

## Chapter 22

# *Morality*

JONATHAN HAIDT AND SELIN KESEBIR

In one of the earliest textbooks of social psychology, William McDougall wrote that “The fundamental problem of social psychology is the moralization of the individual by the society into which he is born as a creature in which the non-moral and purely egoistic tendencies are so much stronger than any altruistic tendencies” (McDougall, 1908/1998, p. 18). McDougall dreamed of a social psychology that would span the study of individuals and societies, and he believed morality would be the main bridge. He hoped that social psychology would one day document the full set of “instincts” and other endowments present in individual minds, and then demonstrate how these were activated and combined to create large and cooperative groups of individuals. If McDougall could come back today and see how his beloved field has fared, what would he think of its progress?

A brief survey of five of the top current textbooks (Aronson, Wilson, & Akert, 2007; Baumeister & Bushman, 2008; Gilovich, Keltner, & Nisbett, 2006; Kassin, Fein, & Markus, 2008; Myers, 2008) shows that social psychology has made uneven progress on the study of morality in the last century. On one hand, the words “moral” and “morality” are minor entries in the indices of these books, referring to an average of 6.8 pages combined. The field known as “moral psychology” was, until recently, a part of developmental psychology, focused on the cognitive-developmental approach of Lawrence Kohlberg (1969). On the other hand, the terms “altruism” and “prosocial behavior” are very prominent in these textbooks, given a full chapter in four of the books and a half-chapter in the fifth. Furthermore, social psychologists have long studied topics related to morality—such as aggression, empathy, obedience, fairness, norms, and prejudice—without calling it morality. So just as Molière’s Monsieur Jourdain discovers that he had been speaking in prose his whole life, social

psychology can, perhaps, claim to have been speaking about morality its whole life.

But if so, then what does it have to say? Is the social psychology of morality the claim that situational factors predominate (e.g., Milgram, 1963), but that they often interact with personality traits such as self-esteem (Bushman & Baumeister, 1998)? Is it the sum of research on nice behaviors (primarily altruism) and nasty behaviors (such as conformity, aggression, and racial discrimination)? Is there any theoretical or explanatory framework that links these phenomena and approaches together?

This chapter assesses the state of the art in moral psychology from a social-psychological perspective. Moral psychology is undergoing a multidisciplinary renaissance, and social psychology is one of the central fields in this “new synthesis” (Haidt, 2007). Even if no grand unified theory of morality is ever supported—morality may simply be too heterogeneous and multifaceted—progress is so rapid, and the bridges between disciplines are now so numerous that the days of unconnected mini-theories are over. Whatever happens over the next ten years, the trend will likely be toward greater integration and “consilience”—a term revived by E. O. Wilson (1998) that refers to the “jumping together” or unification of knowledge across fields.

The chapter begins with the story of the “great narrowing”—the historical process in which morality got reduced from virtue-based conceptions of the good person down to quandaries about what people should do. In social psychology this narrowing led to a focus on issues related to harm (including antisocial and prosocial behavior) and fairness (including justice and equity). The chapter argues for a return to a broader conception of the moral domain that better accommodates the diverse and often group-focused moralities found around the world. The chapter then tells

---

We thank David DeSteno, Peter Ditto, Susan Fiske, Dan Gilbert, Jesse Graham, Craig Joseph, Robert Kurzban, Ara Norenzayan, and David Pizarro for helpful comments and criticisms of earlier drafts. Contact information: e-mail: Haidt@virginia.edu.

the story of the “new synthesis” in moral psychology that has shifted attention away from reasoning (and its development) and onto emotions, intuitions, and social factors (which are more at home in social psychology than in developmental psychology).

The chapter’s review of empirical research is organized under three principles that have emerged as unifying ideas in this new synthesis: (1) Intuitive primacy (but not dictatorship); (2) moral thinking is for social doing; and (3) morality binds and builds. The chapter is entirely descriptive; it is about how moral psychology works. It does not address normative questions about what is really right or wrong, nor does it address prescriptive questions about how moral judgment or behavior could be improved. The goal of this chapter is to explain what morality really is and why McDougall was right to urge social psychologists to make morality one of their fundamental concerns.

## WHAT IS MORALITY ABOUT?

Soon after human beings figured out how to write, they began writing about morality, law, and religion, which were often the same thing. Kings and priests were fond of telling people what to do. As the axial age progressed (800 BCE to 200 BCE), many societies East and West began to supplement these lists of rules with a sophisticated psychology of virtue (Aristotle, 1941; Leys, 1997). An important feature of virtue-based approaches is that they aim to educate children not just by teaching rules, but by shaping perceptions, emotions, and intuitions. This is done in part through providing exemplars of particular virtues, often in the form of narratives (MacIntyre, 1981; Vitz, 1990). In epic poems (e.g., Homer’s *Iliad*, the *Mahabharata* in India, the *Shahnameh* in Persia), and in stories of the lives of saints and other moral exemplars (e.g., the Gospels or the *Sunna* of Muhammad), protagonists exemplify virtuous conduct and illustrate the terrible consequences of moral failings.

