

# Whither the Blank Slate? A Report on the Reception of Evolutionary Biological Ideas among Sociological Theorists

Mark Horowitz and William Yaworsky

*Behavioral Sciences Department, University of Texas at Brownsville, Brownsville, Texas, USA*

Kenneth Kickham

*Political Science Department, University of Central Oklahoma, Edmond, Oklahoma, USA*

Sociologists have drawn considerable criticism over the years for their failure to integrate evolutionary biological principles in their work. Critics such as Stephen Pinker (2002) have popularized the notion that sociologists adhere dogmatically to a “blank slate” or cultural determinist view of the human mind and social behavior. This report assesses whether sociologists indeed ascribe to such a blank slate view. Drawing from a survey of 155 sociological theorists, we find the field about evenly divided over the applicability of evolutionary reasoning to a range of human tendencies. Although there are signs of a shift toward greater openness to evolutionary biological ideas, sociologists are least receptive to evolutionary accounts of human sex differences. Echoing earlier research, we find political identity to be a significant predictor of sociologists’ receptiveness. We close by cautioning our colleagues against sociological reductionism and we speculate about the blank slate’s political-psychological appeal to liberal-minded social scientists.

## INTRODUCTION: A DISCIPLINE IN CRISIS?

Pronouncements of a sociology in crisis can be heard far and wide by evolutionarily-oriented natural scientists and their sympathizers within the field. Although passions have cooled since the early years of the sociobiology controversy, critics recurrently impugn sociologists for their hostility to biology and their failure to integrate evolutionary principles in their research (Alcock 2001; Ellis 1996; Lopreato and Crippen 2002; Lustick 2005; Machalek and Martin 2004, 2010; Pinker 2002; Sanderson 2001, 2012; Tooby and Cosmides 1992; Van den Berghe 1990, 1995; Wilson 1998). Some of the most caustic comments come from the inside: “Will sociology . . . be selected out of the population of academic enterprises, a product of obsolete design?” ask Lopreato and Crippen (2002:74) in their blistering critique. Van den Berghe (1990:177) adds that sociologists are “militantly and proudly ignorant” of biology. He notes, nonetheless, that sociology will probably survive “a few more decades” as “intellectual bankruptcy never spelled the doom of an academic discipline” (185).

Not all of the criticism is strident (see, e.g., Machalek and Martin 2010). No doubt the impassioned tone reveals more the mark of isolation, as that smattering of Darwinian-oriented sociologists has had to fight a rearguard battle to be heard in a conventionally inhospitable intellectual milieu. To be sure, it has been over a decade since Douglas Massey gave his Presidential Address to the American Sociological Association, calling on his colleagues to end their “hostility to the biological sciences” and to integrate “well-understood biological foundations of human behavior” in their theories (cited in Kaye 2003:49). Whether Massey’s charge is a sign of a biological awakening in the profession remains to be seen. As it stands, however, only a handful of sociologists have alerted their brethren of a deepening crisis of legitimacy should they continue to disregard the “Darwinian revolution” of the sciences.

For critics, the heart of the intellectual problem remains an ideological adherence to the increasingly implausible view that human behavior is strictly determined by socialization. This perspective—variably dubbed “cultural determinism” (e.g., Alcock 2001), the “standard social science model” (e.g., Tooby and Cosmides 1992), or, more popularly, the “blank slate” (e.g., Pinker 2002)—views the mind as wholly molded by the cultural environment and without any “built-in” biological tendencies. For Pinker (2002:6), the blank slate doctrine “set the agenda” in the social sciences for a century, not least due to its progressive philosophical appeal. Severing social institutions from any hint of biological determination was the academic complement to a wider cultural assault on old racial, colonial and sexist pretexts for entrenched social hierarchies. Should such hierarchies result strictly from culture, then the possibilities for an egalitarian future were seen to be as open and boundless as our ever-malleable brains might imagine.<sup>1</sup>

The problem, allegedly, is that good politics made for bad science. A wave of research in biology, psychology and neuroscience illustrates that neither the human brain nor human behavior generally should be understood as all-purpose clay (we will turn to this research below, though see Laland and Brown 2011 for a sweeping overview). Indeed, critics underline a variety of “built-in” psychological, cognitive, and even moral predispositions deeply rooted in humans’ evolutionary heritage. Anthropological evidence reveals as well that beneath the rich diversity of human cultures are widespread social practices consistent with evolutionary explanation (e.g., Brown 1991; Kenrick et al. 2009). To critics both within the field and without, sociologists cannot afford to ignore the vast theoretical and empirical advances in evolutionary science.

Yet do contemporary sociologists actually adhere to a “blank slate” view of human nature? Do they reject the possibility that natural selection shaped certain key features of the human mind and behavior? If so, how do sociologists explain their rejection? Which variables (age, gender, etc.) correlate with their rejection or acceptance? In brief, to what extent has evolutionary reasoning made inroads into the discipline of sociology?

Although our paper is principally an empirical report, we will provide our own tentative explanation of the state of the field with regard to evolutionary theory.<sup>2</sup> We will unpack the mixed signs of a field that still largely disregards evolutionary explanation in practice, while appearing to

<sup>1</sup>Among sociologists, Emile Durkheim is perhaps most often targeted for holding a blank slate view in his discussion of social facts. Anthropologists of the Boas circle, most prominently Margaret Mead, also receive considerable criticism.

<sup>2</sup>When we refer throughout this paper to “evolutionary theory,” “evolutionary scientists,” and “evolutionary explanations,” we have in mind evolutionary biology and related approaches (sociobiology, human behavioral ecology, evolutionary psychology, gene-culture co-evolution, etc.) that apply the logic of natural selection to human behavioral tendencies. We do not mean to include wider social-scientific theories of “evolutionism” shorn of Darwinian selection.

some extent open to it in principle. Indeed, sociologists appear about evenly divided over the plausibility of evolutionary accounts of human behavior, with less support, however, for explanations bearing on sexual differences and patriarchy. The picture, as will be seen, is more complex than the blank slate metaphor suggests. We agree with critics that something akin to “tribal loyalty” (Wilson 1998:199) is likely to be at play among sociologists. Yet talk of the blank slate or a “standard social science model” is overstretched at best.<sup>3</sup>

## BACKGROUND OF THE CONTROVERSY

The firestorm of debate that followed publication of E.O. Wilson’s, *Sociobiology: The New Synthesis*, is a telling case study of the normative aspects of scientific knowledge production. Grabbing headlines as the “sociobiology wars,” prominent biologists, philosophers, anthropologists, and others assailed both the scientific underpinnings and political implications of the fledgling evolutionary paradigm (e.g., Harris 1979; Lewontin, Rose, and Kamin 1984; Montagu 1980; Sahllins 1976). Indeed, sociologists were hardly the most visible dissenters to the evolutionary agenda that Wilson hoped would one day subsume the social sciences.

In her sweeping chronicle of the controversy, Segerstråle (2000) shows how many of the sociobiology’s staunchest critics engaged in what she refers to as “moral reading.” That is, they extracted from sociobiological texts their most nefarious political implications (if not their authors’ hidden motives). The result was widespread charges of political bias, genetic determinism, and reductionism. In the view of critics, sociobiological reasoning serves to justify social hierarchies (wittingly or otherwise) by reducing complex, emergent phenomena to presumably underlying genetic bases. Hence Rose (1979:160) would write that the struggle for a better world without famine or war runs into sociobiology’s “hard-nosed realism.” “What is, is what must be. It is only human nature. Offered a vision of Utopia, the realist defenders of the status quo substitute sociobiology.”

To be sure, the disapproval was not solely political. Yet disentangling the scientific and normative dimensions of the debate is difficult. Among the best known critics were Wilson’s Harvard colleagues, Stephen J. Gould and Richard Lewontin. Gould famously referred to sociobiology’s “Panglossian” vision, where every human behavior is seen as an optimal adaptation to prehistoric conditions. “Men wage war and dominate women,” Gould wrote sardonically, because “the Darwinian imperative specifies it as optimally adaptive for individual reproductive success in our original ecological niche” (1978:284). Gould and Lewontin (1979) would assail the “adaptationist paradigm” in a celebrated essay on architectural “spandrels.” Citing Darwin as their authority, they stressed that natural selection—although crucial—is not the only force in evolutionary history. Diverse processes such as developmental constraints, evolutionary byproducts, “exaptations,” and genetic drift work in tandem with natural selection to form a more complex picture of evolutionary change than sociobiology suggests.

