



## CHAPTER 1

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# Introduction

### THREATS TO THE FUTURE

The essential message of this book is that Western populations are in decline, by which we mean that they are changing in a number of significant ways that are reasonably considered to be undesirable. Although this deterioration is manifest most clearly at the sociocultural level, we argue that its ultimate basis is in human biological evolution. Modern Western people have been losing a number of important traits, including intelligence and what might be called “existential vigor,” understood as an individual’s robust psychological commitment to his culture-bound way of life. This is apparent across a host of indicators of mental and physical health, intellectual productivity and ability, social cohesion, and perceived meaning in life. As they seem to comprise the foundation of advanced civilizations, the loss of these traits may prove catastrophic in the long run. The deepening of social isolation (declines in family formation alongside high rates of family dissolution; solitary living; preference for short- over long-term relationships), profane and narcissistic culture (secularization and rejection of all forms of transcendence, especially those encouraging sacrifice for anything other than individual hedonistic gain<sup>1</sup>), and ideological/sub-cultural fragmentation

<sup>1</sup> Some have argued that recent Western history, sometimes meaning modernity (which can denote different time periods, but in this context most often means the period from industrialization on) and sometimes the contemporary period more narrowly, has not been an “age of disenchantment,” but rather that in this era, transcendent meaning has been sustained through or is being revived by “New Age” and other forms of basically paganistic

(political strife; opposition to widely shared standards of behavior) all indicate societal degradation. None of these problems is likely to be corrected in the foreseeable future. They are all *sequelae* of an anti-civilizational evolutionary path on which industrialization and postindustrialization (collectively, “modernization”) have set all Western societies. We contend that the highest form of civilization is a complex, adaptive response to harsh and rare ecological and environmental challenges. When non- and anti-civilizational traits and corresponding behaviors are biologically permitted, that is, not selected against or even selected for, civilization is, in an important sense, no longer adaptive, and thus its basis starts to erode. It is cruelly ironic that since industrialization, civilized life has undermined itself by altering selection pressures such that they promote this outcome.

The current work aims to provide an *evolutionary-behavioral theory of social development*, which is intended to explain the historical ascendance of Western civilization, as well as, and more importantly, its recent decline and evidently grim future prospects. A key component of this latter part of our analysis is an explication of the distinctive psycho-existential idiosyncrasies of modernized Western peoples, particularly *nihilism*, the sense that life—whether it is one’s own or that of all humans or even of all animal organisms—has no point, and various *mental health* problems, especially depression, anxiety, and schizophrenia. This book is primarily a work of social science, which may seem strange given the breadth of topics that it covers and especially its biological emphasis. But we understand the relevant topics as broadly as possible, such that a wide set of variables pertaining to the condition of groups, societies, and civilizations requires our attention. One cannot devise an adequate theory of the current state of, or historical changes in, for example, the mental health of a population without considering biological and macro-sociological factors. Further, scientists are only just beginning to understand the dynamical interplay of these factors, including the “social” quality of the genome itself and its ramifications for broad trends in mental health. Nonetheless, our theoretical approach competes with a regnant paradigm that seeks to explain all group-level human behavioral variation purely in terms of “environmental” phenomena; this “environmentalist” alternative is often accompanied by an explicit or implicit

and/or occult thought (see, e.g. Josephson-Storm, 2017; Partridge, 2004/2005; Teichrib, 2018). While this view may not be entirely inaccurate, we will later discuss empirical data indicating that it is exaggerated: if one understands “disenchantment” simply as loss or relative lack of perceived existential purpose, then it does seem that disenchantment characterizes modern history.

hostility toward any explanation of human behavioral<sup>2</sup> (as well as social, cultural, etc.) variation that invokes biology. The theoretical and empirical poverty, indeed hopelessness, of this paradigm has been made overwhelmingly clear through research in the fields of psychometrics, sociobiology, human behavioral ecology, behavior genetics (including molecular genetic research), evolutionary psychology, and related disciplines. Alas, such work is little known in the behavioral sciences as a whole, and so we devote a chapter (Chap. 2) to apprising readers of relevant findings in these fields and critiquing the paradigm that would have us ignore them.

Our evolutionary-behavioral theory of social development builds upon and unifies a substantial body of research on the historical, biological, and psychological dynamics of Western civilization, in which two of the current authors have participated. Woodley and Figueredo (2013) and Woodley of Menie, Figueredo, Sarraf, Hertler, Fernandes, and Peñaherrera-Aguirre (2017) have provided substantial evidence indicating that Britannic populations reached their peak of general cognitive ability and intellectual productivity around the middle of the nineteenth century, roughly contemporaneous with the end of the British industrial revolution. A precipitous and ongoing decline in both of these domains followed. One successful hypothesis, propounded by Woodley and Figueredo (2013) and recapitulated by Woodley of Menie, Figueredo, et al. (2017), and tested by the latter, maintains that the harsh and variable environments and ecologies of Early Modern Europe—due primarily to low but fluctuating temperatures and resultantly brutal winters that constituted a “Little Ice Age” in this period—shifted the balance of selection pressures on Western populations strongly to the *group level*, placing them primarily under *group selection*,<sup>3</sup> and that both these group-level and the remaining *individual-level* selective pressures favored high levels of general intelligence in these populations. Selection shifted in this way because resource scarcity in this

<sup>2</sup>Unless otherwise indicated, we intend “behavioral” to be inclusive not only of observable behavior but also of psychological properties, although we will occasionally use the term “psychobehavioral” to refer to that same general category.