A second important feature of virtue ethics is that virtues are usually thought to be multiple (rather than being reducible to a single “master virtue” or principle<sup>1</sup>), local (saturated with cultural meaning), and often context- or role-specific. The virtues prized by a nomadic culture differ from those of settled agriculturalists, and from those of city-dwellers (Ibn-Khaldun, 2004; MacIntyre, 1981; Nisbett & Cohen, 1996). A third feature of virtue-based approaches is that they emphasize practice and habit, rather than propositional

knowledge and deliberative reasoning. Virtues are skills of social perception and action (Churchland, 1998; Dewey, 1922; McDowell, 1979) that must be acquired and refined over a lifetime. Morality is not a body of knowledge that can be learned by rote or codified in general ethical codes or decision procedures.

Virtue-based approaches to morality remained dominant in the West up through the Middle Ages (Christian and Islamic philosophers relied directly on Aristotle). They are still in evidence in the “character education” approaches favored by many conservative and religious organizations (Bennett, 1993; Hunter, 2000), and they are undergoing a renaissance in philosophy today (Chappell, 2006; Crisp, 1996).

## The Great Narrowing

European philosophers, however, began developing alternate approaches to morality in the eighteenth century. As God retreated from the (perceived) management of daily life, and as traditions lost their authority, Enlightenment philosophers tried to reconstruct ethics (and society) from secular first principles (MacIntyre, 1981; Pincoffs, 1986). Two approaches emerged as the leading contenders: *deontology* and *consequentialism*. Deontologists focused on duties—on the rightness or wrongness of actions considered independently of their consequences. Immanuel Kant produced the most important deontological theory by grounding morality in the logic of non-contradiction: He argued that actions were right only if a person could consistently and rationally will that the rule governing her action be a universal rule governing the actions of others. In contrast, consequentialists (such as Jeremy Bentham and John Stuart Mill) proposed that actions be judged by their consequences alone. Their rule was even simpler than Kant’s: Act always in the way that will bring about the greatest total good.

These two approaches have been among the main combatants in moral philosophy for 200 years. But despite their many differences, they have much in common, including an emphasis on parsimony (ethics can be derived from a single rule), an insistence that moral decisions must be reasoned (by logic or calculation) rather than felt or intuited, and a focus on the abstract and universal, rather than the concrete and particular. Most important, deontologists and consequentialists have both shrunk the scope of ethical inquiry from the virtue ethicist’s question of “whom should I *become*?” down to the narrower question of “what is the right thing to *do*?” The philosopher Edmund Pincoffs (1986) documents and laments this turn to what he calls “quandary ethics.” He says that modern textbooks present ethics as a set of tools for resolving dilemmas, which encourages explicit rule-based thinking.

<sup>1</sup>But see McDowell (1979) for the view that each virtue is a special case of a single general perceptual capacity.

Ethics has been narrowed to quandary ethics in psychology too. Freud (1923/1962) and Durkheim (1925/1973) both had thick conceptions of morality; both men asked how it happened that individuals became willing participants in complex and constraining social orders. (This was the very question that McDougall said was fundamental for social psychology.) Yet by the 1970s, moral psychology had largely become a subfield of developmental psychology that examined how children and young adults solved quandaries. The most generative quandaries were “Should Heinz steal a drug to save his wife’s life?” (Kohlberg, 1969) and “Should I have an abortion?” (Gilligan, 1982). Social psychology had also dropped the question of moralization, focusing instead on situational factors that influenced the resolution of quandaries, for example, about obedience (Milgram, 1963), bystander intervention (Latane & Darley, 1970), and other forms of prosocial behavior (Batson, O’Quinn, Fultz, Vanderplass, & Isen, 1983; Isen & Levin, 1972). One of the most active areas of current research in moral psychology uses quandaries in which one choice is deontologically correct (don’t throw a switch that will divert a trolley and kill one person) and the other is consequentially correct (do kill the one person if it will save five others [Greene, 2008; Hauser, 2006]).

Moral psychology, then, has become the study of how individuals resolve quandaries, pulled not just by self-interest, but also by two distinctively moral sets of moral concerns. The first set might be labeled *harm/care* (including concerns about suffering, nurturance, and the welfare of people and sometimes animals); the second set can be called *fairness/reciprocity* (including justice and related notions of rights, which specify who owes what to whom). The greatest debate in the recent history of moral psychology was between proponents of these two sets of concerns. Kohlberg (1969; Kohlberg, Levine, & Hewer, 1983) argued that moral development was the development of reasoning about justice, whereas Gilligan (1982) argued that the “ethic of care” was an independent part of moral psychology, with its own developmental trajectory. Gilligan’s claims that the ethic of care was more important for women than men has received at best mixed support (Walker, 1984), but the field of moral development ultimately came to general agreement that both sets of concerns are the proper domain of moral psychology (Gibbs, 2003). In fact, the *Handbook of Moral Development* (Killen & Smetana, 2006) summarizes the field symbolically on its cover with two images: the scales of justice and a sculpture of a parent and child. It is not surprising, therefore, that when psychologists have offered definitions of morality, they have followed philosophers in proposing definitions tailored for quandary ethics. Here is the most influential definition in moral psychology, from Turiel (1983, p. 3), who defined the

moral domain as “prescriptive judgments of justice, rights, and welfare pertaining to how people ought to relate to each other.” Turiel specifically excludes rules and practices that don’t directly prevent harmful or unfair consequences to other people. Such rules and practices are mere social conventions, useful for efficient social regulation, but not part of morality itself. This way of thinking (morality = not harming or cheating others) has become a kind of academic common sense, an assumption shared widely by educated secular people. For example, in *Letter to a Christian Nation*, Harris (2006, p. 8) gives us this definition of morality: “Questions of morality are questions about happiness and suffering . . . To the degree that our actions can affect the experience of other creatures positively or negatively, questions of morality apply.” He then shows that the Bible and the Koran are immoral books because they are not primarily about happiness and suffering, and in many places they advocate harming people.

