

Our Ancestral Shadow: Hate and Human Nature in Evolutionary Psychology

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I. INTRODUCTION

In some unique ways, each of us is like *no other* human being. In other ways, each of us is like *some other* human beings. And, in yet some other ways, each of us is like *all other* human beings. The question of the nature of human nature is captured in this final statement. In what ways are we like *every other* person that has gone before us and will come after us? This question is particularly relevant to the emerging field of hate studies. Is there an endowment with which each of us begins our life that is important in understanding how, and why, people hate?

Many philosophers, social thinkers, and psychologists assume that human nature is intrinsically neutral and has no predisposing inclinations. In this view, we are a blank slate, virtually free of content until written on by the hand of experience. Others more optimistically maintain that our basic predisposition is toward goodness. Still others argue for a more pessimistic conception of humans as essentially evil, dangerous, or impulse-ridden—a recognition of our basic natural proclivity to turn ugly. Finally, many thinkers maintain the existence of *both* good and evil inclinations in humankind and focus on the eternal struggle between these two universal aspects of human nature.

How do modern social scientists respond to the question of the nature of human nature? Most are hesitant to engage the topic directly. There is something too personal and subjective about it that makes it seem out of bounds. It is mistakenly assumed to be a question of metaphysics that cannot be addressed using the methodology of the social sciences. In reality, though, all social scientists have, and regularly employ, conceptions of human nature. It is precisely these underlying assumptions that must be faced as we begin to establish the interdisciplinary field of hate studies.

THE NATURE OF HUMAN NATURE IN MODERN SOCIAL SCIENCE

Rene Descartes, the noted French philosopher and mathematician of the seventeenth century, argued that humans alone are capable of rational thought

and reflective reasoning. Descartes, and most thinkers after him, conceived of human nature around the belief that we, as humans, act out of our own volition; that we think about and will our behaviors. Conversely, so-called lower animals are mere machinelike automata whose every response is controlled and directed by instinct. In other words, humans are something more than animals. We are animals *plus*. There is a gap that contains some kind of special human essence that has been added to the baseline of our animal nature. This Cartesian gap between humans and animals was fundamentally challenged by the rise of evolutionary thought in the mid-nineteenth century.

Charles Darwin was not the first to advance the idea of evolution—that is, changes over time in organic structure. His important contribution was to offer a compelling and lucid explanation, a causal mechanism, of how evolution works—his theory of natural selection. Nowhere within Darwin's *On the Origin of Species by Means of Natural Selection* (1859) is natural selection applied to understanding the nature of human nature. The concluding paragraph of the volume promised only that the theory of natural selection would be important in securing a foundation for the new field of psychology and would shed light on human origins. Twelve years later, however, with his publication of *The Descent of Man*, Darwin explicitly depicted human beings, along with all other animals, as shaped by natural selection. His theory of natural selection unified all living creatures, from single-celled amoebas to multicellular mammals, into one great tree of descent. With the Cartesian gap between “lower animals” and humans obliterated, a new avenue was opened for understanding the nature of human nature.

Darwinian evolution insisted upon the assumption that much of human behavior was dependent upon the very same thing that drove much of animal behavior: instinct. In other words, if humans were simply now one species of animal, and if animal behavior was motivated in large part by instinct, then much of human behavior could now be understood in instinctual terms as well. The notion that humans are driven by an instinctual legacy from our animal ancestry may well be the most radical component of the most revolutionary theory in modern history. At the turn of the twentieth century, the emerging field of psychology—steeped in the confidence of Darwin's theory of evolution—welcomed the advent of instinct theory in explaining the complexities of human behavior.

William James, the father of American psychology, gave a central place to instinct theory in his seminal book, *Principles of Psychology*, written in 1890. Instinct, James contended, drawing directly from Darwin, was common to both animals and human beings. Where others saw humans ruled by “reason” and few instincts, James argued that human behavior is more intelligent than that of other animals because we have *more* instincts than they do, not fewer. James' peers judged his emphasis on instinct in accounting for human behavior as a fundamental insight of the emerging science of psychology. His work set the

stage for a proliferation of instinct theories and catalogues—some dubious at best—throughout the social sciences.

Of all the instinct theories at the turn of the twentieth century, however, it was that of Sigmund Freud, the founder of psychoanalysis, which most fundamentally revolutionized our understanding of human nature. For Freud, instincts were the pent-up forces within the mental apparatus, and all the “energy” in our minds comes from them alone. Although Freud admitted that we could distinguish an indeterminate number of instincts, he believed that they all were derived from a few fundamental instincts. Freud’s influential, and controversial, work on the instinctual bases of human nature guaranteed that the nature of human nature had a foothold as a useful concept in the emerging social sciences.

