption of an American identity (Huo et al. 2018)

I hope this brief review is convincing in its suggestion that immigration can serve as a valuable crucible for examining identity-related phenomena. Both "upstream" issues of formation and definition as well as more "downstream" consequences of particular identity constellations and choices can be examined from the perspective of immigration, in ways that will feed back into more comprehensive theorizing about identity processes in general.

### ***2.3 Developing the Immigration + Identity Story***

My recognition of the importance of identity to the immigration story evolved from a study that preceded my immersion in the immigration literature, but which in retrospect has a great deal to say about the processes that characterize immigrant identity. This study (Ethier and Deaux 1994) looked at the identity work that took place when students in an ethnic minority group entered what was then the primarily white environment of an Ivy League college. The specific question of interest was how the ethnic identity of Latinx students (defined by their listing as Hispanic in the university records)<sup>1</sup> might change over the course of their first year in college, as assessed at three time points (November, February and May).

Considering the sample as a whole, the mean level of ethnic identity importance of the Latinx students did not change over the course of the year. Individually, however, changes were evident, with some students increasing and others decreasing the rated

importance of their Hispanic identity. Thus one question of interest for identity theorizing is how to explain those different reactions within a common environment.

At the initial point of assessment, we observed a strong relationship between the strength of ethnic identity and the degree of “Hispanic-ness” in the student’s cultural background, a composite measure defined by the ethnicity of their hometown neighborhood, ethnicity of their high school friends, language spoken in their home, and the birthplace of their parents. The interdependence of individual identity and social networks is probably not surprising, given the social psychological framework we are working with here. More revealing, however, were the patterns of association evident later in the year. By the end of their first term, the importance of the students’ ethnic identities no longer had a significant connection to the home environment, but rather ethnic identity was now linked to organizations and people within the college environment, specifically the ethnicity of college friends and the student’s participation in campus Hispanic organizations. Thus, consistent with Stryker’s identity theorizing, social structures were supportive of identity in both the student’s past and present experience—albeit different structural features were relevant at the two time points. More specifically, in terms of the analysis of structures offered by Stryker et al. (2005), our measures of cultural background and ethnic involvement primarily tapped what they term the intermediate (e.g., neighborhood and schools) and proximate (e.g. language spoken at home, friends on campus) levels of structure. Further, although our study was not designed to differentiate between levels of structure, the results—particularly those assessing ethnic involvement at college—are consistent with the conclusion of Stryker and his colleagues that “it is the social structural variables closer to social relationships per se...that strongly impact commitment” (Stryker et al. 2005, p. 119). At the same time, these results point to the motivation of the individual to act on and be selective among the structures that are available: students were proactively making choices to find the environmental supports and self-verification that they needed when previously important structures were now distal. We referred to this process as *remooring*.

Not all of the students engaged in a remooring process, however. Another important part of this story concerns the individual variations within the sample. Two quite different patterns were evident in the data, which illustrate how students who share a common identity may manage that identity quite differently. In this case, all of the students shared a common category membership of Hispanic, defined and reified in the university records. This demographically shared category was not equally prominent for the students, however. Some students reported a strong ethnic background, considered their ethnic identity important, and sought out situations that could support and promote their ethnicity. These were the students who developed new Hispanic friends, joined the ethnic organizations, and for whom the importance of Hispanic identity increased over the course of the year. In contrast were the students for whom the Hispanic identity was less important. They reported feeling uncomfortable about being categorized as Hispanic by others and believed that the labeling implied they were of a lesser status than the more traditional students. It was these other people who made the Hispanic identity relevant in a way that threatened



the focal student's well-being and in turn decreased their already less intense identity as Hispanic over the course of the year.

This study revealingly points to the interplay of situational/structural factors and individual choice in the endorsement and enactment of an identity. Within the same setting, persons who might be thought to share a common identity can choose situations and people that will verify that identity or they can choose to ignore or contest an identity that is imposed by others but less valued by themselves.

### **3 Immigration and Identity: Structure and Process**

The Ethier and Deaux (1994) study served as a launching point for my study of immigration—and in particular, questions of identity that I believe are so central to the process, when examined from the perspective of the immigrants themselves. Much research has been conducted in the past 25 years that brings social psychological thinking to the realm of immigration studies. To show how this work relates, either explicitly or implicitly, to the concerns of those working on identity theory, I focus on two general areas of investigation: the multiplicity of identity structures among immigrants, and the performance and enactment of identity with varying audiences.

This choice mirrors the two-prong analysis of Burke and Stryker (2016), Stryker and Burke (2000), in which they distinguish between an emphasis on the relationship of identities to social structures, characteristic of the work of Stryker (see Stryker et al. 2005), and an emphasis on the subjective processes of identity verification, long a focus of Burke and his colleagues (see Burke and Stets 2009). As Burke and Stryker (2016) are quick to note in their demarcation of these two lines of work, not only do both strands draw on a common Meadian base but both can productively be brought to bear on a wide range of identity questions and issues. I share this position with Burke and Stryker (2016), and my account of the two areas will readily show the fluidity of influence between external structure and internal process.

#### ***3.1 Immigration as a Study of Multiple Identities***

The assumption that people have multiple identities has been fundamental to most theories of identity since the idea was articulated by James (1890). Until fairly recently, investigators accepted this premise and frequently offered a list of identities that were most common, but then went on to study identities one at a time, putting aside some of the challenging issues of just when and how identities might be combined (Burke and Stryker 2016). Such a strategy can be productive, particularly if the two or more identities in question are linked to quite different networks and agenda. Yet identities often overlap, both existing within the same network or both being called upon in a single situation. Stryker (2000) raised this issue in his discussion of participation in collective movements, pointing to a number of ways

in which identities might overlap and their possible consequences for commitment to social movement participation or nonparticipation. Burke and Stryker (2016) also suggest questions that can be addressed concerning the structural conditions and internal workings of multiple identities.

Immigration is an ideal testing ground for examining identity multiplicity, both as a structural issue and as a critical series of points in time for change and reformulation of identity patterns. For the immigrant, questions of defining identities, contemplating the compatibility or incompatibility of those various identities, and considering changes in identity structure are almost inevitable. Most immigrants arrive in their destination country with a firm sense of their national and ethnic identity (which may be virtually identical or distinct from one another, depending on the diversity and social stratification system in the country of origin). Religion may also be a prominent identity, sometimes closely linked to the national identity. Work by Verkuyten and Yildiz (2007), for example, has found that Turkish and Muslim identities are highly correlated in Dutch immigrant samples. Once the immigrant is settled in the destination country, a new national identity becomes an option. Existing identities, such as ethnicity and religion, often continue to be central to the immigrant, but at the same time, the meaning and acceptability of those identities may be subject to new challenges, and new networks of support need to be established. As a consequence, the immigrant's identity structure may be redefined in light of the new conditions, traditions, and norms.

The compatibility of the ethnic identity of origin and the new national identity is highly variable. In part, it depends on the country in question. In longstanding immigrant-receiving countries, such as the United States and Canada, correlations between the two often hover around zero and in some cases are even slightly positive. In more traditional European countries, in contrast, where immigration is a more recent phenomenon, negative correlations between the two identities are typically reported. Thus Verkuyten and Yildiz (2007), for example, found that both the Turkish and the Muslim identity had significant negative correlations with a Dutch identity for Turkish immigrants in the Netherlands. Considering European countries more broadly, Fleischmann and Phalet (2016) showed that the compatibility of ethnic, religious and national identities varied not only between countries, but within countries as well, where the city of residence (and the immigrant's identification with that city) made a difference. These and other studies point convincingly to the climate of reception on the part of the country's (and the city's) residents as a major influence on the composition of immigrants' multiple identities, as that climate varies from perceived discrimination against a particular ethnic or religious immigrant group to a welcoming attitude that encourages incorporation and adoption of a new national identity.

Ethnic and national identity may have a peaceful coexistence, with each defined quite separately and having different degrees of importance and levels of prominence in the hierarchy. Another possibility, however, is for a merged identity to form, typically represented as a hyphenated category, for example, Mexican American or Irish American. Recent studies point to the distinctive status of this combined identity, with different relationships to the contributing components. In a series of

studies in Germany (Martiny et al. 2017), for example, adolescent Turkish-origin immigrants were found to identify to varying degrees with an identity as Turkish and as German, as well as with a dual identity as German-Turkish. Interestingly, the dual identity was positively correlated with the national identity as German, but was negatively correlated with the Turkish ethnic identity. Our understanding of these ethnic/national identities should be considered a work in progress. Longitudinal studies that can both identify the sequence of acquisition of separate national and dual identities and assess the stability of the identity structure will be important for future theoretical development.

In addition to the availability of a new national identity, other ethnic identities may also emerge for the immigrant who settles in a new country. An immigrant to the United States from an AfroCaribbean country, for example, is likely to encounter and often be assigned by others to the more generic category of Black American. Decisions as to whether to incorporate that identity are often complicated for the AfroCaribbean immigrant, as they involve issues of status, history and culture, and social networks (Vickerman 2001; Waters 1994, 1999). Research generally shows that second-generation immigrants from the Caribbean, that is, the children of immigrants, are more likely to endorse an African American identity than are the first-generation, but that shift is by no means universal (Deaux 2006; Waters 1994). And although incorporating the American-based identity may suggest positive acculturation, it also brings negative status implications with it, often to the detriment of the individual (see Deaux et al. 2007).

Panethnic identities are another option for immigrants from Latin American and from Asia, often reinforced by bureaucratic forms with forced-choice categories for identifying one's ethnic heritage. Immigrants from Guatemala, Honduras and Mexico, for example, may quickly find themselves categorized as a generic Hispanic (a term officially adopted by the U.S. Bureau of Census in 1980) or Latinx. A similar pattern holds true for immigrants from countries as diverse as China, Vietnam, and Korea, who are grouped together as Asian Americans. Although these immigrants often continue to think of themselves in terms of their national origin and its distinctive cultural traditions, the generic term Asian has become "institutionalized and...taken for granted in everyday interactions (Okamoto 2014, 48).

Immigrants may decide to identify with both their ethnicity of origin and the panethnic grouping offered in the new environment, perhaps assigning them different levels of importance/prominence and finding them relevant in different situations. More than just reacting to the lack of awareness by others of their distinct cultural traditions, Hispanic and Asian groups can use the panethnic umbrella identity to combine efforts in building organizations and institutions that can have greater political effectiveness than those based in any single ethnic group (Mora 2014; Okamoto 2014).

Less often considered are the changes that immigration may evoke in the identities of the native-born residents of the receiving country. And yet, though perhaps less tied to specific events such as a transposition from one country to another, residents can feel compelled to redefine their own identity and position in the social structure as a result of the societal changes around them. In this case, the issue is less one of

multiple identities than of changes in the meaning or the importance/prominence of a single identity, but issues of identity structure are still relevant.

In particular, the nature of white identity has become a recent topic of interest, undoubtedly stimulated in part by the contemporary political climate. In past years, it was assumed, and often supported by research, that white Americans did not have a strong white identity (McDermott and Samson 2005). Little more than a decade ago, Sears and Salavei asserted that “Whites’ whiteness is usually likely to be no more noteworthy to them than breathing the air around them” (2006, p. 901). Yet in today’s climate, whiteness appears to be increasingly important to a growing number of people: more than a third of White Americans in a recent survey reported that their white identity was very important to them (Hartmann et al. 2009; see also Hunt, this volume). Increased diversity in communities appears to be one of the factors contributing to white identity, as the strength of white identity has been shown to be positively correlated with the percentage of non-white persons in the respondent’s home county (Knowles and Peng 2005). Size of the racial minority population in the local environment also increases White’s beliefs that their group is subject to discrimination, as does information that the percentage of racial minorities in the country as a whole is increasing (Craig and Richeson 2018).

Endorsement of white identity is also predictive of a range of race-related attitudes. For example, a stronger white identity is associated with beliefs that affirmative action is a zero-sum game with negative consequences for whites (Hunt, this volume) and with a greater tendency to exclude racially ambiguous faces from the white ingroup (Knowles and Peng 2005). Analyses of political attitudes and voting behavior in the most recent U.S. presidential election also point to a link between white identity and candidate preference (Knowles and Tropp 2016; Major et al. 2016). All of these findings underscore the influence of societal context on identity formation and definition.

Immigration has proved to be fertile ground for discussions of multiple identities. Yet many questions remain, and the further exploration of those questions could be productive for students of identity theory. One question, for example, is how important national and ethnic identities are, relative to other identities a person might hold. What is their prominence in the identity hierarchy? And how does the surrounding social structure influence the adoption and positioning of a particular identity? As Fleishchmann and Phalet (2016) observed, commitment to ethnic, religious, and civic identities, as well as the viability of combining the identities, varied across and within European countries. Would you find similar variation in the United States as a function, for example, of red state/blue state differences in political attitudes? And how much, if any, does the position and combination of those identities change over time? For immigrants, the acquisition of a new national identity, either alone or in some combined form with an ethnic identity (e.g., Chinese American), almost certainly occurs gradually over time, and more study of those developmental processes would certainly be useful (see also Feliciano and Rumbaut 2018; Froehlich et al. 2020). A more complicated analysis might consider the age of the immigrant in conjunction with changes in the political climate, investigating whether there is, for

example, some critical period for responding to external events by changing some aspects of one's identity pattern (see Stewart and Healy 1989).

Another line of questioning might concern the meanings of these identities. When identities combine, as in a joint ethnic/national identity like Mexican American or Chinese American, what features of the combined identity overlap with features of the two previously independent identity categories? Are these conjoint categories simply additive in terms of their defining characteristics? Or does the combined category have emergent properties that are unique to the combination and not associated with either of the component identities? Some preliminary work suggests the latter (see Hopkins 2011), but more evidence and more detail is needed to clearly resolve the issue. These kinds of questions call for more qualitative work on identity definition and characterization—work that goes beyond the scaled dimensions that so many of us rely on, but that may be essential to bring out the meanings and emotional content of the identities that a person considers self-descriptive. Showing the value of this approach, Finch and Stryker (this volume) provide one fascinating example of how a work and an ethnic identity can be combined in their interviews with Latinx attorneys in U.S. border courts.

A third line of research that could be relevant for identity theory would be a closer look at the role relationships that support and reinforce a particular ethnic or national identity. Although these identities are, in the way that I have been using them, most aligned with the groups and categories of social identity theory, they almost certainly implicate role relationships with others who similarly claim the identity in question (see Deaux and Martin 2003). Thus to be Korean, for example, typically involves not only a set of cultural assumptions and traditions that are potentially shared by all other Koreans, but is also relevant to one's interactions with specific Koreans with whom one has some established relationship. Determining the distinctiveness or overlap between the category-defined identity and the role-defined identity might be profitably pursued in the immigration realm.

A related line of research would involve exploring the social networks that support various ethnic and national identity combinations. The social network(s) of a Korean immigrant who develops a Korean American identity, for example, is likely to differ from that of immigrants who continue to think of themselves in ethnic terms alone. Would the Korean American network simply be a subset of the previously established Korean network, or would the newly evolving identity require a newly constructed network of support? Some investigators have begun to explore patterns of networks with immigrant populations (Mok et al. 2007; Repke and Benet-Martínez 2018), but much more work is needed.

### ***3.2 Immigration as a Study of Identity Performance***

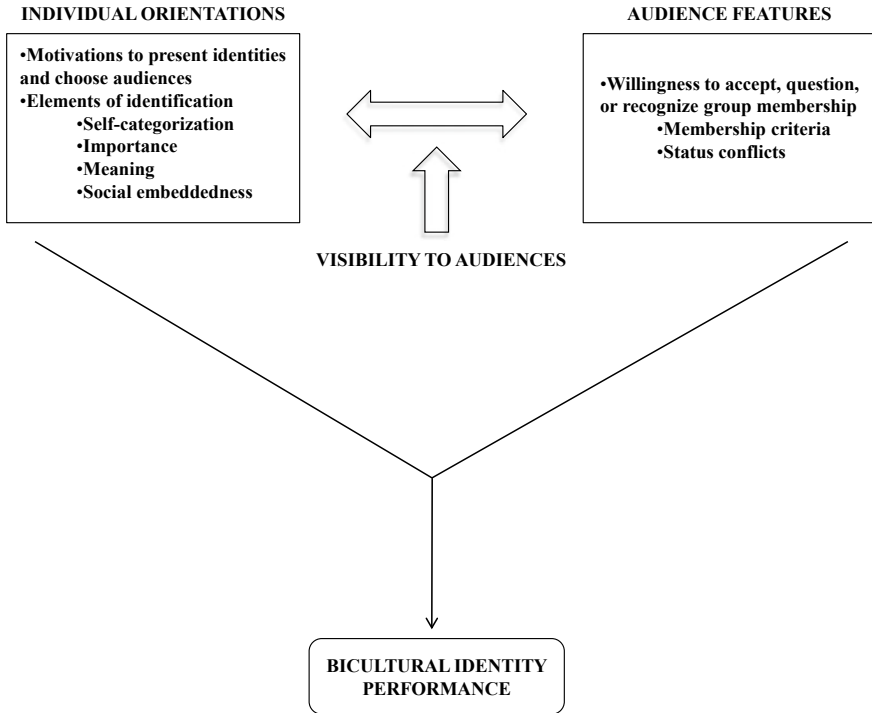
The preceding section has focused on the structural aspects of identity, as they are implicated in immigration research and as they can speak to some of the issues that are central to identity theory as Stryker developed it over the years. However,

research on immigrant identity can relate equally well to the line of thinking that is more closely aligned to the interactional tradition of identity theorizing (McCall and Simmons 1978; see also Burke and Stryker 2016; Stets and Serpe 2013). Within psychology, these issues are generally discussed in terms of identity presentation or identity performance (Klein et al. 2007; Wiley and Deaux 2011). The questions here concern not only a role relationship in which a particular identity presentation is expected, but also the strategic presentations that the person makes, sometimes to affirm the expected identity but at other times to offer an alternative to an identity assumed by the intended audience.

As defined by Klein, Spears and Reicher, identity performance is “the purposeful expression (or suppression) of behaviors relevant to those norms conventionally associated with a salient social identity” (2007, 3). Embedded in this definition is the assumption that identity performance is both motivated and strategic. Identity presentation or identity performance (and I use those terms interchangeably) involves some of the self-verification processes theorized and empirically demonstrated by Burke and his associates (see Burke and Stets 2009). In addition, however, identity performance suggests a more explicit consideration of the strategic value of prioritizing a particular identity to achieve a particular goal in a particular situation. Assuming that people can choose from among several identities in their repertoire, it is then possible for them to select not necessarily the identity that is most important to them (i.e., prominent in the hierarchy), nor even the one that is most salient based on past behavior in similar situations, but rather one that best serves their purpose in achieving the goals they have for the situation at hand. Drawing from the work of Brenner et al. (2014), one might expect these motivationally-based presentations to be more likely when an identity is less obligatory and enactment allows the individual more choice.

Building on the Klein et al. (2007) work, Wiley and Deaux (2011) specifically consider the case of bicultural identity performance, as it is experienced and negotiated by immigrants and other multicultural individuals. This conceptual model, shown in Fig. 1, hones in specifically on the interpersonal experience, as it is shaped by group memberships. As such, it is a model designed to operate at the meso level of analysis, as referred to in the opening of this chapter. In the model, identity performance is influenced first by features of the identity in question: its importance, the meanings associated with it, and the degree to which the identity is socially embedded in a network. Visibility of the identity also influences identity performance: to the degree that an identity is visible to the audience, as is often the case with ethnic identities, a person may have less flexibility in choosing and performing an identity other than the one assumed by the observer. As just one example, a recent study of Mexican immigrants in Philadelphia and Atlanta found that skin color was a significant predictor of the likelihood that these immigrants identified with being American (Jones-Correa et al. 2018). Presumably the degree to which they were “not white” influenced their own perception of a lack of fit with the American identity as well as the attitudes that they believed others to have.

Work by Sapna Cheryan and her associates illustrates the ways in which the visibility of ethnic markers and the expectations of the audience about characteristics



**Fig. 1** A model of bicultural identity performance. From Wiley and Deaux (2011). Copyright statement © 2011 Blackwell Publishing Ltd except for editorial material and organization. © 2011 Assaad E. Azzi, Xenia Chrysochoou, Bert Klandermans, and Bernd Simon. All right reserved

associated with that ethnicity can affect identity expression. In a field experiment, U.S.-born students of Asian descent, when approached on campus by an interviewer who asked if they could speak English, reacted negatively to what they regarded as a mistaken identity attribution. Subsequently they were more likely to endorse their American identity than were students who were approached in a more neutral manner (Cheryan and Monin 2005). In a further demonstration of identity presentation, Asian-descent individuals indicated stronger preferences for typically American food when others assumed they were immigrants rather than U.S.-born (Guendelman et al. 2011). Interestingly, an overweight Asian is in fact judged by others as more American than is a normal-weight Asian (Hendron et al. 2017), suggesting the utility of eating American food as a successful identity presentation strategy—if not a beneficial health strategy!

Hopkins and Greenwood (2013) offer another view of the identity presentation process in their study of British Muslim women. A major focus of their work was the ways in which wearing the traditional Muslim *hijab* served the women’s purpose of presenting an identity choice to others, even though the women recognized that their choice might affect the audience’s attitude toward them in unfavorable ways. At

the same time, while clearly presenting a Muslim identity, many of the women they interviewed described interactions in which they were also conscious of bringing their British identity to the fore, as, for example, by speaking with the British or Scottish accent of their residence. In other work, Hopkins (2011) has shown how British Muslims will assert their national identity as British while at the same time conveying a belief in the heterogeneity of that identity, in such a way that their own religious practices can live comfortably within the national British identity. Similarly, when characterizing their Muslim identity, they described a uniquely British way to be Muslim, allowing themselves to hold both identities without feeling a need to choose between them. As suggested earlier, qualitative investigations of identity content may provide valuable new information on how identities are defined and maintained.

Immigrants typically encounter a variety of audiences for their identity presentations, who are likely to vary in their expectations for and acceptance of a particular identity. Family and neighborhood may encourage the expression of an ethnic identity; diversified work settings may be an occasion for expressing a national identity consistent with the country of residence. As Thoits (this volume) also argues, audience matters, and the degree to which a particular audience accepts or rejects an identity performance can in turn impact future choices that the immigrant makes, in terms of which identity to present and which audience to choose for that performance. Far from being an unconstrained identity preference, an immigrant identity is critically influenced by both the general climate of reception and the numerous individual identity interactions that occur in day-to-day community life.

As is the case with the work on multiple identities, research on identity presentation also raises questions that can be of interest to identity theorists. We have much more to learn, for example, about people's choices of venues for identity expression. Self-verification, defined as a consistency between the meanings attributed to an individual by others and the meanings one attributes to the self (Burke and Stets 2009), has been a key issue in identity theory. These processes might be assumed to be particularly important in the early stages of acquiring a new identity, for example, as an immigrant attempts to assume a national identity and gain recognition for and acceptance of it.

What happens if an identity (or an incipient identity) is not verified by a chosen audience? Stets and her colleagues (this volume) explore people's responses to feedback that either verifies or fails to verify identity—in their study, the person identity of dominance. Their findings suggest that people will behaviorally resist inconsistent feedback as well as gradually shift their cognitive definitions in the direction of the feedback they have received. Would these findings generalize to other types of identities, such as those based on roles or those linked closely to well-defined social networks? Do identities that have deep roots and long traditions respond differently to non-verifying audiences than those that are still being formulated? And what happens when there are two audiences to be tested for verification, whose reactions to the person's identity presentation differ in degree or kind? Consider, for example, an immigrant looking for verification both from the ethnic community and from the more generic national community as a new national identity is being developed. Are



both audiences likely to verify this identity? These are the kinds of complications that are difficult to avoid when applying identity theory to the immigrant experience. Yet as challenging as they may be for designing informative research, they can also offer a unique testing ground for some theoretically important questions.

Klein and his colleagues propose that identity performance serves two basic functions. In addition to what they term the identity consolidation function, which includes processes such as self-verification that serve to affirm or strengthen an identity, they suggest that some identity performances can serve a mobilization function (Klein et al. 2007). Here the goal is to enhance the status of one's group or to achieve political goals that will benefit others as well as oneself (Klein et al. 2007; Wiley et al. 2014). One can think of this motivation being central when, for example, immigrants join together to advance a political agenda, possibly redefining or expanding the meaning of the identity to themselves at the same time as they are attempting to have the identity recognized by others.

In sum, questions about the presentation and performance of an identity, like questions about the structure of multiple identities, can be fruitfully explored in the domain of immigrant identity, with the potential for both learning and understanding more about the immigrant experience as well as extending the application of identity theorizing—and perhaps enriching some aspects of the theories as well.

### ***3.3 The Interaction of Structure and Process***

Although I have separated the discussion of identity structure and identity presentation processes in order to highlight some of the key issues for each, the separation is artificial in so many respects. In immigration, as in so many others areas of social life, it is impossible to talk about the self without also talking about society (Mead 1934). Thus, throughout the immigration process, there is an interplay between the person and the societal structures, between individual beliefs and the actions and reactions of others. Immigrants come with aspirations and expectations; contexts of reception and legal practices can shape their experiences, define their opportunity structures, and encourage or thwart their identity goals.

Beliefs and practices concerning documentation and illegality in the United States today effectively illustrate the ways in which structure and process are intertwined for immigrant identity. The definition of legal status has been altered many times in U.S. history, subject to changing tides of political opinion and demographic flow. Co-existing with its legal definitions are social representations of what it means to be illegal and who is most likely to occupy that position in any given period. Recent studies of the stereotypes of immigrants (Greenwood et al. 2019) show that undocumented immigrants are viewed less favorably than other legal categories; at the same time, impressions of the undocumented immigrant are more similar to a generic immigrant category than any of the other legal status conditions included in the study (e.g., documented, asylum seeker). Other research has shown that the attribution of illegality is differentially applied to immigrant groups: national origin,

social class and criminal background all affect how likely non-Hispanic white U.S. respondents are to believe that an immigrant is undocumented (Flores and Schachter 2018). These data speak directly to the societal policies, the climate of reception, and to those features of the audience noted in Fig. 1. The impact of these factors on the identity-related behaviors of immigrants themselves is vividly described by Menjívar and Lakhani (2016). In an attempt to achieve a desired legal status, immigrants engage in activities in both personal and civic spheres that in turn shape their values and self-concepts, redefining some identities and sometimes leading to the acquisition of new roles and identities in the process (e.g., spouse, member of the military, political activist). In all of these examples, both structural and process factors need to be invoked.