Over the years, Gould, Lewontin, Rose, and other biological “pluralists” would speak the language of complexity, holism, dialectics, and the like in criticizing what they saw as the reductionism of gene-centered approaches to human nature and evolution. (Dawkins’ *The Selfish*

<sup>3</sup>After several pages of critique of sociology as the “stronghold of the Standard Social Science Model,” Wilson (1998:204–205) goes on to acknowledge that it is rare today. He provides no evidence for his claim beyond personal impressions.

*Gene* [1976] was certainly the most popular in this vein.) Although the details of the debate are intricate, time and again critics would hold out a deeply socialized image of human nature, subject decisively to wider cultural forces. Sympathetic anthropologists (e.g., Harris 1979; Sahlins 1976) concurred by underscoring the rich diversity of human social and sexual practices not meaningfully reducible to genetic “fitness” (e.g., Sahlins’ stress on societies where social obligations to culturally-defined “kin” were greater than to their “blood” relatives). In the end, critics’ essentially *sociological* view of human nature dovetailed with their rejection of the notion that culture is “ultimately” reducible to the genes—an idea sensationalized by detractors after Wilson’s (1978:172) claim that genes “hold culture on a leash.” Such an emphasis on the autonomy of culture would be integral to more sophisticated models of “gene-culture co-evolution,” as well as the more unconventional “memetic” approaches.

Here is not the space to rehash every point and counterpoint of what would become a jagged (though fascinating) debate. In retrospect, however, we can say that the debate became polarized right out of the gate. In the flurry of competing claims of biological and cultural determinism, it is easy to lose sight of the fact that few if any took such extreme positions. Yet the criticism endures. The situation may be especially perilous to sociologists given the conventional and media-abetted popularity of all the latest genetic explanations of human behavior. If Pinker, Lopreato, and others are correct that sociologists persist in their “blank slate” opposition to Darwin, might the discipline’s days indeed be numbered?

As we note above, the blank slate metaphor fails to capture the intricacy of sociologists’ views. In the following section we address sociology’s traditional detachment from biology. As prior research and surveys reveal, sociologists’ eschewal of biology goes beyond formal training (as few take biology courses in their graduate studies), to paradigmatic commitment to examination of emergent social phenomena. Attending to such phenomena as collective belief systems, social structural regularities, economic value relations, and the like, sociologists customarily weave a complex causal tapestry of historically specific social forces seen to shape human conduct. Biological or genetic factors, from this standpoint, are generally ignored. Yet it is one thing for sociologists to disregard biology from facts that are properly understood at the level of the social. It is quite another for them to categorically reject evolutionary reasoning applied to human beings. It is only the latter, anti-scientific impulse that would merit the epithet of the “blank slate,” as we will discuss in our methods section below.

## SOCIOLOGY *CONTRA* BIOLOGY

Existing research on sociologists’ openness to biological reasoning does not paint a friendly picture. Critics condemn sociologists’ ignorance and fear of biology (e.g., Ellis 1996; Machalek and Martin 2004; Van den Berghe 1990), while marshalling a variety of evidence that the field is hopelessly out of touch with the nascent “Darwinian Revolution” in the sciences.

Stephen Sanderson and colleagues carried out surveys of sociologists in the 90s that bear in part on their attitudes toward evolutionary biology (Sanderson and Ellis 1992; Lord and Sanderson 1999). Of 168 sociologists surveyed by Sanderson and Ellis (1992), only 2.5% identify sociobiology as a primary or secondary theoretical perspective in their work. That number dropped to 1.9% in a later survey of 375 sociological theorists surveyed by Lord and Sanderson (1999). Although both studies address the larger question of fragmentation in the field, each

reveals useful data on the correlates of sociologists' receptiveness to sociobiology. The overriding variable in each case is political ideology. Both surveys find political outlook to be the best predictor of acceptance or rejection of evolutionary theory, with radicals being the most highly anti-biological. Perhaps surprisingly, gender is not significantly related in either study to respondents' receptiveness. Lord and Sanderson do find, however, that women are significantly less likely than men to acknowledge that sociobiology has made at least a modest contribution to the field.

The Sanderson and Ellis survey is particularly useful in highlighting sociologists' rejection of the role of genes as a major influence in shaping human behavior. They find that sociologists view biology as playing a very small role in a range of human behaviors, including gender differences in occupational interests, sexual orientation, criminal behavior, nurturance, and more. Indeed, more than half of their sample attributes 15 percent or less of the variation in such behaviors to biological causes (Sanderson and Ellis 1992:26).

A related indicator of sociologists' aloofness to evolutionary science is their antiquated characterizations of sociobiology in introductory textbooks. Machalek and Martin (2004) examine the 20 best-selling introductory sociology books in the United States. They find that of the 14 that discuss sociobiology at all, the textbook authors characterize the field as mired in reductionism and genetic determinism. People appear as little more than "automatons" propelled to act rigidly by their genes and impervious to cultural context (458). The textbook authors evince no awareness of the current state of sociobiological inquiry. They fail to discuss the overwhelming consensus that human behavior is shaped by a complex interaction between multiple genes and the social environment. Lacking such basic concepts as "epigenesis," "gene ensembles," and the "norm of reaction," sociologists present an inexcusable "straw man" given decades of advances in sociobiological theory and research (458–459).

Given the prior findings, our working hypothesis as we developed our own questionnaire was that sociologists would tend to reject sociobiology and that political outlook would be the best predictor. Our speculation was reinforced in part by our review of sociology theory books published from 2000–2011. Of the 18 books we could find with a contemporary theory focus or component, two covered sociobiology or evolutionary psychology (Johnson 2008; Turner 2006), while 16 did not (Adams and Sydie 2002; Allan 2006; Andersen and Kaspersen 2000; Applerouth 2010; Baert and de Silva 2010; Calhoun 2002; Delanty 2006; Applerouth and Desfor Edles 2007; Elliott 2009; Flecha, Puivert, and Gomez 2003; Harrington 2005; Mann 2007; Reed 2006; Ritzer 2007, 2009; and Ritzer and Smart 2001). In other words, we found that most students will not encounter sociobiology in their standard theory textbooks. It is reasonable to infer that if sociologists do not find sociobiology to be significant enough to merit discussion in a theory text, it is unlikely that they lend much credence to evolutionary explanations of human behavior.

Our report here builds on Sanderson and colleagues' prior surveys, though we focus expressly on sociologists' reception to evolutionary reasoning. Evolutionary theory covers a wide array of perspectives—sociobiology, human behavioral ecology, evolutionary biology and psychology, memetics, and gene-culture co-evolution—each with its own degree of theoretical development and methodological sophistication. Our aim is not to assess sociologists' familiarity with these distinctive approaches. More narrowly, we look beyond each perspective to the evolutionary reasoning underlying them all. Most basically, we ask sociologists whether they agree that evolutionary reasoning can in principle be applied to human beings. That is, to what extent do sociologists accept the idea that natural selection has acted upon human genes in ways that affect

human behavior in nontrivial ways? This is the overriding question we address in our report, though along the way we will have much to say about the state of the field with regard to the wider “Darwinian reawakening” in the sciences.

## METHODS

### Sample Selection and Data

Following Lord and Sanderson (1999), we have confined our study to sociological theorists rather than sociologists in general. We found 613 sociology professors listed as specialists in theory in the 2010 ASA Guide to Graduate Departments of Sociology. We removed 70 names from the original list due to repetitions and inaccessible or invalid e-mails (including those who were deceased), for a revised list of 543 professors. After an initial e-mail survey and follow-up in summer 2012, we obtained 155 usable surveys, for a 29% response rate.<sup>4</sup>

We have a number of rationales for using a purposeful survey of sociological theorists in graduate programs. First of all, our inclusive sample of all self-identified theorists provides a solid opportunity of obtaining data representative of all sociological theorists. Secondly, our aim is to take stock of the field’s reception to evolutionary reasoning in a changing context. To the extent that sociologists have been influenced by the transdisciplinary wave of Darwinian research, we suspect that theory specialists would most likely be at the forefront (as applied sociologists may not be as attentive to theoretical developments). Finally, our focus on sociologists in graduate programs may afford us a more reliable glimpse into the direction of the field, as such theorists are directly training students for tomorrow’s academic positions. Needless to say, we recognize the limits of our sample and we welcome investigation of sociologists in other positions and with other disciplinary specialties.