That foothold, though, would be swept out by the behaviorist revolution of the early 1920s. Behaviorism, which dominated social science for the next fifty years, spoke of a formless human nature given form by reward and punishment. It threw out the assumption that much of human behavior was dependent on instinct. The behaviorist revolution replaced the notion of *a* human nature with a focus on environment, and culture, as the underlying causes of human behavior.

In psychology, the concept of “instincts” was driven underground, to be replaced by other, more “scientific,” explanations for human behavior, like “motivation,” “drive,” or “reinforcement.” By the mid- and late 1930s, instinct theory and evolutionary thinking had all but disappeared from most psychological and social scientific journals. Through the 1950s and 1960s, the popularity of B.F. Skinner’s theories of environmental conditioning kept the idea of human nature outside the boundaries of social science. There is no inherent human nature driving human behavior; rather, our essential nature is to be driven by rewards and punishments. This paradigm shift in American social science was reinforced by broader changes in social and political thought that downplayed an instinctive or biological basis for human behavior.

In sum, these trends led to the general development of what came to be called the Standard Social Science Model (SSSM).¹ The SSSM, pervading all of the social sciences from the opening of the 1930s through the end of the 1960s, rested on the twin beliefs that (a) all humans have similar potential and (b) the only thing that separates us is culture, not biology. In other words, the nature of humans is that they have no nature; culture is the fundamental determinant of human behavior. Human nature is essentially an empty container waiting to be filled by socialization. Why study paper (human nature) when what is interesting is the writing on it and the author (socialization)? Such a belief system—inundating our methodologies, theories and interpretations—left generations of social scientists blind to the role of human nature in shaping our thoughts, feelings, and behaviors.

At the beginning of the 1970s, however, the discussion of the nature of

human nature returned to the social sciences. The work of ethologists, such as Nikolaus Tinbergen's *Study of Instinct* (1951), Konrad Lorenz's *On Aggression* (1966), and Desmond Morris' *The Naked Ape* (1967), about instincts in animals—and human beings—led many social scientists to rethink the SSSM. We began to revisit Darwin and his insistence on the continuity between human and animal nature. Subsequently, three decades of research in cognitive psychology, artificial intelligence, psycholinguistics, evolutionary biology, paleoanthropology, and neuroscience have legitimated the study of evolution-produced instincts in humans and “other animals.” We have been reminded that no longer can we grossly underestimate the impact of *what* we are upon *who* we are; no longer can we relentlessly insist that everything about us is attributable to something that happened in school, in our relations with our parents, or in some other aspect of our environment or culture.

To be sure, there remains a gulf between humans and animals that is far from closed. The edges of this gulf, though, continue to move closer to one another. As they do, the concept of a human nature has returned to the front of the academic conversation in the social sciences. Leading this charge into the twenty-first century is the field of *evolutionary psychology*—a hybrid of the natural (evolutionary biology) and social (cognitive psychology) sciences. What is EP and what does it have to say about the nature of human nature?

II. EVOLUTIONARY PSYCHOLOGY

Evolutionary psychology (EP) is a multidisciplinary approach within the Darwinian paradigm that seeks to apply theories of evolutionary biology in order to understand human psychology. The specific goal of EP is to discover and understand the design of the human mind in terms of Darwinian evolution. EP is really engineering in reverse. In forward-engineering, we design a machine to do something. In reverse-engineering, we figure out what a machine—in this case, the human mind—was designed to do.

The research of EP, in describing the psychological mechanisms that give rise to our natural instincts or tendencies, cuts straight to the heart of the nature of human nature. In EP—as conceptualized by psychologist Leda Cosmides and anthropologist John Tooby, two pioneers of evolutionary psychology at the University of California at Santa Barbara—human behavior is driven by a set of *universal reasoning circuits* that were *designed by natural selection* to solve *adaptive problems* faced by our *hunter-gatherer ancestors*.² We can unpack this statement by discussing its four central components.