<sup>3</sup>Group selection typically entails that groups of organisms compete with one another to survive and reproduce, as opposed to individual selection, which often entails that individuals compete with one another to survive and reproduce (although there are many factors that exist independently of competition that contribute to differential fitness between groups and between individuals). These are not mutually exclusive processes, but the balance of selective pressure at any given time may be closer to the group or individual level. The topic of the “levels of selection” (e.g. selection at the group level or individual level) is discussed in more detail in Chap. 2.

difficult environmental and ecological context provided a fitness advantage to those populations that acted *as* groups to enhance their share of resources via inter-group conflict (war). General intelligence was selectively favored insofar as it increased the ability of individuals and groups to meet the many novel challenges that they faced in these trying conditions. Additionally, Woodley of Menie, Figueredo, et al. (2017) found that use of altruistic words sampled from Charles Darwin's 1871 *The Descent of Man* reached a peak among Britannics in this group-selected phase, suggesting that group selection promoted altruistic dispositions that facilitated social cohesion and allowed Western populations to act as coordinated wholes in war. Other studies suggest that these same selective patterns applied historically to the Japanese (see Fernandes, Zerbe, Peñaherrera-Aguirre, & Figueredo, 2021). As modernization took root and advanced, the use of altruistic words fell along with intellectual achievement and general intelligence. The decline appears to have continued.

With a similar eye to evolutionary changes among Western populations over time, Woodley of Menie, Sarraf, Pestow, and Fernandes (2017) advanced a new theory, the *social epistasis amplification model* (SEAM), to account for apparent fitness-depressing behaviors and traits in Western populations following industrialization—for example, sub-replacement fertility and the apparent rising prevalences of personality and other mental disorders. This model posits that relaxation of negative selection, that is, selection against deleterious mutations, in Western populations via profound reductions of sources of morbidity and mortality (mainly through industrialization and subsequent macro-sociological processes) has had and continues to have adverse effects beyond genetic damage accruing to carriers of deleterious mutations. Evidence was presented that via social epistasis, that is, inter-organismal genomic transactions, the effects of harmful mutations can be amplified to non-carrier humans and the broader group behavioral ecology, especially if those affected by deleterious mutations have high social status and thus roles in creating, shaping, and maintaining norms of behavior.

Here we argue that patterns of social epistasis and selection regimes are interactive, with civilizational behavior depending crucially on a fragile configuration of the two. A critical premise in connecting these phenomena is that the costs of defeat in war are *severe*: losing populations face potentially substantial reductions of fitness.<sup>4</sup> It is thus essential that those

<sup>4</sup>One could argue that with the shift from tribal to more complex human societies, the nature of warfare changed greatly, such that extinction of populations through inter-group conflict became very rare. Thus, the fitness costs of inter-group conflict may have been markedly attenu-

populations under group selection and competing with other groups via warfare be attuned to and able to thwart all major threats to the integrity of their groups, both *without* and *within*. Based on the work of Woodley of Menie, Sarraf, et al. (2017), we term social epistasis that issues from deleterious mutations, and that has in all likelihood universally negative effects on group and individual fitness, *negative social epistasis*, and argue that it has the potential to substantially undermine the fitness of groups it afflicts. It is known that those Western populations that were likely under group selection exercised rigorous cultural controls, and thus had little tolerance for aberrant behaviors on the part of their members (on Medieval Europe, see Epstein, 2009; Moore, 2007). Those who deviated sharply from established norms of psychology and behavior were apt to be selected against, socially (e.g. via ostracism) and sexually. These forms of selection against non-normative persons may reflect adaptations of group-selected populations, for example, elevated monitoring of threats to the group's behavioral ecology, which may have had the effect of triggering control of those individuals at risk of generating negative social epistasis before they could inflict population-level harm.<sup>5</sup> Stringent cultural controls would have had the effect of not only generally promoting those behaviors beneficial to the group's fitness but also of making salient those with genetic predispositions at odds with the behavioral requirements of the group. For instance, participation in and compliance with the demanding rituals and standards of conduct that were part and parcel of traditional Christian life may have been very difficult for those outside a range of relevant genotypic

ated. Nonetheless, there is evidence that selection pressures related to inter-group conflict in the Modern Era were quite strong, having had the effect of inducing large changes in population levels of at least one psychological trait over the course of about a century (Woodley of Menie, Figueredo, et al., 2017). If relevant inter-group conflict in the Modern Era had been associated with weak group-level selective pressure, and so with small fitness losses for populations that were unsuccessful in such conflict, one would not expect group-level selective pressure to have induced large changes in population levels of phenotypic traits in the course of just ~100 years from that Era—but germane data suggest that such selective pressure did have such effects in the case of at least one phenotypic trait (Woodley of Menie, Figueredo, et al., 2017).