The basic demographics of our sample are as follows. There are 116 men (76.3%) and 36 women (23.7%). The youngest member of the sample is 33, and the oldest is 87. Thirty-one respondents are between the ages of 30–45 (22.3%), 40 are between the ages of 46–61 (28.7%), and 68 are 62 years or older (48.9%). Eighty-six are Full Professors (62.8%), 33 are Associate Professors (24.1%), and 18 are Assistant Professors (13.1%).

Social theorists’ familiarity with evolutionary theory suggests something of a mixed bag. On the one hand, only 13.7% have experience carrying out research that draws substantially from an evolutionary perspective; and only 25.5% claim to have substantial or expert knowledge of an evolutionary perspective. On the other hand, 41.7% report that they have taught at least one evolutionary biological perspective in class. (Given its absence in theory textbooks, this figure struck us as surprisingly high, though we do not know how affirmatively the material is taught.) Finally, just under half of the respondents (48.3%) is actively or potentially considering teaching

---

<sup>4</sup>Note that the data reported in the paper may leave out an incidental number of missing cases. We should add that we received a total of 191 signed consent forms, though 35 respondents entered the survey without answering a single question, and one respondent answered fewer than 20% of the questions. Given the amount of negative responses to our survey, which we address later, we speculate that the high number of post-entry refusals (19%) were likely to have been unfriendly to our project. If this is the case, our sample may have some self-selection bias in favor of sympathizers to evolutionary reasoning, though we are unable to verify this.

TABLE 1  
Sociologists' Perceptions of Evolutionary Biological Ideas

Which of the following positions best characterizes your attitude toward applying evolutionary biological ideas to human social behavior and organization?	Percent response	Response count
Evolutionary perspectives are a rehash of old ideas that wittingly or otherwise serve to justify social hierarchies.	5.3%	8
I am resistant to including evolutionary ideas. Human social behavior and forms of social organization are too variable for biology to play a significant role.	8.6%	13
I am open to considering evolutionary ideas but I am not sure that much of human social behavior and organization can be explained by evolutionary processes.	49%	74
I am interested in including evolutionary perspectives and hopeful that such ideas will shed light on phenomena that sociologists have not considered from a biological perspective in the past.	23.8%	36
I embrace evolutionary perspectives and I believe they make a vital contribution to explaining key aspects of human social behavior and organization.	13.2%	20

an evolutionary perspective in a future course. *Prima facie*, these substantial numbers appear to contradict the widespread allegation of “biophobia” among sociologists.

Table 1 provides a sense of respondents' overall attitudes towards applying evolutionary ideas to social life. Although we acknowledge the problem of potential conceptual overlap in the responses, the forced choices still afford some insight into sociologists' standpoints. Note that 37% of sociologists are either interested in applying evolutionary perspectives or already actively embrace their substantive contributions to the field. It is perhaps not surprising, hence, that a comparable number of respondents (41%) agree or strongly agree with the view that sociologists have allowed ideology to blind them to the major significance of evolutionary biological processes in shaping human social behavior and organization.

Following Sanderson et al., we also asked respondents to indicate their preferred theoretical perspectives in their research. Among a list of 13 options,<sup>5</sup> we found that 5.3% identify evolutionary biology/sociobiology as their primary or secondary theoretical perspective (and 8.3% include sociobiology among their top three perspectives). Although this still represents a small fraction of sociologists, it is a notable increase from the 1.9% and 2.5% of evolutionarily-oriented respondents in Sanderson and colleagues' earlier surveys. What we appear to find, hence, is some movement among sociologists toward increased acceptance of sociobiological ideas. If sociologists are in fact experiencing a gradual “change of heart,” it is not surprising—given their conventional lack of training in biology—that comparatively few are prepared to list sociobiology as a formal research strategy. We would expect that academic practices lag behind changing attitudes should there indeed be an emergent trend.

Let us turn now to the heart of the project: sociologists' receptiveness to Darwinian reasoning applied to human beings. To examine whether sociological theorists reject even the *possibility* that natural selection played a role in shaping significant aspects of human behavior, we present

<sup>5</sup>We asked respondents to rank order their top three theoretical perspectives from the following: Conflict theory; Critical theory; Evolutionary biology/Sociobiology; Exchange/Rational choice; Feminism; Functionalism/Neofunctionalism; Marxism; Phenomenology/Ethnomethodology; Postmodernism/Post-Structuralism; Symbolic interactionism; Weberianism; World systems theory; No preferred perspective/eclectic.

them with a range of behaviors typically explained by evolutionary science (e.g., emotions, feeding behavior, perceptions of beauty, etc.). We ask respondents to judge whether evolutionary biological explanations of such behaviors appear to them to be “Highly Plausible,” “Plausible,” “Implausible,” or “Highly Implausible.”<sup>6</sup> The actual survey questions are as follows:

1. People’s taste for foods containing fat and sugar is hardwired into our brains by evolution. Such high-energy foods were important in human’s ancestral environments, where access to stable food was by no means certain. Hence people evolved the impulse to gorge on such foods for fat storage.
2. Men have a greater tendency toward promiscuity than women due to an evolved reproductive strategy (men in humans’ ancestral past without such a tendency would produce fewer offspring).
3. The widespread fear of snakes and spiders across cultures indicates an evolved psychological tendency toward predator avoidance.
4. Although beauty standards vary historically, there is a biological underpinning connected to health indicators. People have evolved to find such characteristics as symmetrical features and smooth skin physically attractive due to their health and reproductive indicators.
5. Feelings of sexual jealousy have a significant evolutionary biological component.
6. Men’s greater likelihood than women to engage in violent crime is determined by culture and learning. There is no significant evolutionary biological component.
7. The widely observed tendency for men to try and control women’s bodies as property (e.g., veiling, virginity cults, etc.) has a significant evolutionary biological component.
8. Men’s greater use of pornography relative to women results from culture and learning (norms of “objectification” of women, etc.). There is no significant evolutionary biological component.

We included three additional questions that were not framed in evolutionary terms per se, yet indicate sociologists’ views of biological differences with regard to intelligence, sexual orientation, and cognition:

9. Although the environment affects the range of one’s intellectual development, some people are born genetically with more intellectual potential than others.
10. Sexual orientation has biological roots.
11. Observed differences between women and men in such skills as communication and spatial reasoning are linked to biological differences in female and male brains.

## FINDINGS

Let us begin with questions 9–11 above (see Table 2). Here we examine sociologists’ views of basic biological differences. Pinker (2002:149) mocks academics for their purported rejection

---

<sup>6</sup>Respondents may also mark “undecided.” Note that sociologists were not asked whether they believe the evolutionary hypotheses are likely to be *true*, but merely *plausible*. We believe the language of plausibility sets the bar lower for sociologists to accept evolutionary reasoning (with rejection of such suggesting, *a fortiori*, a blank slate standpoint).



TABLE 2  
Sociologists' Perceptions of Biological Roots of Intelligence, Sexual Orientation and Cognition

	Highly Plausible/ Plausible (%)	Undecided (%)	Highly Implausible/ Implausible (%)
1. Although the environment affects the range of one's intellectual development, some people are born genetically with more intellectual potential than others.	81.2	9.7	9.1
2. Sexual orientation has biological roots.	70.2	20.5	9.3
3. Observed differences between women and men in such skills as communication and spatial reasoning are linked to biological differences in female and male brains.	42.8	22.4	34.9

of the existence of intelligence.<sup>7</sup> Yet as can be seen, the vast majority (82.1%) of respondents accept the plausibility of genetic roots to intellectual differences. Given the comments we received on this question, it appears that at least some of those who were undecided or found the idea of a biological intelligence implausible (18.8%) were considering multifaceted aspects of intelligence beyond abstract reasoning (e.g., aesthetic, social, etc.), as well as varying, culturally-specific constructions of "intelligence." We would respond, however, that an interactive view of biological and societal influences on intelligence gives weight to each (even if precise quantification is not possible). Moreover, we imagine that doubters on this issue did not have in mind Down Syndrome, Martin-Bell, or other genetic conditions resulting in intellectual disabilities.