But can it really be true that the two books most widely revered as moral guides in the history of humanity are not really about morality? Or is it possible that Turiel and Harris have defined morality in a parochial way, one that works well for educated, secular Westerners, but that excludes much that other people value?

### Redefining Morality: Beyond Harm and Fairness

A good way to escape from parochialism is to travel, or, at least, to read reports from those who have gone abroad. Anthropologists and cultural psychologists have offered several ways of describing variations in the world’s cultures, and the most frequent element is the idea that construals of the self vary on a dimension from collectivism/interdependence to individualism/independence (Hogg, 2010; Markus & Kitayama, 1991; Shweder & Bourne, 1984; Triandis, 1995). The anthropologist Mary Douglas (1982, p. 206) called this dimension “group,” which refers to the degree to which “the individual’s life is absorbed in and sustained by group membership.”

One of the earliest and still richest treatments of this idea is Tönnies’s (1887/2001) classic dimension running from *Gemeinschaft* (community) to *Gesellschaft* (civil society). *Gemeinschaft* refers to the traditional and (until recently) most widespread form of human social organization: relatively small and enduring communities of people bound together by the three pillars (whether real or imagined) of shared blood, shared place, and shared mind or belief. People keep close track of what everyone else is doing, and every aspect of behavior (including clothing, food, and sexual choices) can be regulated, limited, and judged by others. But as technology, capitalism, mobility, and new ideas about individualism transformed European

ways of life in the nineteenth century, social organization moved increasingly toward *Gesellschaft*—the kind of civil society in which individuals are free to move about, make choices for themselves, and design whatever lives they choose so long as they don't harm or cheat others. (For more recent accounts of how modernity created a thinner and less binding morality, see Hunter, 2000; Nisbet, 1933/1966; Shweder, Mahapatra, & Miller, 1987; see A. P. Fiske, 1991, on the decreasing reliance on "communal sharing" and increasing use of "market pricing" in social relationships.)

Moral psychology to date has been largely the psychology of *Gesellschaft*. In part to gain experimental control, researchers usually examine people harming, helping, or cooperating with strangers in the lab (e.g., Batson et al., 1983; Sanfey et al., 2003) or judging hypothetical strangers who hurt or cheat other strangers (e.g., Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Kohlberg, 1969). Morality as defined by psychologists is mostly about what we owe to each other in order to make *Gesellschaft* possible: Don't hurt others, don't infringe on their rights, and if some people are having particularly serious problems, then it is good (but not always obligatory) to help them. If the entire world was one big *Gesellschaft*, then this moral psychology would be adequate. But it is as clear today as it was in Tönnies's time that real towns and real nations are mixtures of the two types. The wealthiest districts of New York and London may approximate the *Gesellschaft* ideal, but just a few miles from each are ethnic enclaves with honor codes, arranged marriages, and patriarchal families, all of which are markers of *Gemeinschaft*.

A comprehensive moral psychology must therefore look beyond the psychology of *Gesellschaft*. It should study the full array of psychological mechanisms that are active in the moral lives of people in diverse cultures. It should go beyond what's "in the head" to show how psychological mechanisms and social structures mutually influence each other (A. P. Fiske, 1991; Shweder, 1990). To encourage such a broadening, Haidt (2008) proposed an alternative to Turiel's (1983) definition. Rather than specifying the *content* of moral issues (e.g., "justice, rights, and welfare"), this definition specifies the *function* of moral systems:

Moral systems are interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make cooperative social life possible.<sup>2</sup>

<sup>2</sup>This definition is an expansion of the one originally offered in Haidt (2008).

This functionalist approach allows psychology to move from moral parochialism (i.e., the belief that there is one universal moral domain that happens to include the values most prized by the secular academics who defined the domain) to moral pluralism (i.e., the belief that there are multiple incompatible but morally defensible ways of organizing a society [Shweder, Much, Mahapatra, & Park, 1997]). In this functionalist approach, there are multiple defensible moralities because societies have found multiple ways to suppress selfishness. The free and open social order of a big Western city is a moral system (requiring rights and justice to protect the welfare of others) just as is the more binding and constricting social order of a small Indian village. The suppression of selfishness in a big city may rely more upon padlocks, police, and norms of non-interference than on caste, gossip, and norms of respect, but in either case, selfish behavior is controlled not just by individual conscience and direct concerns about harm, but by an interlocking combination of physical, psychological, cultural, and institutional mechanisms.

The study of such complex combinations clearly requires collaboration among many disciplines. Social psychology is well suited to be the central field in this study—as McDougall had hoped—because social psychologists are adept at research on values, norms, identities, and psychological mechanisms that suppress selfishness (such as empathy and reciprocity). But social-psychological work must be integrated "up" a level of analysis and made consilient with "outside-the-head" elements studied by anthropologists and sociologists (such as institutions and social practices). Social psychological work must also be integrated "down" a level of analysis and made consilient with brain-based explanations of those mechanisms and with evolutionary accounts of how those mechanisms evolved (Hogg, 2010; Neuberg, Shaller, & Kenrick, 2010). The next section of this chapter describes how multiple disciplines are indeed coming together to study morality at multiple levels of analysis.