<sup>5</sup>We may conjecture that the broader competitive ecology of Little Ice Age Europe would have promoted progressively more effective social monitoring of this sort, in that competing groups would have effected a positive feedback loop of selection for general intelligence among themselves (through warfare, as indicated above), with each group being placed under selection for higher levels of this trait, at least in proportion to the advantage a more intelligent group(s) had over them by virtue of superior intelligence; with growing average general intelligence of any group, there would have been a more efficient and effective execution of all social processes with the function of maintaining or improving group integrity, and the same sort of positive selective feedback loop would likely have applied to all other traits that could so benefit group integrity, including monitoring for negative social epistasis.

variation, facilitating social and sexual selection against them.<sup>6</sup> The resultant efforts to control non-normative anthropological types would have had the effect of limiting genetic diversity. This in turn would have promoted concern among individuals for the genetically discriminable broader groups to which they belonged, insofar as fitness payoffs to investment in such groups increase as a function of intra-group genetic homogeneity (assuming that competition with sufficiently genetically dissimilar groups occurs; Salter & Harpending, 2013); further, the more exactly a population reflects the genetic and hence behavioral natures of any given group member, the stronger adherence to and identification with group norms may be, which could serve to fortify the group against internal and external hazards via the promotion of, for example, social monitoring behaviors.

The foregoing potentially suggests a biological explanation of purposive, that is, non-nihilistic, lifeways and moral/ethical systems that were likely common prior to industrialization (see Chap. 3). These lifeways and systems turned on sharp, unequivocal distinctions between normative (e.g. “good” and “bad”) and deontic (e.g. “right” and “wrong”) facts, properties, and categories. “Moral ambiguity,” while a familiar concept in the secure and comfortable modern world, was likely somewhat alien to premodern Christians (or at least less familiar than it is to modernized people). This might be true partly because uncertainty, doubt, or lack of conviction about the right and the good would have potentially compromised the social monitoring necessary to maintain the genetic and behavioral ecological architecture of groups.<sup>7</sup> Not only this but also such

<sup>6</sup>Something similar seems to happen with the modern Amish, whose austere way of life annually brings non-trivial fractions of Amish youth to abandon their communities for the modern world when the opportunity to do so is presented to them (Harpending & Cochran, 2015; this opportunity comes about in an established adolescent rite of passage known as *Rumspringa*, which has endured in the Amish world possibly because it is an adaption for controlling patterns of social epistasis); the high levels of social stability and well-being and low levels of mental illness (Seligman, 1990) that the Amish enjoy may have something to do with this “boiling off” of incompatible members of their communities (Harpending & Cochran, 2015 also discuss the role of such “boiling off” in the evolution of distinctively Amish traits).

<sup>7</sup>Gerhard Meisenberg (personal communication) suggests another possible driver of the more severe moral orientations of older Western populations: less developed abstract cognition, limiting the possible complexity and nuance of moral reasoning (see also Oesterdiekhoff, 2012, 2016, and along similar lines Meisenberg, Rindermann, Patel, & Woodley, 2012). Nonetheless, gains in certain dimensions of abstract reasoning through modernization (the Flynn effect, about which more later) have co-occurred with the increasing mutational dam-

moral-existential weakness of resolve would hardly have helped the morale of a group frequently contending with the trials of war. We can therefore see how group selection might have favored certain patterns of social epistasis and particular cultures, and indeed how these cultural constructs would have cemented those social epistatic patterns.<sup>8</sup>

But because group selection in these Western populations depended on such harsh and unstable environmental and ecological contexts, it and the socio-behavioral and biological conditions it promoted were sure to be undone given the diminishment of that harshness and instability. Such relaxation did in fact occur, brought on first by climatological warming and subsequently by industrialization (Woodley of Menie, Figueredo, et al., 2017), a process that significantly improved the material wealth of Westerners, thereby profoundly attenuating morbidity and mortality among them, which enabled world-historically unprecedented population growth. Insofar as milder climates and industrialization reduced the need for inter-group conflict by making resources more abundant, one might predict that they have decreased (or even reversed the pattern of) fitness benefits associated with robustness or hardiness and general intelligence at the group and individual levels. It is a likely fact that the milder an environment/ecology is, the more accommodating of genotypic diversity in a species it will be, for it will require fewer specific adaptations on the part of organisms to avoid death or reproductive failure. Moreover, there will be little reason for members of a group to execute rigorous sociomonitoring of their fellows to detect and eliminate or at least suppress the influence of non-normative types because in the absence of inter-group conflict, damage to a group's integrity poses little risk to the survival of the group as a whole or that of constituent members, at least in the short run. Additionally, when groups and individuals are faced with few urgent and novel challenges, general intelligence loses its evolutionary premium.<sup>9</sup> Individuals in these pacified

age described above. This leaves open the possibility that modernized moralities reflect much preoccupation with "moral ambiguity" because of distortions of the psychological processes underlying "nuanced" moral cognition, stemming ultimately from deleterious mutations.

<sup>8</sup>We will later argue that it is probably a mistake to think of social epistasis and culture as distinct phenomena. If social epistasis is, as we will maintain, a major epigenetic determinant of the patterns of (at least) psychobehavioral development that populations exhibit, then it likely influences the constituents of culture (e.g. political orientations, moral beliefs, and life goals).