Turning to sexual orientation, we again see a strong majority of sociologists (70.2%) affirming the plausibility of biological roots. A couple of respondents objected to the framing of the question, as it excluded environmental influences. One respondent wrote, "The items were sometimes phrased in too simplistic a form, i.e., 'has biological roots,' that I had to disagree, since biological causes cannot be isolated from social/cultural environmental factors."<sup>8</sup> We did in fact use the language of roots to exclude cultural influences on sexual orientation. It appears, in any case, that the large majority of sociologists, with whom we agree, affirm the plausibility of a biological basis for sexual orientation. Moreover, sociologists appear to have shifted substantially on this question since Sanderson and Ellis' 1992 survey. Sanderson and Ellis found that sociologists attributed only 26.2% of people's sexual orientations to biological factors (including genetic, natal, and nonsocial postnatal influences). With only 9.3% of our respondents denying the plausibility of biological roots, it appears that sociologists are much more open to the role of biology in shaping sexual orientation today.

Finally, we explore sociologists' views of a possible link between "female" and "male" brains and differences in such skills as communication and spatial reasoning. Here we see a

<sup>7</sup>He writes, "I find it truly surreal to read academics denying the existence of intelligence. Academics are *obsessed* with intelligence. They discuss it endlessly in considering student admissions, in hiring faculty and staff, and especially in their gossip about one another. . . . In any case, there is now ample evidence that intelligence is a stable property of an individual, that it can be linked to features of the brain. . . ." (emphasis his).

<sup>8</sup>We included in our survey a final open-ended question allowing respondents to elaborate on their view of the blank slate criticism and respond to any of the survey questions in depth. We were delighted to receive 98 comments in 12 pages of single-spaced text.

TABLE 3  
Sociologists' Perceived Plausibility of Evolutionary Biological Explanations

Evolutionary component	Plausible (%)	Implausible (%)
1. Taste for Fats/Sugars	59.8	19.1
2. Fear of Snakes/Spiders	49.4	27.3
3. Beauty as Fitness Indicator	47.0	28.4
4. Sexual Jealousy	44.1	26.4
5. Male Promiscuity	36.4	37.8
6. Male Violent Criminality	32.3	39.5
7. Male Pornography Use	27.1	49.7
8. Veiling/Virginity	22.7	53.4

*Note.* Sociologists' receptiveness to evolutionary explanations declines steeply with politically sensitive questions that bear on the implications of sex differences.

much smaller percentage affirming the plausibility of biological influence (42.8%). Sociologists' responses are somewhat surprising given the substantial body of literature demonstrating the implications of brain differences by sex for cognitive abilities (see Halpern 2011 for a solid overview of the literature).<sup>9</sup> We cannot be certain whether sociologists' biological skepticism on this question is due to simple ignorance of the research, or an ideological ("blank slate") opposition, or perhaps ignorance borne of ideological opposition. Whatever the case, we cannot forget that the history of brain research is not free of biased or sloppy science, and common exaggerations in the popular press do not help matters (see Fine 2010 for a spirited critique). We submit, however, that scientific errors or popularizations do not justify denial of basic developments in brain research today.

Moving on to the focal point of our report: How do sociologists regard the application of evolutionary biological reasoning to human behavior? Table 3 tallies responses to questions 1–8 above. It is immediately apparent that substantial percentages of sociologists accept the plausibility of evolutionary accounts for several human tendencies, including just under 60% with regard to people's taste for fats and sugars. On the other side of the coin, however, this still leaves a majority of sociologists unwilling to acknowledge even the plausibility of evolutionary explanations for seven of the eight behaviors. Why the reluctance?

If we consider question 2 on animal fears, there is ample literature going back decades demonstrating what psychologists refer to as "prepared learning" (e.g., Davey et al. 1998; Marks 1987; Ohman and Mineka 2001; Seligman 1971). Such "biological constraints" on learning have been widely demonstrated in the laboratory and cross culturally. To put the matter simply, it takes scarcely any effort to "teach" people to fear spiders or snakes. Yet electrical sockets or automobiles, which are objectively quite dangerous, hardly elicit an emotional response (much less a phobia). It appears, again, that many sociologists are at best unaware of this literature. It is likely, however, that commitment to a blank slate (cultural determinist) view of human emotions is playing a role as well.

<sup>9</sup>We should note that we agree with one respondent who pointed out that such differences are "average" differences between men and women, and that the question could have been clearer had we indicated such. We can only speculate that it would not have altered the findings in a significant way.

Our presumption regarding sociologists' blank slate standpoint is bolstered by the most salient feature of Table 3: the relevance of the topic of *sex differences* to respondents' perceptions. Note that the four questions that specifically address behavioral differences between the sexes scored the lowest in terms of the "plausibility of a significant evolutionary component." It is plain that sociological theorists are most inclined to reject evolutionary reasoning when it is employed to explain behavioral differences between women and men.

We see no other interpretation for this variation in responses than political outlook. Why would natural selection be limited to feeding behavior or animal phobias, but not to a range of emotions bearing on human sexuality? We do not aim in this report to validate evolutionary accounts writ large. Yet it is telling that so few sociologists acknowledge the plausibility of an evolutionary biological component for such behaviors as men's use of pornography (27.1%) or their desire to control their partners' sexuality (22.1%). Our questions, after all, do not preclude the role of culture, as revealed by our stress on biology as a component of behavior. More than a few theorists, nonetheless, decried the "simplicity" and "reductionism" they believed were implicit in our survey methodology. One respondent wrote: "These terms present a false and over simple dichotomy. There is little in the brain that manifests itself in actual social behavior that is unaffected by experience." Another warned: "While I would caution against an oversocialized view of humans, I would caution against these kinds of survey questions. I have a hard time thinking about sexual promiscuity, intellectual potential, body as property, violent crime, beauty standards, communication skills, and similar social phenomena outside of social context." We wholeheartedly concur that social context is crucial in shaping human behavior. Yet our survey was designed not to dismiss the social but to tap into sociologists' recognition, in least in part, of the biological.

By examining respondents' written comments, it is not difficult to discern their political preoccupations. Indeed, a few expressed their worries openly—that recognition of biological difference would undermine efforts to bring about social justice and equality. Consider the following comments:

By emphasizing hard wiring due to evolution, there is an implicit acceptance of the behavior as if there is nothing or very little that can be done to alter the behavior or as if any such attempts are doomed and misguided. There is no incentive to consider the possibility of altering social environments to reduce the likelihood of fighting, or bullying, or raping, or veiling/segregating women, etc.

This way of posing the issue might be unproductive. For me, the more important question is the kind of political possibilities and the ethical imperatives the two oppositional perspectives (sociobiology vs. cultural determinists) make available. The cultural determinist view offers more progressive possibilities alive to issues of social justice, while the biological determinist view undermines human agency and is most often enlisted to justify hierarchy.

Biological history is no excuse for violating norms or allowing injustice because humans have choice and are responsible.

The above remarks demonstrate the unease that sociologists feel about acknowledging less "wholesome" aspects of human nature. They reveal as well what Pinker (2002) refers to as the fears of "imperfectability" and "determinism." The basic misconception is that if certain

human traits are seen as innate then they must be unchangeable—rendering efforts at progressive change hopeless. Moreover, there is the fear that if a tendency is seen as determined even in part by the genes, people would be free of responsibility for their actions.