## THE NEW SYNTHESIS IN MORAL PSYCHOLOGY

In 1975, E. O. Wilson predicted that ethics would soon become part of the "new synthesis" of sociobiology, in which distal mechanisms (such as evolution), proximal mechanisms (such as neural processes), and the socially constructed web of meanings and institutions (as studied by the humanities and social sciences) would all be integrated into a full explanation of human morality. The key to this integration, Wilson argued, was to begin with the moral intuitions given to us by our evolved emotions.

Wilson suggested that moral philosophers had in fact been following their intuitions all along:

ethical philosophers intuit the deontological canons of morality by consulting the emotive centers of their own hypothalamic-limbic system. This is also true of the developmentalists [such as Kohlberg], even when they are being their most severely objective. Only by interpreting the activity of the emotive centers as a biological adaptation can the meaning of the canons be deciphered (p. 563).

Philosophers did not take kindly to this debunking of their craft. Neither did moral psychologists, who at that time were deeply invested in the study of reasoning. Even social psychologists, who were studying moral-emotional responses such as empathy (Batson et al., 1983) and anger (Berkowitz, 1965) were slow to embrace sociobiology, kept away in part by the perception that it had some morally and politically unpalatable implications (Pinker, 2002). In the 1980s, Wilson's prediction seemed far from prophetic, and the various fields that studied ethics remained resolutely unsynthesized.

But two trends in the 1980s laid the groundwork for E. O. Wilson's synthesis to begin in the 1990s. The first was the affective revolution—the multidisciplinary upsurge of research on emotion that followed the cognitive revolution of prior decades (Fischer & Tangney, 1995; see Frank, 1988; Gibbard, 1990; and Kagan, 1984 for important early works on emotion and morality). The second was the rebirth of sociobiology as evolutionary psychology (Barkow, Cosmides, & Tooby, 1992). These two trends had an enormous influence on social psychology, which had a long history of questioning the importance of conscious reasoning (e.g., Nisbett & Wilson, 1977; Zajonc, 1980), and which became a key player in the new interdisciplinary science of emotion that emerged in the 1990s (see the first edition of the *Handbook of Emotions*, Lewis & Haviland-Jones, 1993). Emotion and evolution were quickly assimilated into dual-process models of behavior in which the “automatic” processes were the ancient, fast emotions and intuitions that E. O. Wilson had described, and the “controlled” process was the evolutionarily newer and motivationally weaker language-based reasoning studied by Kohlberg and relied upon (too heavily) by moral philosophers. (See Chaiken & Trope, 1999, but this idea goes back to Zajonc, 1980, and before him to Freud, 1900/1976, and Wundt, 1907).

In telling this story of the shift from moral reasoning to moral emotion and intuition, two books published in the 1990s deserve special mention. Damasio's (1994) *Descartes' Error* showed that areas of the prefrontal cortex that integrate emotion into decision making were crucial for moral judgment and behavior, and de Waal's (1996) *Good Natured* showed that most of the “building blocks” of human

morality could be found in the emotional reactions of chimpanzees and other primates. A well-written trade book can reach across disciplinary lines more effectively than can any journal article. In the late 1990s, as these and other trade books (e.g., Ridley, 1996; Wright, 1994) were read widely by researchers in every field that studied ethics, E. O. Wilson's prediction began to come true. The move to emotion and affectively laden intuition as the new anchors of the field accelerated in 2001 when the research of Greene and colleagues (2001) on the neural basis of moral judgment was published in *Science*. The next month, Haidt's (2001) cross-disciplinary review of the evidence for an intuitionist approach to morality was published in *Psychological Review*.

In the years since 2001, morality has become one of the major interdisciplinary topics of research in the academy. Three of the fields most active in this integration are social psychology, social-cognitive neuroscience, and evolutionary science, but many other scholars are joining in, including anthropologists (Boehm, in press; A. P. Fiske, 2004; Henrich & Henrich, 2007), cognitive scientists (Casebeer, 2003; Lakoff, 2008), developmental psychologists (Bloom, 2004), economists (Clark, 2007; Gintis, Bowles, Boyd, & Fehr, 2005a; Fehr & Gächter, 2002), historians (McNeill 1995; Smail, 2008); legal theorists (Kahan, 2005; Robinson, Kurzban, & Jones, 2007; Sunstein, 2005), and philosophers (Appiah, 2008; Caruthers, Laurence, & Stich, 2006; Joyce, 2006; Prinz, 2008).

Haidt (2007) described three principles that have characterized this new synthesis, and these principles organize the literature review presented in the next three sections of this chapter: (1) Intuitive primacy (but not dictatorship); (2) moral thinking is for social doing, and (3) morality binds and builds. It should be noted that the chapter focuses on moral judgment and moral thinking rather than on moral behavior. Behavior will be mentioned when relevant, but because of the great narrowing, the term “moral behavior” has until now largely been synonymous for social psychologists with the terms “altruism,” “helping,” and “prosocial behavior” (and sometimes fairness and honesty as well). Many excellent reviews of this work are available (Batson, 1998; Dovidio, Piliavin, Schroeder, & Penner, 2006). If this chapter is successful in arguing for a broadened conception of moral psychology and the moral domain, then perhaps in the future there will be a great deal more work to review beyond these well-studied topics.