<sup>9</sup>Though narrow, specialized cognitive skills suited to the generation of wealth in mild ecologies and environments do become valuable; the Flynn effect, or the observed rise in IQ scores in modernizing and modernized populations of about three points per decade, is largely or exclusively promoted by the enhancement of such skills (Woodley of Menie, Figueredo, et al., 2017).

conditions are best served by pursuing the enhancement of their own social status rather than expending time and bioenergetic resources on sociomonitoring that is unlikely to benefit their fitness. Indeed, the rise of tolerance as a moral-political virtue and the many movements vociferously espousing it may be best understood as efforts of individuals, especially those who would be targets of suppression in more demanding environmental/ecological conditions, to thwart the execution of those group-selected adaptations that would threaten their fitness (or their acquisition of utility or welfare, which in modernized environments appears to be what individuals directly seek instead of fitness, perhaps because welfare ancestrally served as a reliable proxy for opportunities to enhance fitness).

Liberalism in political philosophy and theory, and most fully concretely realized in the governments of the Western world, is close to the apotheosis of this moral tendency. For its defining feature, across the left- and right-wing variants of liberalism, is *neutrality* with respect to “comprehensive visions of the good,” or complete conceptions of how life ought to be lived (Simpson, 2015, p. ix). Whereas premodern societies readily opposed those unable or unwilling to live in accord with the group’s collective vision for human existence, liberal regimes will, at least in principle, only apply coercive force to ensure that all may live out their *own* conceptions of the good life in peace (meaning that just those who attempt to force their visions of the good life on others or who otherwise interfere with or harm others in particular, narrow senses of those terms are the targets of liberalism’s coercion) (Simpson, 2015). Liberal regimes, then, interfere with the lives of “private” citizens only if the latter’s activities pose a threat to pacified, “free” life. Conversely, it was essential to the survival of premodern or *illiberal* societies that their members exhibited certain virtues (e.g. honor, courage, heroism, fidelity, and wisdom) without which those societies could not have withstood the rigors of inter-group conflict.

This ideological shift of emphasis from the group to the individual level is observable not only in the realms of politics and morality. For instance, it has become fashionable to maintain, at least in some intellectual circles (especially those associated with a distinctive orientation to so-called Continental philosophy), that truth is irreducibly plural, stance-dependent, indeterminate, or, in more extreme cases, non-existent. Whatever their differences, all of these views have a tendency to promote the rejection of any firm and universally binding normative claims in matters of aesthetics, behavior, morality, or even science—though strangely virtually all proponents of views of this sort are decidedly on the left side of the political



spectrum. Some thinkers even celebrate this ambiguity about the truth, believing that it puts a check on “totalizing” worldviews that threaten to exact various abuses on the vulnerable.<sup>10</sup> These intellectuals correctly intuit that illiberal societies, promoting one or at least one fundamental comprehensive vision of the good life, will tend to favor a limited set of human types and will do what is necessary to increase the prevalence of those types in the group and decrease that of non-normative individuals. For the purpose of illustration, one might consider the contrast between, on the one hand, Catholic natural law theory (influential in medieval Western Europe), which holds that the very facts of nature entail that the same character traits and behaviors are objectively virtuous, or vicious, for all persons, and that these facts are knowable by way of a universally applicable logic, and, on the other, the now *de rigueur* morality of the modern West, which posits that each person should seek a life of maximum satisfaction or fulfillment and should not interfere with (or should even facilitate) others’ achievement of the same end (see Rubin, 2015).

As already indicated, it appears to be very probable that what might be called permissive selective regimes, of which liberalism,<sup>11</sup> postmaterialist individualism, truth relativism, and so on are both causes and effects, will produce more internally, genetically variegated human populations. On the face of things, this might not seem like a serious problem. But the more genetically diverse a population is, the less feasible will be any kind of truly shared way of life among its constituents, for members of the group will become more dissimilar with respect to the behaviors, ideals, values, and so on that they are biologically predisposed to perform and accept. In light of Eisner’s (2003) research on the decline of human violence in the West over centuries, liberal governments have perhaps secured or at least allow broad compliance among their citizenries with principles

<sup>10</sup> Gerhard Meisenberg (personal communication) observes one rarely appreciated weakness of this strategy, which is that not all worldviews welcome to the liberal table clearly encourage commitment to the sorts of prosocial norms that would allow stable consensus to be reached in pluralistic societies where normative truth is a contested matter. It is possible that ideologies with more aggressive and antisocial proponents may be advantaged in efforts at liberal consensus building such that they ultimately supplant liberalism with their preferred illiberal view(s).