A. *Universal Reasoning Circuits*

Universal reasoning circuits are best thought of as a set of information-processing machines, or mini-computers, in the brain. Just as a computer has circuits, our brain has circuits. The essence of a computer, however, does not

lie in the materials from which it is made, but in the programs it executes. Correspondingly, just as a computer's circuits determine how it processes information, our neural circuits determine how our brain processes information. The brain—our wet computer—is composed of a large collection (hundreds, perhaps even thousands) of these circuits, with different circuits specialized for solving different problems. Our brain's neural circuits are designed to generate behavior that is appropriate to our environmental circumstances. In so doing, these universal reasoning circuits organize the way we interpret our experiences, place certain recurrent concepts and motivations into our mental life, and give us universal frames of meaning that allow us to interpret the actions and intentions of others.

Universal reasoning circuits are one specific example of a general category known as “adaptations.” Adaptations are inherited mechanisms that are here because they have, in the past, increased the likelihood of survival and reproduction among our ancestors. There must be genes for an adaptation because such genes are required for the passage of the adaptation from parents to offspring. To say something is an adaptation is not to say that it is unchangeable. Adaptations will change in time because the environment is changing all the time.

B. *Designed by Natural Selection*

Where did these universal reasoning circuits, or “instincts,” come from? EP maintains that these circuits were *designed by natural selection*. The word “design” is not implying that the process is purposeful or forward-looking. Natural selection is not intentional and cannot look into the future to foresee distant needs. Rather, “design” is shorthand to refer to the adaptive product of the evolutionary process—an inanimate process, devoid of consciousness.

By virtue of natural selection, species undergo changes in their adaptations over time. Most adaptations designed by natural selection are physiological—for example, changes in beak structure, neck size, and so on. These changes evolve because they help the individuals who possess them to survive and reproduce. EP proposes that—just like physiological structures—cognitive structures also have been designed by natural selection to serve survival and reproduction. EP is firm in its belief that there is no fundamental or qualitative difference between these psychological adaptations and any other type of physiological adaptations. Thus, EP sees natural selection as the principal guiding force in the creation of complex, functional, problem-solving mechanisms such as universal reasoning circuits.

C. *Adaptive Problems*

Natural selection designed universal reasoning circuits to solve *adaptive*

problems. What is an adaptive problem? Adaptive problems have two defining characteristics. First, they are the problems that crop up again and again during the evolutionary history of a species. Second, they are problems whose solution impacts the survival and reproduction of individual organisms within a species.

At their most concrete, adaptive problems have to do with how an organism makes its living—what it eats, who it mates with, who it socializes with, who it aggresses against, how it communicates, and so on. Simply put, they are problems that an organism needs to solve in order to survive and reproduce. The only kinds of problems that natural selection can design circuits for solving are adaptive problems.

D. *Hunter-Gatherer Ancestors*

Finally, these adaptive problems for which our universal reasoning circuits were designed are, unfortunately, problems most relevant to our *hunter-gatherer ancestors*. It is important to realize that well over 99% of our species' evolutionary history has involved living as foragers in small nomadic bands. In their lifelong camping trip, our Pleistocene ancestors faced some daunting adaptive problems. Among others, these included problems such as detecting and avoiding predators and other dangerous animals, gathering and eating the right foods, forming friendships, developing alliances to defend oneself against aggression, helping children and other kin, communicating with other people, and selecting mates—all, ultimately, having an impact on the survival and reproduction of our species over time.

Our ancestral history must be coupled with the reality that natural selection is a slow, and imperfect, process occurring over many generations. In physical evolution, it takes a long time to change a leg into a wing or a flipper. Likewise, there will often be a lag in time—very substantial in the case of human evolution—between a new adaptive problem and the evolution of a mechanism designed to solve it. As a result, there just haven't been enough generations for natural selection to design universal reasoning circuits that are well-adapted to all aspects of our modern environment.

Fewer than 10,000 generations separate everyone alive today from the small group of ancestors who are our common ancestors—the blink of an eye in evolutionary terms. In other words, most of our human nature evolved during the hunter-gatherer period of our ancestral history. Too little time has elapsed since then for substantial evolution of human nature to take place. In Cosmides and Tooby's words, "our modern skulls house a stone age mind."³ They continue: "In many cases, our brains are better at solving the kinds of problems our ancestors faced on the African savannahs than they are at solving the more familiar tasks we face in a college classroom or a modern city."⁴

For example, automobiles kill far more people today than do spiders or

snakes. But people are far more averse to spiders and snakes than they are to automobiles. Why? Because for most of our ancestral history, spiders and snakes were a serious threat to our survival and reproduction, whereas automobiles did not exist. Thus, it was possible—not to mention advantageous for our survival and reproduction—for us to evolve an innate aversion to spiders and snakes, but not to automobiles. While natural selection continues its glacial process of building circuits that are more suited to a modern environment, our ability to solve other kinds of more modern problems is best seen as a side effect or by-product of circuits that were designed to solve the adaptive problems of our hunter-gatherer ancestors.