## INTUITIVE PRIMACY (BUT NOT DICTATORSHIP)

According to a prominent moral philosopher, “There has been a controversy started of late . . . concerning the

general foundation of morals; whether they be derived from reason, or from sentiment; whether we attain the knowledge of them by a chain of argument and induction, or by an immediate feeling and finer internal sense." These words were published in 1777 by David Hume (1777/1960, p. 2), who, like E. O. Wilson, argued for sentiment as the foundation and "finer internal sense" (i.e., intuition) as the mechanism by which we attain knowledge of right and wrong. The controversy is now in its third century, but recent evidence points to a potential resolution: Hume was mostly right, although moral reasoning still matters, even if it is not the original source from which morals are "derived." A central challenge for modern moral psychology is to specify when, where, and how reason and sentiment interact.

But first, it is crucial that terminology be clarified. There is a long history in social psychology of contrasting "cognition" with "emotion" (or with "affect" more broadly). Partisans of either side can show that their favored term is the more important one just by making it more inclusive and the other term less so. Do you think "affect" rules? If so, then you can show, as Zajonc (1980) did, that people often have quick reactions of liking or disliking before they have done enough "cognitive" processing to know, *consciously*, what the object is. But if you favor "cognitive" approaches, you need only expand your definition so that "cognition" includes all information processing done anywhere in the brain, at which point it's easy to show that "affect" can't happen until some neural activity has processed some kind of perceptual information. (This is the basis of Lazarus's 1984 response to Zajonc and of Hauser's 2006 critique of "Humean" moral judgment; see also Huebner, Dwyer, & Hauser, 2009).

Moral psychology has long been hampered by debates about the relative importance of "cognition" versus "emotion" and "affect." Some clarity may be achieved by noting that moral judgment, like nearly all mental activity, is a kind of cognition. The question is: what kind? Two important kinds of cognition in current moral psychology are moral intuition and moral reasoning; or, as Margolis (1987) put it, "seeing-that" and "reasoning-why."

Moral intuition has been defined as "the sudden appearance in consciousness, or at the fringe of consciousness, of an evaluative feeling (like-dislike, good-bad) about the character or actions of a person, without any conscious awareness of having gone through steps of search, weighing evidence, or inferring a conclusion" (Haidt & Bjorklund, 2008, p. 188). Moral intuition is an example of the automatic processes that Bargh and Chartrand (1999) say comprise most of human mental life. But whereas many automatic processes involve no affect, moral intuitions (as defined here) are a subclass of automatic

processes that always involve at least a trace of "evaluative feeling." Moral intuitions are about good and bad. Sometimes these affective reactions are so strong and differentiated that they can be called moral emotions, such as disgust or gratitude, but usually they are more like the subtle flashes of affect that drive evaluative priming effects (Fazio, Sanbonmatsu, Powell, & Kardes, 1986; Greenwald, Nosek, & Banaji, 2003). Moral intuitions include the moral heuristics described by Sunstein (2005) and Gigerenzer (2007), such as "people should clean up their own messes," which sometimes oppose utilitarian public policies (such as letting companies trade pollution credits).

In contrast to moral intuition, moral reasoning has been defined as "conscious mental activity that consists of transforming given information about people (and situations) in order to reach a moral judgment" (Haidt, 2001, p. 818). To say that moral reasoning is a conscious process means that the process is intentional, effortful, and controllable and that the reasoner is aware that it is going on (Bargh, 1994). Kohlberg himself stated that he was studying such processes: "moral reasoning is the conscious process of using ordinary moral language" (Kohlberg et al., 1983, p. 69).

The contrast of intuition and reasoning, it must be repeated, is a contrast between two *cognitive* processes, one of which almost always has an affective component (see Shweder & Haidt, 1993). This contrast is similar to the one made in Chaiken's (1980) Heuristic-Systematic Model, as well as the one widely used by behavioral economists between "system 1" and "system 2" (Sloman, 1996). "Emotion" and "cognition" cannot fruitfully be contrasted because emotions include so much cognition (Lazarus, 1991). But when intuition and reasoning are contrasted as relatively distinct cognitive processes, the empirical questions become clear: How do the two interact, and what is their relative importance? Existing dual process models allow for many ways of putting the two processes together (Gilbert, 1999). Commonly, the two processes are thought to run with some independence, and reasoning (or "systematic processing," or "system 2") plays the crucial role of correcting the occasional errors of faster and cognitively cheaper intuition (or "heuristic processing," or "system 1"). In moral thinking, however, reasoning appears to have less power and independence; a variety of motives bias it toward finding support for the conclusions already reached by intuitive processes (see Chen & Chaiken, 1999, on the effects of defensive and impression motives; see Ditto, Pizarro, & Tannenbaum, 2009, on motivated moral reasoning). Here are ten brief summaries of work supporting this idea of "intuitive primacy" in moral cognition and a closing section summarizing challenges to the view.

### 1. People Make Rapid Evaluative Judgments of Others

Zajonc (1980) argued that brains are always and automatically evaluating everything they perceive, even irregular polygons and Chinese ideographs (Monahan, Murphy, & Zajonc, 2000), so when the thing perceived is another person, rapid evaluation is inevitable. Subsequent research has supported his contention. From early work on spontaneous trait inferences (Winter & Uleman, 1984) and evaluative priming (Fazio et al., 1986) through later research using the implicit association test (Greenwald, McGhee, & Schwartz, 1998), thin slices of behavior (Ambady & Rosenthal, 1992), judgments of trustworthiness (Todorov, Mandisodza, Goren, & Hall, 2005), and photographs of moral violations viewed inside an fMRI scanner (Luo et al., 2006), the story has been consistent: People form an initial evaluation of social objects almost instantly, and these evaluations are hard to inhibit or change by conscious will-power. Even when people engage in moral reasoning, they do so in a mental space that has already been prestructured by intuitive processes, including affective reactions that prepare the brain to approach or avoid the person or proposition being considered.