Not only does immigration provide a wealth of opportunities for studying the interplay of structure and process, but it also highlights the importance of considering change. The immigrant experience is inherently a dynamic process in which people change, and often structures change as well. The move from one country to another is in itself a discrete event (though one typically accompanied by considerable preparation), but the psychological work of the immigrant is an ongoing process in which particular identities can shift in importance/prominence, networks that support an identity are likely to change, and larger political forces often necessitate the reassessment and adjustment of choices previously made. Official policies can change the ground rules for immigrant incorporation; political winds can change in ways that alter the climate of reception and the nature of social interactions. These dynamic processes are integral to the immigration phenomena.

Thus, my approach to studying immigration from a social psychological perspective requires a consideration of both structure and process and an incorporation of multiple levels of analysis. Both the country of origin and the country of reception are characterized by a set of institutions and systems, networks, and norms that set parameters and define opportunity structures for identity development and expression. Within these structural domains, including the transport of norms and assumptions from one domain to another, immigrants engage in identity work, seeking to define themselves within their community and the larger nation-state. Multiple levels of analysis are needed to get a full picture of processes; multiple methods are needed as well. With the continuing movement of people from one country to another, throughout the world and under a variety of circumstances, the possibilities for identity theorizing and research are boundless and the payoffs likely to be so rewarding.

## Endnotes

1. The alternating use of Latinx and Hispanic reflects a change in common usage over the two and a half decades since the study was conducted. In the questionnaires that students completed, Hispanic was the term used, chosen to be inclusive of different national/ethnic identities represented in the sample.

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# Identity Meaning Discrepancies and Psychological Distress: A Partial Test of Incorporating Identity Theory and Self-definitions into the Stress Process Model



Richard E. Adams and Richard T. Serpe

**Abstract** Scholars have argued for integrating symbolic interactionism into the stress process model. Focusing on meanings associated with normative and counter-normative identities, we offer a partial test of one such integration developed by McLeod (2012). Based on a combination of McLeod's integration of the stress process model and symbolic interactionism, discrepancy theory, and literature on identity-relevant events, we hypothesize that discrepancies in the meanings attached to parent and work identities by self and others in general (the Generalized Other) are more stressful for people with children and people who work, compared to the childless and unemployed. Additionally, as the self-evaluation of meanings attached to an identity shifts from higher than perceived evaluation of the generalized other to lower than perceived evaluation of the generalized other, stress increases for people holding normative identities. Using a web-based survey administered between October 1 and October 12, 2012, we collected data on parenting and work identities and analyzed the antecedents and consequences of identity-discrepant meanings using structural equation modeling (SEM). Results show that discrepant meanings for an identity, self-meanings compared to meanings others in general apply to that identity, operate differently depending on whether the identity is a normative or counter-normative one. Additionally, discrepancies in meaning are significant predictors of identity-specific self-esteem, mastery, and psychological health, but mainly for the normative identities of parent and employed. Discrepancies in meanings have little relationship to these outcomes for the counter-normative identities of being childless or unemployed. As expected from both identity theory and the stress process model, increased social connections, identity-specific self-esteem, and mastery are related to better psychological well-being, but, again, mainly for those with normative identities. We discuss implications for McLeod's integration of identity theory and the stress process model.

**Keywords** Anxiety · Depression · Counter-normative identity · Identity meaning discrepancy · Identity theory · Identity specific self-esteem · Mastery · Normative identity · Psychological well-being · Stress process model

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## 1 Introduction

The stress process model (Pearlin et al. 1981; Pearlin and Bireman 2013) has been one of the main ways social scientists have linked stressful life events and traumas to people's well-being, particularly for mental health (Adams et al. 2002; Aneshensel 2009; Folkman et al. 1986; Lazarus and Folkman 1984; Lin and Ensel 1989; Thoits 2010; Wheaton et al. 2013). An equally important, but less often used, perspective on stress and health has developed using identity theory (Burke 1991; Burke and Stets 2009; Marcussen and Large 2003; Marcussen et al. 2004; Stets and Burke 2005; Thoits 2012; 2013). Some have argued that the stress process model can be expanded and better specified by incorporating identity theory, and more broadly symbolic interactionism, into its explanatory framework (McLeod 2012; Thoits 1991; 1995). This chapter offers one possible way to link identity theory to the stress process model by assessing the meanings people assign to normative and counter-normative social roles (Long 2016), and the discrepancies in meanings people give to specific identities.

As Thoits (1991) notes, the link between stressful events and psychological health is not as strong as theory would predict, nor is the relationship straightforward. For example, research shows that, although between 50 and 90% of people living in the United States experience at least one lifetime trauma (e.g., been shot at, childhood sexual or physical abuse, surviving a riot or earthquake) that puts them at risk for psychological disorders (Breslau et al. 2004; Norris et al. 2002), relatively few go on to suffer mental health problems. Several factors help explain this weak association and motivate our research.

First, as noted by the stress process model, many people have social and psychological resources, including self-esteem, a sense of mastery and social support, that mitigate the negative effects of stress on psychological health (Pearlin and Bireman 2013; Wheaton et al. 2013). Second, not all negative events are relevant to the identity and self-definitions of the person experiencing them (Thoits 1991; 1995). Thoits (1991) refers to these more "important" experiences as identity-relevant events. To give one example, in a series of studies about the impact of marriage and divorce on both psychological well-being and distress, Simon (Simon 1997; Simon and Marcussen 1999), found that those persons who valued getting married benefitted more in their psychological health from getting married, compared to those who did not value marriage as highly. Further, those who valued marriage more highly experienced greater psychological harm in the event of divorce. In other words, negative life events that affect important or salient identities may have a greater impact on psychological and physical health than do events that affect less important or salient identities.

Third, the stress process model needs to be better specified. McLeod (2012) argued that integrating symbolic interactionism with the stress process model would allow for a more accurate reflection of the links from larger social context to proximate life experiences, and ultimately, to personal meaning and well-being outcomes. Part of her theoretical development focuses on how people negotiate the meaning of certain

events with others when coming to an understanding of how the events should be interpreted and the relevance they will have for individual well-being (McLeod 2012, Figure 2). More specifically, meaning negotiation occurs between people's objective life circumstances (exposure to stressors) and subjective life circumstances (interpretations of objective circumstances and personal meanings) which influence how stressful objective circumstances are experienced and interpreted. Understanding these interpretations is critical for explaining why some stressful events have a large impact on well-being, while others are much less impactful.

Larger social context also affects this meaning negotiating process, linking micro processes with macro-societal change. For instance, following a sample of people exposed to the Three-Mile Island Nuclear Power Plant disaster for four years, Bromet et al. (1990) concluded that all study participants had high distress levels just after the disaster, but that, except for a few sub-groups, distress diminished over time. One of these more exceptional subgroups were mothers with young children at the time of exposure to an unknown level of radiation. Years later, these mothers were still weighed down by the traumatic event because of their concerns about their children's health. Bromet and her colleagues (Adams et al. 2011; Taormina et al. 2008) report similar findings for mothers of young children living near the Chernobyl Nuclear Power Plant when it exploded in 1985. Women with children who were not living near the Chernobyl Plant were much less distressed by this disaster, even though most data showed few health differences between the two sets of children (Bromet et al. 2011). We suggest that the identity-relevant meanings mothers attached to the event differed for these two groups. The mothers who lived near the power plant perceived the Chernobyl Disaster as a greater threat to their children and themselves, resulting in higher distress (Adams et al. 2011). For these mothers, the meanings of the event and its relevance to their identities as mothers were intimately intertwined.

In this chapter, we combine McLeod's (2012) theoretical integration of stress process and symbolic interactionism with Thoits' (1995) discussion of identity-relevant events. Additionally, we include theoretical arguments from identity discrepancy theory developed by Burke and colleagues and Marcussen and colleagues (Burke 1991; Burke and Stets 2009; Stets and Burke 2005; Large and Marcussen 2000; Marcussen and Large 2003; Marcussen 2006) to develop a model about how the consequences of stressful events are influenced by variability in resources, identity-relevance, and meaning attribution by those experiencing the events. All researchers operating within an identity discrepancy perspective presume that, when enacting an identity, people seek information from others (reflected appraisals) about whether or not their performance matches the social and cultural expectations for the identity in that situation. Reflected appraisals from others that verify the match between identity performance and normative expectations result in positive emotions and better psychological well-being. But large discrepancies between performance and reflected appraisals typically will result in negative emotions and worse psychological well-being (Burke and Stets 1999; Cast and Welch 2015; Kalkhoff et al. 2016; Marcussen and Large 2003; Marcussen et al. 2004). Recent research focusing on the consequences of identity discrepancy has advanced knowledge by showing that discrepancies in expected behavior do trigger negative emotions and poorer



psychological well-being (Marcussen and Large 2003; Stets and Trettenvik 2014). We advance knowledge still further by examining discrepancies between *meanings* assigned to normative versus counter-normative identities.

## 2 Identity Theory and Stress

To elaborate, Identity Theory begins with Mead's view that the individual and society mutually constitute one another (Stryker 1968; 2008). For Identity Theorists, however, Mead did not adequately specify a theory allowing hypothesis generation, predictions, or quantitative assessment of those hypotheses (Burke and Stets 2009; Serpe and Stryker 2011; Stryker 2002 [1980]; 2008; Stryker and Serpe 1982). Stryker's theoretical task was to develop a quantitatively testable perspective, which he termed structural symbolic interactionism (Serpe and Stryker 2011; Stryker 2008). Based on this interpretation of Mead's work, Identity Theory assumes that humans are born into a stratified social system of social hierarchy, with social roles that have rights, duties, and behaviors; expectations attached to them. The basic logic is that society affects self-definitions, which affect behavior. As originally conceptualized, identity theory's core concepts are commitment, identities, salience, and behavior (Serpe and Stryker 2011; Stets and Serpe 2013). Identities are self-definitions, understandings, and meanings that people use to answer the question, "Who am I?" and are motivational in that people seek to meet the behavioral expectations associated with their identities (Stryker 2008).

Since a person can have many identities, identity theory further argues that they are arranged in a salience hierarchy. Identities higher in the hierarchy are more likely to be enacted across situations and meeting the expectations of one's identity motivates behavior (Burke and Reitzes 1981; Burke and Stets 2009; Stets and Serpe 2013). Salience, in turn, is influenced by the number of social ties one has to others due to holding an identity, and reflects a person's place in their social network, and ultimately, their place in society's social structure. The more numerous the social ties to an identity (called commitment in identity theory), the higher that identity will be in the person's hierarchy.

Two final concepts to keep in mind as we develop our model below are the concepts of discrepancy and identity verification. Beginning with the work of Burke (1991), Identity Theory argues that people seek information from others about how well they meet the social expectations of their identity. Like Cooley's "looking-glass self" (Cooley 1902), identity verification occurs through a feedback system where the person uses their others to assess how well they meet the expectations of a particular identity. If there is a discrepancy between the expectations of the identity and the person's behavior, the person will experience stress and work behaviorally to reduce that discrepancy (Burke and Stets 2009; Cast and Welch 2015). Most of the work examining the sources of discrepancies and their consequences focus on reflected appraisals by specific others of role behavior. As noted above, we focus on the discrepancies in the meaning people have for an identity compared to the meaning society more generally has for that identity.

### 3 Discrepancies in Meaning

Like Identity Theory, a number of sociological and social psychological theories discuss discrepancies between social expectations and actual behavior (Burke and Stets 2009; Grandey and Gabriel 2015; Heise 1979; Hulsheger and Schewe 2011; Marcussen and Gallagher 2017; Robinson et al. 2006). Many of these theoretical writings based on Identity Theory focus on role expectations, behavior, and the use of others (real and imagined) to make assessments about how well we meet social expectations. A similar argument can be found in the literature on emotion regulation. Social situations, especially in the work setting, call for the display of certain emotions as part of the job (Hochschild 1979; 1983). Research consistently shows that discrepancies between these feeling rules and actual feelings are stressful if the person must engage in various strategies to bring felt emotions and proscribed emotions into alignment (Hulsheger and Schewe 2011).

We follow this line of research but extend it by looking at the meanings people attach to their identities and assess those meanings relative to the meanings attached to those identities by larger society (i.e., “people in general”) or what Mead (1934) refers to as the Generalized Other. The use of feedback is, as Maines (1977) notes, very compatible with Mead’s formulation of how people negotiate meanings through social interaction and perceived evaluations of behavior. The evaluations can come from oneself (self-view), specific others like family members, friends, and co-workers (reflective appraisals), or the larger society (Generalized Other) (Burke and Stets 2009). Therefore, keep in mind that we are assessing negotiations in meanings attached to an identity relative to the generalized other.

### 4 Why Normative and Counter-Normative Identities?

As numerous others have noted, most research on specific identities has focused on normative ones such as father, teacher, parent, worker, and daughter (Long 2016, 2017; Markowski and Serpe 2018; Stets and Serpe 2013). This focus is supported by literature on the types of roles people in a particular society are expected to acquire as they move through the life course (Jackson 2004). Specifically, while the sequence of acquiring certain identities (e.g., student, worker, spouse, parent) may differ across subgroups, all of these identities are evaluated positively. That is, they are considered normative. People occupying these identities are seen in a positive light, resulting in better psychological functioning. Many other identities, including some role, social or group, and personal identities (e.g., teacher, veteran, White, male, religious, moral, happy, assertive), are also evaluated positively in the contemporary United States (Stets and Serpe 2013).

More recently, changes in the economy and life course have led to a larger percentage of people who remain single, childless, and out of the labor force well into their late twenties, due to extended time in school and other social factors (Arnett 2000;

Arnett et al. 2014; Bureau of Labor Statistics 2018; Fry 2017; Fry et al. 2018). In terms of social expectations, remaining single, not becoming a parent, and not working (single, childless, not employed) are seen as counter-normative identities, and those occupying these identities have been stigmatized (Long 2016; 2017; Markowski and Serpe, 2018). Counter-normative identities deviate from social norms and are defined as “inappropriate” (Long 2016).

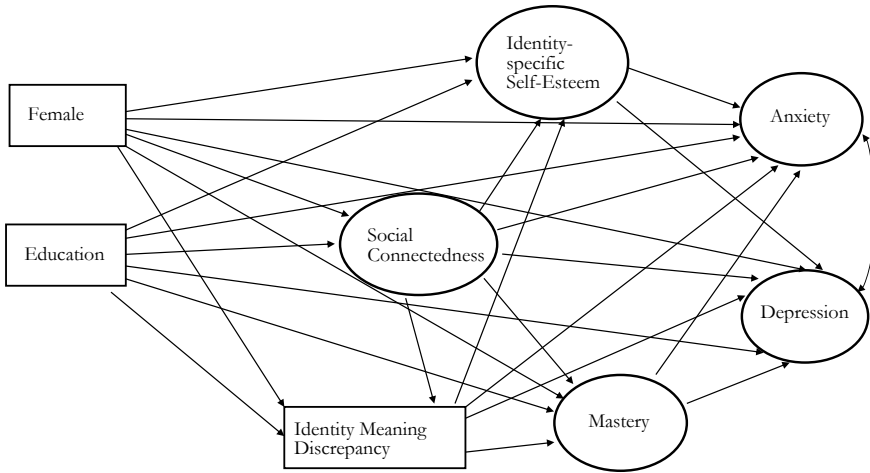
From an identity theory perspective, normative identities are more likely to be highly valued and enacted across situations, i.e., have high identity salience. Counter-normative identities are less likely to be high in a person’s salience hierarchy and less likely to be enacted across settings and situations. In short, normative identities should impact behavior and well-being substantially, due to their salience and prominence (how important the identity is to the person’s self-concept), while counter-normative identities should have less impact on behavior and well-being because they are lower in salience and prominence. In their study of the normative and counter-normative identity pairings of parent-childless and spouse-single, Markowski and Serpe (2018) found that both identity salience and identity prominence are positively associated with self-worth, efficacy, and feelings of authenticity, but only for people holding the normative identities of parent and spouse.

## 5 Conceptual Model

To recapitulate, we integrate theoretical ideas from McLeod (2012), Thoits (1991, 1995) and others (Burke 1991; Burke and Stets 2009; Marcussen and Large 2003; Markowski and Serpe 2018) with the stress process model (Pearlin et al. 1981; Pearlin and Bireman 2013) to select variables and their causal ordering in our own conceptual model. We present our model in Fig. 1.

As with all models grounded in the stress process model, we focus on psychological distress (depression and anxiety) as our ultimate dependent variable. We also include the psychological resources of identity-specific self-esteem and mastery. Within the Stress Process Model, these are mediating explanatory factors that reduce the impact of stressful events on psychological distress (Pearlin et al. 1981; Wheaton et al. 2013). Combining ideas from identity theory and stress process, our model includes social connectedness as a potential explanatory factor. Again, social connections, or social support, are resources a person can use to meet the challenge of stressful events. For this study, social connectedness is operationalized as connections to others who are relevant to the identity under consideration. This is referred to as commitment in identity theory terms (Stets and Serpe 2013; Stryker 2008; Yarrison 2016).

In our conceptual model (Fig. 1), Identity meaning discrepancy captures McLeod’s idea of meaning negotiation between objective and subjective life circumstances, in which she considers this meaning negotiation process to be a potential source of stress. Here, we argue that people in a social network negotiate meanings attached to a particular identity via reflected appraisals. As we view it, meaning



**Fig. 1** Conceptual model integrating identity meaning discrepancy into the stress process model

negotiation is between the individual and “society,” or what Mead (1934) called the generalized other. Following discrepancy theory (Marcussen and Gallagher 2017; Marcussen and Large 2003) and identity theory (Burke 1991), we argue that discrepancies between the meanings a person attaches to an identity, such as being a parent or being childless, and the meanings they perceive society as a whole attaches to those identities can be more or less stressful.

Discrepancies in identity meanings occur when a person’s perception of how society in general (Generalized Other) evaluates an identity, is either lower or higher than their self-evaluation of the identity. Both conditions could create distress (Burke 1991; Burke and Stets 2009; Stets and Serpe 2013). When a person evaluates their identity more positively than their perceived level of evaluation by society in general, the discrepancy is negative. In this case, however, the discrepancy may not be stressful because the person feels like they are over-evaluating their identity. When a person evaluates their identity less positively than their perceived level of evaluation by society in general, the discrepancy is positive.<sup>1</sup> In this case, the discrepancy may be more stressful because the person feels like they are under-evaluating their identity. Either positively or negatively, the person perceives a discrepancy in their self-evaluation of the identity (the meanings they attach to the identity) and society’s evaluation of the identity. Thus, our conceptualization of discrepancies and their impact is linear, ranging from less stressful (when the discrepancy is negative) to more stressful (when the discrepancy is positive).

## 6 Hypotheses

We assess meanings attached to two normative identities (parent and work) and their counter-normative alternatives (childless and not employed). We argue that large discrepancies in meanings attached to these identities are *more relevant* to people with normative identities, compared to those with counter-normative identities. If this is so, the implications of the theoretical work done by Thoits (Thoits 1991; 1995) and others (Burke 1991; Marcussen and Large 2003; Markowski and Serpe 2018; Burke and Stets 2009) are that (1) the perceived evaluation of the meanings that society in general has about the two normative and counter-normative identity pairs as well as, (2) the associated stress of disconfirming meanings should have greater significance for those participants who hold normative identities (parent and worker). Disconfirming meanings should have little relevance for people located in counter-normative identities (childless and not working).

More specifically—and consistent with the implications of prior theoretical development and our discussion above—we hypothesize that discrepancies between the self-evaluation of meanings parents and workers give to the identities, compared to the perceived evaluation of meanings that society in general gives to the identities, will have greater impact on individuals' mental health, compared to discrepancies in meanings childless and non-working people have for these identities. Additionally, we predict that there will be a positive relationship between discrepancies and poor psychological health, with negative discrepancies associated with better well-being and positive discrepancies associated with poorer well-being. We test these hypothesized relationships using survey data and structural equation modeling (SEM). Consistent with discussion of our conceptual model, we were guided in our selection of variables included in our empirical analysis by McLeod's "Expanded Model of the Stress Process" (2012, Figure 2, 177), Thoits' work on identity-relevant events (Thoits 1991, 1995), and identity theory (Burke and Stets 2009; Serpe and Stryker 1987, 2011).

## 7 Data and Methods

Data used to assess the links specified in our SEM model (Fig. 1) among social connections, identity meaning discrepancies, identity-specific self-esteem and mastery, and our outcome variables anxiety and depression, come from a web-based survey administered between October 1 and October 12, 2012. The survey was administered online and distributed by a survey vendor using a non-full probability sampling strategy. In this sampling technique, individuals self-select into a pool of potential respondents by registering with the sample vendor. From the total pool, which contains millions of potential participants, random samples of individuals are contacted electronically to participate in the survey. Individuals receive compensation for their participation through the sample vendor. Though the resulting sample is not a true

random sample, this method of recruitment yields samples with similar demographic profiles as full probability sampling methods (Braunsberger et al. 2007; Yeager et al. 2011; Simmons and Bobo 2015). The Survey Research Lab in the Department of Sociology at Kent State University contacted individuals in the sample pool and requested their participation in the Exploring Normative and Counter-Normative Identity Survey. Overall, the sample consisted of 6,534 people and 3,522 completed the entire survey for a response rate of 54%. The Institutional Review Board at Kent State University reviewed and approved all data collection procedures.

## 8 Measures

*Normative and Counter-Normative Identities:* Individuals participating in the survey were randomly placed into one of four identity groups: relationship status, religious status, parent status, or work status, and most of the survey was tailored to the particular identities (e.g., parent or childless for parental status) that make up that particular identity grouping. Each respondent's answer to the screener question, described below, established the wording of the survey questions about the specific identity for their group. For example, a participant could be randomly placed into the parent identity group and then answer questions about whether they had children or not. The subsequent questions in the survey were tailored to how the respondent answered the screener questions. A participant was asked questions about only the one identity grouping into which they were randomly assigned. For the current study, we use only two of these identity groupings: parent and work.

To be more specific, once the participant had been randomly assigned to a particular identity group, additional screener questions were used to establish whether the individual was in a normative identity (i.e., parent, working for pay) or a counter-normative identity (childless, not working for pay). For the **parent group**, respondents ( $N = 968$ ) randomly assigned to this identity were asked if they had "at least one child by birth, marriage, or adoption" or if they did "not have a child." We divided the sample into parents compared to those who were childless. Since we were interested in voluntarily childless people, we dropped those who indicated that they were planning to have children in the future or were childless for some other reason than personal choice ( $N = 144$ ). For the **work status** group ( $N = 1,314$ ), we classified people into those who worked for pay, both full- and part-time, as "Working" and those who did not work for pay, including keeping house, as "Not Working." Participants who were retired or full-time students were excluded from the analysis ( $n = 244$ ).

## 9 Measures of Dependent Latent Variables

We include two latent variables as our primary outcomes: anxiety and depression. Respondents were asked how often in the past seven days they experienced six symptoms related to anxiety (coded 0-7): felt calm, worried a lot about little things, felt contented, felt anxious and tense, felt restless, felt at ease. We coded each item so that high scores reflected a high level of anxiety. Respondents also were asked about eight symptoms related to depression and how often, over the past seven days (coded 0-7), they had experienced the following: felt could not “get going,” had trouble getting to sleep or staying asleep, felt like everything was an effort, had trouble keeping their mind on what they were doing, felt that they couldn’t shake the blues, felt excited about or interested in something, felt lonely, and felt overjoyed about something. All items were coded so that high scores reflected greater depressive symptoms. Preliminary confirmatory factor analysis suggested that two of the depression items (felt excited and felt overjoyed) did not load well on the depression latent variable, so these were discarded. Thus, our depression latent construct reflected six manifest variables. We treat each identity group as a separate sample and give statistics for each. The Cronbach’s alphas for anxiety were 0.83 and 0.80, for parent and work samples respectively, while the reliabilities for depression were 0.83 and 0.82.

## 10 Measures of Endogenous Latent Variables

We included two latent variables in our analysis from the stress process model. First, Pearlin’s Mastery Scale (Pearlin et al. 1981) consisted of seven items that reflected people’s beliefs in their ability to control what happens to them, such as solving personal problems, control over events in one’s life, feeling helpless, belief in being able to do just about anything that one sets one’s mind to, and being pushed around in life (coded from strongly agree = 1 to strongly disagree = 4). We reverse coded items reflecting low mastery so that high scores on all items indicated high mastery. The Cronbach’s alphas for the seven-item scale were 0.85 and 0.84, for parent and work samples, respectively.

Second, Identity-specific self-esteem consists of four items measuring people’s self-evaluation of how “good” or “bad” they feel about themselves in a specific identity (Rosenberg 1979): I feel that I’m a person of worth, I’m satisfied with myself, I’m able to do things as well as most other people, and as someone in this identity, I feel that I have a number of good qualities (coded from 1 = strongly disagree to 4 = strongly agree). We use this operationalization of self-esteem and its explicit connection to the identity being assessed since our main research question focuses on identity meanings within a specific identity. Each self-esteem question is, therefore, tied to the particular identity grouping in which the respondent was randomly placed (parent or work). The Cronbach’s alphas for this measure were 0.86 and 0.81, for parent and work samples, respectively.

## 11 Measures of Endogenous and Exogenous Manifest Variables

We include four manifest variables in our model: identity meaning discrepancy, social connectedness, gender, and education. Our key mediating endogenous manifest variable in the model was identity meaning discrepancy, which was constructed using nine semantic differential questions that examined the meanings the respondent assigned to themselves in their specific identities compared to the meanings they thought “others in general” gave to that identity. For example, for people randomly assigned to the parent-childless identity group, the survey asked people who were parents how they rated the meaning associated with their parent identity (from 1 to 7) along nine dimensions including bad-good, dependent-independent, immoral-moral, selfish-selfless, negative-positive, close minded-open minded, irresponsible-responsible, uncaring-caring, and unacceptable-acceptable. The survey then asked the respondent to evaluate meanings others in general attached to people in the parent identity along the same nine dimensions. We subtracted the positive-negative meanings respondents attached to the identity from the meanings they thought others in general attached to the identity to calculate an “identity meaning discrepancy” score. We did the same for childless people, asking respondents to evaluate themselves in their childless identity compared to the meanings others in general attached to childless people, using the same dimensions and wording as described above.