EP makes clear that our universal reasoning circuits inject certain motivations into our mental life that directly influence our behavior. There is a universal, evolved psychological architecture that we all share by virtue of being humans—*a* human nature. This human nature includes hundreds, perhaps even thousands, of universal reasoning circuits that are domain-specific and functionally specialized to facilitate our survival and reproduction. In other words, instead of having a single, central general-purpose reasoning machine, we have a massive collection of special-purpose modules, each one designed to solve a specific adaptive problem. Famously, Cosmides and Tooby compare the massive modularity of our mind to a Swiss-Army knife with lots of gadgets, each one designed for a specific task.

III. HOW CAN EP HELP US UNDERSTAND HATE AND HUMAN NATURE?

To begin, we must remember that competition lies at the heart of the natural selection that designs the universal reasoning circuits used to solve adaptive problems faced by our hunter-gatherer ancestors. We must also recognize that not only do individuals compete with other individuals in the same group, but groups also compete with other groups.

In our Pleistocene environment, it is likely that we were gathered into small groups numbering no more than a couple of hundred people. Most of those we lived among were relatives. What happened to them, happened to us. What we did to others, we did to ourselves. Our increasing mobility, however, meant that we occasionally found ourselves among strangers—other groups with whom we were not familiar and against whom we competed, probably fiercely, for scarce resources. The results of this competition were significant because the winners not only obtained material benefits, but in some cases, also got rid of their competitors.

In this context, hurting individuals in other groups solved adaptive problems faced by our group and, ultimately, was selectively advantageous. Organisms survived and reproduced, to some extent, at one another's expense. In short, competition—often escalating into intergroup conflict—was a major fact of life for many of our ancestors. In a sense, each of us today owes our

existence to having “winners” as ancestors, and each of us today is designed, at least in some circumstances, to compete.

What are some of the psychological adaptations that enhance the fitness of individuals within a group? These likely include love, friendship, cooperativeness, nurturance, communication, a sense of fairness, and, even, self-sacrifice—the things that hold society together. Our adaptations also include, however, some darker ultimate motives: intergroup competition for dominance, boundary definition, and fear of social exclusion. People in all cultures feel that they are members of a group (a band, tribe, clan, or nation) and feel animosity toward other groups. These realities can foster a hostility to, and even hatred of, other groups that often tears society apart.

Human minds are compelled to define the limits of the tribe. Knowing who is kin, knowing who is in our social group, has a deep importance to species like ours. We construct this knowledge by categorizing others as “us” or “them.” We tend to be biased toward “us” and label “them”—those with whom “we” share the fewest genes and least culture—as enemies. We have an evolved capacity to see our group as superior to all others and even to be reluctant to recognize members of other groups as deserving of equal respect. A group of the !Kung San of the Kalahari call themselves by a name that literally means “the real people.” In their language, the words for “bad” and “foreign” are one and the same. Similarly, the cannibal inhabitants of the delta area of Irian in Indonesian New Guinea call themselves the Asmat, which means “the people—the human beings.” All outsiders are known very simply as Manowe—“the edible ones.”

Biologist Lyall Watson calls our tendency to divide the world into “us” and “them” one of the few true human universals. Anthropologist Donald Brown likewise includes in his characteristics of Universal People (features all people have in common) the following: “Important conflicts are structured around in-group—out-group antagonisms that characterize the UP. These antagonisms both divide the UP as an ethnic group as well as set them off from other ethnic groups. An ethical dualism distinguishes the in-group from the out-group, so that, for example, cooperation is more expectable in the former than with the latter.”⁵

For us, the critical question is not whether every human in every culture hates, because they certainly do not. Rather, the more illuminating question is whether every human in every culture comes *endowed* with psychological mechanisms that leave us capable of hatred when activated by appropriate cues. For the emerging field of hate studies, the central question becomes: *What set of universal reasoning circuits were designed by natural selection to solve the adaptive problems of intergroup relations faced by our hunter-gather ancestors?*

Of the many adaptations we could explore, I believe there are two foundational, innate, evolution-produced tendencies of human nature that are most

relevant to understanding our capacity for hate: ethnocentrism and xenophobia. Studies worldwide show not only that these tendencies are universal in people, but also that they start in infancy. These are the powerful, innate, “animal” influences on human behavior that represent evolved social capacities lying at the core of human nature. They are the underlying, distant capacities that, in concert with other immediate and proximal influences, help us understand our capacity for hate.