In our view, such fears are both unfounded and detrimental—ironically—to efforts at social reform. It does poor service to social change to subordinate truth to politics. Let's presume, for example, that sociobiologists are correct that males have evolved a psychological proclivity to experience sexual jealousy and to strive to monopolize the fertilization of their mates (Alcock 2001:135). Should this be true, it would be one factor that steered cultures in the direction of traditions that regulate women's sexuality and prize their virginity. Should it also be true that this norm is not universal (and has eroded in modern Western societies), then we would see that people are not merely subject to primal instincts. They are equipped with deliberative faculties and conditioned in their behavior by cultural development. In fact, recognition of people's higher capacities does not require that we relinquish any conception of their evolved impulses. Perhaps Pinker (2006:6) says it best:

Even if people do harbor ignoble motives, they don't automatically lead to ignoble behavior, as we saw from the ubiquity of homicidal fantasies, which needless to say rarely result in homicidal behavior. That disconnect is possible precisely because the human mind is a complex system of many parts, some of which can counteract others, such as a moral sense, cognitive faculties that allow us to learn lessons from history, and the executive system of the frontal lobes of the brain that can apply knowledge about consequences and moral values to inhibit behaviors.

Plainly, we should not fear taking the range of human nature seriously. Nor must we deny the animal to aspire to our highest ideals of cooperation and justice.

### CORRELATES OF RECEPTIVENESS

The political roots of sociologists' resistance to evolutionary explanation is evidenced by our OLS analysis of the correlates of their receptiveness. We constructed our dependent variable by subjecting survey questions 1–8 to principal components analysis to reduce them to a single indicator reflecting how plausible the respondent finds evolutionary explanations to be. One factor with an eigenvalue greater than 1 emerged, and this factor accounts for 57.6% of the variation among respondents on these eight items. We used respondent scores on this factor as the dependent variable, with higher values representing more plausibility being attributed to evolutionary biology. Therefore, the dependent variable is a composite measure of the perceived plausibility of evolutionary arguments.

Respondents were also asked to self-identify with respect to their political identities. "Conservative," "moderate," "liberal," and "radical" were offered as independent yes or no items, and a composite was constructed based on the responses to these political items. Our composite variable, which we call "radicalism," is coded 0 for conservative, 1 for moderate, 2 for liberal and 3 for radical. Theoretical perspectives were scored 3 when named as the first choice, 2 if second choice, and 1 if third choice.

We ran a number of regression models with our measure of perceived plausibility as the dependent variable, and other survey responses as independent variables. Omitting several variables that were not reliably associated with the dependent variable, we report what we believe to be

TABLE 4  
Variables and Characteristics

Variable	Mean	Std. dev.	Minimum	Maximum
<i>Dependent variable</i>				
Perceived plausibility of Sociobiology	.047	.998	-2.404	2.336
<i>Demographics</i>				
Age	58.79	13.65	33	87
Male (1 = yes; 0 = no)	.786	.412	0	1
<i>Political orientation</i>				
Radicalism	2.09	.78	0	3
<i>Preferred Theoretical Perspectives</i>				
Feminist	.344	.821	0	3
Evolutionary Biology/Sociobiology	.191	.681	0	3

Note. Valid  $N = 131$ .

the best fit of the data and theory. We retained for the final model those variables showing coefficients consistent with theory and statistically significant. Table 4 below shows the descriptive statistics for the variables in our final model.

Table 5 illustrates our findings, including regression coefficients, standard errors,  $t$ -scores and  $p$  values. Like Sanderson and Ellis (1992), our results suggest no significant effect from gender on perceptions of the plausibility of evolutionary accounts. Nor was age of respondent significant. However, political outlook was a significant predictor, as expected. Our “radicalism” variable takes a negative coefficient ( $-.227$ ;  $p < .05$ ), suggesting an inverse relationship between radicalism and perceived plausibility of evolutionary biological accounts.

Respondents’ preferred theoretical perspectives of “feminism” and “sociobiology” were significant as well, and in the expected directions. As one would anticipate, a preference for sociobiology as a theoretical perspective is positively associated ( $.510$ ;  $p < .001$ ) with perceived plausibility of biological accounts. The feminist perspective, on the other hand, shows a negative association ( $-.323$ ;  $p < .01$ ).

We arrive at the conclusion, hence, that the theorists least inclined to find evolutionary accounts plausible are those who identify as politically radical and those who examine the social world principally through a feminist theoretical lens. This finding would hardly surprise sociology’s critics. But the question cuts both ways. For Okasha (2002:125–126), “Few would deny the trend” that sociobiology’s advocates “tended to be politically right-wing,” while its critics “tended to come from the political left.” Whatever the validity of his claim<sup>10</sup> (for which he offers no support), it raises the knotty issue at the heart of this report: the politics of knowledge production. Must political ideology shape one’s reception of evolutionary theory? Might we acknowledge an often blurred line between facts and values without surrendering the pursuit of scientific truth? We will close by reviewing our findings in light of these larger epistemological

<sup>10</sup>We are unaware of any broad-based surveys on the politics of sociobiologists. However, we are skeptical that they lean to the political right. See Sanderson (2001: 138, note 3) for discussion of the left-of-center politics of leading sociobiologists. Two surveys were carried out recently of evolutionary-oriented graduate students in psychology and anthropology (Tybur, Miller, and Gangestad 2007; Lyle and Smith 2012). The results show that evolutionary students are as liberal as their non-evolutionary cohorts. We thank a reviewer for directing us to this literature.

TABLE 5  
Accounting for Variation in Perceptions of the Plausibility of Evolutionary Accounts:  
Ordinary Least Squares Regression Results

Independent variables	Coefficient	Std. error	<i>t</i> -score	<i>P</i>
<i>Demographics</i>				
Age	-.003	.006	-.530	.597
Male (1 = yes; 0 = no)	.129	.225	.576	.566
<i>Political Orientation</i>				
Radicalism	-.227*	.100	-2.272	.025
<i>Preferred Theoretical Perspectives</i>				
Feminist	-.323**	.109	-2.949	.004
Evolutionary Biology/Sociobiology	.510***	.114	4.474	.000
<i>Constant</i>	.620	.405	1.531	.128

Note. *N* = 131; Adjusted  $R^2$  = .261;  $F$  = 10.200\*\*\*.

\* $p$  = .05; \*\* $p$  < .01; \*\*\* $p$  < .001.

concerns. In the process we will venture tentatively into contemporary research in political psychology.

## DISCUSSION

Sociology is a house divided. Just over half of the theorists in our sample deny the role of natural selection in shaping a range of human tendencies. Many more are unwilling to acknowledge the plausibility of evolutionary arguments applied to sex differences. Plainly, we see appreciable support for the blank slate critique popularized by Pinker.<sup>11</sup> On the other hand, we see signs of change. Thirty-seven percent of our sample either embrace evolutionary theory or are hopeful of its promise to shed new light on social phenomena. Moreover, respondents' open-ended responses repeatedly stress the need for an interactionist perspective. Statements such as these abound:

It seems to me the current work of geneticists points to the complex interplay between genetic preconditions and environmental conditions.

[Sociologists] should be open about biological conditioning, limiting, and interacting with socio-cultural learning and social structural impacts.

The blank slate assumption is not plausible. Biological factors have effects. It is just that their effects interact with sociological factors. Unpacking such biosocial processes is the next great challenge for the social sciences.

<sup>11</sup>One of our reviewers suspects that sociologists' aversion to evolutionary biology is much greater than our survey suggests. The reviewer notes our modest response rate (29%) and the likelihood of self-selection bias, given the large number of post-entry refusals that we acknowledge in note 4 above. Should it be the case that declining the survey indicates rejection of evolutionary ideas, then our survey may indeed overstate sociologists' receptiveness. As we are limited to the data we have available, we would welcome further investigation of the "evolving" state of the field.

One respondent admitted that he had “bought the blank slate theory,” but he ultimately rejected it “in the face of strong evidence to the contrary.” Three respondents specifically referred to the blank slate metaphor as a “straw man,” with one doubting that “any reasonable number of sociologists hold to that view.” Indeed, the general tenor of such responses is that the biological and social sciences should nourish each other around a complex, biosocial conception of human nature.

Whether the discipline takes the charge to integrate evolutionary reasoning remains to be seen. To affirm the importance of biology in the abstract is hardly the same as reevaluating the assumptions of one’s field. As we note above, the most common charge leveled against evolutionary theory is its alleged reductionism and genetic determinism:

[S]ociobiology can be very reductionistic, thus ignoring the contributions of other factors to the explanation of social phenomena.