With respect to the work identity, we likewise asked respondents to assign meanings to their identity and to evaluate meanings others, in general, attach to working or not working identities. For both the parent and work identities we assessed in this study (parent vs. childless and working vs. not working), the dimensions and wording of the semantic differential items were the same: bad-good, dependent-independent, immoral-moral, selfish-selfless, negative-positive, close minded-open minded, irresponsible-responsible, uncaring-caring, and unacceptable-acceptable. We calculated discrepancies specific to each of the four identities (parent, childless, working, not working) in the same way—self-meanings versus meanings attached to the identity by others in general (generalized other).

As discussed above, both normative and counter-normative identity discrepancy scores could range from a negative value (i.e., the respondent attached more positive meanings to the identity than they thought others attached to the identity) to a positive score (i.e., the respondent attributed fewer positive meanings to the identity than others did). As we hypothesized above, the greater the *positive* discrepancy between how others, in general, evaluate meanings attached to the focal respondent in their identity and how the focal respondent evaluates self, the higher the level of distress the respondent should experience, but only for those in normative identities (parent, worker). The comparisons between self-meanings and other meanings were always made between similar identities. That is, parents were asked about the meanings others attached to parents, and childless respondents were asked about meanings others attach to childless people. We followed the same procedure for the identities of our work vs. non-work participants.



Social connectedness, or social support in stress process terms, is our second manifest endogenous variable and was assessed using three items that measured how much respondents spent in terms of time and money on people who are like themselves. As with other measures, these items focused on people who were in the same identity as the respondent: parent vs. childless or working vs. not working identities. Specifically, the three questions asked how often the respondent did things with people who were like them in their identity as parent or worker (from never = 1 to daily = 7), how many hours per week respondents spend with people in identities like theirs (coded to the nearest hour), and how much of their discretionary money (i.e., money not needed for essentials like food, rent, or clothing) they spend on people in identities like theirs (from almost none = 1 to almost all = 5). Since these three items had different response options, we converted each into a z-score ( $\alpha = 0.64$ , parent;  $0.66$ , work) so that they would have the same metric for our SEM models. Although we label this variable social connectedness, within identity theory, these items measure interactional commitment (Serpe and Stets 2013).

Finally, we controlled for gender and education as exogenous variables, since these demographic factors have been shown to impact the social psychological mediating variables in our model and our ultimate mental health outcomes (Pearlin et al. 1981; Pearlin and Bireman 2013). We dummy coded gender, with male as the reference group. Education was coded into five categories (1 = less than high school, 2 = high school graduate, 3 = some college or technical school, 4 = college graduate, and 5 = graduate or professional degree) and treated it as an interval-level variable.

## 12 Missing Data

To reduce the number of missing cases, we employed mean substitution methods. Specifically, we substituted the mean of the other anxiety items answered by the respondent if a score was missing for the item under consideration. We did the same for depression, identity-specific self-esteem, and mastery items. For all our analyses, we substituted the mean for the item within each specific identity. In other words, if a participant was missing an answer on one of the identity-specific self-esteem items in the work identity group, we substituted the mean of the other three identity-specific self-esteem items for the missing value. A participant had to answer at least one identity-specific self-esteem item to remain in the study. We followed a similar procedure for all the items in each of our latent variables. Once we had used these mean substitution methods for as much of the missing data as possible, we eliminated all remaining cases with missing data from the analysis (127 for both the parent and work samples). The final analytic sample for the parent identity group was 697, and for the work identity group was 943. (See Table 1).

**Table 1** Descriptive statistics for the parent and work identity samples

	Parent sample	Work sample
Identities	29.4 (205)	26.6 (251)
Counter-normative (childless/not working)	70.6 (492)	73.4 (692)
Normative (parent/working)		
Gender [% (n)]	41.2 (287)	59.5 (561)
Male	58.8 (410)	40.5 (382)
Female		
Education [% (n)]	22.4 (156)	21.8 (206)
HS grad or less	37.6 (262)	33.6 (317)
Some college/tech school	30.0 (209)	32.8 (309)
College grad	10.0 (70)	11.8 (111)
Graduate/professional		
Social connections (mean/sd)	-0.04 (0.74)	0.04 (0.73)
Identity meaning discrepancy (mean/sd)	-0.46 (1.06)	-0.68 (1.36)
Identity-specific self-esteem (mean/sd)	3.58 (0.50)	3.46 (0.54)
Mastery (mean/sd)	2.98 (0.61)	2.92 (0.60)
Anxiety (mean/sd)	2.30 (1.63)	2.51 (1.56)
Depression (mean/sd)	2.23 (1.91)	2.49 (1.96)
N	697	943

### 13 Results

Descriptive statistics for each identity sample are shown in Table 1. Table 2 breaks each identity sample into normative and counter-normative identities. With respect first to Table 1, about 60% of the parent identity sample are women, while about 60%

**Table 2** Differences between normative and counter-normative identities for each identity sample

	Parent	Identity	Work	Identity
Variables in model	Parent	Childless	Working	Not working
Male	186 (37.8)	101 (49.3)*	460 (66.5)	101 (40.2)*
Female	306 (62.2)	104 (50.7)	232 (33.5)	150 (59.8)
Education	3.34 (0.93)	3.33 (0.99)	3.44 (0.96)	3.03 (0.96)†
Social connectedness	0.06 (0.73)	-0.26 (0.71)†	0.16 (0.71)	-0.31 (0.71)†
Identity meaning discrepancy	-0.24 (0.87)	-0.98 (1.29)†	-0.28 (0.95)	-1.80 (1.67)†
Identity-specific self-esteem	3.55 (0.48)	3.66 (0.53)†	3.54 (0.46)	3.22 (0.67)†
Mastery	2.98 (0.61)	2.97 (0.62)	2.95 (0.59)	2.86 (0.61)
Anxiety	2.32 (2.32)	2.25 (2.25)	2.39 (1.49)	2.84 (1.69)†
Depression	2.27 (1.94)	2.15 (1.86)	2.37 (1.92)	2.81 (2.02)†
N	492	205	692	251

\*  $p < 0.05$ , Chi-Square Test; †  $p < 0.05$ , t-test

of the work identity sample are men. The percentages of respondents by education levels are fairly consistent across the two samples, with about 22% of each sample being a high school graduate or less, about a third having some college, about 30% obtaining a college degree, and about 10% having a graduate or professional degree. As expected from the way we coded social connectedness (standardized scores), the mean for this independent variable was close to zero for both parent and work identities. Identity meaning discrepancy mean scores were slightly negative, meaning that on average, people see the meaning of their identity as slightly better than they think others in general see individuals in that identity. Identity-specific self-esteem means were 3.58 and 3.46 for parent and work identity, respectively. Finally, anxiety and depression means were 2.30 and 2.23 for parents and 2.51 and 2.49 for workers. The important point of these analyses is how similar the parent and work identity group samples are for the variables in our models.

Looking across the rows of Table 2, we do see that men were less likely to be parents, but more likely to work compared to women. For education, only work differed by identity status, with those working reporting more education. In terms of social connectedness, parents and working people tended to report more connections. For both identities, people in the counter-normative condition experienced greater identity meaning discrepancy than people in the normative condition. More specifically, individuals with a counter-normative identity tended to hold higher self-evaluation positive meanings for themselves than their perception of the identity meanings in society in general. Identity-specific self-esteem for parents was lower compared to childless participants and higher for working vs. nonworking individuals. Surprisingly, across the two identity groupings, there were no differences for mastery between normative vs. counter-normative identities. Finally, for the psychological well-being measures, participants who were not working were more anxious and depressed compared to those who were working, while there were no differences between the normative and counter-normative groups in the parenting sample.

Tables 3 and 4 display the results for each of the structural equation models (SEM) we estimated for the two identity groupings (parent and work) we examined in this study. Due to space limitations, we will not discuss each model's paths in detail, indicating instead the most theoretically important ones. Note that we kept both sets of models as similar as we could in their structural relationships. All of the latent variables are measured with the same set of indicators, and all of the paths between the exogenous and endogenous variables are the same. Based on the modification indices, we added or subtracted correlations among error terms to achieve an adequate model fit. The fit statistics are located at the bottom of each table and show that our models achieve a good to excellent fit for each identity. In addition, the models explain between 55 and 80% of the variation in depression and anxiety for the normative and counter-normative identities.

Beginning with the SEMs for the parent identity grouping, the analyses suggest that social connections, identity meaning discrepancy, self-esteem, and mastery do not interrelate in the same way for parents compared to childless persons. Social connections to others who are like themselves is negatively associated with meaning discrepancy, but only for childless people. In other words, as childless individuals

**Table 3** SEM unstandardized coefficients, standardized coefficients, and standard errors for parent identity

Variables	Social		Connections		Identity meaning		Discrepancy		Identity-specific		Self-esteem		Mastery		Depression		Anxiety		
	Parent	Childless	Parent	Childless	Parent	Childless	Parent	Childless	Parent	Childless	Parent	Childless	Parent	Childless	Parent	Childless	Parent	Childless	
In Model																			
Gender(female)	-0.229 (0.094)	-0.056 (0.140)	-0.327 (0.095)	-0.789 (0.140)	0.120 (0.098)	0.174 (0.153)	-0.014 (0.099)	-0.078 (0.155)	0.260 (0.116)	-0.043 (0.180)	0.104 (0.11)	-0.043 (0.180)	0.260 (0.116)	-0.043 (0.180)	0.104 (0.11)	-0.043 (0.180)	0.260 (0.116)	-0.043 (0.180)	0.104 (0.11)
	-0.109*	-0.026 ns	-0.156***	-0.360***	0.058 ns	0.086 ns	-0.007 ns	-0.039 ns	0.063*	-0.011 ns	0.031 ns	-0.011 ns	0.063*	-0.011 ns	0.031 ns	-0.011 ns	0.063*	-0.011 ns	0.031 ns
Education	0.115 (0.049)	0.073 (0.071)	-0.001 (0.049)	-0.082 (0.071)	0.012 (0.051)	0.026 (0.072)	0.010 (0.051)	0.105 (0.074)	0.006 (0.060)	-0.023 (0.085)	-0.028 (0.057)	-0.023 (0.085)	0.006 (0.060)	-0.023 (0.085)	-0.028 (0.057)	-0.008 (0.079)	-0.008 (0.079)	-0.008 (0.079)	-0.008 (0.079)
	0.105*	0.072 ns	-0.001 ns	-0.073 ns	0.011 ns	0.026 ns	0.009 ns	0.102 ns	0.003 ns	-0.012 ns	-0.016 ns	-0.012 ns	0.003 ns	-0.012 ns	-0.016 ns	-0.005 ns	-0.005 ns	-0.005 ns	-0.005 ns
Social connectedness			0.029 (0.045)	-0.199 (0.070)	0.066 (0.046)	0.096 (0.072)	-0.021 (0.047)	-0.027 (0.074)	0.222 (0.055)	0.133 (0.086)	0.201 (0.053)	0.133 (0.086)	0.222 (0.055)	0.133 (0.086)	0.201 (0.053)	0.115 (0.079)	0.115 (0.079)	0.115 (0.079)	0.115 (0.079)
			0.029 ns	-0.182**	0.067 ns	0.095 ns	-0.021 ns	-0.027 ns	0.113***	0.071 ns	0.125***	0.071 ns	0.113***	0.071 ns	0.125***	0.075 ns	0.075 ns	0.075 ns	0.075 ns
Identity meaning discrepancy					-0.045 (0.046)	-0.046 ns	-0.098 (0.047)	0.061 (0.072)	0.228 (0.055)	0.007 (0.084)	0.091 (0.052)	0.007 (0.084)	0.228 (0.055)	0.007 (0.084)	0.091 (0.052)	0.056 (0.077)	0.056 (0.077)	0.056 (0.077)	0.056 (0.077)
					-0.046 ns	-0.050	-0.099*	0.067 ns	0.116***	0.004 ns	0.057 ns	0.004 ns	0.116***	0.004 ns	0.057 ns	0.040 ns	0.040 ns	0.040 ns	0.040 ns
Identity-specific self-esteem									0.067 (0.095)	-0.577 (0.121)	0.041 (0.091)	-0.577 (0.121)	0.067 (0.095)	-0.577 (0.121)	0.041 (0.091)	-0.101 (0.110)	-0.101 (0.110)	-0.101 (0.110)	-0.101 (0.110)
									0.034 ns	-0.313***	0.026 ns	-0.313***	0.034 ns	-0.313***	0.026 ns	-0.067 ns	-0.067 ns	-0.067 ns	-0.067 ns
Mastery									-1.706 (0.112)	-1.120 (0.135)	-1.272 (0.105)	-1.120 (0.135)	-1.706 (0.112)	-1.120 (0.135)	-1.272 (0.105)	-1.084 (0.129)	-1.084 (0.129)	-1.084 (0.129)	-1.084 (0.129)
									-0.861***	-0.604***	-0.787***	-0.604***	-0.861***	-0.604***	-0.787***	-0.711***	-0.711***	-0.711***	-0.711***
R2	0.026	0.006	0.026	0.169	0.010	0.025	0.010	0.017	0.748	0.714	0.621	0.714	0.748	0.714	0.621	0.577	0.577	0.577	0.577

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; t-test Fit statistics:  $\chi^2 = 1717.72$ ,  $p < 0.001$ ; CFI = 0.89; RMSEA = 0.054 (95% CI = 0.051 – 0.057)

**Table 4** SEM unstandardized coefficients, standardized coefficients, and standard errors for work identity

Variables	Social		Connect		Identity meaning		Discrepancy		Identity-specific		Self Esteem		Mastery		Depression		Anxiety		
	Employed	Not employed	Employed	Not employed	Employed	Not employed	Employed	Not employed	Employed	Not employed	Employed	Not employed	Employed	Not employed	Employed	Not employed	Employed	Not employed	
Gender(female)	-0.223 (0.081)	-0.100 (0.129)	0.110 (0.081)	0.137 (0.129)	0.095 (0.083)	0.137 (0.129)	0.244 (0.135)	0.226 (0.135)	0.078 (0.099)	0.003 (0.084)	0.003 (0.084)	0.193 (0.050)	0.207 (0.089)	0.187 (0.095)	0.153 (0.167)	0.078 (0.099)	0.078 (0.099)	0.187 (0.095)	0.153 (0.167)
Education	-0.105***	-0.049 ns	0.051 ns	0.064 ns	0.045 ns	0.064 ns	0.117 ns	0.110 ns	0.018 ns	0.001 ns	0.001 ns	0.094***	0.094*	0.053*	0.043 ns	0.018 ns	0.053*	0.043 ns	
	0.047 (0.040)	-0.038 (0.066)	-0.040 (0.040)	0.085 (0.066)	0.016 (0.041)	0.085 (0.066)	0.012 (0.069)	0.070 (0.070)	-0.076 (0.048)	0.028 (0.041)	0.028 (0.041)	0.094***	0.094*	-0.103 (0.047)	-0.057 (0.085)	-0.076 (0.048)	-0.103 (0.047)	-0.057 (0.085)	
Social connectedness		-0.037 ns	-0.038 ns	0.077 ns	0.053 (0.040)	0.077 ns	0.011 ns	-0.035 ns	-0.035 ns	0.026 ns	0.026 ns	0.094***	0.094*	-0.060*	-0.031 ns	-0.035 ns	-0.060*	-0.031 ns	
			0.186 (0.038)	0.342 (0.063)	0.053 ns	0.342 (0.063)	0.176 (0.070)	-0.059 (0.070)	0.193 (0.050)	-0.202 (0.040)	-0.202 (0.040)	0.094***	0.094*	0.097 (0.048)	0.263 (0.091)	0.193 (0.050)	0.097 (0.048)	0.263 (0.091)	
Identity meaning discrepancy			0.184***	0.323***	-0.078 (0.039)	0.323***	0.173*	-0.058 ns	0.094***	-0.199***	-0.199***	0.094***	0.094*	0.059*	0.150**	0.094***	0.059*	0.150**	
Identity-specific self-esteem					-0.079*		-0.100 (0.066)	-0.035 (0.066)	0.299 (0.047)	-0.053 (0.039)	-0.053 (0.039)	0.147***	0.147***	0.205 (0.082)	-0.139 (0.082)	0.299 (0.047)	0.205 (0.082)	-0.139 (0.082)	
							-0.104 ns	-0.037 ns	0.147***	-0.053 ns	-0.053 ns	0.147***	0.147***	0.126***	-0.084 ns	0.147***	0.126***	-0.084 ns	
									-0.235 (0.067)			-0.235 (0.067)	-0.447 (0.133)	-0.300 (0.135)	-0.300 (0.135)	-0.235 (0.067)	-0.217 (0.064)	-0.300 (0.135)	
									-0.114***			-0.114***	-0.206***	-0.175*	-0.175*	-0.114***	-0.131***	-0.175*	
Mastery									-1.499 (0.076)			-1.499 (0.076)	-1.590 (0.151)	-1.175 (0.153)	-1.175 (0.153)	-1.499 (0.076)	-1.083 (0.073)	-1.175 (0.153)	
									-0.745***			-0.745***	-0.725***	-0.677***	-0.677***	-0.745***	-0.668***	-0.677***	
R2	0.013	0.004	0.035	0.110	0.009	0.110	0.040	0.020	0.765	0.046	0.046	0.765	0.796	0.637	0.796	0.765	0.637	0.675	

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ , t-test Fit statistics:  $\chi^2 = 2491.16, p < 0.001$ ; CFI = 0.85; RMSEA = 0.058 (95% CI = 0.056 – 0.061)

have more contact with other childless people, they tend to attach more positive meaning to this identity than they perceive others do ( $B = -0.182, p < .01$ ). Social connections are not statistically significant for parents ( $B = 0.029, n.s.$ ). Social connections also are not related to identity-specific self-esteem ( $B = 0.067$  and  $0.095, n.s.$ , respectively) or mastery ( $B = -0.021$  and  $-0.027, n.s.$ , respectively) for either group. On the other hand, parents who interact more with other parents do suffer from greater mental health problems. That is, the more social connections parents have with other parents, the more depressed ( $B = 0.113, p < 0.001$ ) and anxious ( $B = 0.125, p < 0.001$ ) they are.

Regarding our hypotheses, identity meaning discrepancy appears to only affect parents, with positive discrepancies being related to lower mastery ( $B = -0.099, p < 0.05$ ) and greater depression ( $B = 0.116, p < 0.001$ ) for parents, but not for childless people ( $B = 0.067, n.s.$ ;  $B = 0.004, n.s.$ , respectively). Identity-specific self-esteem is not related to depression for parents ( $B = 0.034, n.s.$ ), but it decreases depression for childless respondents ( $B = -0.313, p < 0.001$ ), once we control for other variables in the model. Finally, for both parents and the childless, mastery has the same relationship to depression and anxiety: higher levels of mastery are related to lower depression and anxiety for both parents ( $B = -0.861$  and  $-0.787, p < 0.001$ , respectively) and childless people ( $B = -0.604$  and  $-0.711, p < 0.001$ , respectively).

For the work identity (Table 4), the results show that social connections operate differently for employed and not-employed participants. In contrast to the parent-childless identity results, social connections are related to increased identity meaning discrepancy for both employed ( $B = 0.184, p < 0.001$ ) and unemployed workers ( $B = 0.323, p < 0.001$ ). That is, the greater one's social connections with similar others, the more people perceive that others attach more positive meanings to their identity than they attach, resulting in more stressful (i.e., positive) discrepancies. Social connections are associated with identity-specific self-esteem only for the not-employed ( $B = 0.173, p < 0.05$ ). Again, this means that the more not-employed persons interact with others who are not employed, the higher their identity-specific self-esteem becomes. Social connections are negatively related to mastery, but only for the employed ( $B = -0.199, p < 0.001$ ), and positively related to depression, but again only for employed persons ( $B = 0.094, p < 0.001$ ), and positively related to anxiety for both workers and non-workers ( $B = 0.059$  and  $0.150, p < 0.05$  and  $0.01$ , respectively).

Consistent with our hypotheses, identity meaning discrepancy is related to identity-specific self-esteem, mastery, and anxiety, but only for working people ( $B = -0.079; 0.147, \text{ and } 0.126$ , respectively). The more employed persons perceived others as having more positive meanings for working than they themselves had, the lower their identity-specific self-esteem and the worse their mental health. Lastly, identity-specific self-esteem and mastery are negatively related to depression and anxiety, as expected, for both normative and counter-normative identities.

As a final check on our argument that meaning structures for the two identities differ for those in normative versus counter-normative identities, we estimated a slightly different SEM model. Here, the comparison was between the person's identity and the

normative meanings attached to that identity. More specifically, we calculated meaning discrepancy scores for all people in the parent and work identities, subtracting the respondent's semantic differential meaning scores from the normative meaning scores. Thus, everyone was comparing themselves to the normative expectation condition. Parents compared themselves to the meanings others assign to parents, and childless respondents compared the meanings they give to themselves compared to the meanings they think others give to parents. We followed the same procedure when calculating meaning discrepancy scores for the work identity sample.

Since the models for the normative identity group here are the same as in the earlier analyses, all of the SEM estimates for the various paths are the same for these groups (parent and employed) in this revised model. Where we see a difference is in the association between meaning discrepancies for the childless group. Meaning discrepancies are now statistically significant predictors of both anxiety ( $B = 0.141$ ,  $p = 0.009$ ) and depression ( $B = 0.129$ ,  $p = 0.007$ ). In other words, childless people pay attention to general social norms and discrepancies in meanings they assign to their identity (childless) vs. the meanings they assume others attach to the normative condition (parent), and this has an impact on their psychological well-being. Simply put, the greater the positive meaning discrepancies, the greater the stress. We did not, however, see this pattern for the work identity condition. Meaning discrepancies were not statistically significant for anxiety ( $B = -0.011$ ,  $p = 0.818$ ) and only trend for depression ( $B = 0.064$ ,  $p = 0.085$  (complete results for this analysis are available from the corresponding author upon request). This secondary analysis confirms our claim that the implications of meaning discrepancies differ for normative and counter-normative identities.

## 14 Conclusion

The main purpose of this study was to offer one way to incorporate symbolic interaction more directly into the Stress Process Model. The original motivation for this project was McLeod's (2012) theoretical model that focuses on meaning negotiation of stressful experiences and how these link to well-being outcomes. Here we used identity theory as a means to quantitatively measure meaning negotiation (Burke and Stets 2009).

Based on identity theory and the stress process model, we argued that discrepancies in the meanings that people attach to their identities compared to the meanings others attach is stressful and leads to psychological distress. We further hypothesized that identity meaning discrepancies are identity-relevant events (Thoits 1991) and that discrepancies should be more stressful for people holding normative identities. We find support for both hypotheses. When survey participants held more positive meanings for their identity compared to the meanings they felt others had for that identity (i.e., discrepancies were negative), their depression and anxiety were lower because the meaning discrepancy was less stressful. However, if they held meanings that were not as positive about their identity compared to others (i.e., the discrepancies

were positive), then they had greater depression and anxiety since the discrepancy was more stressful.

Additionally, discrepancies were significantly related to mental health outcomes only for participants who were parents or workers. Discrepancies had no relationship to mental health outcomes for childless or non-working participants. Thus, our chapter supports McLeod's (2012) and Thoits' (1991, 2013) observation that stress research could benefit by incorporating meanings into the stress process model in order to better understand how and why certain people are more reactive to certain negative events and not others, and this could be done by merging identity theory into research on stress (see also Adams and Boscarino 2015).

Incorporating identity theory into the stress process model also opens other possible avenues of research. For example, our results follow previous stress research (Aneshensel et al. 1991; Aneshensel 2009; Thoits 2010; 2013) in showing that women tend to have poorer mental health compared to men. However, this association only holds for those holding normative identities (parent or employed), controlling for other variables in the model. Identity meaning discrepancies also affect psychological resources (identity-specific self-esteem and mastery) in expected ways, but again mainly for people in normative identities. As the self-evaluation of meanings attached to an identity shift from less stressful (person with the identity holds a more positive meaning than the generalized other) to more stressful (person with the identity holds a more negative meaning than the generalized other), feelings of mastery decline, but only for parents, and identity-specific self-esteem declines, but only for employed people. Thus, as can be seen from our SEM model specification and empirical results, combining aspects of identity theory and stress process leads to a number of possible future research paths linking a person's identities (especially whether these are normative vs. counter-normative), the meanings that they attach to their identities, their psychological resources, and psychological distress.

We caution that much more theoretical and empirical work must be done to confirm and explain our results. For example, our results suggest that a person's social connections with others like themselves—what identity theorists refer to as interactional commitment (Stets and Serpe 2013)—leads childless persons to associate more positive meanings with their childless identity and consequently to more negative meaning discrepancy scores. However, social connections are not significantly related to meaning discrepancy for parents. In contrast, greater social connections lead to less positive meanings associated with *both* worker and non-worker identities. Enhanced social connections also lead to worse mental health, all other things equal. Why greater interactional commitment to similar persons should lead to poorer mental health requires further study and theoretical work.

We also examine one type of discrepancy: how people give meaning to their identity compared to how they perceive people in general, attach meaning to that identity. In a series of papers, Marcussen and colleagues (Large and Marcussen 2000; Marcussen and Large 2003; Marcussen 2006; Marcussen and Gallagher 2017) contend that there are three domains of the self: actual, ideal, and ought. Discrepancies in any of these domains could result in lower psychological health. We purposively omitted childless people who wanted children in the future from our analyses of



the antecedents and consequences of identity discrepancy for the parent identity grouping. We also did not examine people who were unemployed but looking for work. Future researchers may want to explore how identity meaning discrepancies might be assessed in a more complex, multi-dimensional way across the identity domains we studied.

Results and conclusions of this chapter should be interpreted in light of both the strengths and weaknesses of the study. On the one hand, we employ standard measures for all of the variables used in the analysis (Burke and Tully 1977; Burke 2004; Burke and Reitzes 1981; Long 2016; Markowski and Serpe 2018; Merolla et al. 2012; Stryker and Burke 2000; Stryker and Serpe 1982) and use Structural Equation Modeling (Byrne 2016; Kline 2015) to estimate the relationships among our independent and dependent variables. SEM is a common statistical technique used by identity theory researchers. Prior studies suggest that our measures are valid and reliable assessments of our theoretical concepts. Our samples were large and representative of those who take on the identities we studied in the United States. We follow a new trend in the identity literature by focusing on normative and counter-normative identities, allowing for the exploration of identity-relevant meaning discrepancies that reflect larger social expectations. Finally, all our predictions and model building were guided by identity theory and the stress process model.

On the other hand, we assessed meanings for only one identity at a time. Future research needs to assess multiple identities and the additive and possibly interactive effects of identity meaning discrepancies. A person could, for example, be both a parent and not working. Our data are cross-sectional and preclude making strong casual arguments, even though our SEM models imply causality. Finally, more theoretical work must be done on the origins of meaning discrepancies for normative and counter-normative identities. Do they, for example, reflect different identity standards, different biographies in people's experiences with these identities, or something else?