<sup>11</sup> As we discuss in greater detail later, we use this term in the European sense, which represents the original understanding of liberalism. On this definition, indicated above, liberalism is the political view that governments ought not to impose on the governed any particular vision of the good, the right way to live, or however one might prefer to characterize such comprehensive normative ideals (see, e.g. Simpson, 2015).

of tolerance and non-harming.<sup>12</sup> At the same time, however, liberalism seems to go with ever more embittered divisions of ideology and *Weltanschauung*, even if it is not in the genetic and cultural nature of liberal peoples for these conflicts to frequently boil over into violence, and even if in the broad view of human historical and inter-population cultural variation, these divisions are rather trivial, with the rancor that attends them indicating something akin to the “narcissism of small differences.” The adverse effects of population fragmentation under liberalism, or, more broadly, modernity, are subtle but damaging nevertheless. They are made manifest in the virtual disappearance of individuals’ ability to communally share a way of life in the fullest sense, which some could argue involves spending all or nearly all of one’s life around those who have the same relevant background and religion, and basic conception of human excellence and morality, etc., as oneself. Modern people can find those with whom they are alike in terms of personality and interests, but these alone are thinner bases for interpersonal ties. Matters are made worse by the fact that the prevailing self-oriented ethics of modernity, which emphasizes the importance of “authenticity,” for example, actively encourages precise consciousness of personal idiosyncrasies and the calibration of one’s life to fit them (see Rubin, 2015). This may encourage resentment toward traditional social norms, which, in part, serve to homogenize individuals’ behavior around ideals. Joined with growing genetic diversity, this tendency threatens to steadily unravel the social networks foundational to civilization itself.

It must be kept in mind that this problem concerns not just genetic diversity per se but also a significant source of it. That source, as one may infer from earlier paragraphs, is deleterious mutation accumulation, permitted by the extreme reductions of morbidity and mortality characteristic of industrial and “postindustrial” modernity already discussed. The upshot of this is that not only are populations, at least in the West, becoming more genetically differentiated and thus likely less prone to social cohesion, but that many of the novel anthropological types that have emerged in this process are, at least in part, the products of mutational damage. Behaviors resultant from such damage, as already noted, are likely to be antagonistic to fitness regardless of ecological or environmen-

<sup>12</sup>Though this may have less to do with the cultural effects of liberalism on ontogenetic behavioral development than with the genetic pacification that preceded and likely partially enabled liberalism’s broad purchase on the West (or it might be that contributions from environmental and genetic factors have been quite comparable; Frost & Harpending, 2015).

tal context (Woodley of Menie, Sarraf, et al., 2017). Consequently, carriers of such mutations risk undermining group integrity because their behaviors simply degrade individual and group fitness, and not merely due to their genetic difference from others. The severe rise of average levels of narcissism, which a number of psychologists, most notably Jean Twenge (2013), have found in multiple data sets may be a case in point. Although mild forms of personality disorders can offer fitness advantages (and thus in such cases probably are not reasonably classified as disorders), in more serious cases they are appropriately described as disabling. Without a doubt, high levels and prevalence of narcissism will curtail the development of group- and other-regarding virtues. Indeed, and as already noted, Woodley of Menie, Figueredo, et al. (2017) demonstrated that the use of altruistic words was highest in Britannic populations when they were most strongly under group selection, with a pronounced decline in usage frequency following the historical shift toward individual selection. This is in keeping with earlier work finding that the “cultural salience of moral character and virtue” fell sharply in the United States in the course of the twentieth century—reflected in changing relative usage frequencies of germane words in English-language textual corpora—and relating this to the ascent of narcissism (Kesebir & Kesebir, 2012; Greenfield, 2013; note that per Woodley of Menie, Figueredo, et al.’s [2017] analysis, the effects of the collapse of group selection became clearly detectable around the turn of the twentieth century).

The upward trend in narcissism is of a piece with what appears to be a broad degradation of mental health and sociality in the Western world. A more extensive review is taken up later. For the sake of overview, one may consider the suggestion that counseling psychologist Morgan Brooks makes: that personality disorders have grown so common that it is questionable whether they should be “exclud[ed] ... as disorder[s], or ... accept[ed as] normal behavior[s] now” (Montes, 2013). Perhaps relatedly, there are indications that Americans have fewer strong interpersonal ties on average than they did three to four decades ago—though the matter is controversial (Brashears & Brashears, 2015)—and that Americans and Europeans experience chronic loneliness at rates far higher than in the recent past: John Cacioppo, a psychologist specializing in loneliness, maintains that in the 1970s and 1980s, some 11–20% of Americans reported chronic loneliness, whereas surveys conducted in the 2010s found that the rate had risen to around 40–45% (longitudinal as opposed to cross-sectional studies conducted recently in the United States and

Europe found rates around 26%; Entis, 2016). More concerning are the growing fractions of persons who have never married or had children at advanced ages (40s and 50s) across the Western world in the twentieth and twenty-first centuries.<sup>13</sup> It is possible that as people grow more personality disordered and generally mentally unwell, they are less suited for lasting social relationships, or to enjoy relationships and meaningfully connect with others through them, and thus are less invested in them.<sup>14</sup> So far, this is to consider just the possible adverse effects of personality disorders, and thus not even to mention the pronounced increases of depressive and anxious psychological distress (Twenge, 2013) and chronic and degenerative physical diseases<sup>15</sup> afflicting Western populations, which are doubtless impediments to healthy social life (see Chaps. 5 and 7).

This overview of the conditions of modernity is selective and incomplete. Much of this book is concerned with filling in the details and justifying our assessment of the facts. But while the picture thus far constructed is partial, it clearly suggests a pessimistic view. The main concern, drawn

<sup>13</sup>These patterns are given to fluctuation. High marriagelessness and childlessness were observed in parts of the West in the early twentieth century, for instance (Rowland, 2007; Sobotka, 2017), though in the past appear to have been related to social crises, such as significant interstate wars, which have become far less common over time in the West (Mann, 2018). It may be that in Western Europe, marriage began to wane at some point during or at the end of the Middle Ages; the Anglosphere, where high marriage rates remained the norm for much longer (Therborn, 2004), may have started to succumb to the same tendency in the second half of the twentieth century.