First, *ethnocentrism* refers to the tendency to focus on one’s own group as the “right” one. Anthropologist W.G. Sumner first coined this term in 1906 and defined it as “a differentiation that arises between ourselves, the we-group, or in-group, and everybody else, or the others-group, out-groups.” The insiders in a we-group are in a relation of peace, order, law, government, and industry to each other. . . Ethnocentrism is the technical name for this view of things in which one’s own group is the center of everything, and all others are scaled and rated with reference to it. . . Each group nourishes its own pride and vanity, boasts itself superior, exalts its own divinities, and looks with contempt on outsiders.”⁶

Ethnocentrism is a universal characteristic of human social life and, as often as not, it is fairly harmless. From an evolutionary perspective, there is an advantageous reinforcement of communal identity and “we-ness” when groups consider their ideas, their cultures, their religions, or their aesthetic standards to be either superior to those of others, or at least in certain ways to be preferential or noteworthy in comparison to other groups. As R.A. Hinde writes: “It is not unreasonable to entertain the possibility that natural selection acted on individuals to enhance this identification with groups and to augment the (real or perceived) superiority of the group with which they identified.”⁷

Ethnocentric loyalties show themselves early in life. The importance of both the caretaker-infant bonds and stranger anxiety reactions of the first year of life demonstrate a universality of the us-them differentiation process. By age six or seven, children exhibit a strong preference for their own nationality—even before the concept of “nation” has been fully understood. Experimental social psychologists have even demonstrated that classifying individuals into *arbitrary* groups in the laboratory (for example, giving one group red labels and the other group green labels) can elicit ethnocentric reactions. Other recent social psychological experimental evidence suggests that the concepts “us” and “them” carry positive emotional significance that is activated automatically and unconsciously.⁸ Once identified with a group—even in the complete *absence* of any links, kinship or otherwise, among individuals in that group—individuals find it easy to exaggerate differences between their group and others.

Complementing ethnocentrism is a second universal adaptation: *xenophobia*, the tendency to fear outsiders or strangers. It can even be said that in forming bonds we deepen fissures. In other words, defining what the in-group

is also requires defining what it is *not*. As psychologists Tajfel and Forgas put it, “we are what we are because *they* are not what we are.”⁹

The widespread rise of domestic violence seems, at first glance, to go against our evolutionary instruction to favor “us” and oppose “them.” Upon closer analysis, however, psychologists Martin Daly and Margo Wilson of McMaster University in Canada found that, once the urge to kill exists, genetic factors come into play in the choice of a victim. In cases of domestic homicide, family members who are not blood kin—such as spouses—are eleven times more likely to be killed than are family members who are blood kin. Even in cases where the victim *is* blood kin, there are very often factors involved that make biological, if not moral, sense.¹⁰

On a broader societal level, governments, propaganda, and militaries can easily evoke our evolved capacities for ethnocentrism and xenophobia. At the extreme, these capacities may even translate into a territorial imperative as they are used to forge in-group solidarity and undermine the normal inhibitions against killing out-group strangers. As anthropologist Michael Ghiglieri of the University of North Arizona writes: “Xenophobia and ethnocentrism are not just essential ingredients to war. Because they instinctively tell men precisely whom to bond with versus whom to fight against, they are the most dangerously manipulable facets of war psychology that promote genocide.”¹¹

In short, we have an innate, evolution-produced tendency to seek proximity to familiar faces because what is unfamiliar is probably dangerous and should be avoided. More than 200 social psychological experiments have confirmed the intimate connection between familiarity and fondness. This universal human tendency is the foundation for the behavioral expressions of ethnocentrism (focusing on our group as the “right” one) and xenophobia (fearing outsiders or strangers).

IV. CONCLUSION

As we have seen, the conventional wisdom in the social sciences has historically been that human nature is a blank slate—simply an imprint of an individual’s background and experience. The emerging field of EP has, however, led social scientists to rethink the nature of human nature. EP says that human nature is not blank at all; it consists of a large number of evolved psychological mechanisms. EP reminds us that we are part of the natural world and, like other animals, have our own particular psychological tendencies that animate many of our behaviors. We are obligated to examine the impact of *what* we are upon *who* we are in understanding how, and why, people hate. To not seek such evidence is like failing to search a suspect for a concealed weapon.