While there are certainly biological tendencies, these are mediated by cultural experiences and social expectations. I don’t believe that biological tendencies are useful for explaining specific behaviors. There is no religion gene or honesty gene. Nor is there an ingrown biological tendency to like or dislike broccoli.

[B]ecause how we know the ‘world’ is first and foremost through language, knowledges [sic], and social meaning the question of what is purely natural or what would nature look like stripped of the social is simply unanswerable. When we try, it leads to reductionism.

We stress throughout that our aim is not to endorse evolutionary theories. After all, no field is exempt from poor scholarship—and the media’s regular ballyhooing of the latest “gene for” this or that behavior is certainly cause for skepticism. Yet for those with even a basic appreciation of the current state of evolutionary theory, concerns about single genes rigidly determining behaviors are unwarranted. Evolutionary theorists regularly stress the complex ensembles of genes triggered in varying ways by environmental and cultural conditions. The old nature vs. nurture dichotomy has long been discarded in favor of precisely the kind of interactive view many respondents champion in their comments. Culture and genes co-evolve. The cultural environment influences changes in the genes just as the genes influence the construction of the cultural environment.

Some of respondents’ criticisms of sociobiology border on what could be called *sociological reductionism*—the mechanical rejection of the possibility that genes or any extra-social factor play a constituent role in a given human tendency. Notice the assurance of the respondent above: “There is no religion gene or honesty gene. Nor is there an ingrown biological tendency to like or dislike broccoli.” To be sure, as a cultural practice, the specific content of religious beliefs is not genetically shaped. Yet might aspects of personality that make religious narratives more attractive to some people than to others have a biological component? Cultures certainly harvest diverse foods in wide-ranging historical and ecological contexts. Yet might sugary and fatty foods have a universally more compulsive appeal than broccoli due in part to our primordially-evolved tastes?<sup>12</sup>

<sup>12</sup>Moss’s (2013) investigative critique of how the food giants invest in quantifying the precise salt, sugar, and fat content in their processed foods is revealing. The consumers’ sugary “bliss point” is especially profitable—and insiders acknowledge that their industry would cease to exist without millions of veritable “addicts.” Needless to say, we are unaware of evidence of a “bliss point” of compulsive consumption of broccoli or asparagus.

We should address the reductionism critique of evolutionary science directly. Let us conceptualize, rather prosaically, the climb from physics up through chemistry, biology, psychology and sociology as rungs on a ladder. We would expect scientific inquiry at the level of multiple rungs to be rarer given disciplinary specialization and the security of “normal science” in the Kuhnian sense. Going beyond one’s formal training and comfort zone to converse across rungs is difficult. Yet it is here that we might expect some of the more exciting research. This appears to be the case today as evolutionary reasoning sheds new light across a range of social phenomena formerly deemed independent of such influence.

If we continue to borrow from Kuhn, and think of the blank slate as a *paradigm*, sociologists’ rejection of evolutionary reasoning can be understood as a reflection of disciplinary custom reinforced by commitment to the preferred theories and methods of the field. In this sense, dedication to examining strictly emergent phenomena is a marker of one’s group membership (we will return to this argument below). To be sure, the large majority of questions to which sociologists attend are *appropriately* examined at the level of the social. It would be unhelpful to bring genes into discussions of, say, the volatility of the business cycle, the variation in states’ immigration policies, or the mechanisms perpetuating global inequality, among countless more. “Sociobiology will never replace traditional sociology,” Alcock (2001:130) notes, “because the two disciplines focus on different levels of analysis.” Yet there are questions that may implicate the different levels. To investigate, as sociologists do, the “proximate” causes of human behavior should not preclude by ideological fiat attention to possible evolutionary or “ultimate” causes as well. It is no service to science to mechanically reject explanations at higher or lower rungs of the ladder.

We can elucidate the matter by returning briefly to the respondent’s comment about broccoli. It is obvious that if people gorged more on broccoli than cheeseburgers we would hardly face such a severe obesity problem. When researchers investigate the many causes of obesity, it strikes us that historically specific, social factors are decisive. Capitalist profit maximization, the ready availability of fast and processed foods, sedentary lifestyles, and agricultural subsidies are a few of the key proximate causes of the epidemic (Eisenhour 2001; Guthman 2011; Katzmarzyk, Janssen, and Arden 2003; Pollan 2006; Powell et al. 2007). Yet attention to such societal factors should not preclude consideration of evolutionary factors. Evolutionary biologists emphasize the “mismatch” in the modern world between our evolved biology and the current socioeconomic environment (e.g., Gluckman and Hanson 2006). In human prehistory, nature conferred a survival advantage on those with the ability to store energy in adipose tissue during good times for use during later, leaner times. Yet a taste for fat and sugar in a modern environment of fast food and sedentary jobs spurs serious health repercussions.

Plainly, an adequate accounting of the obesity problem entails attention to biological, psychological and social factors. The same applies to human sexual behavior, notwithstanding sociologists’ apparent discomfort in acknowledging it. The expressions of feelings of attraction or jealousy are certainly bound up with cultural conditions, yet we doubt that they are devoid of evolved biology. We should again stress here that people are not helplessly subject to their impulses. People have the capacity, for example, to consider long-term health consequences as they resist that additional “guilty” portion of ice cream. The same case can be made for sexual behaviors. A variety of research has found that men have a greater likelihood than women to misperceive friendly interactions as indicators of sexual interest (Abbey 1982; Haselton 2003; Perilloux, Easton and Buss 2012). Haselton (2003) interprets such findings from an evolutionary



standpoint, suggesting that males have been evolutionarily primed to sexual “overperception” to maximize mating opportunities. Whatever the plausibility of the evolutionary account, men could use the knowledge of such a tendency to reduce unwanted sexual advances toward women (Buss 2011:18).

Of course, evidence from our survey suggests that sociologists will be least inclined to acknowledge the *existence* of evolved sex differences in behavior, let alone productive ways to respond to such differences. Such an anti-evolutionary stance with regard to sex differences is peculiar. We suggest above that sociologists’ outlook is due in part to a disciplinary tradition. The kinds of questions asked are simply higher up the ladder (beyond the rungs of biology and psychology). Moreover, the gamut of sociological training—from multivariate statistics to comparative-historical method—puts a premium on attention to manifold proximate factors. It is perhaps not surprising that 71.5% of our sample agreed that they are “not committed to any theoretical tradition” and that they “take an eclectic approach” in their research.

We suspect, however, that more than disciplinary custom is at play in sociologists’ outlook. Indeed, sociologists appear to reject biology as a marker of *group identity*. Being a professional sociologist entails allegiance to a view of human beings as *cultural beings* first and foremost. “Nurture is our nature,” states a popular introductory textbook (Macionis 2005:119). As cultures and social arrangements change, so does human nature. From this standpoint, affirmation of the blank slate by a majority of sociological theorists may serve certain emotional and psychological needs of the group.

We are venturing now onto the contentious terrain of political psychology. We can only offer a tentative sketch of a few potentially relevant considerations. Let’s remember that evolutionary-minded sociologists regularly chide their colleagues for political bias. Sanderson and Ellis (1992:40) write:

As we have seen, sociologists lean markedly to the left on the political spectrum. They are strongly committed to principles of social justice and equality, and this makes them highly unreceptive to the idea that basically unalterable biological factors contribute much to the organization of society.

Our report suggests that we cannot deny this link between political identity and anti-evolutionism among sociologists. After all, the results confirm that theorists who identify as radicals or feminists are the most inclined toward a blank slate view.

From a political-psychological standpoint, what is surprising about the findings is that the apparent rejection of science is not typically the province of the political left. Indeed, *conservative* personality traits—such as a need for cognitive closure, the management of uncertainty and threat, strong group loyalty, and authoritarianism—have been consistently linked to science denial (e.g., Chirumbolo 2002; Garvey 2008; Jost et al. 2003; Mooney 2012). It is not uncommon, as we know, for conservatives to dismiss the scientific consensus on such diverse issues as climate change, air and water pollution, and evolutionary theory as a whole. Political psychology helps explain such behavior by showing that people do not respond to scientific claims in a vacuum. On the contrary, people often interpret the “facts” through the lens of their group identities. Moreover, when the facts run counter to their groups’ moral instincts, people appear trigger-ready to rationalize them away (see Haidt 2012).