<sup>14</sup>Strikingly, the problem may be serious enough to have lowered the average annual frequency that American adults have sexual intercourse (1989–2014), which is surprising given the sexualization of Western culture and the associated liberalization of attitudes about sex (Alexander, Inglehart, & Welzel, 2016; Attwood, 2009; Inglehart, 1977; Inglehart & Welzel, 2005). But as it happens, a central cause of this decline has been “[a]n increasing number of individuals without a steady or marital partner” (Twenge, Sherman, & Wells, 2017; see also Collins, 2004), which is something that, ironically enough, sexual liberalization has if anything facilitated insofar as it promotes non-monogamous sexual behavior.

One might suppose that the number of people living without a marital or steady partner is an effect of an aging population with a concomitant increase in the percentage of widowed persons. However, the decline in sexual frequency is robust to a control for age and marital status (Twenge et al., 2017).

<sup>15</sup>Widerquist and McCall (2017) offer striking evidence of how badly human physical health has deteriorated in at least this respect (i.e. the prevalence of chronic and degenerative diseases) in noting that, even when differences in longevity between the populations are statistically controlled, women in hunter-gatherer societies tend to develop breast cancer at the extremely low rate of one in 800; among modern women of the United States, the rate is about 100 times higher.

from the data so far presented or indicated, is that peoples of the West are losing their genetic and behavioral integrity. Via group selection, Western populations became able to contend with particular threats to their survival, in that group selection substantially enhanced the degree to which they had certain traits: general intelligence, (intra-group) altruism, and groupishness. But, following the waning of inter-group conflict, the fitness benefits of these traits have reduced, even becoming costly to fitness in some cases (such as that of general intelligence).

One aspect of the genetic and epigenetic pacification resulting from reduced environmental harshness and involvement in war that some consider lamentable is its tendency to leave people with few great challenges to surmount—this, again, is the reason it does not favor the aforementioned group-selected traits. Pacified groups do seem to need efficient workers, or “human resources” as they are sometimes called, suited to reliably perform a small number of tasks demanding little creativity of thought, only narrowly focused skills. There must be some who can arrange these “resources” in useful networks of production, but they are few and, with falling general intelligence, one might predict, rarer all the time. These networks generate the wealth that sustains the peaceful existential conditions on which the networks depend. Indeed, it has been argued that economic and financial processes are the major factors that organize social relations in the pacified world (see Westbrook, 2004). Older illiberal forms of collective life centrally prioritized *comprehensive* visions of the good that, *because* comprehensive, fostered *exclusion* of whatever might endanger realization of those visions (Simpson, 2015). Conversely, modern liberal social life is more akin to a technology through which any person might satisfy his desires, as long as the satisfaction of those desires is sufficiently narrow and benign to avoid interference with others’ pursuits. It is this enabling of each person to fulfill *distinct* visions of how to live that becomes primary, making the economic emphasis of liberal social organization predictable. But this necessarily limits, in certain ways, the scope and the grandeur of the liberal project: it is never more than the *mere* peaceful satisfaction of individual desires that is aimed at. For this reason, it does not, and cannot, involve an imposition of values that might unsettle happiness for the sake of a population’s glory, dignity, or spiritual health. But it could be argued that those acting on such values overwhelmingly contribute to the record of history and myth, and therefore capture human interest, whereas those blandly striving after personal utility are forgotten.

This is perhaps why modern Western people are so often cast as internally flattened and evacuated, bereft of virtue, intelligence, or meaning. In terms of social status, they might be best served by this condition, as long as they maintain sufficient motivation to engage with the transactional matrix that defines their everyday world. But a whole way of life promoting little other than the banal pleasures offered by the market, and whatever quirks of identity and viewpoint that the ethic of universal inclusivity permits, is not unreasonably thought to trap us in a nihilistic malaise. A legacy of group selection may still have some of us wanting a society structured around our deepest substantive convictions, one made for the moral and biological flourishing of its people. But this desire is frustrated when the only collective goals of a population are peace and comfort, and especially when it is thought that the moral, existential, and ideological separateness of individuals are essential to their realization. Such an impoverished understanding of social life may leave us alienated, with the fruits of high culture and their bases decaying, and with awareness of this decay condemned for its “exclusionary” potential. It would seem that we have reached the point where pacification is the *bane* of civilization.<sup>16</sup>

## OUTLINE

This book proceeds as follows. In Chap. 2, we argue for the superiority of biobehavioral models of human behavior and behavioral variation relative to their purely sociocultural/environmental competitors. It will be shown that opposition to models of the former type emanates largely from scientific ignorance, political motivations, and implicit (but critical) assumptions about the effects of genes and environments on human behavior. Chief among these is the tacit belief that sociocultural or more broadly “environmental” factors are presumptively more determinative of variation in human behavioral outcomes than are biological ones. In light of what is known about the behavior of other animals, and the absence of evidence for relevant human exceptionalism, this presumption is unjustified. We also introduce the central biological concepts for our thesis: general intelligence (and its evolution) and life history, as well as the levels of selection.