At first glance, some of the evolved psychological mechanisms posited by EP appear to affirm our capacity for cooperative, caring, nonviolent relations—for example, love of kin; preferential altruism directed toward kin; recip-

rocal altruism; enduring reciprocal alliances or friendships; compassion; and so forth. In many ways, we owe our success as a species to these pro-social instincts. Ridley has even argued that it is our instinctive cooperativeness that is the very hallmark of humanity and what sets us apart from other animals.

But EP also warns us that self-congratulation about our human nature is premature. In British zoologist Matt Ridley's words: "We have as many darker as lighter instincts. The tendency of human societies to fragment into competing groups has left us with minds all too ready to adopt prejudices and pursue genocidal feuds."¹² In other words, beneath our social surface is a seamy underside of human nature that is much less flattering. We have a hereditary dark side that is universal across humankind. Acts of hatred are not beyond, beneath, or outside ordinary humanness.

Should we really be surprised by the unflattering depiction of human nature that EP provides? In some ways, probably not. We already know that we have such nefarious capacities because history provides so many examples of their actualization. Perhaps as a result of our history of brutal inhumanity to each other, this view of human nature certainly has the weight of intellectual tradition on its side. Theologians beat evolutionary psychologists to the discovery of the "animal in humans" by several centuries. Indeed, the idea that human nature contained innate drives similar to those in animals is a central element of the traditional Christian view of human nature, often captured in the doctrine of original sin. As historians Kari Konkola and Glenn Sunshine conclude, "the hottest field in modern science [evolutionary psychology] is just in the process of discovering the part of human nature which Christianity used to call 'original sin!'"¹³ Others agree that, regarding the nature of human nature, religion and evolutionary psychology converge to a surprising extent—though members of both fields fiercely refuse to acknowledge such a convergence.

EP, in spite of its youth, is lending substantial credibility to the perception of a fundamental unity among human beings. While the roots of hatred cannot be distilled solely to natural selection, we can no longer dismiss as an unsupported theological or philosophical assumption the idea that human nature has a dark side. No longer can we evade the possibility that there is an essentialist trait underlying our inhumanity to each other that makes each of us, ultimately, capable of hatred. We must at least partially ground hatred in our evil human natures and recognize that while an impulse to hate may not be *the* defining characteristic of human nature, such an impulse certainly qualifies—at the very least—as a human capacity. It is only in understanding the human nature of hate that we will begin to understand hate as a normative part of our history and, ultimately, begin to construct social structures and institutions that responsibly address the problem of hate.

NOTES

1. See Tooby and Cosmides, "The Psychological Foundations of Culture," in Jerome H. Barkow, Leda Cosmides and John Tooby, *The Adapted Mind: Evolutionary Psychology and the Generation of Culture* (New York, NY: Oxford University Press, 1992): 23-49.
2. See Leda Cosmides and John Tooby, *Evolutionary Psychology: A Primer*. (Available at <http://www.psych.ucsb.edu/research/cep/primer.html>, 1997).
3. *Ibid.*, 12.
4. *Ibid.*
5. Donald E. Brown, *Human Universals* (Philadelphia, PA: Temple University Press, 1991): 138-139.
6. W. G. Sumner, *Folkways* (New York, NY: Ginn, 1906): 12-13.
7. R. A. Hinde, "Patriotism: Is Kin Selection Both Necessary and Sufficient?" *Politics and the Life Sciences* 8 (1989): 60.
8. See Jacques-Philippe Leyens, Paola M. Paladino, Ramon Rodriguez-Torres, Jeroen Vaes, Stephanie Demoulin, Armando Rodriguez-Perez, and Ruth Gaunt, "The Emotional Side of Prejudice: The Attribution of Secondary Emotions to Ingroups and Outgroups," *Personality and Social Psychology Bulletin*, 4 (2000): 186-197.
9. Quoted in Marilyn B. Brewer and Norman Miller, *Intergroup Relations* (Pacific Grove, CA: Brooks/Cole, 1996): 47-48.
10. See Martin Daly and Margo Wilson, *Homicide* (New York, NY: Aldine, 1988).
11. Michael P. Ghiglieri, *The Dark Side of Man: Tracing the Origins of Male Violence* (Reading, MA: Perseus Books, 1999): 211.
12. Matthew Ridley, *The Origins of Virtue: Human Instincts and the Evolution of Cooperation* (New York, NY: Penguin, 1996): 250.
13. Kari Konkola and Glenn Sunshine, "Theology and Evolutionary Psychology: A Historical Perspective on a Very Old Problem," *Skeptic* 7 (1999): 79.