Whatever the source of people's identity meaning discrepancies—and this study has shown how these are associated with gender, education, and social connections—the current research offers a further elaboration of identity theory and how it can address problems in the stress process model discussed by Thoits over two decades ago (Thoits 1991) and more recently by McLeod (2012). Definitions and meaning construction are at the heart of symbolic interactionism (Blumer 1969; Cooley 1902; Mead 1934; Stryker 2008), as are comparisons such as those implied by the looking-glass self (Cooley 1902). Identity theory keeps the symbolic interactionist focus on meaning negotiation and social comparison at the core of hypothesized relationships among commitment, identity salience, and behavior (Serpe and Stryker 2011).

We have argued that examining meaning discrepancies for normative and counter-normative identities offers one theoretically viable way to infuse identity theory into the stress process model to gain a better understanding of persons' health and well-being as advocated by McLeod (2012). Orienting theory and research toward the socially constructed meaning of a particular life event and how stressful it might be meshes well with earlier work by Lazarus and Folkman (1984; Folkman et al. 1986)

on stress appraisal and potentially connects stress research with social stratification and larger social contexts (Aneshensel 2009).

Enhancing our focus on meaning and meaning construction was part of Stryker's goal in developing structural symbolic interactionism. (Stryker 1968; 2002 [1980]; 1983; 2008). Toward the end of her recent theoretical integration of symbolic interactionism and stress process, McLeod (2012, 183) stated that "any attempt to advance studies of meaning construction faces two key challenges: measurement and causal interpretation." We offer our analysis as one way to address the measurement issue. Meaning discrepancies reflect negotiations about what it means to be a parent or worker, childless or unemployed person. Normative and counter-normative identities are one way to bring changing social norms into stress process research. Here, we see that meaning negotiation can produce stress, and discrepancies between meanings attributed by self and those presumed to be attributed by others in general can have adverse consequences for people's well-being. We leave it to future research projects to further elaborate and test stress process models incorporating key aspects of identity theory.

## Endnotes

1. Discrepancies are measured by subtracting the self-view from the perceived Generalized Other view.

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# Society in Peril? How Distance Media Communication Could Be Undermining Symbolic Interaction



Will Kalkhoff, Joseph Dippong, Adam Gibson and Stanford W. Gregory Jr.

**Abstract** An abrupt societal shift toward increasingly impersonal, electronically mediated interaction contexts raises the question: how might such a change impact the process and outcomes of symbolic interaction? In this chapter we combine symbolic interactionist insights on role-taking with classical and contemporary scholarship on solidarity, interaction ritual chains, and bodily co-presence to advance a novel argument about how distance communication media may be undermining the microsocial foundations of human connectedness. We present results from a laboratory experiment in which we manipulated the communication medium between interaction partners and assessed vocal convergence—a non-consciously controlled, real-time indicator of group solidarity (i.e., interpersonal closeness). Results indicate that groups who interacted face-to-face experienced significantly greater solidarity than those who interacted in electronically mediated contexts. We discuss the implications of our findings and outline a research agenda that focuses on the promise of a neuro-interactionist approach, in particular, to provide a clearer understanding of the impact of distance media communication on symbolic interaction and social organization.

**Keywords** Symbolic interaction · Interaction rituals · Distance media · Communication · Solidarity · Cohesion · Voice analysis · Vocal convergence

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The more that human social activities are carried out by distance media...the less solidarity people will feel; the less respect they will have for shared symbolic objects; and the less enthusiastic personal motivation they will have. —Randall Collins

## 1 Introduction

In a thought-provoking *Boston Globe* piece titled, “The Texts are coming from Inside the House,” Teitell (2017) paints a picture of the modern American home as a place where electronically mediated communication is quickly becoming preferred over face-to-face interaction. Among those Teitell interviewed for the article, Gayle Saks recalls one family encounter in which she immediately lowered the air-conditioning in her home after receiving an angry text from her daughter in the next room: ‘It’s freezing in here!’ Although Gayle’s first reaction to her daughter’s message was that she would rather communicate face-to-face, after considering the option to text she concluded, ‘Maybe it’s easier this way.’ Gayle Saks is not alone. Teitell describes the shared experiences of numerous people who have not only made their peace with room-to-room texting, but have come to see the value in it.

Evidence of shifting preferences for text-based communication is more than anecdotal. Recent surveys reveal that teenagers (Rideout and Robb 2018) as well as young adults (Bradbury 2017) now *prefer* texting over face-to-face interaction. And if Teitell’s (2017) observations are accurate, older adults may not be far behind. The dramatic increase in texting as a favored mode of communication is, of course, part of a much larger technological revolution. At the beginning of the 21st Century, only about half of American households had a computer, and less than half of those had an Internet subscription (Ryan 2018). Even fewer households had cell phones (Tuckel and O’Neill 2005), and virtually no one owned a Smartphone (Woyke 2014). At present, though, having access to a variety of network-connected devices is closer to the rule than the exception, and people are increasingly relying on their devices to communicate with others.

Accompanying the recent rise in home computing, Internet access, and cell phones, the use of online social networking platforms has increased substantially in recent years (Perrin 2015). In addition to text-based communication, more and more Americans are using their computers and Smartphones for video chat via Skype, FaceTime, Google Duo, etc. (Rainie and Zickuhr 2010). Over a quarter of Americans now say that they are online “almost constantly” (Perrin and Jiang 2018). Few, if any, scholars would challenge the claim that technology is changing how we communicate. However, significant questions remain regarding the extent to which the changes we are observing have meaningful consequences for social organization, and whether such consequences are, on balance, “good” or “bad” for society.

While some scholars have argued that the use of distance media reduces feelings of connectedness (Collins 2004; Williams 2006; Reich 2010), others maintain that

online communities enhance social connectedness by allowing individuals to overcome geographic and social boundaries and form lasting relationships with others throughout the world (Coco 2008; Williams 2009; Cărtărescu 2010). We contribute to this ongoing discussion by comparing distance media and face-to-face interaction in terms of their effects on the production and experience of connectedness between communication partners.

Advancing a novel view of the potential hazards of distance media, we combine insights from G. H. Mead and other interactionist scholars with classical and contemporary work on solidarity, interaction rituals, and co-presence. We theoretically and empirically explore how distance media and face-to-face interaction differentially impact role-taking in groups. More specifically, we examine how differences in role-taking across different forms of communication media shape the elemental interactional process of “entrainment,” as revealed in unconsciously controlled aspects of conversational speech. Such entrainment is key to producing a sense of solidarity and cohesion between interaction partners (Gregory et al. 1997).

## 2 Background

In one important sense of the concept, solidarity refers to the “feeling of interpersonal connectedness that binds members of society together” (Kalkhoff et al. 2011, p. 936). Developing an understanding of solidarity as a crucial integrating force in society was central to sociological theory when the field first began to take form in the 18th century (c.f. Durkheim 1947), and it remains a highly relevant topic (c.f. Collins 2004, 2011). The central sociological perspectives on solidarity, however, developed during a time when interaction was dominated by direct, face-to-face communication. As society moves toward more impersonal and electronically mediated forms of interaction, social scientists can no longer take for granted such direct and intimate means of developing shared meaning between social actors.

In the remainder of this section, we begin by analyzing the potential problems of distance media communication through interactionist treatments of role-taking and its consequences. We then review relevant classical and contemporary work on solidarity, interaction rituals, and co-presence. Next we discuss the relationship between role-taking and interactants’ sense of solidarity and consider how the presence or absence of situational pressures to engage in role-taking impacts the production of solidarity. Finally, we offer a set of theoretically-derived hypotheses that serve as the basis for an experimental test.

### 2.1 Role-Taking

Mead’s (1934) model of symbolic interaction serves as our starting point for understanding the comparative effects of distance media and face-to-face interaction on



role-taking and its consequences. In Mead's model, role-taking, or "taking the role of the other," refers to humans' apparently unique ability to mentally evaluate alternative courses of action in terms of how others are likely to respond to them. For example, while having lunch with a member of the tenure and promotion committee, an assistant professor might consider whether offering to pick up the check will be viewed as a friendly gesture or as a shameless act of ingratiation related to a looming tenure decision. In taking the role of the other, the assistant professor imagines how their colleague is likely to perceive and respond to different behavioral options. Role-taking informs the course of action that is ultimately chosen. The accumulation and collection of role-taking experience coordinates and organizes interaction and facilitates group life (Mead 1934).

Role-taking is central to producing a number of social outcomes that bond individuals to each other and their groups. By engaging in role-taking, individuals are able to anticipate each other's actions and generate a shared "definition of the situation" (Mead 1934; Cast 2004). In this way, role-taking coordinates interactants' actions, fosters cooperation, and enhances a sense of interdependence (Schwalbe 1991; Cesareni et al. 2016). Additionally, emotions associated with role-taking heighten social bonds and foster adherence to interactional norms (Shott 1979). Role-taking, then, makes social life possible; it helps us develop common understandings of the world, regulates our actions, and promotes empathy and emotional connections between individuals and groups (Stryker 2008).

Importantly, role-taking is not an automatic process—it requires both motivation and effort (Franks 1999). In other words, the likelihood that actors engage in role-taking varies across situations and is enhanced by interactional demands to pay close attention to our interaction partners and accurately interpret their behavioral cues (Schwalbe 1988, 1991). Franks (1999) notes that situations that fail to elicit the necessary degree of role-taking are often awkward, uncomfortable, and even comical in their displays of interactional ineptness. Accordingly, some minimal amount of role-taking is essential for successful interaction. The absence of adequate role-taking, then, is a recipe for reduced cooperation and closeness with interaction partners (Franks 1999; Cesareni et al. 2016).

Though Mead himself did not explicitly use the term "solidarity" to describe the social psychological effects of successful interaction, subsequent scholars have drawn a direct link between role-taking behaviors and the production of solidarity (Schwalbe 1988, 1991). Musolf (2012) makes the connection most clearly: "Without shared meaning through role-taking humans cannot create meaningful bonds of solidarity. Sharing meaning is what makes communication, community, and culture possible. People experience solidarity and build social worlds" (p. 75). As such, any impediment to role-taking is also an impediment to solidarity (Musolf 2012). Franks (1999) echoes this sentiment, arguing that sustained meaningful connection to any group necessitates role-taking.

Mead (1934) clearly viewed the coordination of action through role-taking as a critical component in a dynamic process of social integration. Given the primitive state of communication technology during Mead's life, however, he almost certainly could not have imagined a society where interaction would be dominated by distance

media communication.<sup>1</sup> This raises an important question that Mead himself would not have been especially pressed to answer during his time: *is role-taking compromised to any degree by interaction over distance media?* If it turns out that it is, and to the extent that Mead's model of self and role-taking is correct (see Stryker and Stryker 2016), the move away from face-to-face interaction could have profound negative implications for social integration in modern society. For an exposition of this particular problem, we turn to relevant research by Mead's contemporaries and legacies.

## 2.2 *Solidarity and Interaction Rituals*

Like Mead, Emile Durkheim could not have imagined a world dominated by distance media communication. Unlike Mead, though, he was expressly wary of technological progress in general. On the one hand, Durkheim (1947) worried about how technological progress might weaken the bonds of solidarity that attach individuals to each other and their groups. On the other hand, he recognized that technological progress can bring about new patterns of interaction and institutional arrangements that revitalize solidarity (Durkheim 1965). In order to determine whether modern structures that enable interaction through distance media are capable of producing and maintaining solidarity, we are left with the same questions that would have challenged Mead: How might this work? Is interpersonal proximity really necessary?

To advance answers to these questions, we draw on Collins' (2004) interaction ritual theory (IRT). In IRT, Collins elegantly synthesizes interactionist and Durkheimian insights to explain how feelings of "belongingness" (i.e., group solidarity) are created during social interaction. Our day-to-day interactions with others, according to Collins, involve the most elementary social rituals—ones that are fundamental to the creation of solidarity in society. For solidarity to emerge, interactants must establish a mutual focus of attention through role-taking (Collins 2004, p. 79). As this process unfolds over time, actors become increasingly entrained in a chain of interactional micro-rhythms, which is the foundation of social bonding.

Collins developed IRT when the use of distance media was sharply rising. Predictably, it was not long before he felt pressure to deal theoretically with the same questions that we revisit here theoretically *and* empirically. That is, do interactants really need to be face-to-face in order for the "ingredients" of interaction rituals (e.g., role-taking) to come together, or is distance media a sufficient proxy? Ultimately Collins (2011) decided that while interaction rituals are still *possible* over distance media, their effects should be weakened insofar as lack of "bodily assembly" complicates role-taking. In face-to-face interaction, by contrast, role-taking is facilitated, which manifests in high rhythmic entrainment.

Collins (2011) is staunchly skeptical that distance interaction could ever replace face-to-face interaction in terms of the ability to produce group solidarity. In thinking about different forms of distance media, though, Collins speculates that some may be better suited for producing solidarity than others. For example, he argues that

distance media incorporating audio *and* video channels (e.g., Skype) “approximates bodily feedback” (Collins 2004, 55) and so is outwardly second best to face-to-face interaction. In other words, because real-time A/V communication is “the closest to real IR,” it should be capable of producing solidarity, albeit at lower levels (Collins 2011). By comparison, audio-only communication (e.g., by cell phone) still allows for some level of “rhythmic coordination,” but because it blocks out the bodily channels for micro-coordination, it should produce even lower levels of solidarity.

### 2.3 Co-presence

The bodily co-presence literature in sociology and psychology complements Collins’ perspective. Goffman (1963) defined “copresence” as a social arrangement where interactants are “uniquely accessible, available, and subject to one another” (p. 22). Nearly all types of interaction, even those mediated by machines, can be viewed as involving some form of co-presence. However, not all manifestations of co-presence are created equal; some produce stronger feelings of connectedness than others.

Zhao (2003) created a useful taxonomy that classifies several types of co-presence and describes the extent to which each is capable of generating feelings of connectedness. His conceptions of “corporeal copresence” and “corporeal *telecopresence*” are especially relevant to the present research (Zhao 2003, 447). When two individuals interact face-to-face, they experience the corporeal form of co-presence. In line with Collins (2004, 2011), Zhao argues that this type of interaction is capable of producing the strongest feelings of “being” with another. By comparison, corporeal *telecopresence*—a form of co-presence that people experience when they interact “face to device” (Zhao 2003, 447)—is less capable of producing feelings of connectedness because interactants are unable to physically touch each other, which is a primal expectancy.

In a relevant empirical study, Chan and Cheng (2004) examined the statistical interplay of relationship type (face-to-face vs. online) and the passage of time on overall friendship quality. They found that face-to-face relationships tend to be stronger than those established online, all else being equal. Furthermore, relationships created online develop more slowly and are more likely to fail than those created in-person. These findings are generally consistent with IRT and the co-presence literature. They provide indirect evidence that feelings of connectedness emerge *over time* (see also Lawler and Yoon 1996) and that the process produces weaker outcomes in electronically mediated relationships.

Interestingly, the poor quality of electronically mediated interaction may, in fact, be the culprit behind the rise of “mobile phone addiction” (Chóliz 2010). Insofar as distance media communication produces weak ritual outcomes (e.g., weak solidarity), device addicts may be attempting to substitute quantity for quality. They engage in many electronically mediated communications throughout the day in a futile attempt to replace more fulfilling face-to-face interactions. Collins (2011) compares the problem to drug tolerance: “[T]o the extent that someone relies on mediated rather than embodied IRs, they are getting the equivalent of a weak drug

high; so they increase their consumption to try to make up for the weak dosage.” From this perspective, increasing device dependence is rightly viewed as a public (social) health crisis.

If distance media communication is, in fact, a threat to societal integration, why has there not been more pushback from laypeople and researchers? On the lay side, conventional wisdom says that addicts are always the last to face their addiction. On the “bench” side, Fortunati (2005) argues that the threat of distance media communication has not been taken more seriously because we have yet to develop research designs and empirical measures of communication quality that have the ability to establish causality. How can we be sure, for instance, that distance media *explains* our “fractured republic” (Levin 2016) versus the possibility that social fragmentation is pushing people towards less personal modes of communication? By incorporating a state-of-the-art measure of solidarity along with a completely randomized experimental design (described below), the current study provides the empirical foundation necessary to advance a basic understanding of the impact that distance media has on the ingredients of interaction rituals (namely role-taking) and the emergence of solidarity.

## 2.4 Hypotheses

Based on the literature reviewed above, our study will test the following hypotheses:<sup>2</sup>

*Hypothesis 1:* Communication medium will have a significant main effect on solidarity, such that:

*Hypothesis 1a:* Individuals who engage in face-to-face communication will experience higher levels of solidarity than those who engage in audio/video-mediated communication.

*Hypothesis 1b:* Individuals who engage in face-to-face communication will experience higher levels of solidarity than those who engage in audio-mediated communication.

*Hypothesis 1c:* Individuals who engage in audio/video-mediated communication will experience higher levels of solidarity than those who engage in audio-mediated communication.

*Hypothesis 2:* The effect of communication medium on solidarity will become stronger over time.

## 3 Methods

This study uses an experimental design to examine differences in solidarity across two forms of distance media communication in comparison with face-to-face interaction.

All procedures described below were reviewed and had prior approval by the local Institutional Review Board.

### **3.1 Participants**

Participants were recruited from undergraduate classes at a large Midwestern university. They were scheduled using a secure web-based program, Experimentrix, that allows participants to view and sign-up for available experiments. Twenty same-sex dyads (10 female dyads; 10 male dyads) were randomly assigned to each of three experimental conditions (described below). To further control for nuisance factors, the members of each dyad were not only the same sex, but also approximately the same age (mean = 20 years). In terms of self-reported ethnicity, the participations were 81% “White,” eight percent “African American,” two percent “Hispanic or Latino,” three percent “Asian,” two percent “Middle Eastern,” three percent “Mixed Race,” one percent “Pacific Islander,” and one percent “Other.”<sup>3</sup>

### **3.2 Procedures**

Participants who consented to take part in the study were asked to complete the “Lost at Sea” task with a partner. In this task, participants are told to imagine that they are stranded in the middle of the ocean on a boat that is slowly sinking and has damaged communication equipment. Each team must decide how they want to rank the importance of fifteen salvaged items to determine which to take on a life raft. The fifteen items include a sextant, a shaving mirror, mosquito netting, a five-gallon can of water, a case of army rations, maps of the Pacific Ocean, a floating seat cushion, a two-gallon oil/petrol mixture, a small transistor radio, 20 square feet of opaque plastic sheeting, shark repellent, one quart of 160 proof rum, 15 feet of nylon rope, two boxes of chocolate bars, and a fishing kit. After completing the task, team members in our study notified a research assistant. They were then debriefed individually and thanked for their participation.

### **3.3 Experimental Design (Independent Variable)**

We randomly assigned discussion groups to one of three conditions as follows:

*Condition 1 (face-to-face):* Participants completed the “Lost at Sea” task while interacting face-to-face. These participants were in the same room, able to hear and see each other.

*Condition 2 (audio and video):* Participants completed the “Lost at Sea” task using Skype. These participants were in separate rooms, though still able to hear *and* see each other via a Skype connection.

*Condition 3 (audio only):* Participants completed the “Lost at Sea” task using Skype; however, the video channel was turned off such that they could only hear each other via the Skype connection.

In all three conditions, we collected audio recordings of group interactions. We recorded participants’ voices on separate audio channels using individual lavalier microphones worn by each group member. This was done to ensure that our analyses employed the highest possible audio quality.

### 3.4 Outcome Measures

Past research has shown that fast Fourier transform (FFT) voice analysis yields a valid and reliable real-time measure of solidarity in dyads (see e.g., Gregory and Webster 1996). Much as a prism separates “complex” white light into its constituent “simple” colors, FFT separates a complex wave (e.g., the human voice) into its constituent frequencies. In technical terms, FFT transforms the time domain of a complex signal into the frequency domain.<sup>4</sup> This allows us to look for patterns in different frequency ranges of the source signal. In the range of the human voice beneath 0.55 kHz, past research using FFT has found that individuals unconsciously adapt their vocal spectra to each other during conversations (Gregory and Hoyt 1982; Gregory 1983, 1986a, b, 1990, 1994; Gregory et al. 1993). Vocal “convergence” in this frequency range is the acoustic “output” of role-taking. The greater the convergence, the greater the solidarity. According to Collins (2004), “Gregory and his colleagues show that acoustical voice frequencies become attuned [through role-taking] as conversations become more engrossing” (p. 77). As such, Collins refers to the output produced by FFT voice analysis as revealing the “sound of solidarity,” and he emphasizes that FFT analysis is “a nonintrusive...means of researching solidarity” (p. 77).

The current study’s use of FFT analysis is adapted from techniques employed by Kalkhoff and Gregory (2008). Specifically, audio/video recordings from each participant sampled at 44,100 Hz (i.e., high-quality “wav” files) were captured using Replay Telecorder. Following past research (see e.g., Kalkhoff and Gregory 2008), the audio track for each participant in each dyad (separately) was divided into three equal-length segments (beginning, middle, and end). Next, all instances of “crosstalk” (i.e., participants talking at the same time) were removed using Audacity, an open source audio editing program. Finally, separate FFT analyses were performed on each of the three segments for each participant within each dyad using a professional FFT spectrum analyzer, SpectraPLUS.<sup>5</sup> This analysis procedure captures the average “energy” or amplitude (in decibels) of the lower frequencies (100–550 Hz) in each individual’s voice during each time period. The results of the FFT analyses for each segment/participant/dyad were then exported to a text file and imported into SAS

<b>Frequency Value</b>	Participant 1 (Time 1)	Participant 1 (Time 2)	Participant 1 (Time 3)	Participant 2 (Time 1)	Participant 2 (Time 2)	Participant 2 (Time 3)
100	-42.765388	-42.686295	-42.822361	-46.773033	-47.150108	-45.227142
101	-40.903313	-41.01738	-42.004135	-47.459259	-47.261585	-44.783775
102	-39.33395	-40.710636	-40.698051	-48.909191	-46.844398	-45.788189
.....						
550	-59.64159	-55.220596	-59.004105	-54.877327	-56.74437	-53.395405

**Fig. 1** Data structure with sample spectral data produced through FFT analysis. *Note* The values in each cell are in decibels (db)

for statistical analysis. Figure 1 shows the basic structure of the dataset with sample FFT output. The left column indexes the vocal frequencies (100–550 Hz). The value in each cell is the amplitude of the associated frequency (in decibels, db) for a given participant (1 or 2) at a given time point (beginning, middle, or end), as determined from FFT analysis.

In order to examine levels of solidarity across conversations over time, the absolute difference between the two participants' amplitudes at each frequency was computed for each time point (beginning, middle, and end). In other words, for each dyadic group of participants (separately), we created a new variable by computing the absolute difference between the frequency amplitudes for Participant 1 (Time 1) and those for Participant 2 (Time 1). We then repeated this computation for the two remaining time periods (middle and end). This produced three new variables representing the absolute difference between participants' vocal spectra at the beginning of the task, middle of the task, and end of the task. We then computed the mean of the three absolute difference variables for each dyad. The resulting dyad-level values are what interest us, as they represent the *average absolute difference in participants' vocal spectra at each time point*. The greater the difference, the less the non-verbal vocal convergence, and the less the solidarity at that point in the interaction. Figure 2 shows the generic structure of the resulting dataset.

### 3.5 Statistical Analysis Strategy

Below we test Hypotheses 1a–1c and Hypothesis 2 using a generalized estimated equations (GEE) approach. This statistical technique is a powerful, nonparametric

Group ID	Condition #	Sex	$\bar{x}$ AbsDiff1	$\bar{x}$ AbsDiff2	$\bar{x}$ AbsDiff3
1					
2					
3					
...					
60					

**Fig. 2** Generic data structure for mean difference of participants’ voice spectra

alternative to repeated measures ANOVA. Unlike ANOVA, GEEs make no distributional assumptions, nor is any assumption made about the homogeneity of variances across experimental conditions. Furthermore, the correlation structure of repeated observations (in this case across the three time periods, beginning, middle, and end) can be directly specified in GEE models. By contrast, ANOVA imposes a constant correlation of observations between any two time points (i.e., the sphericity assumption), which may cause an inflated Type I error rate (Ma et al. 2012). The bottom line is that the GEE approach is more efficient than ANOVA. It achieves greater statistical power with smaller samples and is, therefore, a preferred method for the analysis of repeated measures data (Ma et al. 2012).

To test our hypotheses using GEE, the data were restructured, as required, into “long format.” Figure 3 shows the generic structure of the resulting dataset. The GEE analysis determines whether experimental condition has a significant, overall effect on the set of (repeated) dependent variables across the three time periods (Hypothesis 1). Provided that the overall main effect of experimental condition on

Group ID	Condition	<i>Sex</i>	<i>Time</i>	$\bar{x}$ AbsDiff
1			1	
1			2	
1			3	
2			1	
2			2	
2			3	
...				
60			1	
60			2	
60			3	

**Fig. 3** Generic data structure in long format for GEE analysis



the solidarity outcomes is significant, follow-up pairwise comparisons will be used to test Hypotheses 1a–1c. Finally, “simple effects” follow-up ANOVAs and t-tests (Wright 2014) will be conducted *within* each time period (beginning, middle, and end) to test Hypothesis 2.

## 4 Results

### 4.1 Data Overview

Conversations between sixty same-sex pairs were digitally recorded while they completed the “Lost at Sea Task” (20 pairs in each condition). Using the techniques described above, we began by attempting to use fast Fourier transform (FFT) analysis to extract the vocal spectra data for each participant within each dyad. This procedure can only be done if each person within a dyad contributes to the beginning, middle, *and* end of the conversation (i.e., the procedure cannot be used if one person dominates the conversation at the beginning, middle, or end of the conversation). We were able to perform an FFT analysis for 53 of the 60 dyadic pairs. The analysis was performed for every dyad in the face-to-face condition; however, the conversation was dominated by one participant in six of the dyads in Condition 2 (audio/video) and in one of the dyads in Condition 3 (audio only). FFTs could not be run for these seven dyads. Furthermore, data from one dyad in Condition 1 (face-to-face) were removed following a preliminary residual analysis using GLM.<sup>6</sup> In the end, then, data from 52 dyads were used for the final analysis—19 from the face-to-face condition, 14 from the audio/video condition, and 19 from the audio-only condition. Descriptive statistics for the spectral data by condition and time period are presented in Table 1 and Fig. 4.