### 2. Moral Judgments Involve Brain Areas Related to Emotion

People who have damage to the ventro-medial prefrontal cortex (VMPFC) lose the ability to integrate emotions into their judgments and decisions (Damasio, 1994). They still perform well on tests of moral reasoning—they know the moral norms of their society. But when “freed” from the input of feelings, they do not become hyper-ethical Kantians or Millians, able to apply principles objectively. Rather, they lose the ability to know, instantly and intuitively, that ethically suspect actions should not be undertaken. Deprived of intuitive feelings of rightness, they can’t decide which way to go, and they end up making poor choices or no choices at all. Like the famous case of Phineas Gage, they often show a decline of moral character (Damasio, 1994). When the damage occurs in early childhood, depriving the person of a lifetime of emotional learning, the outcome goes beyond moral cluelessness to moral callousness, with behavior similar to that of a psychopath (Anderson, Bechara, Damasio, Tranel, & Damasio, 1999).

Complementary work on healthy people has used trolley-type dilemmas pitting consequentialist and deontological outcomes against each other (Greene, Nystrom, Engell, Darley, & Cohen, 2004). This work shows that the choices people make can be predicted (when aggregated across many judgments) by the intensity and time course

of activation in emotion areas (such as the VMPFC and the amygdala), relative to areas associated with cool deliberation (including the dorsolateral prefrontal cortex and the anterior cingulate cortex). When emotion areas are most strongly activated, people tend to choose the deontological outcome (don’t push the person off of a footbridge, even to stop a train and save five others). But in scenarios that trigger little emotional response, people tend to choose the utilitarian response (go ahead and throw a switch to divert a train that will end up killing one instead of five [Greene et al., 2004; Greene et al., 2001]).

Utilitarian responding is not by itself evidence of reasoning: It is immediately and intuitively obvious that saving five people is better than saving one. More compelling evidence of reasoning is found in the frequency of internal conflicts in these studies. People don’t always just go with their first instincts, and in these cases of apparent overriding, there is (on average) a longer response time and increased activity in the anterior cingulate cortex, an area linked to the resolution of response conflicts (Botvinick, Braver, Barch, Carter, & Cohen, 2001). Controlled processing, which might well involve conscious reasoning, seems to be occurring in these cases. Furthermore, patients who have damage to the VMPFC tend to judge all of these dilemmas in a utilitarian way (Koenigs et al., 2007); they seem to have lost the normal flash of horror that most people feel at the thought of pushing people to their (consequentially justifiable) deaths.

### 3. Morally Charged Economic Behaviors Involve Brain Areas Related to Emotion

Many of the landmark studies in the new field of “neuro-economics” are demonstrations that people’s frequent departures from selfish rationality are well correlated with activity in emotion-related areas, which seem to index judgments of moral condemnation, just as the economist Robert Frank had predicted back in 1988. For example, in the “ultimatum game” (Thaler, 1988), the first player chooses how to divide a sum of money; if the second player rejects that division, then both players get nothing. When the first player proposes a division that departs too far from the fair 50% mark, the second player usually rejects it, and the decision to reject is preceded by increased activity in the anterior insula (Sanfey et al., 2003). That area is often implicated in emotional responding; it receives autonomic feedback from the body, and it links forward to multiple areas of prefrontal cortex involved in decision making (Damasio, 2003). Activity in the insula has been found to correlate directly with degree of concern about equity (Hsu, Anen, & Quartz, 2008). When people cooperate in trust games, they show greater activity in brain areas related to

emotion and feelings of reward, including VMPFC, orbitofrontal cortex, nucleus accumbens, and caudate nucleus (Rilling et al., 2007). Similarly, when people choose to make costly charitable donations, they show increased activation in emotion and reward areas (Moll et al., 2006).

#### 4. Psychopaths Have Emotional Deficits

Roughly 1% of men (and many fewer women) are psychopaths, yet this small subset of the population commits as much as 50% of some of the most serious crimes, including serial murder and the killing of police officers (Hare, 1993). Much research on psychopathy points to a specific deficit in the moral emotions. Cleckley (1955) and Hare (1993) give us chilling portraits of psychopaths gliding through life with relatively full knowledge of social and moral norms, but without the emotional reactions that make them *care* about those norms or about the people they hurt along the way. Psychopaths have some emotions; when Hare (p. 53) asked one if he ever felt his heart pound or stomach churn, the man responded: "Of course! I'm not a robot. I really get pumped up when I have sex or when I get into a fight." Furthermore, psychopaths show normal electrodermal responses to images of direct threat (e.g., a picture of a shark's open jaw). But when shown pictures of children in distress, of mutilated bodies, or of piles of corpses, their skin conductance does not change, and they seem to feel nothing (Blair, 1999).