<sup>16</sup>As a general rule, periods of peace have preceded times of civilizational decline the world over, and those times of peace themselves typically have followed eras of remarkable cultural development contemporaneous with much inter-group conflict. This is apparent in the history surrounding the *Pax Romana*, as well as the Warring States Period in China and the long run of violent conflicts between ancient Greek city states (see, e.g. Murray, 2003).

In Chaps. 3 and 4, we turn to human history with a biobehavioral perspective, specifically medieval and modern Europe. We observe that although many social scientists and theorists maintain that premodern forms of Western social life were more communitarian and enriched by purposiveness<sup>17</sup> than modern ones, little in the way of evidence is typically presented for this view. Further, among historians, this notion is not at all uncontroversial. We endeavor to show that in spite of the doubts of certain academics, at least some premodern Western societies were much more strongly communal and animated by collective purpose than their modernized counterparts. Our focus in the first section of Chap. 3 is on medieval Western European societies, which particular historians have argued were no less individualistic and divided over values and visions of the good than our own. But such an understanding seems unable to make sense of the untold numbers of altruistic sacrifices made on the part of medieval Europeans to defend Christendom against encroaching Islam. This is the primary reason that the accounts of those historians who present a communitarian picture of the Western Middle Ages are found more plausible than the alternatives. We interpret this group-oriented character of medieval Western populations in an evolutionary light.

These chapters further attempt to explain how the “break” with the premodern condition—that is, the onset and progression of industrial modernity or “modernization”—came about. We address the economic and social changes of Western societies and their genetic foundations, as well as the cultural *sequelae* of these developments. We hope to demonstrate that this sociocultural and economic evolution is best explained in terms of the adaptive challenges that Western groups have faced over time, resulting in slowing life history speeds and, prior to industrialization, higher levels of general intelligence.

Despite the profound enhancement of (components of) human well-being that modernization has produced, there are serious problems associated with the modern condition, which may be quantitatively (but perhaps not qualitatively) unique in the broader context of human history. Salient among the problems are *nihilism* and psychopathology, which seem to share phenomenology at the individual level and to be statistically associated at the group level. The kind of nihilism most relevant to our thesis is not an explicit philosophical idea or theory—though

<sup>17</sup> “Purposive” should be understood as an antonym of “nihilistic.”

commitment to philosophical nihilism might be related to the sort that most interests us—but a psycho-existential condition. It seems to frequently occur in certain mental health disorders, depression and schizophrenia, for example, but appears independently of them as well. In a state of nihilism, one feels detached from the world and lacks strong commitment to or even interest in commitment to most or all things thought to be of central importance to human life (or lacks this commitment and/or interest altogether)—relationships, religions, ideologies, communities, and so on. This absence of commitment leads to nihilists’ characteristic feeling that life is pointless. An analysis of relevant ideas of perhaps the major theorists of nihilism, Friedrich Nietzsche, Martin Heidegger, and Carl Schmitt, reveals that they all identified a condition that they believed to be peculiarly modern and characterized by existential estrangement and feelings of meaninglessness, which they identified as or associated with nihilism. Empirical data indicate that their suspicions were correct. In Chap. 4, the largely modern phenomena of “permanent revolutionaries” and disaffected intellectuals, and the associated emergence of totalitarian “political religions” in the twentieth century, are interpreted as related in part to modernized societies’ inability to provide their members with enduring collective bases of existential purpose.

Chapter 5 critiques efforts to defend excessively optimistic views of modernity, focusing in particular on one especially prominent and recent endeavor along these lines from psychologist Steven Pinker—his book *Enlightenment Now*. This defense of modernity is shown to suffer from a number of weaknesses, which render it highly unconvincing. Most importantly, it has no serious answer to key criticisms of the modern condition from those on the political right and ignores, (baselessly) denies, or trivializes every serious problem that modernized humanity faces.

Chapter 6 investigates the distal sources of modernity’s pathological aspects. We examine the possibility that deleterious mutations—that is, those that tend to impair genetic quality and therefore, or for some other reason, depress fitness and/or wellness—have accumulated in modernized populations, which could have a role in the loss of mental health and the nihilization and broader cultural decline of these groups. This accumulation of deleterious mutations may have resulted from the attenuation of sources of morbidity and mortality through industrialization and its *sequelae*. Many have thought that selection through morbidity and mortality has had the effect throughout humanity’s evolutionary history of removing deleterious genetic variants from populations; thus, relaxing this



selection possibly would have allowed these mutations to accumulate. Certain evidence indicates that selection against these variants has indeed relaxed and that they have resultantly become more frequent in Western populations (at least). Nevertheless, some maintain that this relaxation has not in fact occurred, or that evidence for its occurrence is inadequate, and so arguments for this possibility are critically evaluated in this chapter.