Sociologists are, of course, overwhelmingly liberal. Just over 85% of our sample identify as either liberal or radical. (Around 77% of sociologists identified as such in Sanderson and Ellis

1992). Psychological research suggests that a defining trait of the liberal mind is “openness to experience,” which is linked to a greater tolerance of ambiguity and the inclination to reevaluate one’s ideas in light of new or conflicting information. Yet liberals are plainly not immune to bias. They also reject or misinterpret the science on issues they care about, though apparently to a much lesser extent than conservatives do. Mooney (2012) points to what he sees as liberals’ often exaggerated response to genetically engineered foods and “fracking” technology as two cases in point.

It appears that evolutionary reasoning—especially as it relates to sex differences—is one of the issues that pushes liberals’ emotional buttons (Mooney 2012:97–98). From the start of the sociobiology controversy, evolutionary ideas have been met with strong emotional resistance by social scientists. Indeed, sociologists’ rejection of sociobiology appears to reflect more than simply *intellectual* disagreement over the prospects of a more egalitarian social order. More pointedly, sociobiological ideas likely provoke liberals’ deep-seated moral instincts—including a strong commitment to fairness and an empathetic impulse to protect the vulnerable from harm.<sup>13</sup> As liberals feel intensely that people are equal and should be treated so, ideas that appear to them to in any way “naturalize” inequality or social domination are deemed repugnant. In this view, the disciplinary distance between biology and sociology likely bolsters classic ingroup-outgroup behavior. That is, many sociologists may reject evolutionary biology less for the plausibility of the ideas than for the collective threat they feel such ideas pose.<sup>14</sup>

### CONCLUDING REMARKS

Must people’s political ideologies—and underlying moral instincts—distort their interpretation of scientific evidence? Are sociologists’ evolutionary critics (or at least those “unsullied” by deep ideological commitments) simply appraising the biological facts more objectively?

We are doubtful that knowledge production can ever be extricated from the currents of cultural and political life. There is, after all, no Archimedean point—left, right, or center—from which to appraise the facts pristinely. Postmodern feminism maintains that members of different genders, ethnicities and locations understand the world in distinct ways (Harding 1986). We would add that the same holds for scientific communities. Yet the sociology of knowledge need not lead us to an extreme form of epistemological relativism. It is feasible, we hope, to navigate the poles of positivism and relativism.

We have admonished our sociology colleagues in this paper for their mechanical dismissal of evolutionary reasoning. Yet the sword is no doubt double-edged. If we are correct in the presumption that group identity and personality impact how scientists read evidence and construct knowledge, further research into potential biases in other scientific communities (such as evolutionary scientists) would be valuable. “It is high time,” one of our respondent’s asserts, “for sociologists

<sup>13</sup>The lead author of this report encountered animus from peers and mentors from graduate school for his budding interest in evolutionary biology. Bizarre disputes with such colleagues over whether E. O. Wilson and Richard Dawkins are closet Social Darwinists, or if sexual orientation were a purely social construct, were a partial motivation for this survey research.

<sup>14</sup>The handful of hostile comments we received from respondents suggests that the survey was provocative to some. One respondent referred to the questions on gender as “idiotic” and not to be “dignified [with] a response.” Another revealed “no confidence in [our] capacity or willingness for a disinterested, careful analysis.” On balance, we should note that we received numerous positive comments, including much interest in the results.

and sociobiologists to engage in nonpartisan intellectual exchange.” The prospects for that exchange may be enhanced by examining the institutional and social-psychological roots of our partisanship.

## AUTHOR NOTES

Mark Horowitz (PhD, University of Kansas, 2004) is Associate Professor of Sociology at the University of Texas at Brownsville. He is a specialist in social theory with research interests in globalization, social psychology and the U.S.-Mexico border region. His previous articles have appeared in *Critical Sociology*, the *Journal of Social Justice*, and the *Journal of Borderlands Studies*.

William Yaworsky (PhD, University of Oklahoma, 2002) is Associate Professor of Anthropology at the University of Texas at Brownsville. His research interests include social organization and political violence in Latin America. His previous articles have appeared in the *Journal of Anthropological Research*, *Mexican Studies/Estudios Mexicanos*, the *Journal of Strategic Studies*, *Small Wars and Insurgencies*, and the *Latin Americanist*.

Kenneth Kickham (PhD University of Oklahoma, 2000) is Associate Professor of Political Science at the University of Central Oklahoma. His research interests include public administration and welfare reform. His previous articles have appeared in *Social Science Quarterly*, *Publius*, *Public Administration Review*, and the *Policy Studies Journal*.

## REFERENCES

- Abbey, Antonia. 1982. “Sex Differences in Attributions for Friendly Behavior: Do Males Misperceive Females’ Friendliness?” *Journal of Personality and Social Psychology* 42:830–838.
- Adams, Bert and Rosalind Ann Sydie. 2002. *Contemporary Sociological Theory*. Thousand Oaks, CA: Pine Forge Press.
- Alcock, John. 2001. *The Triumph of Sociobiology*. Oxford: Oxford University Press.
- Allan, Kenneth. 2006. *Contemporary Social and Sociological Theory: Visualizing Social Worlds*. Thousand Oaks, CA: Pine Forge Press.
- Andersen, Heine and Lars Bo Kaspersen. 2000. *Classical and Modern Social Theory*. Hoboken, NJ: Wiley-Blackwell.
- Applerouth, Scott. 2010. *Sociological Theory in the Contemporary Era: Texts and Readings*. Thousand Oaks, CA: Pine Forge Press.
- Applerouth, Scott and Laura Desfor Edles. 2007. *Classical and Contemporary Sociological Theory: Texts and Readings*. Thousand Oaks, CA: Pine Forge Press.
- Baert, Patrick and Filipe Carreira de Silva. 2010. *Social Theory in the Twentieth Century and Beyond*. Cambridge: Polity Press.
- Brown, Donald. 1991. *Human Universals*. Boston: McGraw Hill.
- Buss, David M. 2011. *Evolutionary Psychology: The New Science of the Mind*. Boston: Allyn & Bacon.
- Calhoun, Craig. 2002. *Contemporary Sociological Theory*. Hoboken: Wiley-Blackwell.
- Chirumbolo, Antonio. 2002. “The Relationship Between Need for Cognitive Closure and Political Orientation: the Mediating Role of Authoritarianism.” *Personality and Individual Difference* 32:603–610.
- Davey, Graham, Angus S. McDonald, Uma Hirisave, G. G. Prabhu, Saburo Iwawaki, Ching Im Jim, Harald Merckelbach, Peter J. de Jong, Patrick WL Leung, and Bradley C Reimann. 1998. “A Cross-Cultural Study of Animal Fears.” *Behaviour Research and Therapy* 38:735–750.
- Dawkins, Richard. 1976. *The Selfish Gene*. Oxford: Oxford University Press.
- Delanty, Gerald. 2006. *The Handbook of Contemporary European Social Theory*. New York: Routledge.
- Eisenhaur, Elizabeth. 2001. “In Poor Health: Supermarket Redlining and Urban Nutrition.” *Geo-Journal* 53:125–133.
- Elliott, Anthony. 2009. *Contemporary Sociological Theory: An Introduction*. New York: Routledge.