**Table 1** Sample sizes, means, and standard deviations for the absolute difference of group members’ vocal spectra over time

	N	Beginning	Middle	End
Face-to-face	19	3.4906 (3.2698)	3.4360 (2.8723)	3.1425 (3.0263)
Audio	19	5.7270 (4.5677)	5.2090 (4.3545)	6.3093 (4.2795)
Audio/video	14	4.5550 (5.1687)	6.5874 (5.0932)	8.1179 (6.2336)

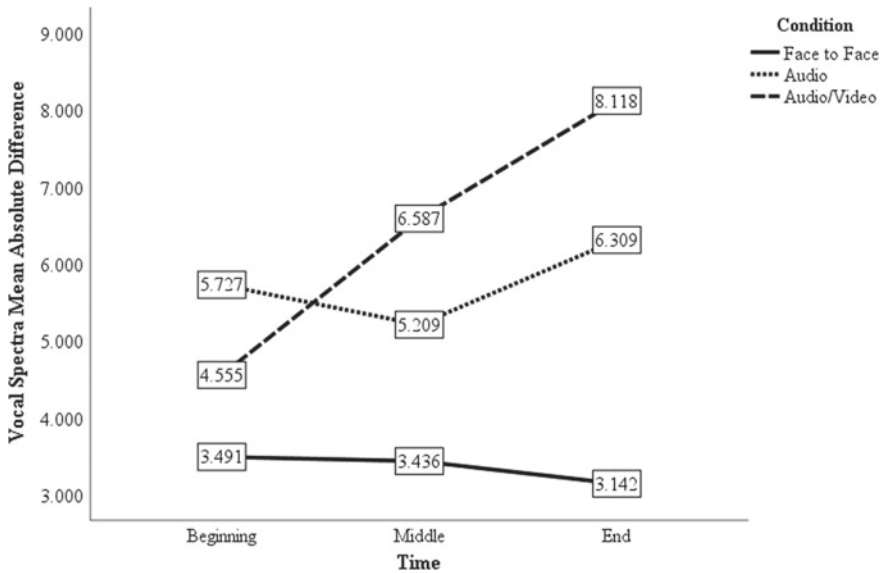


Fig. 4 Impact of communication medium on convergence over time

Visual inspection of the data in Table 1 reveals an interesting pattern of results when comparing the mean absolute difference values between conditions and across temporal segments. Whereas the vocal spectra of participants who engaged in face-to-face interaction *converged* between the beginning and end of discussion (i.e., the mean absolute difference in vocal spectra decreases over time), the vocal spectra of participants who engaged in either form of mediated communication *diverged* as the task went on (i.e., the mean absolute difference in vocal spectra increases over time). This pattern of results provides prima facie support for our argument that interaction over distance media impedes the production of solidarity, while further suggesting that certain forms of communication might, in fact, erode existing solidarity levels over time.

### 4.2 Hypothesis Tests

Consistent with Hypothesis 1, results from a GEE analysis reveal that Condition has a significant overall effect on the absolute difference in participants' vocal spectra (Wald  $\chi^2 = 8.05$ ,  $df = 2$ ,  $p = 0.018$ ). In line with Hypotheses 1a and 1b, follow-up pairwise comparisons produced as part of the GEE output reveal that the absolute difference in participants' vocal spectra is lower in the face-to-face condition than it is in the audio/video ( $z = -2.31$ ;  $p = 0.021$ ) and audio-only ( $z = -2.24$ ,  $p = 0.025$ ) conditions. This suggests that the face-to-face condition, as expected, produced the

highest levels of solidarity. However, contrary to Hypothesis 1c, the absolute difference in participants’ vocal spectra does not achieve statistical significance ( $z = 0.46, p = 0.643$ ). We expected participants in the audio/video condition to experience greater solidarity than participants in the audio-only condition, but the relatively high  $p$ -value of the  $z$  statistic suggests that the means are actually equivalent (Frick 1995). We return to this unanticipated result in the Discussion below.

To test Hypothesis 2, we began by conducting a second GEE analysis, now adding Time and the interaction of Condition and Time as predictors (see Table 2). In this model, the Condition by Time interaction is, in fact, significant (Wald  $\chi^2 = 11.40, df = 4, p = 0.022$ ). Follow-up simple effects ANOVAs within each time period (beginning, middle, and end) reveal the following. First, the effect of Condition on the absolute difference in participants’ vocal spectra is *not* significant at Time 1 ( $F = 1.27, df = 2, p = 0.289$ ). So, at Time 1, comparable levels of solidarity were produced across the face-to-face, audio/video, and audio-only conditions. At Time 2 the means begin to diverge (see Fig. 2), but levels of solidarity do not differ, statistically speaking, across the three conditions ( $F = 2.44, df = 2, p = 0.098$ ). By Time 3, however, the effect of Condition on the absolute difference in participants’ vocal spectra achieves significance at the conventional 0.05 level ( $F = 5.22, df = 2, p = 0.009$ ). Post hoc comparisons reveal that at Time 3 the absolute difference in participants’ vocal spectra was lower in the face-to-face condition than in the audio/video ( $t = -3.127; p = 0.003$ ) and audio-only ( $t = -2.161; p = 0.036$ ) conditions, but not in the audio/video condition versus the audio-only condition ( $t = -1.137, p = 0.261$ ).

While the difference between the audio/video and the audio-only condition is *not* significant, even if it were, the pattern is once again in the opposite direction of what we would expect: the audio-only condition produced *higher* levels of solidarity than the audio *and* video condition. Our results as a whole support Hypothesis 2 in showing that the effect of communication medium on solidarity became stronger over time, but they reveal once again the unanticipated creation of greater, though not significantly greater, solidarity in the audio-only condition than in the audio/video condition.

**Table 2** GEE analysis for the impact of communication medium and time on solidarity

	Wald chi-square	df	$p$ -value
Intercept	96.331	1	0.000
Condition	8.052	2	0.018
Time	5.067	2	0.079
Condition * time	11.397	4	0.022

## 5 Discussion

This study produced three key findings. First, consistent with our expectations, face-to-face interaction produced greater solidarity than audio/video interaction or audio-only interaction. Second, contrary to our expectations, audio/video interaction failed to produce greater solidarity than audio-only interaction. Finally, the impact of communication medium on solidarity grew stronger over time, notwithstanding the unanticipated finding that the audio/video condition did not produce more solidarity than the audio-only condition.

It is hard to know at this point what to make of the unanticipated finding. On the one hand, it flies in the face of the view that role-taking is compromised in communication situations where interactants cannot see one another (Collins 2011), which should, theoretically speaking, undermine the solidarity-producing benefits of interactional entrainment. On the other hand, the finding, while unexpected, does align with the simple historical fact that two-way audio/video interaction has been around not nearly as long as two-way audio-only interaction (e.g., by telephone). In retrospect, the relative newness of audio/video interaction may explain why it has not surpassed the solidarity-producing capabilities of audio-only interaction.

It is also possible that our use of Skype in the audio/video condition contributed to the theoretically anomalous finding that audio/video interaction failed to produce more solidarity than audio-only interaction. That is, Skype presents video images of self and other side-by-side during conversations. A research assistant commented that several participants in the audio/video condition seemed to focus on how *they* appeared during conversations. This could have complicated the role-taking process. Unfortunately, while conversations were monitored by the assistant during experimental sessions, A/V recordings of participant interactions are not available. Therefore, we cannot assess whether participants in the audio/video condition did, in fact, have a tendency to be distracted by their own appearance.

Future research should examine what happens when participants are prevented from seeing the video feed of *themselves* during conversations. It would be interesting to see whether the results generated from a study incorporating this modification would fall into line with our prediction that audio/video interaction should produce more solidarity than audio-only interaction. Nonetheless, given the lack of significant differences between the audio/visual and audio-only groups, the best conclusion we can draw at present is that compared to face-to-face interaction, distance communication seems to degrade the production of solidarity regardless of the specific communication medium.

However, it is possible that distance communication has different effects on the quality of interpersonal relationships depending on whether it is used to forge new relationships or sustain existing ones. As mentioned above, past research has found that face-to-face relationships, all else being equal, tend to ignite faster and burn more brightly than online relationships (Chan and Cheng 2004). Once firmly established, though, might face-to-face relationships benefit from *supplemental* contact through

distance communication? In other words, do face-to-face and distance forms of communication interact in their effects on the quality of symbolic interaction? This is an interesting hypothesis that should be addressed by future research.

Another puzzle that remains to be solved concerns the disproportionately high number of cases that could not be analyzed in our distance media conditions, especially in the audio/video condition, because one participant so thoroughly dominated the conversation. Recall, this *never* occurred in the face-to-face condition, but it happened six times in the audio/video condition and one time in the audio-only condition. This might not be a fluke. Both journalists and social scientists have made the case that people are meaner and more dominant online than they are in person, perhaps due to an “online disinhibition effect” that causes people to behave more intensely than they otherwise would (Suler 2004). Future research should more directly examine whether face-to-face communication tends to foster cooperation over dominance and whether the opposite is true for distance forms of communication.

### ***5.1 An Organizing Framework for Studying Distance Interaction***

In their description of Simmel’s work, Kalkhoff et al. (2011) argue that “strengthening bonds within discrete, ‘minor’ relations can ripple through the ‘web of human society’ and bring about cumulative effects” (p. 945). By the same process, it seems reasonable to expect *negative* cumulative effects of aggregating “failed” interactions as well. Assuming that future research can replicate our finding that distance media communication falls short of in-person interaction when it comes to the production of solidarity, we should not turn a blind eye to the increasing dominance of electronically mediated communication in people’s lives. If the particular “problem” we detected does, in fact, reach beyond our study, how are modern societies to address the challenge of creating and maintaining social solidarity? Beyond our personal, day-to-day interactions, businesses and educational institutions are increasingly relying on distance media and virtual worlds to hold meetings, offer tours, sell products, etc. (Lin and Lee 2006). Yet our study suggests that it could be very difficult to develop and maintain rhythmic coordination and solidarity in these contexts.

To gain a better, deeper understanding of how the rise of distance media communication may be contributing directly to fragmentation in society by undermining role-taking and the production of social solidarity, we advocate the application of a “neuro-interactionist” perspective (Franks 2003). One of the major advantages of a neuro-sociological approach, generally speaking, is that its unique “toolset” enhances theory testing and development by providing better, more direct observation and measurement of theoretical constructs and processes (Kalkhoff et al. 2016a, 196–197). While our unobtrusive, real-time vocal measure of solidarity is arguably an improvement over delayed, subjective self-reporting, a neuro-interactionist approach would allow us to peer even more deeply into the (neural) mechanisms that represent and

support role-taking and the creation of solidarity (or lack thereof) in connection with different methods of human communication. Furthermore, measuring “silent” brain activity as opposed to vocal communications would allow us to extend our analysis to text-based forms of distance communication, including instant messaging, chat, and texting. Electroencephalographic (EEG) “brainwave” data collected from two or more people at the same time could be used to compare different types of communication in terms of their ability to produce “interbrain synchronization,” a real-time neurological indicator of social solidarity in groups (see Kalkhoff et al. 2016b).

Mead himself recognized the general importance and promise of interactionism informed by neurology: “We have to take into account not merely the complete or social act, but what goes on in the central nervous system as the beginning of the individual’s act and as the organization of the act” (Mead 1934, p. 11). While all but ignored for many years, Stryker and Stryker (2016) have recently taken up Mead’s charge in reminding us of the importance of using neuroscience to advance symbolic interactionism, and we are just now starting to see theoretical and empirical research being done that is patently neuro-interactionist (Niemeyer 2013; Kalkhoff et al. 2016a; Stryker and Stryker 2016).

Where the present topic is concerned, there are important points of connection between interactionism and social neuroscience that might be exploited to strengthen our understanding of how distance media communication could be undermining symbolic interaction and, therefore, imperiling society. Most importantly, the concept of role-taking in interactionism is quite similar to the concept of “theory of mind” (ToM) in social neuroscience.<sup>7</sup> In brief, theory of mind refers to “a person’s ability to understand another person’s mental states” (Hopcroft 2013, 231). ToM in social neuroscience is the conceptual twin of role-taking in symbolic interactionism. Importantly, neuroscientists have identified the brain substrates of ToM, including the so-called “mirror neuron” system (Rizzolatti and Craighero 2004). Mirror neurons are a special class of neurons in the brain that “fire” both when a person performs an action *and* when they observe someone else perform the same action. Mirror neurons are concentrated in several brain regions, and as a group they seem to represent and support core social functions, including empathy, perspective-taking, and theory of mind competencies (Hopcroft 2013).

Interestingly, dysfunction in the mirror neuron system lies at the heart of the “broken mirror theory” of autism (Iacoboni and Dapretto 2006). While controversial (see Schulte-Rüther et al. 2016), the theory argues that a dysfunctional mirror neuron system explains ToM-related interactional difficulties characteristic of autism spectrum disorder, namely lack of empathy, social isolation/alooftness, and lack of eye contact. What is most interesting to us is that our increasing reliance on devices seems to be creating the same constellation of traits in the “average” person. Is our growing addiction to devices creating an autism-like syndrome?

First off, in *Alone Together*, Turkle (2011) explains how people have come to expect more from their devices than from each other, which she links directly to a precipitous *loss of empathy* in society. At the macro level, research has indeed documented a pronounced decline in “empathic concern” among young adults in the U.S., especially since the beginning of the 21st century (Konrath et al. 2011, 180). At

the micro level, even the mere presence of a cell phone has been linked to a reduction in empathy exchanged between friends (Thornton et al. 2014).

Second, other research shows that Americans are also becoming increasingly *socially isolated*. For example, McPherson et al. (2006) report that the number of Americans saying that there is “*no one* [emphasis added] with whom they discuss important matters” almost tripled between 1985 and 2004 (p. 353). At the individual level, recent research shows that social media usage and feelings of isolation are, in fact, positively related (Primack et al. 2017).

Finally, device usage has been linked to *declining eye contact* (Nakamura 2015) and also to a reduction in smiles between strangers (Kushlev et al. 2019). The picture is starting to come into focus: devices seem to be undermining symbolic interaction and potentially causing what we might name “digital autism syndrome.”

Respectively, interactionists and social neuroscientists recognize that role-taking and theory of mind are *developmental* capacities. To the extent that reliance on devices may be undermining these capacities and causing deficits in the mirror neuron system, it should be alarming to us that young children (under eight) are spending more time on tablets and Smartphones than ever before (Rideout 2017). An obvious next step in a neuro-interactionist agenda would be to use neuroimaging (e.g., fMRI) to examine levels of device usage vis-à-vis functioning in brain areas that undergird role-taking and theory of mind functions. Obvious places to look first are those areas of the brain where mirror neurons are concentrated (see Hopcroft 2013). Pursuing such a neuro-interactionist agenda will rapidly accelerate a multilevel understanding of *how* distance media communication could be undermining symbolic interaction. If we ultimately determine that heavy device usage is linked to dysfunction in human mirror neuron systems underlying role-taking and ToM, the practical implications would be serious and far reaching.

## Endnotes

1. While Mead likely used a telephone, around the time of his death most homes were still without them (see Pierce and Noll 1990).
2. Although our methodological approach precludes analysis of strictly text-based interactions, our results are nonetheless an instructive illustration of the connection between communication medium and solidarity.
3. Cărtărescu (2010) argues that online communities may allow minority groups to circumvent social differences that impede solidarity development in face-to-face interaction. This is an interesting and important hypothesis, but given our limited sample, we leave it up to future researchers to explore systematically whether and how heterogeneity affects the experience of solidarity across different forms of communication. In our study, factors beyond sex and age were dealt with through randomization.
4. See Gregory and Kalkhoff (2007) for a complete technical discussion.
5. A SpectraPLUS configuration file (\*.cfg file) with all of the FFT settings is available upon request. This file can be loaded into SpectraPLUS prior

- to conducting an FFT analysis. Step-by-step procedures for conducting an acoustic analysis from start to finish are available in the supplemental material of Kalkhoff et al. (2017): [http://journals.sagepub.com/doi/suppl/10.1177/0190272517738215/suppl\\_file/Kalkhoff\\_SUPPLEMENTAL\\_FINAL.pdf](http://journals.sagepub.com/doi/suppl/10.1177/0190272517738215/suppl_file/Kalkhoff_SUPPLEMENTAL_FINAL.pdf).
6. For the dyad in question, the preliminary GLM analysis of the effect of experimental condition on the vocal solidarity outcome revealed that the studentized residuals were much larger than the conventional cutoff of 3 across *all* time periods (James et al. 2017), ranging from a low of 3.72 at Time 3 to a high of 4.44 at Time 1. No other dyad had studentized residual values exceeding three at *any* time point. Furthermore, Cook's distance values for the suspect dyad were much larger than the traditional cutoff of  $4/N = 0.075$  (see Eydurán et al. 2005), ranging from a low of 3.2 times the cutoff (i.e., 0.24) at Time 3 to a high of 4.67 times the cutoff at Time 1. Here too, no other dyad stood out so obviously as an outlier.
  7. See Franks (2013) for a nuanced treatment of the topic.

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# University Racial Composition and Self-esteem of Minority Students: Commitment, Self Views and Reflected Appraisals



David M. Merolla and Erin Baker

**Abstract** A common finding in the research literature indicates that minority students tend to have higher levels of self-esteem when they attend schools with more individuals of their own racial and ethnic background. However, few studies to date have sought to explain this association. Using identity theory, this chapter develops and tests a serial mediation model to explain this well-established association. Specifically, this chapter proposes that universities represent intermediate social structures that provide the context in which social relationships develop. We argue that students in more racially consonant environments are more likely to develop satisfying social relationships with both faculty and students and in turn have more positive reflected appraisals of their abilities as a student and more positive self-evaluations. These positive self-evaluations are theorized to lead to higher levels of self-esteem. This chapter tests this serial mediation model using a sample of 863 minority students from universities across the US. Findings are supportive of our theoretical model and underscore both the importance of social structure for understanding the self-concept and the need to improve the racial climate of US universities.

**Keywords** Identity · Racial segregation · Self-esteem · Higher education

## 1 Introduction

The population of US college and university<sup>1</sup> students is becoming more diverse in the twenty-first century. In 2000, white students comprised 70.8% of US college students, whereas in 2015, just 57.6% of all college students in the US were white (US Department of Education 2018). Despite this increase in the overall representation of non-white students at US colleges, college campuses remain segregated and there are concerns about the climate that students of color face on campus (Feagin et al. 2014; Hurtado et al. 2016). Research continues to show that many minority students

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at predominately white institutions perceive their campuses as hostile environments where they face overt discrimination such as racial slurs and stereotypes (Franklin 2016). The FBI reports that in 2016, there were 174 race based hate crimes on college campuses, making colleges the third most common location for hate crimes after residences and public streets (FBI 2016). Moreover, because most colleges officially promote diversity and inclusion, white nationalist groups often target these institutions as apt locations to spread their message by hosting overtly racist speakers and other events that contribute to a hostile climate for minority students (Kelley 2017). Beyond the egregious circumstances cited above, minority students may face additional, more subtle obstacles such as racial microaggressions and feelings of isolation, which can lead to a generally negative view of themselves and a withdrawal from academic pursuits (Hurtado 1992; Hurtado and Carter 1997; Solorzano et al. 2000; Hwang and Goto 2009; Suárez-Orozco et al. 2015).

Given that minority students face potentially hostile climates at college, it follows that minority students may benefit from increased representation on campus. For example, one relatively consistent pattern in the research literature indicates that minority students tend to have higher levels of self-esteem when they attend schools with more individuals of their own racial and ethnic background, that is, more racially consonant educational environments (Stephan and Rosenfield 1978; Gray-Little and Hafdahl 2000; Oates 2004; Rhodes et al. 2004). However, to date few studies have sought to explain this association. The current chapter aims to explain the association between university racial consonance and self-esteem using an identity theory model (Stryker 1980; Stryker et al. 2005; Merolla et al. 2012). Specifically, we conceptualize universities as intermediate social structures which provide the context in which social interactions develop. We maintain that minority students in more racially consonant environments are better able to develop valuable social relationships with both faculty and students, and in turn have more positive reflected appraisals and self-views of their abilities as a student. These more positive self-views of their abilities as a student then lead to higher levels of self-esteem. We empirically assess this model using a sample of 863 students from universities across the United States.

## 2 Background and Theory

Understanding the self remains a central concern in symbolic interactionism. The self can be “defined as an organized and interactive system of thoughts, feelings, identities, and motives that (1) is born of self-reflexivity and language, (2) people attribute to themselves, and (3) characterizes specific human beings (Owens and Samblanet 2013, 226).” A central tenet of symbolic interactionism is that the self is the result of a reciprocal process of internal dialogue between two components of the self—the knower and the known. As the result of this process, individuals come to develop a self-concept, which represents an understanding of themselves as a distinct entity with a unique constellation of characteristics that differentiates them from others. The ability to know the self implies that individuals can also

evaluate the self. Two important components of the evaluative self-concept are self-efficacy, an individual's belief in their ability to enact agency and control over the world, and self-esteem, an individual's conception of themselves as good or bad, or in other words an individual's conception and knowledge of their own self-worth. The importance of these aspects of the self for social psychology is evident in the voluminous body of research that has examined the precursors and consequences of both self-esteem and self-efficacy (Gecas 1989; Demo 1992; Callero 2003; Stets and Burke 2014; Merolla 2017).

The self-concept is developed through social interaction. During social interaction individuals use reflected appraisals, or their own perceptions of others perceptions of themselves as evidence for how both specific interactional partners, and by extension the larger society views them. That is, individuals come to know and understand themselves through their perceptions of how others see them and generally seek to align their self-conceptions with the reflected appraisals of interactional partners (Cooley 1902; Burke and Stets 2009). Thus, individuals form a conception of their own self-worth in relation to others based on the reflected appraisals of both significant others (e.g., family members, friends) and generalized conceptions of how society views people like them. For instance, the well-known positive association between self-esteem and socio-economic status indicates that individuals generally internalize broad societal level ideas about their relative worth and come to view themselves in a similar manner (Twenge and Campbell 2002).

## ***2.1 Identity Theory and Social Structure***

Given that the self-concept stems from social interaction, it is important to understand how the context of social interaction can shape the self-concept. Here, we draw on identity theory to elucidate this link between structural context of social interaction and the self-concept (Stryker 1980). According to identity theory, identities, or meanings attached to social roles, groups or persons, are important components of the self that serve as a link between the larger social structure and individual subjectivity. Over the past several decades, two strands of identity theory have developed that have investigated the role of social structure in shaping the self in two distinct ways. One strand of identity theory is concerned with how social structures shape role-based behavior by patterning social interactions and relationships (Serpe 1987; Serpe and Stryker 2011). A second strand of identity theory has focused on how social structure affects the self by providing culturally derived identity meanings, which create the context for an internal process of identity verification through which individuals seek to align their own self-perceptions with the reflected appraisals of interactional partners (Stets and Burke 2014). Given that the current research is interested in how patterns of social interaction related to the racial consonance of universities affect the self-concept, we draw on aspects of both strands of identity theory.

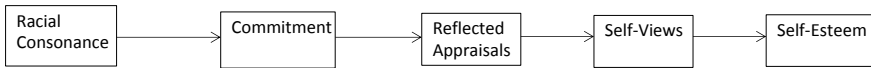
Identity theorists conceive of society "as a mosaic of relatively durable patterned interactions and relationships, differentiated yet organized, embedded in an array

of groups, organizations, communities, and institutions, and intersected by crosscutting boundaries of class, ethnicity, age, gender, religion, and other variables” (Stryker and Burke 2000, 285). Stryker’s classic work in identity theory specified the concept of commitment as the conceptual link between society and the self. Commitment is defined conceptually as the sense of belonging and attachment to others in role relationships as well as the number or scope of role-based relationships; when identities have high levels of commitment, individuals value the social relationships they develop in the context of that role identity. Commitment is defined operationally in terms of the perceived opportunity costs of losing specific social relationships (Stryker 1980; Serpe 1987). Early work used the concept of commitment to determine the degree to which individuals’ social networks were dependent on the maintenance of a specific social role (Serpe 1987). The use of the concept of commitment to gauge the role of society in the identity process was an acknowledgement that individuals enact identities, find interactional partners, and create shared meaning in small localized networks based on the maintenance of specific role identities.

More recent work using identity theory has taken a broader view of the link between society and self by examining how different levels of social structural organization may precede identity processes—including commitment—in different ways, essentially acknowledging that the small social networks indexed by commitment are themselves structured by different levels of social organization (Stryker et al. 2005; Merolla et al. 2012; Merolla and Serpe 2013; Jacobs and Merolla 2017). A basic tenet of sociology is that large social structures, such as structured relationships among individuals of different races, genders, and/or classes, are fundamental organizing principles of society that shape individuals’ social relationships. For example, research on social network homophily shows that large social structural characteristics such as race, age, and religion have a strong influence in shaping with whom individuals interact. By some estimates, less than one in ten Americans has a close friend from a different racial or ethnic group (McPherson et al. 2001).

Identity theory further describes two smaller levels of social organization—intermediate and proximate social structures. Intermediate social structures are more localized networks of social relationships in which people interact (e.g., a university) and proximate social structures provide the specific contexts in which identities are enacted (e.g., a student organization or friendship network). Despite their smaller size and more limited spheres of influence, research has shown that proximate social structures are important for identity processes in that they provide the contexts in which individuals engage in social relationships based on specific identities. For instance, research shows that college science students are more likely to value and enact science identities when engaged in science training programs that provide satisfying social relationships based on a science identity (Merolla et al. 2012; Merolla and Serpe 2013). Such programs operate as proximate social structures that provide immediate access to social relationships that rely on and affirm students’ science identities.

To date, little empirical work in identity theory has examined the role intermediate social structures play in shaping identity processes. As noted, intermediate social structures are relatively localized networks that provide a link between large and



**Fig. 1** Heuristic model of identity process

proximate social structures. In the empirical models developed below, we conceptualize universities as intermediate social structures. Universities represent an excellent example of intermediate social structures due to their role in linking large and proximate social structures. Ascribed status characteristics based on large social structural organization play an important role in determining the characteristics of the universities that individuals attend, as research clearly shows that there are significant class and racial differences in the types of universities that students attend (Davies and Guppy 1997; Moller et al. 2011). In addition, upon entering specific universities students often enter smaller levels of interactional networks based on major, sports participation or other affinity groupings (e.g., College Democrats/Republicans). Research also suggests that students primarily interact with others of the same racial and ethnic background within their university (Duster 1991; Antonio 2001). Thus, we argue that minority students will have more access to satisfying social relationships in universities with a higher prevalence of students from their own racial or ethnic background, and that likewise, in such contexts, minority students will show higher levels of commitment to both faculty and students. As shown in Fig. 1, the first association posited in our model indicates that students in universities with higher degrees of racial consonance will have higher levels of commitment to students and faculty members.