Chapter 7 builds on findings consistent with the accumulation of deleterious mutations with the *social epistasis amplification model* (SEAM), which posits that the fitness costs of deleterious mutations are not limited to the organisms that carry them. This is possible in light of the existence of interorganismal genomic interactions, that is, social epistasis, whereby the genome of an organism (or the genomes of organisms) can influence another organism's (or more than one organism's) gene expression. If social epistasis occurs in humans, and evidence suggests that it does (Domingue et al., 2018), it is not unreasonably expected that mutations can social-epistatically alter patterns of gene expression in pathological ways, and therefore that the fitness costs of these mutations can be potentially massively *amplified*. In human populations, this process may manifest itself in the form of rapid collapses of both group and individual fitness and the institutions and behaviors that support them. We use a statistical model to test the predictions of the SEAM, and results are found to strongly support these predictions. We discuss the implications of the SEAM for the history of humankind, and examine in particular the role of social epistasis in determining group fitness in inter-group conflict, the (likely) resultant evolution of behavioral modules that have the purpose of controlling patterns of social epistasis, and the psychological character of groups subjected to long-term mutational social epistasis decay. We also argue that environmental determinist alternatives to the SEAM cannot explain the phenomena for which it accounts.

Chapter 8, which draws on the insights of psychologist Raymond B. Cattell and his system of “Beyondism,” is a critique of eugenics and transhumanist philosophies. It also addresses dysgenic<sup>18</sup> concerns, which include the accumulation of deleterious mutations but also selection favoring socially undesirable outcomes, such as low levels of general intelligence.

<sup>18</sup>The term “dysgenic” denotes selection for traits generally thought to be socially undesirable, and selection against traits generally thought to be socially desirable; it is usually employed in discussions of selection for lower levels of human intelligence.

Eugenics is of course subject to any number of moral concerns, but equally it is far from clear that it would not exacerbate the troubles it seeks to resolve. It is highly doubtful that humans, especially given their current limitations, could devise an artificial selection regime able to promote the subtle and complex array of desirable traits most auspicious for traditional civilization. Transhumanism presents even graver dangers, possibly defacing all of humankind in an irrevocable way insofar as it may exaggerate some of the pathological human qualities that modernity has engendered. Absent the guidance of what has typically been called virtue (i.e. group-selected moral values and behavioral dispositions), the effects of transhuman “augmentation” could be severely negative. We are left with the unpalatable conclusion that modernity threatens us with either anti-civilizational regression or, should it avoid this, continued technological development inaugurating a “transhuman” future that is more dehumanized than superhuman.

Chapter 8 then concludes the work on a pessimistic note regarding the prospects of human life in particular and, more generally, intelligent life in the universe. Early chapters detail how civilization emerges from a complex set of interrelated factors: slowing life history speed, increasing general intelligence, and intensifying between-group competition. The standard outcomes of these synergistic processes are dense populations that exhibit significant social stratification, diverse cooperative microniches (as manifested in division of labor), prosocial and peaceful in-group and out-group orientations (i.e. pacification), and remarkable innovativeness and economic productivity. Populations with these characteristics may be described as having realized a high level of modernization. But the SEAM entails a dark side to the dynamic through which such groups are evolved. As populations become more productive, innovative, and prosocial, they relax morbidity and mortality; this increases population density, which allows for further niche diversification and thus economic development, but also raises the frequencies of deleterious mutations in the gene pool. Therefore, social-epistatic transactions, via rising population density, become more numerous in tandem with harmful mutations, and so the opportunities for negative social epistasis amplification expand rapidly.

Crucially, social epistasis control modules and in-group prosociality run the risk of corruption via the action of spiteful mutations, that is, mutations that undermine the fitness of those that carry them and those with which the carriers enter into social-epistatic transaction; while initially promoting group fitness, the functions of such adaptive behavioral architecture

may be redirected by mutations in pathological ways—for example, when in-group altruism becomes pathological altruism, and social epistasis control modules then fail to target the carriers of deleterious mutations.<sup>19</sup> The upshot is that group fitness collapse by way of negative social epistasis amplification may be an irreversible process insofar as it destroys the very factors that might undermine it. The implications are especially ominous if, as could be predicted, *convergent evolution* holds across the universe, meaning that all forms of highly intelligent life will manifest or have manifested the defining behavioral traits of humankind. It may then be biologically unavoidable that wherever intelligent life develops to a certain level of sophistication, it entropically degrades to a simpler state rapidly. If true, this theory would resolve the *Fermi paradox* or *Fermi-Hart paradox*, that is, the lack of evidence that extraterrestrial civilizations exist despite considerations indicating that many should. Human populations that were able to endogenously industrialize have sustained a “modernized” condition for only about a century and a half at most, yet are already showing multiple clear signs of entropic decay. If this is typical of intelligent life in the universe more broadly, countless extraterrestrial civilizations may have come and gone in the blink of a cosmological eye, perhaps never (notwithstanding a small number of possible exceptions) managing to develop much beyond the level of the contemporary Western world prior to breakdown and eventual extinction through unmanageable hazards (e.g. asteroid strikes). This suggests a *biocosmic pessimism* about the evolution of life and implies that progress is, in an ultimate sense, an illusion.

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<sup>19</sup>Throughout human history, it might be that the effects of social epistasis control modules have been the major source of *social* selective pressure controlling deleterious mutation accumulation. One may hope that through genetic engineering, humanity will develop a more benign way to control this problem, which would target mutations themselves rather than their carriers. But the problem is that we have not evolved instincts to target deleterious mutant genes apart from their carriers, which has pessimistic implications for the success of such endeavors.

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