- Ellis, Lee. 1996. "A Discipline in Peril: Sociology's Future Hinges on Curing its Biophobia." *The American Sociologist* 27:21–41.
- Fine, Cordelia. 2010. *Delusions of Gender: How Our Minds, Society, and Neurosexism Create Difference*. New York: W.W. Norton & Company.
- Flecha, Ramon, Lidia Puivert, and Jesus Gomez. 2003. *Contemporary Sociological Theory*. New York: Peter Lang.
- Garvey, Killian. 2008. "Denial of Evolution: An Exploration of Cognition, Culture and Affect." *Journal of Social, Evolutionary and Cultural Psychology* 2:209–216.
- Gluckman, Peter, and Mark Hanson. 2006. *Mismatch: Why Our World No Longer Fits Our Bodies*. New York: Oxford University Press.
- Gould, Steven J. 1978. "Sociobiology and Human Nature: A Post-Panglossian Vision." Pp. 283–290 in *Sociobiology Examined*, edited by A. Montagu. New York: Oxford University Press.
- Gould, Stephen J. and Richard Lewontin. 1979. "The Spandrels of San Marco and the Panglossian Paradigm: a Critique of the Adaptationist Programme." *Proceedings of the Royal Society of London. Series B. Biological Sciences*, 205:581–598.
- Guthman, Judith. 2011. *Weighing In: Obesity, Food Justice, and the Limits of Capitalism*. Berkeley: University of California Press.
- Halpern, Diane. 2011. *Sex Differences in Cognitive Abilities*. Mahwah, NJ: Lawrence Erlbaum.
- Haidt, Jonathan. 2012. *The Righteous Mind: Why Good People Are Divided By Politics and Religion*. New York: Random House, Inc.
- Harding, Sandra. 1986. *The Science Question in Feminism*. Ithaca, NY: Cornell University Press.
- Harrington, Austin. 2005. *Modern Social Theory: An Introduction*. Oxford: Oxford University Press.
- Harris, Marvin. 1979. *Cultural Materialism: The Struggle for a Science of Culture*. New York: Random House.
- Haselton, Martie. 2003. "The Sexual Overperception Bias: Evidence of a Systematic Bias in Men from a Survey of Naturally Occurring Events." *Journal of Research in Personality* 37:34–47.
- Johnson, Doyle. 2008. *Contemporary Sociological Theory*. London: Springer.
- Jost, John, Jack Glaser, Arie W. Kruglanski, and Frank J. Sulloway. 2003. "Political Conservatism as Motivated Social Cognition." *Psychological Bulletin* 129:339–375.
- Katzmarzyck, Peter, Ian Janssen, and Christopher Arden. 2003. "Physical Inactivity, Excess Adiposity, and Premature Mortality." *Obesity Review* 4:257–290.
- Kaye, Howard. 2003. "Back to Nature." *Society*, 40:48–52.
- Kenrick, Douglas, Sarynina Nieuweboer and Abraham P. Buunk. 2009. "Universal Mechanisms and Cultural Diversity: Replacing the Blank Slate with a Coloring Book." Pp. 257–272 in *Evolution, Culture and the Human Mind*, edited by M. Schaller et al. London: Taylor & Francis.
- Laland, Kevin and Gillian Brown. 2011. *Sense and Nonsense: Evolutionary Perspectives on Human Behavior*. Oxford: Oxford University Press.
- Lewontin, Richard, Steven Rose, and Leon Kamin. 1984. *Not in Our Genes*. New York: Penguin Books.
- Lopreato, Joseph and Timothy Crippen. 2002. *Crisis in Sociology: The Need for Darwin*. New Jersey: Transaction Publishers.
- Lord, Jane and Stephen Sanderson. 1999. "Current Theoretical Perspectives of Western Sociological Theorists." *The American Sociologist* 30:42–66.
- Lustick, Ian. 2005. "Daniel Dennett, Comparative Politics, and the Dangerous Idea of Evolution." *APSA-CP Newsletter* 16:1–8.
- Lyle, Henry and Eric Smith. 2012. "How Conservative are Evolutionary Anthropologists?" *Human Nature* 23: 306–322.
- Machalek, Richard and Michael Martin. 2004. "Sociology and the Second Darwinian Revolution: A Metatheoretical Analysis." *Sociological Theory* 22:455–476.
- Machalek, Richard and Michael W. Martin. 2010. "Evolution, Biology, and Society A Conversation for the 21st-Century Sociology Classroom." *Teaching Sociology* 38:35–45.
- Macionis, John. 2005. *Society: The Basics*. Upper Saddle River, NJ: Prentice Hall.
- Mann, Douglass. 2007. *Modern Social Theory*. Oxford: Oxford University Press.
- Marks, Issac. 1987. *Fears, Phobias, and Rituals: Panic, Anxiety, and Their Disorders*. New York: Oxford University Press.
- Montagu, Ashley. 1980. *Sociobiology Examined*. New York: Oxford University Press.

- Mooney, Chris. 2012. *The Republican Brain: The Science of Why They Deny Science—and Reality*. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Moss, Michael. 2013. *Salt Sugar Fat: How the Food Giants Hooked Us*. New York: Random House.
- Ohman, Arne and Susan Mineka. 2001. “Fears, Phobias, and Preparedness: Toward an Evolved Module of Fear and Fear Learning.” *Psychological Review* 2001:483–522.
- Okasha, Samir. 2002. *Philosophy of Science: A Very Short Introduction*. New York: Oxford University Press.
- Perilloux, Carmin, Judith Easton, and David M. Buss. 2012. “The Misperception of Sexual Interest.” *Psychological Science* 23:146–151.
- Pinker, Steven. 2002. *The Blank Slate: The Modern Denial of Human Nature*. New York: Penguin Books.
- Pinker, Steven. 2006. “The Blank Slate.” *The General Psychologist* 41:1–8.
- Pollan, Michael. 2006. *The Omnivore’s Dilemma: A Natural History of Four Meals*. New York: Penguin.
- Powell, Lisa, M. Christopher Auld, Frank Chaoupka, Patrick O’Malley, and Lloyd Johnson. 2007. “Association Between Access to Food Stores and Adolescent Body Mass Index.” *American Journal of Preventive Medicine* 33:S301–S307.
- Reed, Kate. 2006. *New Directions in Social Theory: Race, Gender, and the Canon*. London: Sage.
- Ritzer, George. 2007. *Modern Sociological Theory*. New York: McGraw Hill.
- Ritzer, George. 2009. *Contemporary Sociological Theory and its Classical Roots: The Basics* (3rd edition). New York: McGraw Hill.
- Ritzer, George and Barry Smart. 2001. *The Handbook of Social Theory*. London: Sage Publications.
- Rose, Steven. 1979. “‘It’s Only Human Nature’: The Sociobiologist’s Fairyland.” Pp. 158–170 in *Sociobiology Examined*, edited by A. Montagu. New York: Oxford University Press.
- Sahlins, Marshall. 1976. *The Use and Abuse of Biology: An Anthropological Critique of Sociobiology*. Ann Arbor: University of Michigan Press.
- Sanderson, Stephen. 2001. *The Evolution of Human Sociality: A Darwinian Conflict Perspective*. Lanham, MD: Rowman and Littlefield.
- Sanderson, Stephen. 2012. *Rethinking Sociological Theory*. Boulder, CO: Paradigm Publishers.
- Sanderson, Stephen and Lee Ellis. 1992. “Theoretical and Political Perspectives of American Sociologists in the 1990s.” *The American Sociologist* 23(2):26–42.
- Segerstråle, Ullica. 2000. *Defenders of the Truth*. Oxford: Oxford University Press.
- Seligman, Martin. 1971. Phobias and Preparedness. *Behavior Therapy* 2:307–320.
- Tooby, John and Leda Cosmides. 1992. “The Psychological Foundations of Culture.” Pp. 19–136 in *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, edited by J. Barkow. New York: Oxford University Press.
- Turner, Jonathan. 2006. *Handbook of Sociological Theory*. New York: Springer.
- Tybur, Joshua, Geoffrey Miller, and Steven Gangestad. 2007. “Testing the Controversy.” *Human Nature* 18:313–328.
- Van den Berghe, Pierre. 1990. “Why Most Sociologists Don’t and Won’t Think Evolutionarily.” *Sociological Focus* 5:173–185.
- Van den Berghe, Pierre. 1995. “Sociology and Biology: What Biology Do Sociologists Need to Know?” *Social Forces* 73:1267–1278.
- Wilson, Edward O. 1975. *Sociobiology: The New Synthesis*. Cambridge MA: Harvard University Press.
- Wilson, Edward O. 1978. *On Human Nature*. Cambridge MA: Harvard University Press.
- Wilson, Edward O. 1998. *Consilience: The Unity of Knowledge*. New York: Alfred Knopf.