The second association in our model indicates that higher levels of commitment to students and faculty lead to more positive reflected appraisals. The idea that more positive reflected appraisals will follow from higher levels of commitment is particularly germane to the current investigation given that our sample consists of high achieving minority students. Research indicates that due to the well-known stereotypes that cast minority students as less academically competent, minority students often discount feedback on their academic abilities in the form of formal assessments (i.e., standardized test scores, grades), and base their self-views more closely on the reflected appraisals that they receive from others (Aronson and Inzlicht 2004). One example of this phenomenon comes from research on mnemonic threat. Mnemonic threat describes individuals' tendency to forget negative feedback on their own abilities. Research indicates that this phenomenon is less prevalent when negative feedback comes from close friends and is more prevalent when the negative feedback is perceived as biased (Green, et al. 2009; Newman et al. 2017). Similarly, we expect that when minority students have access to valued social relationships with other minority students and faculty, they are more likely to have more positive reflected appraisals of themselves as students because they are more likely to remember and trust the feedback from these sources as compared to feedback they receive from official sources or interactional partners from other racial backgrounds.



The third step in the model indicates that positive reflected appraisals lead to positive self-views. Most research using identity theory to understand differences in self-evaluation has used a verification model rather than a self-enhancement model (Burke and Harrod 2005; Kalkhoff et al. 2016). This research has investigated how identity verification, measured by the difference between reflected appraisals and self-views, impacts individual well-being. The verification model suggests that individuals will have a negative emotional reaction to non-verification, even when non-verification is due to reflected appraisals that are more positive than self-views. The most common methodological approach used to investigate verification is to specify a curvilinear association between non-verification and emotional outcomes, an approach that suggests both under and over-evaluation have negative effects on self-evaluation (Stets and Burke 2014).<sup>2</sup> However the research using this approach to studying verification rarely uses verification as a dependent variable; instead, this variable is used almost exclusively as an independent variable. Given that the model examined here specifies both reflected appraisals and self-views as mediators of racial consonance and commitment on self-esteem, we take a somewhat different approach. Specifically, instead of combining reflected appraisals and self-views into a measure of identity verification, we simply specify reflected appraisals as a predictor of self-views and expect a positive association between these variables.

The final step in the proposed model suggests that more positive self-views lead to higher levels of self-esteem. Essentially, we conceive of positive self-views as an example of identity-relevant events that can serve to boost individuals' self-esteem. Research indicates that individuals experience negative identity-relevant events as stressors that can lead to negative emotional reactions and similarly experience positive emotional reactions to positive identity-relevant events such as getting a good grade (Rosenberg et al. 1989; Thoits 1992; Crocker and Nuer 2003). For example, Marcussen et al. (2004) show that college students reported a decrease in self-esteem in response to a negative performance prime that suggested they were not performing well on academic tasks despite high levels of effort. It is important to note that the model presented here is essentially consistent with either a self-verification or self-enhancement model of self-esteem. Specifically, we do not predict any specific direct relationship between reflected appraisals and self-esteem. Instead, we specify self-views as an intervening factor between these two variables and as the most proximal variable in determining an individual's self-esteem. In sum, our model posits that racial consonance leads to higher self-esteem for minority students by providing the context for more valued social relationships to develop. These social relationships in turn lead to more positive reflected appraisals and self-views, and finally higher self-esteem.

### 3 Literature Review

#### 3.1 *Racial and Ethnic Differences in Self-esteem*

Given that self-esteem is derived in part by the reflected appraisals of others, early scholars surmised that because racial and ethnic minorities live in a society that denigrates them, have lower SES levels than their white counterparts, and face additional stressors associated with racism and discrimination, they would have less positive self-concepts (Rosenberg 1979). However, research has consistently shown that black Americans have higher or similar levels of self-esteem compared to their white counterparts, whereas the self-esteem of other Asian and Hispanic Americans is generally similar or slightly lower than their white counterparts (Hughes and Demo 1989; Kao and Tienda 1995; Twenge and Crocker 2002; Williams et al. 2003; Jackson et al. 2004; McLeod and Owens 2004; Hughes et al. 2015). Scholars have attempted to explain the paradoxical pattern of high self-esteem among black Americans in a variety of ways. For instance, some scholars have argued that the reflected appraisals of individual whites and the broader white society have little influence on black Americans' self-esteem because black Americans discount such jaundiced views of their own self-worth and instead rely on reflected appraisals from other black Americans (Hughes and Demo 1989). Further, some evidence suggests that black Americans protect their own self-concept by attributing their lower status to the broader racialized social structure, and that racial identity or pride may serve as a protective factor for black self-esteem (Porter and Washington 1993; Kiecolt and Hughes 2017).

Overall, the research on self-esteem among racial and ethnic minority groups has cast the issue of the self-concept in explicitly racial or ethnic terms. That is, researchers have looked at how minorities' self-concepts are associated with factors specifically related to minority status such as experiences with discrimination, racial pride, ethnic identity, acculturation, or the strength of their connections to other members of their own racial or ethnic groups. For example, the idea that minority children suffered psychologically due to the denigration of black Americans perpetuated by a segregated social system served as key evidence in the 1954 *Brown v. Board of Education* decision (Wong and Nicotera 2004). In this decision, the Supreme Court concluded that segregation "generates a feeling of inferiority as to their status in the community that may affect their hearts and minds in a way unlikely to ever be undone" (*Brown v Board of Education*, 347 U.S. 483 [1954], 494).

A recent study (Hughes et al. 2015), re-evaluated these ideas using a nationally representative sample by investigating how closeness to black Americans and overall evaluations of black Americans are associated with self-esteem among a sample of black adults. This research finds that respondents who feel closer to black Americans and have more positive evaluations of black Americans have higher levels of self-esteem. Moreover, these authors find that measures of social relationships partially mediate these associations, pointing to the need for additional research on how evaluations that occur within the context of social relationships may shape self-esteem among black Americans.

Similarly, research on Asian and Hispanic Americans has most often investigated how the self-concepts of these groups are associated with factors specifically related to their status as ethnic minorities in the United States. Scholars have focused on factors such as ethnic identity, assimilation, or other cultural factors such as individualism or collectivism (Porter and Washington 1993; Rumbaut 1994; Phinney et al. 1997; Zhou 1997). Most research has found that ethnic identity among Hispanic and Asian Americans is positively associated with self-esteem and that these factors can operate as a buffer against the negative effects of discrimination (Rhee et al. 2003; Umaña-Taylor and Updegraff 2007). The current investigation seeks to build on this previous research by looking at structural rather than cultural precursors of minority self-esteem. Specifically, by investigating how the structural context of social interactions, here operationalized as the racial consonance of a university, shapes the self-esteem of racial and ethnic minority students by providing access to more satisfying social relationships, we explicitly link this important component of the self to the organization of society, rather than to the cultural traits of a specific racial or ethnic minority group.

### ***3.2 Self Esteem and Racial Consonance of Educational Contexts***

Research on the effects of racial consonance of educational settings on self-esteem has primarily investigated this association among black students. This research generally shows that black students report higher levels of self-esteem in more racially consonant educational environments (Stephan and Rosenfield 1978; Jensen et al. 1982; Gray-Little and Carels 1997; Gray-Little and Hafdahl 2000; Oates 2004; Rhodes et al. 2004; cf: Kraus 1983). As noted above, the question of black students' self-esteem in segregated schools was closely tied to the politics of school desegregation. Thus, the focus on how the racial composition of schools is associated with self-conceptions was initially motivated by studies concerned with how desegregation of US schools in the 1960s and 1970s might have an effect on the self-esteem of minority students.

Recall that the logic of desegregation suggested that black students suffered under segregation because it signaled to them that they were not valued by society to the same degree as their white counterparts. However, evidence suggested the opposite pattern, as black students showed lower self-esteem when attending schools with white students. In one of the first studies, researchers operationalized self-evaluation using just one item asking students to give a relative ranking of their "brightness" compared to their peers. The research showed that black students had self-esteem at least as high as their white counterparts, but that black students had higher levels of self-esteem when they attended schools with a larger proportion of black students (Coleman et al. 1966). In a somewhat similar study, researchers used desegregation as the treatment in a quasi-experimental design, comparing an integrated and segregated

school before and after the advent of a desegregation policy. This research indicated that the effect of desegregation is negative for black students who formerly attended segregated schools, again indicating that black students have higher levels of self-esteem in schools with more racial consonance (Stephan and Rosenfield 1978).

This pattern of lower self-esteem in desegregated schools is likely attributable to the latent consequences of desegregation. After desegregation, Black students often entered hostile environments in which they were subjected to harassment, taunting and even violence (K' Meyer 2013; Bell-Tolliver 2018). Further, desegregation led to the firing of thousands of black school personnel which reduced the probability that black students would be educated by black teachers who emphasized the humanity and potential of black children (Fultz 2004). Indeed, it appears that for many students, DuBois's (1935, 331) concerns proved prescient when he remarked: "We shall get a finer, better balance of spirit; an infinitely more capable and rounded personality by putting children in schools where they are wanted, and where they are happy and inspired, than in thrusting them into hells where they are ridiculed and hated."

This early evidence suggesting higher self-esteem in racially consonant environments has been consistently affirmed in more recent research. In a recent meta-analysis, researchers combined information from 90 studies which had information about the racial composition of the school respondents attended. They found a relatively strong effect of racial consonance for both black and white students. Specifically, they found that the black-white gap in self-esteem, a gap which favors black students, would increase by 0.19 standard deviations when comparing a school that is 80% compared to 20% black. In other words, they show that the advantage in self-esteem that black students generally enjoy is greater in schools with more black students and smaller in schools with fewer black students (Gray-Little and Hafdahl 2000).

In an even more recent study, researchers report on a 3-year longitudinal (6–8 grade) study of 1804 students from 23 schools in Illinois and examine the effects of a variety of individual and school level covariates on self-esteem change over time (Rhodes et al. 2004). Using a growth curve modelling approach, the researchers find that low income African American students in lower SES schools experience less decline in their self-esteem across this important developmental stage relative to their peers from higher SES schools. The researchers also find that lower-income white students in low SES schools (schools that presumably were mostly black) saw the most substantial declines in self-esteem. These disparate patterns for black compared to white students are attributed to racial differences in school context. The authors conclude that "congruence with the racial and socioeconomic environment of their schools" plays an important role in shaping students' self-esteem (Rhodes et al. 2004, 256).

Most of these studies have been conducted in K-12 educational settings. One of the few studies to investigate this association among college students uses data from the NLS72/. It shows a positive effect of racial consonance on post-college self-esteem for black respondents (Oates 2004). The author suggests that one potential mechanism for this association could be that improved "relations with peers", and "treatment by faculty," could lead to "healthier reflected appraisals" (Oates 2004, 29).

However, as is common in the research literature on racial consonance and self-esteem, the author is unable to model this presumed process. The current study aims to build on this research that has documented the association between racial consonance and self-esteem by empirically determining whether satisfying social relationships, positive reflected appraisals, and positive views of self in a student role serve as mechanisms linking university racial consonance to higher self-esteem among minority students.

## 4 Data and Methods

### 4.1 *Sample*

We draw data for this project from The Science Study, a national panel study of students enrolled in National Institute of Health funded minority training programs from colleges and universities across the United States. Directors of training programs recruited participants into the The Science Study during the 2005–2006 academic year. For this research, we use data from the third wave of data collection, which was the first wave that included all of the relevant identity theory measures and retains the largest possible sample size; this wave of data was collected in the winter 2007 semester. Overall, 1332 students were asked to participate in Wave 3, of which we use 863 black, Hispanic and Asian students with valid data who attended a post-secondary institution included in the Integrated Postsecondary Educational Data System (IPEDS). These students attended 107 different universities, for an average of just under 55 students per university. We use full-information maximum likelihood to account for item-level missing data.<sup>3</sup>

There are several important considerations regarding the current sample that deserve mention. First, the sample consists primarily of women in natural science fields. Given the difficulties that women can encounter in STEM fields (Ong et al. 2011), the role of social relationships could be even more relevant for this specific sample. Additionally, nearly 60% of the black students in the sample attended Historically Black Colleges and Universities (HBCUs), yielding a sample of students who attend universities that are somewhat more racially consonant for black students than are universities as a whole. Multi-group analyses (not shown) indicated that although HBCUs are more racially consonant than non HBCUs for black students, the effects of racial consonance were consistent across both types of institutions, among each racial group, and for male and female students. Thus, while part of the association of racial consonance with self-esteem could be related to different aspects of HBCU campuses not measured here (e.g., lower enrollment, smaller courses), we maintain that the evidence from both this chapter and past research indicates that racial consonance is not merely redundant with differences between HBCU and majority white institutions.

### 4.2 Measures

Table 1 presents descriptive statistics for all variables. The most distal dependent variable for this research is self-esteem, measured using the Rosenberg self-esteem scale. The variable is the mean across 10 items designed to reflect the evaluative dimension of the self-concept, with responses on a standard Likert-type scale of 1 “Strongly Disagree” to 4 “Strongly Agree.” The self-esteem scale has an alpha reliability of 0.895. Overall, students in the sample had high levels of self-esteem with a sample mean of 3.38, with black (3.43) and Latino (3.36) students having higher levels than their Asian (3.18) counterparts.

The main independent variables are two measures that index the racial composition of students’ universities. These variables are drawn from the IPEDS and linked to each student’s university. Because we are interested in the impact of racial consonance on students’ self-esteem, we create variables that measure the proportion of faculty that are the same race as the student and the proportion of students who are the same race as the student. This procedure yields two measures: *faculty racial consonance* and *student racial consonance*. Given that the sample consists mainly of black and Hispanic students, it is unsurprising that the average student attends a university that is 52% racially consonant for students, but only 27% racially consonant for faculty. In addition, underscoring the segregated nature of US universities, the correlation between these two measures of racial consonance is 0.769. Moreover, black (faculty 40%; students 62%) students attended universities that were more racially consonant compared to Hispanic (17%; 48%) and Asian students (13%; 16%).<sup>4</sup>

**Table 1** Descriptive statistics for all variables

	Min	Max	Mean	Std
Self-esteem	1.50	4.00	3.38	0.51
Faculty racial consonance	0.00	0.74	0.27	0.23
Student racial consonance	0.00	0.99	0.52	0.33
Commitment to faculty	-2.89	3.11	0.00	1.00
Commitment to students	-3.41	2.33	0.00	1.00
Self-views	0	10.00	7.52	1.77
Reflected appraisals	1.75	10.00	8.54	1.46
Black	0	1	0.47	-
Hispanic	0	1	0.46	-
Asian	0	1	0.07	-
GPA	0	4	3.31	0.46
Graduate student	0	1	0.21	-
Male	0	1	0.26	-

Note N = 863; Source The Science Study

The identity theory model outlined above indicates a serial mediation model in which racial consonance operates through three mediating factors. The first mediating variable is commitment.<sup>5</sup> We employ two measures of commitment, one for *faculty commitment*, and one for *student commitment*. Commitment is assessed by items asking students how much they would miss other science students/faculty if they were no longer in contact (0 = not at all to 10 = a great deal), how close they are to other science students (0 = not close at all to 10 = very close), how important other science students/faculty are to them (0 = not at all to 10 = very important). Students were also asked to report how often they socialize with other science students/faculty (1 = daily to 7 = never), how many hours a week they spend with other science students/faculty, and how much money they spend socializing with other science students/faculty (1 = almost all to 7 = almost none). Each item was standardized to a mean of 0 and a standard deviation of 1 before being combined into a single commitment variable. Alpha reliabilities are 0.815 for student commitment and 0.732 for faculty commitment.

The second mediating variable is *reflected appraisals*. Reflected Appraisals are measured as the sum of five items asking students how others view them as students. Specifically, students rated how their family, co-workers, friends and girlfriend/boyfriend rated them as a student on a scale from 0 = “not at all good” to 10 = “very good.” The alpha reliability for reflected appraisals is 0.887.

The final mediating variable is the student’s self-view of their ability as a student. This variable is a single item asking each student how they viewed themselves as a student on a scale of 0 = “not at all good” to 10 = “very good.” The means for both reflected appraisals (8.55) and self-views (7.53) are quite high, indicating students both see themselves and believe others perceive them as good students.

Models presented below include several control variables. We use two dummy variables, *Hispanic*, and *Asian*, to account for racial differences among the students, with black students serving as the reference category. *Male* compares male students to their female counterparts. *Graduate student* compares students in graduate programs to undergraduate students. Among undergraduate students, 76% were upper division students. Finally, *GPA* accounts for differences among students in academic success in their collegiate careers.

## 5 Results

Table 2 presents bivariate associations among all of the focal variables in the model. Most importantly, Table 2 shows that both faculty racial consonance ( $r = 0.132$ ) and student racial consonance ( $r = 0.122$ ) are significantly associated with self-esteem. This pattern is consistent with past research and represents the association that this chapter seeks to explain. Additional patterns in Table 2 are mainly consistent with the model described above. Racial consonance for faculty is related to commitment to faculty ( $r = 0.136$ ) and student racial consonance is related to commitment to students ( $r = 0.115$ ). Further, commitment to faculty ( $r = 0.251$ ) and students ( $r = 0.313$ )

**Table 2** Zero-order correlations among focal variables

	1	2	3	4	5	6	7
Self-esteem (1)	1						
Faculty racial consonance (2)	0.132	1					
Student racial consonance (3)	0.122	0.874	1				
Commitment to faculty (4)	0.188	0.136	0.109	1			
Commitment to students (5)	0.236	0.121	0.115	0.853	1		
Reflected appraisals (6)	0.442	<b>0.053</b>	0.070	0.251	0.313	1	
Self-views (7)	0.496	<b>0.060</b>	0.092	0.312	0.312	0.658	1

Note N = 863; Source The Science Study

Critical value for  $r = 0.067$  ( $p < 0.05$ ); non-significant correlations in bold

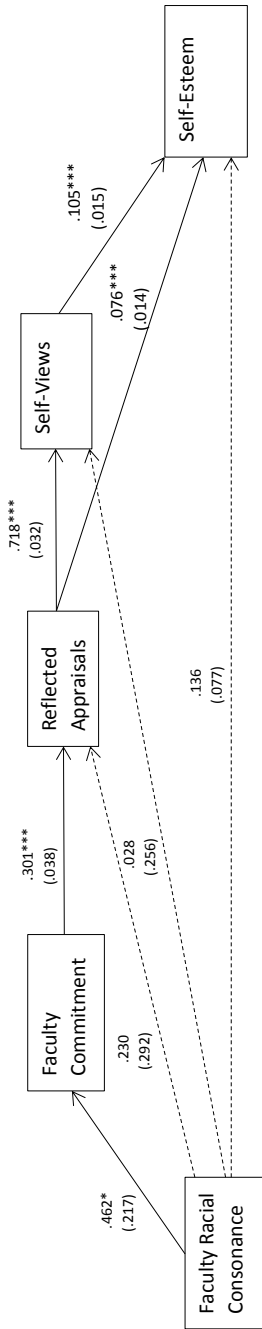
are related to reflected appraisals. Reflected appraisals are strongly associated with self-views ( $r = 0.658$ ), and self-views are associated with self-esteem ( $r = 0.496$ ).

To test the serial mediation models outlined above, we use MPLUS 7 (Muthén and Muthén 2012). We use MPLUS because it can estimate the serial mediation models proposed here and provide bias-corrected standard errors due to the clustering of respondents in universities. All models estimated are just identified, meaning that all possible regression paths are included, even those not explicitly specified in the theoretical model.<sup>6</sup>

Figure 2 shows the main results for the model for faculty racial consonance. The solid lines in Fig. 2 indicate statistically significant paths, whereas the dotted lines indicate non-significant paths (full model results are presented in Appendix 1). The results reported in Fig. 2 largely support the proposed model. Namely, Fig. 2 indicates that students in universities with higher levels of faculty racial consonance have higher levels of commitment to faculty ( $b = 0.462, p < 0.05$ ). Commitment to faculty ( $b = 0.301, p < 0.001$ ) in turn is a significant predictor of positive reflected appraisals. Reflected appraisals lead to more positive views of the self as a student ( $b = 0.718, p > 0.001$ ). Finally, self-views are positively related to self-esteem ( $b = 0.105, p < 0.000$ ). After the mediation model is specified, the association between faculty racial consonance and self-esteem is no longer statistically significant ( $b = 0.136, p = 0.077$ ). Overall, the model explains 35.2% of the association between faculty racial consonance and self-esteem.

In addition to the direct effects, results indicate three statistically significant indirect paths linking faculty racial consonance to self-esteem, each consistent with the theoretical model suggesting that higher levels of commitment, and more positive reflected appraisals and self-views link racial consonance and self-esteem. First, there was a significant path from faculty racial consonance → faculty commitment → reflected appraisals → self-esteem ( $ab = 0.011, p < 0.05$ ). Further, there was a significant path linking racial consonance → faculty commitment → self-views → self-esteem ( $ab = 0.012, p < 0.05$ ), and for the full mediation path faculty racial consonance → faculty commitment → reflected appraisals → self-views → self-esteem ( $ab = 0.017, p < 0.05$ ).





**Fig. 2** Mediation model for faculty racial consonance and self-esteem. Notes \* $p \leq 0.05$ ; \*\* $p \leq 0.01$ ; \*\*\* $p \leq 0.001$ . N = 863. Source: The Science Study

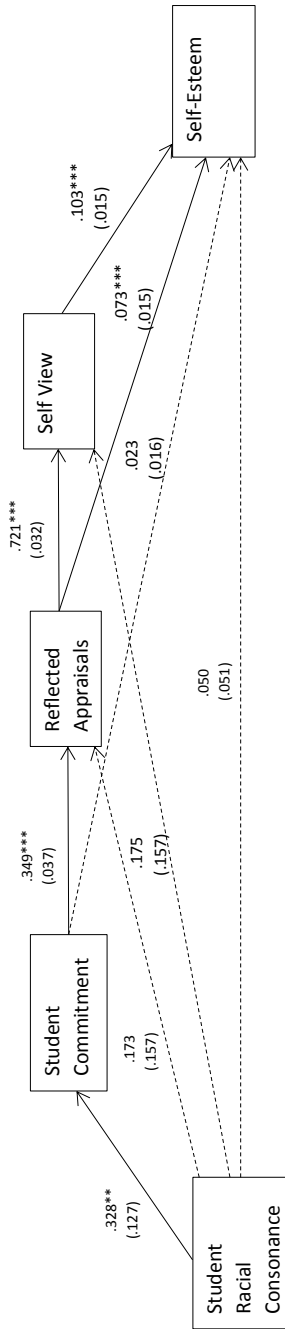
Figure 3 shows the main results for student racial consonance and student commitment (full model results are presented in Appendix 2). The results in Fig. 3 essentially mirror those in Fig. 2. Students in universities with more students who share their racial background evince more commitment to other students ( $b = 0.328, p < 0.01$ ). This higher level of commitment to other students leads to more positive views of the self as a student ( $b = 0.349, p < 0.001$ ). More positive reflected appraisals of the self as a student lead to more positive self-views ( $b = 0.721, p > 0.001$ ) and self-views are positively related to self-esteem ( $b = 0.103, p < 0.001$ ). Finally, the direct association between student racial consonance and self-esteem is non-significant ( $b = 0.050, p > 0.05$ ). Overall the model explains 54.3% of the association between racial consonance and self-esteem.

Similar to the models using faculty racial consonance, three indirect paths link student racial consonance and self-esteem, each of which is consistent with the theoretical model. First, there is a significant indirect effect from student racial consonance  $\rightarrow$  student commitment  $\rightarrow$  reflected appraisals  $\rightarrow$  self-esteem ( $ab = 0.008, p < 0.05$ ). Second, there is a significant path from student racial consonance  $\rightarrow$  student commitment  $\rightarrow$  self-views  $\rightarrow$  self-esteem ( $ab = 0.005, p < 0.05$ ). Finally, there is a significant indirect effect associated with the complete mediation path from faculty racial consonance  $\rightarrow$  faculty commitment  $\rightarrow$  reflected appraisals  $\rightarrow$  self-views  $\rightarrow$  self-esteem ( $ab = 0.008, p < 0.01$ ).

Results in Appendices 1 and 2 show two additional relevant patterns that were not part of the hypothesized model. In each case, these associations are related to the close relationship between reflected appraisals and self-views. First, commitment to both faculty ( $0.249, p < 0.001$ ) and students ( $b = 0.161, p < 0.001$ ) have significant direct associations with self-views, beyond their significant indirect associations through reflected appraisals. Second, reflected appraisals have a significant association with self-esteem in both models ( $b = 0.076, p < 0.001$ ;  $b = 0.073, p < 0.001$  for faculty and student models respectively). Another notable pattern from these models is that racial consonance is not directly associated with reflected appraisals, self-views or self-esteem. Instead, this factor operates exclusively via indirect paths through commitment.

## 6 Discussion

The aim of this chapter was to investigate whether identity theory can explain the well-established positive association between the racial consonance of educational settings and self-esteem of minority college students. This research generally supported our proposed model. Specifically, we show that racial consonance is associated with increased levels of commitment to both faculty and students. This increased commitment to both faculty and students leads students to have more positive reflected appraisals and self-views in their role as students. The combined impact of commitment, self-views and reflected appraisals in turn, explains the association between racial consonance and self-esteem. This research builds directly on previous research



**Fig. 3** Mediation model for student racial consonance and self esteem. Notes \* $p \leq 0.05$ ; \*\* $p \leq 0.01$ ; \*\*\* $p \leq 0.001$ . N = 863. Source The Science Study

by providing empirical support for the idea that the relationship between racial consonance and self-esteem is driven by better social relationships and more positive reflected appraisals and self-views (Oates 2004; Rhodes et al. 2004). However, it is also notable that we did not observe a direct association between racial consonance and reflected appraisals or self-views. Instead, racial consonance was linked to self-esteem exclusively through its association with commitment. This pattern underscores the importance of social relationships in shaping reflected appraisals and self-views.