Recent research on psychopaths points to reduced activity (compared to controls) in many areas of the brain, but among the most widely reported are those related to emotionality, including the VMPFC, amygdala, and insula (Blair, 2007; Kiehl, 2006). Those who study psychopaths behaviorally and those who study their brains have converged on the conclusion that the central deficit from which most of the other symptoms may be derived is the inability to feel sympathy, shame, guilt, or other emotions that make the rest of us *care* about the fates of others and the things we do to hurt or help them.

#### 5. Moral-Perceptual Abilities Emerge in Infancy

Before infants can talk, they can recognize and evaluate helping and hurting. Hamlin, Wynn, and Bloom (2007) showed infants (ages 6 or 10 months) puppet-like performances in which a "climber" (a wooden shape with eyes glued to it) struggles to climb up a hill. In some trials the climber is helped by another figure, who gently pushes from below. In other trials the climber is hindered by a third figure, who appears at the top of the hill and repeatedly bashes the climber down the slope. After habituating to these displays, infants were presented with the helper

and the hinderer on a tray in front of them. Infants of both ages showed a strong preference in their reaching behavior: They reached out to touch or pick up the helper. In a subsequent phase of the study, the 10-month-old infants (but not the younger group) looked longer at a display of the climber seeming to cozy up to the hinderer, rather than the helper. The authors conclude that their findings "indicate that humans engage in social evaluation far earlier in development than previously thought, and support the view that the capacity to evaluate individuals on the basis of their social interactions is universal and unlearned" (p. 559).

Just as Baillargeon (1987) showed that infants arrive in the world with an understanding of intuitive physics, these studies suggest that infants are also born with at least the rudiments of an intuitive ethics. They recognize the difference between kind and unkind actors, and prefer puppets who act kindly. If so, then Hume was right that the "general foundation of morals" cannot have been "derived from reason." A more promising candidate is an innate and early-emerging moral-perceptual system that creates negative affect toward harmdoers and positive affect toward helpers. There may be other innate moral-perceptual systems as well, including the ability by 5 months of age to detect and prefer members of one's ingroup based on their accent (Kinzler, Dupoux, & Spelke, 2007), and the ability by 18 months of age to detect when another person needs help and then to offer appropriate help (Warneken & Tomasello, 2006).

#### 6. Manipulating Emotions Changes Judgments

If you change the facts of a case (e.g., say that Heinz stole a drug to save his dog, rather than his wife), people's judgments change too (Kohlberg, 1969), as would be predicted either by a rationalist or an intuitionist. But if you leave the facts alone and manipulate people's feelings instead, you find evidence that emotions play a causal role in moral judgment. Valdesolo and DeSteno (2006), for example, used a dose of positive affect to counteract the normal flash of negative affect caused by the "footbridge" dilemma. Participants who watched a comedy video immediately before completing a questionnaire on which they judged the appropriateness of pushing a man to his (useful) death were more likely to judge in the utilitarian way, whereas an emotionally neutral video had no such effect. The positive affect from the comedy video reduced or counteracted the flash of negative affect that most people get and many follow when responding to the footbridge dilemma.

Conversely, Wheatley, and Haidt (2005) used post-hypnotic suggestion to implant an extra flash of disgust whenever participants read a particular word ("take" for half of the participants; "often" for the other half). Participants



later made harsher judgments of characters in vignettes that contained the hypnotically enhanced word, compared to vignettes with the non-enhanced word. Some participants even found themselves condemning a character in a story who had done no wrong—a student council representative who “tries to take” or “often picks” discussion topics that would have wide appeal.

Schnall, Haidt, Clore, and Jordan (2008) extended these findings with three additional disgust manipulations: seating participants at a dirty desk (versus a clean one), showing a disgusting video clip (versus a sad or neutral one), and asking participants to make moral judgments in the presence of a bad smelling “fart spray” (or no spray). A notable finding in these studies was that moral judgments grew more severe primarily for those who scored above average on a measure of “private body consciousness” (Miller, Murphy, & Buss, 1981), which is the degree to which people attend to their own bodily sensations. This finding raises the importance of individual differences in the study of morality: Even if the ten literatures reviewed here converge on a general picture of intuitive primacy, there is variation in the degree to which people have gut feelings, follow them, or override them (see Bartels, 2008; Epstein, Pacini, Denes-Raj, & Heier, 1996). For example, individual differences on a measure of disgust sensitivity (Haidt, McCauley, & Rozin, 1994) have been found to predict participants’ condemnation of abortion and gay marriage, but not their stances on non-disgust-related issues such as gun control and affirmative action (Inbar, Pizarro, & Bloom, *in press*). Disgust sensitivity also predicts the degree to which people condemn homosexuals, even among a liberal college sample, and even when bypassing self-report by measuring anti-gay bias using two different implicit measures (Inbar, Pizarro, Knobe, & Bloom, *in press*).

## 7. People Sometimes Can’t Explain Their Moral Judgments

In the course of several studies on harmless taboo violations (e.g., a family that eats its dead pet dog; a woman who masturbates in unusual ways), Haidt found frequent instances in which participants said that they knew something was morally wrong, even though they could not explain why (Haidt & Hersh, 2001; Haidt, Koller, & Dias, 1993). Cushman, Young, and Hauser (2006), using trolley-type dilemmas, found that participants had conscious access to some of the principles that correlated with their judgments (e.g., harmful actions are worse than harmful omissions), but not others (e.g., harm intended as the means to a goal is worse than harm foreseen as a side effect). These findings are consistent with the notion that the judgment process and the justification process are somewhat independent

(Margolis, 1987; Nisbett & Wilson, 1977; Wilson, 2002). They also illustrate the idea that moral judgment draws on a great variety of intuitive principles—not just emotions. Hauser (2006) and Mikhail (2007) have analogized moral knowledge to rules of grammar that are known intuitively by native speakers who were never taught them explicitly and who cannot articulate them. In this analogy, “a chain of argument and induction” is not the way people learn morals any more than it is the way they learned the grammar of their native language.