This research reflects an important step forward in specifying how social structural organization shapes identity processes. Identity theory views society as a patchwork of relatively durable social relationships that aggregate to different levels of social structural organization based on the number of individuals that are brought together. Each level of social structural organization provides the context in which smaller levels of social structure develop. For instance, in the current context, large social structural arrangements, such as racial and geographic segregation channel students into different universities, which represent an intermediate level of social structure. The characteristics of these intermediate social structures in turn, shape the probabilities that students will find valuable social relationships with other students and faculty. Research to date using this model has shown how smaller scale proximate social structures shape role-related behaviors and behavioral intentions (Merolla et al. 2012; Merolla and Serpe 2013). This chapter extends the model in two ways. First, we show that intermediate social structures also serve as precursors to identity processes. Second, we show that that intermediate social structures likewise serve as precursors of self-evaluation, by shaping the probabilities that individuals will find interactional partners in the context of a specific role identity. In this way, the chapter contributes to identity theory research more generally by continuing to bridge the gap between the two main branches of identity theory (Stryker and Burke 2000).

This research also underscores the prevalence of racial segregation in higher educational contexts. In contrast to the plethora of research on school segregation at both the elementary and secondary school level (Reardon and Owens 2014), there is a dearth of research on segregation at US colleges and universities (cf. Carnevale and Strohl 2013; Hinrichs 2015). This lack of attention is unfortunate given the growing number of US students who attend college and the increasing importance of four year degrees for adult well-being. The research that does exist shows that the higher education system in the United States mirrors elementary and secondary levels in that it is characterized by significant segregation. When this pattern is combined with the fact that most college students are white, the result is that white students

attend universities that are far more racially consonant than their black counterparts. For example Hinrichs (2015) shows that in 2011, the average white student attends a university that is 88.2% white, whereas the average black student attends a university that is 52.3% black. Additionally, there are concerning trends in which black and Hispanic students are increasingly becoming concentrated in less resourced, open admission institutions (Carnevale and Strohl 2013). These patterns combined with the results presented here suggest that the students who may face the most challenging campus environments are the relatively small number of minority students who attend majority white universities. Administrators and student service professionals at such institutions should be keenly aware of the potential challenges that students in these situations may face. Moreover, given the reality of racial homophily, admissions policies could potentially be designed to ensure a “critical mass” of minority students in order to promote strong social relationships among students.

The findings presented here are generally consistent with and extend research on self-esteem among racial minorities. Namely, research has shown that the self-esteem of racial minorities may be protected from the general negative stigma associated with being a minority in America and instead be based on the reflected appraisals of other members of their racial and ethnic group. The results here are consistent with this pattern. Although we lacked data on the racial makeup of students’ proximate social networks, it is a relatively safe assumption that students primarily associate with other students of their own racial background (Duster 1991; McPherson et al. 2001). This research also suggests then that the general identity theory model outlined here could be applied more broadly to other important intermediate and proximate social structures such as workplaces and occupations (Forman 2003). Again, it is important to note that the implications of this research are not that increased segregation would enhance the experiences of minorities in such contexts. Instead, the goal should be to end the pattern in which white Americans can simply assume that they will have access to other white Americans in nearly any context, whereas Americans of color may feel forced to choose between high status educational or occupational opportunities and the ability to have satisfying social relationships. Moreover, there could be a complex interplay within these relationships, in which the social psychological benefit from increased racial consonance is offset because contexts with more racial minorities often represent lower status occupational and educational environments (Forman 2003; Carnevale and Strohl 2013). In any event, the current research shows the relevance of examining how the racial composition of intermediate social structures shapes the opportunities for social interaction and in turn self-evaluation.

## **6.1 Limitations**

The results presented here should be considered in light of several relevant limitations. First, the results are based on cross-sectional data. Given this limitation, the findings here cannot establish causal relationships among the key study variables. Particularly important in this regard are the associations among reflected appraisals, self-views

and self-esteem, which could feasibly operate in either direction. Future research should assess these relationships using longitudinal data.<sup>7</sup> Second, the results presented here are from a non-probability sample of high achieving minority students from universities that are somewhat more racially diverse than typical universities. As such, caution is warranted in generalizing to larger populations of university students.

## 7 Conclusion

Sheldon Stryker was truly a pioneer in sociological social psychology. His work provided an elegant framework for understanding the structural bases of symbolic interactionism. This chapter continues in this tradition by demonstrating the enduring relevance of identity theory for understanding the links between social organization and individual subjectivity.

### Endnotes

1. The terms college and university are used interchangeably in this chapter.
2. However, researchers have recently noted that this approach can yield inconclusive findings because the interpretation of the polynomial effect is somewhat ambiguous (Kalkhoff et al. 2016).
3. Of the 1332 respondents surveyed for this wave, 293 did not respond, 125 were either not enrolled in college or attended universities not included in the IPEDS, and 51 were white, giving a total sample of 863. Estimates using listwise deletion were substantively similar to those reported here.
4. Given the segregation patterns observed between black and Hispanic students, racial consonance is closely related to the relative distribution of non-white faculty and students. For example, the average Hispanic student attended a university that had only 5% black faculty, and 9% black students, and the average black student attended a University that had only 4.6% Hispanic faculty and 8.7% Hispanic students.
5. Some research using identity theory separates two components of commitment (interactional commitment and affective commitment). However, in the current data the association between these two types of commitment indicates that these constructs are essentially redundant; as such, we use a combined measure of commitment.
6. The data structure has students clustered in the 107 universities; however, the data are not suitable for multi-level models. This is because the university level variables (faculty and student racial consonance) are different for Asian, black and Hispanic students and vary within universities, such that they cannot be considered university level variables for statistical modelling purposes.
7. Although the current data is from a panel study, due to students switching universities at a relatively high rate between data waves, it is difficult to use compositional information from a time point prior to the other study variables, because

many students may no longer attend the same university. For example, even using waves 3 and 4, the sample size drops to only 564.

### Appendix 1: Metric Coefficients for Mediation Model for Faculty Racial Consonance and Self Esteem

	DV: commitment	DV: reflected appraisals	DV: self views	DV: self-esteem
Faculty racial consonance	0.462* (0.217)	0.230 (0.292)	0.028 (0.256)	0.136 (0.077)
Faculty commitment		0.301*** (0.038)	0.249*** (0.050)	0.007 (0.18)
Reflected appraisals			0.718*** (0.035)	0.076*** (0.015)
Self views				0.105*** (0.015)
Black	0.111 (0.131)	0.026 (0.173)	0.101 (0.135)	0.144* (0.063)
Hispanic	-0.044 (0.129)	0.137 (0.113)	0.105 (0.118)	0.098 (0.053)
GPA	0.330*** (0.079)	0.904*** (0.112)	0.518*** (0.112)	-0.043 (0.035)
Graduate student	-0.013 (0.090)	0.904** (0.109)	-0.170 (0.118)	-0.002 (0.041)
Male	0.096 (0.070)	-0.375*** (0.112)	0.225* (0.106)	0.031 (0.040)
R <sup>2</sup>	0.047	0.176	0.476	0.289

Notes Numbers in parentheses are standard errors

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

N = 863; Source The Science Study

## Appendix 2: Metric Coefficients for Mediation Model for Student Racial Consonance and Self Esteem

	DV: commitment	DV: reflected appraisals	DV: self views	DV: self-esteem
Student racial consonance	0.328** (0.127)	0.117 (0.162)	0.175 (0.157)	0.053 (0.049)
Student commitment		0.349*** (0.037)	0.161*** (0.046)	0.027 (0.016)
Reflected appraisals			0.721*** (0.032)	0.073*** (0.015)
Self views				0.103*** (0.015)
Black	0.069 (0.149)	-0.033 (0.174)	0.061 (0.150)	0.152* (0.058)
Hispanic	-0.072 (0.146)	0.084 (0.127)	0.043 (0.145)	0.089 (0.068)
GPA	0.409*** (0.090)	0.861*** (0.108)	0.522*** (0.114)	-0.044 (0.036)
Graduate student	-0.011 (0.102)	0.264* (0.090)	-0.153 (0.124)	-0.001 (0.044)
Male	0.066 (0.072)	-0.373** (0.108)	0.235 (0.108)	0.027 (0.040)
R <sup>2</sup>	0.047	0.200	0.467	0.290

Notes Numbers in parentheses are standard errors

\**p* < 0.05; \*\**p* < 0.01; \*\*\**p* < 0.001

N = 863; Source The Science Study

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# Structural Symbolic Interaction and Identity Theory: Current Achievements and Challenges for the Future



Robin Stryker, Richard T. Serpe and Brian Powell

**Abstract** This chapter summarizes the findings in prior chapters of this book and synthesizes these chapters' theoretical and methodological contributions to advancing identity theory and structural symbolic interaction. Consistent with the book's core thematic, this chapter discusses contributions made by prior chapters both to the foundational core of identity theory and to efforts to bridge between identity theory and structural symbolic interaction and other theories and paradigms in social psychology, sociology, and the social and behavioral sciences more broadly. The chapter argues that priorities for future research include addressing explicitly the question of where identity standards come from, the causes and consequences of commitment, and more generally, issues at the interface of identity theory's structural and perceptual control research agendas. The chapter also emphasizes the utility of identity theory for answering important questions in many areas of macro-sociology and urges more engagement between social psychologists of identity and macro-sociologists researching such topics as immigration, education, health, crime, law and deviance, culture, the state and politics, inequality, including class, race and gender, networks, social movements, and religion.

**Keywords** Identity theory · Structural symbolic interaction · Meaning · Social structure · Perceptual control · Identity · Identity standard · Identity salience · Identity prominence · Identity verification · Non-verification · Identity dispersion · Identity maintenance · Identity management · Identity change · Identity competition · Identity hierarchy · Commitment · Network · Reflected appraisal · Social psychology · Macro-sociology · Cognition · Emotion · Behavior · Status · Role · Social identity · Group identity · Person identity · Identity control · Identity

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challenge · Role strain · Role conflict · Racial identity · Self · Self-esteem · Affect control · Culture · Organization · Norms · Values · Stress process · Social neuroscience · Rational choice · Role-taking · Social movements

## 1 Introduction

Following an introductory chapter reviewing the fifty-year history of the development of identity theory and its meta-theoretical home within the symbolic interactionist paradigm, this book provided a series of chapters further advancing structural symbolic interaction and identity theory. Chapters present the theory-driven empirical research of identity scholars working on a wide variety of substantive topics, from health, education, and immigration, to politics and policies, crime and law. Each of the book's chapters offers unique research findings and/or a unique set of more general theoretical and methodological insights.

At the same time—and consistent with Sheldon Stryker's (2008) own reflections on identity theory's development and his priorities for its future development—the book as a whole adheres to a core thematic. All chapters work together to advance the foundations of identity theory and structural symbolic interactionism, while also continuing to bridge to other theories and paradigms within social psychology, sociology, and the social and behavioral sciences more broadly. By highlighting identity theory's topical reach and the range of scholarly and practical questions that it can help answer, we hope to persuade sociologists that identity theory has broad utility not only for social psychologists but also for a great many areas of macro-sociology.

In the remainder of this chapter, we reprise key theoretical and empirical contributions made in preceding chapters, while also highlighting how these contributions inter-relate to enhance substance and method in structural symbolic interaction, identity theory and beyond. We likewise build on these contributions and our core thematic to identify promising avenues and priorities for future theorizing and empirical research. The following subsections elucidate contributions made in this book and provide some general observations intended to promote further development, application of, and scholarly engagement with identity theory.

## 2 Broadening and Deepening the Theoretical Core

Chapters in this book advance identity theory and/or structural symbolic interactionism in numerous ways. In her chapter titled "[The Relationship Between Identity Importance and Identity Salience: Context Matters](#)," Thoits tackles the relationship between two fundamental concepts in identity theory—that of identity salience, contributed by Stryker (1968), and that of identity prominence, contributed by McCall and Simmons (1978). Although both these concepts have spurred substantial additional research, it has not been clear how, and the degree to which, the two concepts are related empirically.

Two recent articles by Brenner et al. (2014, 2018) explore the nature of the causal relationship between identity prominence and identity salience. Thoits' chapter in this volume helps answer the question of why the extent of empirical association between measures of the two concepts in prior quantitative research has varied from one study to another, and one identity to another. Using qualitative, interpretive analysis of interview data, Thoits finds that differing norms of conversation and situational appropriateness across contexts help account for variability in the likelihood that a subjectively important identity—one that is high in prominence—will be expressed behaviorally—that is, will exhibit salience. These findings in turn undergird a series of well-taken suggestions by Thoits that will serve to avoid measurement pitfalls exhibited by some prior research, while improving the measurement of identity salience in future research.

Chapters in this volume titled “Cognitive and Behavioral Responses to the Identity Verification Process,” “Identity Dispersion: Flexibility, Uncertainty, or Inconsistency?,” and “Competing Identity Standards and Managing Identity Verification” likewise contribute to the cumulative deepening of identity theory's foundations by engaging with central questions opened up by prior theory and research. As indicated in this book's introductory chapter, we know that identity verification tends to maintain the meanings that self associates with an identity. As well, it long has been clear that identity non-verification may result in multiple types of responses. These include attempting to change the non-verifying reflected appraisal by altering behavior to conform more to the identity standard one was trying to verify, altering behavior to match the reflected appraisals that failed to verify that prior standard, and/or altering the prior identity standard itself. However, our knowledge about factors that may condition responses to identity non-verification are underdeveloped, making this a priority for future research, helping us understand, explain and predict better both identity maintenance and identity change.

One important line of research has shown that those in lower (vs. higher) status positions are more likely to respond to non-verifying feedback by cognitively aligning their self-image to that feedback (e.g., Asensio and Burke 2011; Cast 2003; Stets 2003). In their chapter titled “Cognitive and Behavioral Responses to the Identity Verification Process”, Stets, Savage, Burke, and Fares extend this line of work using a laboratory experiment conducted with participants all of whom occupy structurally powerless positions in negotiated exchange. Employing a  $2 \times 2$  between-subjects research design that contrasts participants with dominant vs. non-dominant person identities, and who receive identity verifying vs. non-verifying feedback, Stets et al. find empirical support for their theorization of a dual response to identity non-verification. Both participants with dominant and non-dominant person identities pushed back against non-verifying feedback, while also slowly altering their self-view to align with that feedback. In short, at least under conditions of structural powerlessness, it does not seem to be a question of identity pushback *or* identity realignment in response to identity non-verification. Instead, behavioral push back against the non-verifying feedback occurs along with identity adjustment in the direction of the non-verifying feedback. Future research should continue to theorize and examine the multiplicity of factors potentially conditioning emotional, cognitive, and

behavioral responses to non-verifying feedback. Given chapters in this volume by Thoits and by Robinson, Smith-Lovin and Zhao, emphasizing the need to consider variability in others who constitute the audience for identity performance and/or source of the reflected appraisals, future research on the consequences of identity verification could examine whether and how it matters whether the non-verification comes, for example, from others who are respected or trusted or would be presumed to have relevant evaluative expertise by the focal actors, vs. others who are not respected or trusted or would not be presumed to have the necessary evaluative expertise.

In his chapter titled “[Identity Dispersion: Flexibility, Uncertainty, or Inconsistency?](#),” Burke deepens our understanding of the conceptual nature, role, and measurement of identity dispersion, helping us understand and explain patterns in situationally rooted social behavior. Where prior research on identity standards used point estimates on semantic dimensions to define identities, the idea of identity dispersion presumes that people hold distributions of meanings around a point that represents the central tendency of the identity standard distribution. People then vary in the extent to which their meanings are dispersed around this central tendency. Based on prior scholarship, it has been unclear whether identity dispersion reflected flexibility in the identity or whether it reflected uncertainty in the identity. As Burke points out, the two interpretations have profoundly different implications for the emotional and cognitive responses that in turn shape behavior.

Conducting two studies that examine survey data on six different identities, Burke finds that dispersion stems neither from flexibility nor from uncertainty per se, but rather from inconsistencies in identity meanings. These inconsistencies cause cognitive dissonance that, in turn, leads to negative emotion. However, these same inconsistencies also reduce the negative emotion stemming from failure to confirm the identity, precisely because they provide a wider range of available meanings for the identity.

In their chapter titled “[Competing Identity Standards and Managing Identity Verification](#),” Finch and Stryker provide contributions to identity theory that dovetail with those of Stets et al. and Burke, in tackling issues pertaining to the perceptual control of identities. Like Stets et al., Finch and Stryker are interested in identity maintenance and change. Like Burke, they are interested in how individuals manage cognitive and emotional consequences of identity non-verification under varying conditions. Where Burke focuses on variable identity dispersion, Finch and Stryker focus on the variable identity challenges created, and identity control strategies employed, by lawyers with different combinations of race/ethnic and professional role identities, all of whom work in the specific immigration law setting of Operation Streamline. The latter is a program that subjects undocumented border crossers to en masse criminal prosecutions.

Within their sample of Operation Streamline defense attorneys, Finch and Stryker find almost universal role strain occasioned by these lawyers’ incapacity to satisfy the key role identity-related values of formal legality and substantive justice simultaneously. However, defense attorneys also see these two values as providing positive, culturally available and competing identity standards that they can use as resources to



push back against potential non-verification of their role identity. Latinx lawyers, relative to white lawyers, experience greater role strain. Latinx lawyers also experience conflict between a central role identity standard on the one hand, and the meanings and expectations associated with their racial/ethnic identity on the other. Dealing with identity challenges on both fronts, Latinx lawyers resist role and race/ethnic identity standards that, if adopted, would lead to non-verification of their professional and race/ethnic identities. Latinx lawyers instead adopt available competing role and social identity standards that enable identity verification.

By conducting interpretive analyses of data gathered through in-depth interviews and observational research in a real-world setting, and by theoretically framing their analyses in terms of identity theory's perceptual control processes, Finch and Stryker also make two general contributions. First, they show that the perceptual control model within identity theory has utility for understanding and explaining real-world processes beyond the laboratory. Second, they show that field research can ground new general theoretical propositions that identity researchers engaged in theory-testing research then can test. Taking into account the specific identity challenges faced, and options open to attorneys with different combinations of role, and social or group identities, Finch and Stryker propose three new general propositions pertaining to responses to identity non-verification that are more or less likely under various other conditions. Because Finch and Stryker consider the interplay of multiple identities rather than one identity alone, they likewise can explore how identity salience and identity prominence hierarchies may shift in response to identity non-verification. This, too, is a worthy issue for additional research.

Together, chapters by Thoits and by Finch and Stryker highlight the importance of retaining a central place for qualitative, as well as quantitative and experimental methods, in research programs in identity theory. They also highlight synergies among these diverse methods, and show how ensuring close contact among researchers relying on different methods to make their own contributions would facilitate advances in identity theory and research. Juxtaposing the Finch and Stryker chapter with chapters by Stets et al. and by Burke also makes clear the need to continue to specify theoretically and examine empirically the factors that shape variable cognitive, emotional, and behavioral responses to identity non-verification.

It likewise makes sense for future research to re-examine whether strongly institutionalized yet competing professional values for lawyering—formal vs. substantive justice—are best thought of as two separate and competing role identity standards, or whether such value competition is best thought of as a special case of dispersion around a single identity standard—that of good lawyering. This becomes especially important if other professional roles—medical doctor, teacher, accountant, etc.—also are found to incorporate strongly competing professional values into the identity standards to which incumbents of these professional roles are socialized in their training and on-the-job experiences.

In their chapters titled “[Racial Identity Among White Americans: Structure, Antecedents, and Consequences](#)” and “[Mathematics Identity, Self-efficacy, and Interest and Their Relationships to Mathematics Achievement: A Longitudinal Analysis](#),” Hunt, and Bohrnstedt, Zhang, Park, Ikoma, Broer, and Ogut, respectively, return the

focus from the perceptual control to the structural research agenda within identity theory. These chapters contribute advances that are especially noteworthy for their practical implications in areas of concern both within and beyond the academy. Hunt uses new items in the 2014 General Social Survey to advance empirical knowledge about the structure of white racial identity. Using factor analysis and reliability analysis to examine five separate aspects of racial identity—salience, prominence, verification, public self-regard and private self-regard—Hunt finds sufficient inter-item consistency to create a new measure, the five-item identity intensity index (see also Hunt and Reichelmann 2019). He then uses the new measure as an independent and dependent variable in separate regression analyses and finds that white racial identity intensity is shaped by variability in socio-demographic characteristics. In turn, variable white racial identity intensity helps explain variability in the racial policy attitudes held by whites. Focusing on a particular identity that had been under-researched by identity scholars, Hunt’s research cross-fertilizes usefully with macro-social science research on race, inequality and the racialized politics and culture of contemporary American society (e.g., Giles and Hertz 1994; Lamont 2000; Quadagno 1994; Fox 2012).

The Bohrnstedt et al. chapter titled “[Mathematics Identity, Self-efficacy, and Interest and Their Relationships to Mathematics Achievement: A Longitudinal Analysis](#)” uses identity theory to consider the worrisome problem of lack of mathematics competence among United States youth. The authors employ a large sample of students participating in two studies assessing mathematics achievement among high school students, and they examine the relationship among interest in mathematics, mathematics efficacy, mathematics identity, and mathematics achievement in high school. Using structural equation modeling, and controlling for a wide array of other relevant factors, Bohrnstedt et al. find that having an identity as a math person and a self-perception of math efficacy in grades 9 and 11 have positive effects on math achievement at grade 12. Indeed, having a math identity in grade 11 has a positive direct effect on math achievement in grade 12, and having self-perceived math efficacy in grade 9 has a positive direct effect on having a math identity in grade 11. Thus, self-perceived math efficacy in grade 9 has its positive *indirect* impact on math achievement in grade 12 *through* its positive direct effect on math identity in grade 11. This means that educators must develop effective strategies to increase and then maintain students’ self-perceived math efficacy early in high school and they must work with students—and have students work with each other—in ways that reinforce and enhance the resulting identity of “being a math person.”

The chapters by Hunt and by Bohrnstedt et al. also address foundational issues pertaining to, on the one hand, the relationship between identity salience and identity prominence, and, on the other hand, the relationship between identity theory and self-esteem theory. It is from the latter that the concept of role-specific self-efficacy is drawn (Brenner et al. 2018; Markowski and Serpe 2018).

Where Hunt finds that identity prominence and identity salience hang together sufficiently to become part of a five-item identity intensity index for white racial identity, Thoits’ chapter reminds us that the empirical relationship between identity

saliency and identity prominence varies by type of identity and by situational context. Again, this points to the need for additional research empirically specifying the saliency-prominence relationship across different identities and contexts. In a recent study focused on partisan political identities, Stryker et al. (2019) find that political identity saliency and prominence operate differently in shaping partisan-based motivated reasoning in perceptions of incivility of the same uncivil political speech by fellow partisans and political opponents. In short, accumulated knowledge about the identity prominence-identity saliency relationship—knowledge to which this book has contributed—opens new questions, such that much work remains to be done.

We would be remiss if we left the contributions in Part I without discussing the relationship between the structural and perceptual control research agendas within identity theory. On the one hand, this book furthers the argument that these are not two different theories, but rather are complementary parts of *one* identity theory (Burke and Stryker 2016; Stets and Serpe 2013; Stets et al. forthcoming). For example, Hunt's chapter creates a new measure combining concepts such as identity saliency, a core concept in identity theory's structural research agenda, with the idea of identity verification, a core concept in identity theory's perceptual control research agenda. Finch and Stryker's chapter likewise points to how changes in hierarchies of identity saliency and identity prominence (both core concepts in the structural research agenda within identity theory) may be impacted by identity non-verification (a core concept in the perceptual control model) under particular sets of conditions.

Other recent research beyond this book likewise combines concepts stemming from both structural and perceptual control research agendas to help explain variation in diverse identity-related outcomes. For example, Stets et al. (2017) use longitudinal data to investigate how measures of both the prominence and verification of a science identity impact entering into a science occupation. Markowski and Serpe (2018) look at how identity saliency, prominence and verification shape role-specific self-worth, efficacy, and authenticity for individuals with parent, childless, married and spousal identities.

More generally, Stryker's (1968, 2002 [1980]) structural theory involves the organization of identities internal to the person as well as the structural antecedents and consequences of this internal organization of identities. Burke's (1991) and Stets and Burke's (2014) perceptual control model operates based on externalized social interaction and feeds back to externalized social interaction that, in turn, maintains or reshapes social structure. We look forward to additional future research that specifies and tests models of identity-related phenomena combining measures of core concepts from both the structural and perceptual control research agendas in identity theory. As well, we look forward to future research specifying and testing additional phenomena at the interface of these two research agendas. Here, two topics especially suggest themselves as priorities: first, the question of where identity standards come from, and second, the causes and consequences of commitment.

With respect to the first question, predominantly experimental research on processes and consequences of identity verification and non-verification takes identity standards as given, and collects data on them prior to the start of the experiment. Drawing on Mead and the structural symbolic interactionist tradition generally (Mead

1934; Stryker 2002 [1980]), we can surmise that the identity standards in play for any given person or population of persons at any given time result from prior role-taking in interaction. Beyond this, studies of various types of socialization, and cultural and organizational research would seem promising places from which to begin a research program theorizing and empirically examining the genesis of role, group, and person identities of various sorts under varying conditions.

In this regard, there is ample research to mine on early childhood socialization, professional training and socialization, organization and network structures and cultures, peer cultures, gender and race/ethnic cultures, and deviant subcultures. For example, with respect to identity standards for lawyers, Finch and Stryker's chapter engages literature pertaining to law school and on-the-job socialization to show how values of formal legality and substantive justice enter identity standards for good lawyering (see also Robertson 2009, 2011). We can tap analogous research on other professions to explore the origins of identity standards pertaining to other professional roles. Affect control scholars signal the relationship between broader cultural schema and culture-specific cognitive and emotional repertoires in their cross-cultural explorations (Robinson et al. this volume). Classic studies of deviant sub-cultures and their influence on delinquency likewise implicitly recognize how repeated interactions within networks and groups promoting delinquent sub-cultures shape members' identity standards—which standards than are influential in shaping behavior tending to verify those standards, including those of being a risk-taker and rule violator (Matsueda et al. this volume).

As well, and although scholarship on state policies may seem a more surprising place to look as a source for identity standards, this literature too provides some promising leads. For example, Levitsky's (2014) exploration of why, in the face of acute need, the ideology of family responsibility for caregiving prevents Americans from clamoring for state provision of long term care for the ill elderly provides detailed information on how, and with what content, a caregiver identity is forged during social worker-facilitated support group discussions. Because many of the Los Angeles-based support groups for those caring for family members with dementia were affiliated with the national non-profit Alzheimer's Association, facilitators received training in the need to avoid political discussion and in techniques to avoid politics. Thus, the support groups Levitsky (2014) researched typically focused attention on individual coping strategies, while also promoting individuals' adoption of a caregiver identity entailing identity standards including emphasizing that a good caregiver engages in substantial self-care, different from and beyond those associated with the daughter or son or spouse identity.

Similarly, Haney's (2002) research on the post-World War II Hungarian welfare state illuminates how, in the course of elaborating on motherhood as the primary basis of eligibility for state support between 1968 and the mid-1980s in Hungary, Hungarian caseworkers effectively constructed elaborate normative standards for good mothering that permeated the entire culture. At the same time, the Hungarian state's targeting of resources to mothering, as well as its regulation of mothering, reached broad and deep, likely promoting aggregate levels of salience and prominence for the mother identity in Hungarian society.

Overall, then, the origin of identity standards seems a ripe question for further research forging new macro-micro links and bringing macro and meso-level research on groups, organizations, culture, and the state into engagement with identity theory. Ironically, and despite their frequent invocation of the term “identity,” cultural sociologists themselves have mostly bypassed structural symbolic interaction and identity theory in their own quest to understand the nature of culture and how culture shapes social action (see Stryker and Stryker 2016 for an elaboration of, and evidence for this argument). We think that social psychologists of identity and cultural sociologists alike would benefit from more mutual engagement. Theory and research pertaining to where identity standards come from would provide a useful complement to recent efforts by cultural sociologists such as Miles (2014, 210) to formulate “an identity-based model of culture in action.”

With respect to commitment, identity theory currently contains two separate sets of definitions, one structural (Stryker 1968, 1980; Stryker and Serpe 1982, 1994) and one perceptual (Burke and Reitzes 1991). In the structural research agenda within identity theory, commitment is conceived of as having two aspects; extensive (alternately known as interactional commitment) and intensive (alternatively known as affective commitment). Whereas extensive commitment is a function of the number of direct connections one has to others in the social structure because of one’s identity, intensive commitment is the importance or strength of those direct connections.

In the perceptual control research agenda, commitment is conceived as “the sum of the forces, pressures, or drives that influence people to maintain congruity between their identity setting and the input of reflected appraisals from the social setting” (Burke and Reitzes 1991, 243). The two definitions would seem highly complementary, because higher extensive and intensive commitment in Stryker’s (Stryker 1968, 1980) terms are factors that indeed should drive individuals to seek to maintain congruity between reflected appraisals and the identity settings in which these appraisals arise. Nevertheless, the basic definitions remain different, such that further theorization that reconciles them and formulates propositions about their inter-relationship would be welcome. Burke and Reitzes’ (1991) ground-breaking article began this process, but further synthetic work remains to be done (see also Stets et al. forthcoming).

As well, further exploration of commitment necessarily entails more consideration of networks, and the relationship between structural symbolic interaction and identity theory, on the one hand, and network theories and perspectives on the other. Stryker’s (2002 [1980], 81) discussion of the concept of commitment explicitly linked it to networks as follows:

Commitment, as a particularized translation of ‘society,’ focuses on social networks: the number of others to whom one relates through occupancy of a given position; the ‘importance’ of others to whom one relates through occupancy of a given position; and the multiplexity of linkages, that is, the number of distinctive kinds of activities attached to a particular linkage to another or others. The concept of commitment can lead as deeply into social networks as a theorist is prepared to go.

At this point, the bridge between identity theory and symbolic interactionism and network theories and perspectives remains underdeveloped (Stets et al. forthcoming). We discuss the utility of furthering this bridge and specific opportunities for moving forward at the end of the next subsection of this chapter.

### 3 Bridging to Other Theories and Perspectives

Our introductory chapter emphasized the importance of bridges already built between identity theory and its close cousins within the symbolic interactionist paradigm, including identity accumulation theory and affect control theory, and between identity theory and structural symbolic interactionism and other theories and perspectives within and beyond sociology. Chapters in Part II of this book all contribute to further bridging.

Where the chapter titled [“The Role of the Other: How Interaction Partners Influence Identity Maintenance in Four Cultures,”](#) by Robinson, Smith-Lovin, and Zhao, constructs further bridges between identity theory and affect control theory, the chapter titled [“Embeddedness, Reflected Appraisals, and Deterrence: A Symbolic Interactionist Theory of Adolescent Theft”](#) by Matsueda, O’Neill, and Kreager, bridges between structural symbolic interaction and rational choice. The chapter [“Immigration and Identity Theory: What Can They Gain from Each Other?,”](#) by Kay Deaux, bridges between identity theory and social identity theory (as did the earlier chapter by Finch and Stryker), and the chapter [“Identity Meaning Discrepancies and Psychological Distress: A Partial Test of Incorporating Identity Theory and Self-definitions into the Stress Process Model,”](#) by Adams and Serpe, bridges between identity theory and stress process perspectives on mental and physical health. The chapter [“Society in Peril? How Distance Media Communication Could Be Undermining Symbolic Interaction,”](#) by Kalkhoff, Dipong, Gibson, and Gregory, bridges between symbolic interaction and theories of group solidarity, ritual chains, and bodily co-presence, while also promoting bridging between symbolic interaction and social neuroscience. The chapter [“University Racial Composition and Self-esteem of Minority Students: Commitment, Self Views and Reflected Appraisals,”](#) by Merolla and Baker, bridges between research programs in identity theory and those on self-esteem, as does the earlier chapter by Bohrnstedt et al.

Bridging chapters in this book contribute both theoretical and methodological insights. The Robinson et al. chapter highlights the methodological utility of simulations, while illustrating the different ways that interaction partners shape identity maintenance in four different cultures: the United States, China, Morocco, and Egypt. Emphasizing parallels between perceptual control and affect control processes, Robinson et al. show how the latter processes further specify the perceptual control processes theorized in identity theory to elaborate on how interaction partners influence perceptual control. This provides a basis for impression change in situations, while also providing resources for identity maintenance.

Perceptual control theorists recently have devoted considerable attention to theorizing and empirically testing the role of emotions in the perceptual control of identity (e.g., Stets and Burke 2014). Meanwhile, affect control scholars, for whom emotions are a subset of the more general concept of affect, incorporate identity meanings in the form of affective meanings as a key feature of their control processes (Heise 1979; Robinson et al. 2008). Thus, it would seem timely to build on both these lines of work to consider further how affect control simultaneously impacts perceptual control and vice versa, and the ways and degree to which identity control and affect control processes combine in situ to shape attitudes and behavior. Such a research program could help provide answers to substantive questions about topics such as social movement participation, obedience or disobedience to law, and the formation, maintenance of, and change in political preferences and policies. At the least, the perceptual control of identity should be investigated further cross-nationally, as has been affect control, and future research on identity verification/non-verification usefully could include conditions varying the identity of the source of verification/non-verification.

In their chapter titled “[Embeddedness, Reflected Appraisals, and Deterrence: A Symbolic Interactionist Theory of Adolescent Theft](#),” Matsueda et al. show that the symbolic interactionist paradigm is consistent with a redefined rational choice concept of decision-making rooted in social interaction. A key contribution of this chapter is to show how Mead’s (1934) perspective on role-taking and self provides the intellectual resources to specify such a redefinition of rational choice, in which the attribution of meaning becomes central. Choice is viewed as relationally embedded and incorporates responses to situational elements, as well as reflected appraisals that envision variable types of imagined consequences for choice behavior. Matsueda et al. use their symbolic-interaction-infused reorientation to rational choice to specify a series of testable hypotheses that predict variation in delinquency. They then test their hypotheses using longitudinal survey data and random-effects negative binomial models predicting self-reported engagement in theft. They find that variability in reflected appraisals of self as a rule violator strongly influences variability in theft behavior. As well, youth who perceive themselves as rule violators are deterred less by the threat of arrest than are youth who do not perceive themselves as rule violators.

In addition to forging an important bridge between symbolic interaction and rational choice—two paradigms that on the surface might be regarded as antithetical—Matsueda et al.’s chapter implicitly highlights the utility of applying perceptual control processes to crime and deviance. For example, that the deterrent threat of arrest is less for self-perceived rule violators testifies to the importance of identity maintenance as a motivator for behavior. The Matsueda et al. chapter opens, without resolving, a key question for further theorization by identity scholars who are mathematically inclined. Clearly, the theoretical model proposed by Matsueda et al. differs from that proposed by Akerloff and Kranton (2000, 2010). The latter incorporates the concept of social identity into standard economic models of utility maximization. However, it remains for future research to try to specify mathematically a model of decision-making grounded in role taking, reflected appraisals, and meanings attributed to one’s own identity.

In her chapter titled “[Immigration and Identity Theory: What Can They Gain from Each Other?](#),” Deaux bridges between identity theory in sociology and social identity theory in psychology. She also shows that identity theory helps generate new insights pertaining to variability in immigrants’ experiences. This is an empirical issue that like that of obedience or disobedience to law, has been of great historical concern and clearly is of contemporary interest not only to scholars but also more generally within American society. Deaux argues persuasively that immigration theories and identity theory are especially mutually informative concerning issues of identity flexibility and identity change, and the relationship among multiple identities. As indicated in multiple other chapters of this book, these issues are foundational within identity theory and they are issues that preoccupy those researching topic areas other than immigration as well.

With respect to the topic of immigration itself, Deaux shows how she has used identity theory to help answer questions pertaining to stability and change in ethnic identification. She also sketches how identity theory could help explain a key finding in immigration research with enormous practical consequences: that there is variable compatibility between immigrants’ new national identity and their ethnic identity of origin. Given current debates about immigration’s consequences for immigrants and host countries alike, we urge further research bringing together identity and immigration scholars and scholarship.

Many symbolic interactionists and identity scholars have worked within health scholarship (e.g., Simon 1995; Simon and Marcussen 1999; Thoits 1992, 2003, 2013). However, it has not always been clear how identity theory plays into stress processes and, more specifically, the stress process model used widely in health research (see McLeod 2012). In their chapter “[Identity Meaning Discrepancies and Psychological Distress: A Partial Test of Incorporating Identity Theory and Self-definitions into the Stress Process Model](#),” Adams and Serpe build on an earlier partial integration of identity theory and the stress process model to compare stress responses to identity-discrepant meanings of counter-normative relative to normative identities. Adams and Serpe use data from a web-based survey, and conduct structural equation modeling to test their hypothesis that identity-discrepant meanings attributed to work and parent identities by self and the general public are more stressful for those who work outside the home and for parents (the normative identities) than for those who are unemployed or childless (the counter-normative identities). They find that identity-discrepant meanings influence stress differently depending upon whether the discrepancies pertain to normative or counter-normative identities.

Where variability in identity-discrepant meanings does help account for variability in identity-specific self-esteem, sense of mastery, and psychological well-being for the normative identities examined, identity-discrepant meanings have minimal influence on the same set of outcomes for counter-normative identities. As Adams and Serpe note, most research in identity theory has examined the implications of identity disconfirmation for normative, rather than non-normative identities. Their findings of different implications of identity disconfirmation for normative relative to non-normative identities suggest that future research should examine perceptual



control processes among other types of non-normative relative to normative identities. For example, non-normative vs. normative identities in the spheres of education and religion could be examined. At the same time, the distinction between normative and non-normative identities reminds us of the profound role of culture and history and of cultural and historical variability in constructing what is a normative vs. non-normative identity in the first place.

In their chapter titled “[Society in Peril? How Distance Media Communication Could Be Undermining Symbolic Interaction](#),” Kalkhoff et al. attend to a question with profound scholarly and practical significance for contemporary society. They ask how electronically mediated communication shapes symbolic interaction and its outcomes and test the hypothesis that electronically mediated communication undermines the production of social solidarity. Based on evidence from a laboratory experiment using a new, real-time, and non-consciously controlled measure of personal closeness, they find that participating in face-to-face communication promotes greater group solidarity than does interaction through electronically mediated formats. However—especially because hypotheses about expected differences between electronically mediated formats that are audio alone relative to those that are both audio and visual are not supported—there remain theoretical puzzles to solve pertaining to how electronic communication of various sorts shapes social solidarity. Similarly, future research should examine how the consequences of electronic communication for social solidarity may differ depending upon whether that communication is supposed to maintain solidarity initially forged face-to-face, or whether electronic communication represents an attempt to forge solidarity in the first place.

Kalkhoff et al.’s new measure of personal closeness also may have applicability as both an independent variable and a dependent variable for issues beyond the relationship between electronically mediated communication and social solidarity. Above all, Kalkhoff et al.’s chapter shows that a more general research agenda bridging between neurology and symbolic interaction to construct a neuro-interactionist explanation of how change in communication media shapes interaction, including but not restricted to providing opportunities for and constraints on social solidarity, has great promise.

Kalkhoff et al. underscore similarities between the concept of role-taking in symbolic interaction and the concept of theory of mind in social-neuroscience, with theory of mind referring to the capacity to understand mental states of the other. As the authors explain, neuroscientists have found brain substrates for the theory of mind, and these include the operation of mirror neurons. Mirror neurons are disproportionately present in particular brain regions and are relevant to our capacity to empathize and perspective take. Dysfunction in mirror neurons is associated with autism, a condition in which persons are unable or less able to empathize and perspective take to facilitate social interaction. As Kalkhoff et al. highlight, there are reasons to believe that over-reliance on electronic communication likewise might link to disruption of mirror neuron function, as well as to diminishing capacity to make eye contact and to increasing social isolation. It therefore could be that that over-reliance on electronic communication will undermine the capacity of all of us to become effective role-takers.

If this is so, it would be an unwelcome societal game-changer indeed, and bodes ill for a society of the future in which the young may be ever more reliant on electronic communication in place of, rather than in addition to the face-to-face communication that promotes more empathy and solidarity, as well as more effective role-taking. Future research bearing on these issues is important to undertake and suggests the desirability of research teams composed of both social neuroscientists and identity scholars. Indeed, one such team involving Kalkhoff et al. (2016) used electroencephalography to suggest that, although identity verification activates brain structures involved in unconscious processing that is automatic and ongoing, non-verification activates a region of the brain known to be associated with effortful, conscious processing. We may thus be on the way to discovering key brain substrates implicated in responses to identity verification and non-verification.

Finally, the chapter titled “[University Racial Composition and Self-esteem of Minority Students: Commitment, Self Views and Reflected Appraisals](#),” by Merolla and Baker uses identity theory and a sample of minority students from universities throughout the United States to explain a well-established research finding: the self-esteem of minority students is higher when they are in schools with more, rather than fewer other students with whom they share racial and ethnic background. The authors develop and test a social mediation model of self-esteem, hypothesizing that students in schools with more others with whom they share racial and ethnic background will have more satisfying relationships with other students and with faculty. More satisfying relationships should lead to enhanced reflected appraisals of student capacities, and this should enhance self-esteem.

Not only do Merolla and Baker contribute to integrating key concepts from identity theory and self-esteem theory, but they also provide purchase on a fundamental issue at the forefront of higher education. Administrators and faculty in U.S. colleges and universities are concerned about, and developing programs to try to ensure that students of color and others including those who are LGBTQ, or disabled, or international students who are minorities within their college and university environments, thrive and graduate. The goal is for minority students to be poised for both academic achievement and career success. Though the maintenance of self-esteem alone is not sufficient to ensure these positive outcomes, it may well be necessary. In addition, the maintenance of satisfying relationships with students and faculty that enhance minority student self-esteem should contribute to academic achievement and career success through routes that implicate both extensive (interactional) and intensive (affective) commitment. Likewise, these routes to success should implicate the inter-relationship between increased commitment and increased salience of the identity of being a successful student (see Stets et al. forthcoming).

Beyond the bridges developed in this volume, there are other useful bridges to be built. We refer interested readers to Stryker (2008) for discussion of bridging between identity theory and exchange theory (see also the introductory chapter in this volume), and for how the concept of identity has been applied and elaborated, and with what implications, within organizational sociology. Stryker and Stryker (2016) discuss bridging between identity theory and cultural sociology. Here we note some

inter-related opportunities for applying and elaborating identity theory in empirical research on social networks and social movements.

As pointed out above, Stryker's (2002 [1980]) discussion of the concept of commitment linked commitment explicitly to the concept of social networks. However, whereas network researchers presume that social networks consist of indirect as well as direct ties, Stryker's (2002 [1980]) discussion of commitment and use of the term "commitment network" focused on direct ties only (Stets et al. forthcoming). Stets et al. (forthcoming, 12) elaborate Stryker's (2002 [1980]) definition as follows: "A social network is a set of connections between a person with an identity and other persons to whom they are directly connected because of the identity."

Given that the concept of social network differs in network and identity theories, identity researchers usefully could consider whether and how their understanding of commitment and the relationships between commitment on the one hand, and identity salience and identity prominence on the other, would change if networks of commitment were defined to encompass indirect as well as direct ties. For example—and as in Granovetter's (1973) discussion of the strength of weak ties—weak direct ties may link individuals indirectly to others with whom they are not directly connected but who can open opportunities for them to assume new roles and consequently new identities. More generally, consideration by identity theorists of the potential identity implications of indirect ties and of varying types of network structures would seem useful, given that some sociologists already are trying to tie together ideas about network structures, cultural meanings and discourses, individual and collective identities, and recruitment to, and the quality and quantity of participation in social movements.

For example, in their broader discussion of different ways that theory and research on social networks conceive of inter-relationships among social structure, culture, and human agency, Emirbayer and Goodwin (1994) draw both inspiration and grist for critique from various studies linking networks to social movement activism. In turn, the linkage between such activism and social networks is often by way of considerations pertaining to identity.

Explaining the difference between applicants for Freedom Summer who participated in the movement and those who withdrew from participation, McAdam (1988) highlights the role of networks. As Emirbayer and Goodwin (1994, 1420) note, participants in Freedom Summer "belonged to a greater number of organizations and to more explicitly political organizations than did withdrawals, participants had higher levels of involvement in prior civil rights activities than did withdrawals, and [...] participants had more ties, especially "strong" friendship ties to other Freedom Summer applicants than did withdrawals." At root, McAdam (1988) suggests an over time process of identity conversion in which Freedom Summer activists' prior ties to both friendship and civil rights networks promoted their choice of risky Freedom Summer activism by having enabled them to take prior smaller and safer steps within civil rights activism earlier in time. In this way, participating in Freedom Summer culminated a longer process involving role-playing, experimentation with, and increased comfort levels with the identity of civil rights activist, until that identity was strong enough to motivate participation in Freedom Summer.

In the specific terms of identity theory, prior network commitments may well have increased both the prominence and salience of the identity of civil rights activist; higher civil rights activist prominence and salience then motivated the choice to participate in Freedom Summer. As Friedman and McAdam (1992, 169–70) point out: “One of the most powerful motivators of individual action is the desire to confirm through behavior a cherished identity [...] Integration into [activist] networks makes it more likely that the individual will value the identity of ‘activist’ and choose to act in accordance with it.” McAdam and Paulson (1993) explicitly suggest that identity salience is the mechanism linking network ties to social movement participation.

Similarly, Gould’s (1991, 1992) research on the Paris Commune emphasizes the importance of network ties as well as the degree of overlap among multiple networks in recruitment to social movement participation. Neighborhood-based recruitment to National Guard battalions meant that neighborhood friendships helped undergird Guard defense of the Commune. In identity terms, participating in the resistance verified neighbor and friend identities at the same time as it verified identity as a Guard battalion member.

However, according to Gould (1991), it was not only overlapping commitments and identities expressed through direct ties that promoted defense of the Paris Commune. Multiplex networks involving both direct and indirect ties strongly influenced aggregate levels of solidarity and resistance:

Despite the general policy of residential recruitment, a substantial number of Guardsmen were enlisted in battalions outside their own neighborhoods. Thus, they were linked by the insurgent organization to people who were not tied to them as neighbors; conversely, they were linked as neighbors to other insurgents with whom they did not have organizational ties. In other words, these insurgents constituted organizational links across neighborhoods and neighborhood links across organizations [...] the network of social ties created by overlapping enlistments had important consequences for the insurgent effort. These overlaps made levels of commitment to the insurrection interdependent across residential areas: the degree to which each neighborhood was successful in mounting resistance to the Versailles army depended on levels of resistance in the other neighborhoods to which it was linked (Gould 1991, 721).

Considering the implications of Gould’s (1991, 1992) and McAdam’s (1988; see also Friedman and McAdam 1992; McAdam and Paulsen 1993) analyses in tandem with core identity theory concepts including commitment, identity salience, identity prominence, and identity standards suggests that additional bridging research would be fruitful. Such research should attend both to the theoretical and empirical nuance of various network perspectives and paradigms within social movement research, as well as to concepts and mechanisms specified within identity theory and research. It must attend particularly to similarities and differences in core concepts—including identity, network, and commitment—typically used in these diverse and often separate scholarly literatures. Just as research outside identity theory examines how variable network structures shape construction and diffusion of cultural meanings more generally (see Emirbayer and Goodwin 1994; Cameron 2016), identity theorists may wish to consider more systematically how variable network structures may shape meanings attributed to various role-based, group-based, and person-based identities and their further implications for behavior.

Where research such as Gould's (1991, 1992) focuses especially on conditions under which network structures facilitate recruitment to and participation in highly risky social movements, Stryker (2000) explicitly theorizes how one type of variability in the structure of individuals' direct ties—its degree of multiplexity or overlap—shapes variability among individuals in social movement participation. As Stryker (2000) points out, social movement participation itself shapes many other social movement-related phenomena, including the internal organization and dynamics of movements, how movements change over time, and movements' success in achieving their goals.

Stryker (2000) proposes that network ties external to movements can either facilitate or inhibit movement participation. When social movement networks overlap to a great degree with non-movement networks, say those formed by friendship or family, then social movement participation is more likely. However, when there is little to no overlap in movement and non-movement networks, social movement participation becomes less likely because of time and energy constraints and the inability to express multiple competing identities simultaneously through social movement participation.

Identity competition thus is grounded in the linkage between hierarchies of identity salience and identity prominence in the mind and the externalized relational networks through which identities are expressed behaviorally. Although competition for identity expression is not zero-sum, to the extent that the meanings of multiple identities do not overlap, but rather are independent, behavior reflecting one necessarily will not reflect the other (Stryker 2000). At the same time, individuals are likely to choose to express a more vs. less salient identity because the need to express it is greater, and its expression will likely result in a greater increase in self-esteem than would expression of a less salient identity. Thus, when identities verified through social movement participation compete with those verified by other behavioral choices, the more salient identity is more likely to be expressed as long as situational pressures are equal.

However, Stryker (2000) also proposes that individuals may choose to enact a less salient relative to a more salient identity if they have recently enacted a more salient identity. The key idea here, drawn from Horenczyk (1989) and worthy of testing in future research, is that individuals negotiate behavioral expression of identities by banking and drawing on credits for such expression over time. They can verify the less salient identity without losing their sense of having verified the more salient identity by drawing on credits they have stored for prior performance of the more salient identity.

## 4 Conclusion

As appropriate, we have closed this book with a chapter summarizing and drawing further implications from the rest of the chapters in Parts I and II of this volume. These chapters offered specific new theoretical, methodological and empirical insights that

broaden and deepen the foundations of structural symbolic interactionism and identity theory, laid out in our introductory chapter, and also deepen and extend bridges to other theories and perspectives in social psychology, sociology, and the social and behavioral sciences more generally. We are mindful of the need to theorize precisely and to test empirically core theoretical foundations before engaging in substantial bridging work, and we have suggested promising avenues to deepen identity theory's foundations further. At the same time, we believe that identity theory now has sufficient elaboration and sufficient theoretical support to warrant an acceleration of bridging efforts.

In particular, we urge more engagement between social psychologists elaborating and empirically examining identity theory itself and macro-sociologists focused on a wide variety of topical phenomena including inequality, crime, law and deviance, immigration, health, the state and politics, networks, organizations, culture, religion, education, work and family, and social movements. By focusing on some of these topics in this book, and by suggesting promising avenues of approach for others of these topics, we hope our book will stimulate additional bridging work. Although mechanisms grounded in identity are but one set of micro-mechanisms shaping aggregate, macro-level social patterns and processes, they are an important one.

Likewise, we hope that the chapters in this book, along with this chapter's suggested priority list of questions for further deepening identity theory's foundational core, will stimulate further work developing that core. This includes further theory and research at the interface between the structural and perceptual control research agendas of identity theory, and on the concepts and mechanisms through which the two research agendas inter-relate. This, in turn, involves conducting research addressing explicitly the question of where identity standards come from, as well as research addressing the question of what are the causes and consequences of commitment. We hope we have shown that elaborating identity theory's core to answer these foundational questions fully also requires moving beyond social psychology to research on macro-sociological topics. It may also require bridging to other theories and paradigms, including rational choice theory and perspectives formulated for the study of social networks.

In the end, success in each enterprise—elaborating the core and bridging to other theories and perspectives—probably requires engaging with both. It also requires appreciating that an array of methodological strategies can be used to advance identity theory and research. We hope for additional cross-fertilization of quantitative, qualitative, experimental, network, historical, simulation, and social-neuroscience strategies for empirical research in future efforts to broaden and deepen identity theory's foundations while bridging to other theories and perspectives and topic areas beyond social psychology. The more we are able to deepen and inter-relate identity theory's structural and perceptual control aspects, and the more we are able to mine identity theory to help us understand and explain macro-societal phenomena, the better we will correct the errors, fill in the gaps, and fulfill the promise of Mead's (1934) symbolic interactionist approach to mind, self *and society*.

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# Correction to: The Relationship Between Identity Importance and Identity Salience: Context Matters



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**Correction to:**  
**Chapter “The Relationship Between Identity Importance and Identity Salience: Context Matters” in: R. T. Serpe et al. (eds.), *Identity and Symbolic Interaction*,**  
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The original version of the book was inadvertently published with incorrect Table 4 in the chapter “The Relationship Between Identity Importance and Identity Salience: Context Matters”, which has now been corrected. The book and the chapter have been updated with the change.

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The updated version of this chapter can be found at  
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**Table 4** Respondents' replies to open-ended visitor salience questions, telephone subsample only (N = 78)

		%
8	I am very likely to mention my visitor identity	19.2
		%
7	I am likely to mention my visitor identity if I'm asked what I do	29.5
6	I am likely to mention my visitor identity if health topics come up	5.1
5	It depends (on other factors); sometimes I will mention it	19.2
4	I am unlikely to mention my visitor identity unless I'm asked what I do	5.1
3	I am unlikely to mention my visitor identity unless health topics come up	14.1
		%
2	I am unlikely to mention my visitor identity	6.4
1	I am very unlikely to mention my visitor identity	1.3
		100.0