## 8. Reasoning Is Often Guided by Desires

Reasoning involves multiple steps, and any one of them could be biased by intuitive processes. Yet research on everyday reasoning (Kuhn, 1991) and on motivated reasoning (Kunda, 1990) converge on the importance of one particular step: the search for relevant evidence. People do not seem to work very hard to evaluate the quality of evidence that supports statements, medical diagnoses, or personality evaluations that are consistent with their own preferences (Ditto & Lopez, 1992; Ditto, Scepansky, Munro, Apanovitch, & Lockhart, 1998). However, when faced with statements that contradict what they want to believe, people scrutinize the evidence presented to them more closely.

When forced to reason (either by an experimental task or by an unwanted conclusion), people are generally found to be biased hypothesis testers (Pyszczynski & Greenberg, 1987; Snyder & Swann, 1978; Wason, 1969). People choose one side as their starting point and then show a strong confirmation bias (Nickerson, 1998); they set out to find *any* evidence to support their initial idea. If they succeed, they usually stop searching (Perkins, Farady, & Bushey, 1991). If not, they may then consider the other side and look for evidence to support it. But studies of everyday reasoning usually involve questions that are not freighted with emotional commitments (e.g., what are the causes of unemployment? Kuhn, 1991). In such cases, a slight initial preference may be undone or even reversed by the failure to find good supporting evidence.

When making moral judgments, however, the initial preference is likely to be stronger, sometimes even qualifying as a “moral mandate”—a commitment to a conclusion, which makes people judge procedures that lead to the “right” conclusion as fair procedures, even though they reject those same procedures when they lead to the “wrong” conclusion (Mullen & Skitka, 2006; Skitka, Bauman, & Sargis, 2005). If a moral issue is tied to one’s political identity (e.g., pro-choice vs. pro-life) so that defensive motivations are at work (Chaiken, Giner-Sorolla, & Chen, 1996), the initial preference may not be reversible by any possible

evidence or failure to find evidence. Try, for example, to make the case for the position you oppose on abortion, eugenics, or the use of torture against your nation's enemies. In each case there are utilitarian reasons available on both sides, but many people find it difficult or even painful to search for reasons on the other side. Motivated reasoning is ubiquitous in the moral domain (for a review, see Ditto, Pizarro, & Tannenbaum, 2009).

### 9. Research in Political Psychology Points to Intuitions, Not Reasoning

There is a long tradition in political science of studying voters using rational choice models (reviewed in Kinder, 1998). But psychologists who study political behavior have generally found that intuition, framing, and emotion are better predictors of political preferences than are self-interest, reasoning about policies, or even assessments of the personality traits of a candidate (Abelson, Kinder, Peters, & Fiske, 1982; Kinder, 1998). Lakoff (1996, 2004) argued that policy issues become intuitively appealing to voters to the extent that they fit within one of two underlying cognitive frames about family life that get applied, unconsciously, to national life: the "strict father" frame (for conservatives) and the "nurturant parent" frame (for liberals).

Westen (2007), based on a broader review of empirical research, argued that "successful campaigns compete in the marketplace of emotions and not primarily in the marketplace of ideas" (p. 305). He describes his own research on four controversial political issues in which he and his colleagues collected measures of people's knowledge of each case and their overall feelings toward the political parties and the main figures involved. In each case, overall feelings of liking (e.g., for Bill Clinton and the Democratic Party) predicted people's judgments about specific issues very well (e.g., "Does the President's behavior meet the standard set forth in the Constitution for an impeachable offense?"). Variables related to factual knowledge, in contrast, contributed almost nothing. Even when relevant evidence was manipulated experimentally (by providing a fake news story that supported or failed to support a soldier accused of torture at Abu Ghraib), emotional variables explained nearly all of the variance in moral judgment. Westen summarizes his findings as follows: "The results are unequivocal that when the outcomes of a political decision have strong emotional implications and the data leave even the slightest room for artistic license, reason plays virtually no role in the decision making of the average citizen" (pp. 112–113). Westen and Lakoff both agree that liberals in the United States have made a grave error in adopting a rationalist or "Enlightenment" model of the human mind and therefore assuming that good arguments about good

policies will convince voters to vote for the Democratic Party. Republicans, they show, have better mastered intuitionist approaches to political persuasion such as framing (for Lakoff) and emotional appeals (for Westen), at least in the three decades before Barack Obama became president.

### 10. Research on Prosocial Behavior Points to Intuitions, Not Reasoning

From donating a dollar to standing up against genocide, most of the research on prosocial behavior indicates that rapid intuitive processes are where the action is (Loewenstein & Small, 2007; Slovic, 2007). Batson's classic work on the "empathy-altruism hypothesis" demonstrated that people are sometimes motivated to help—even willing to take electric shocks in place of a stranger—by feelings of empathy for another person who is suffering (Batson et al., 1983). Cialdini challenged the interpretation that such behavior reflected true altruism by proposing a "negative state relief hypothesis." He demonstrated that helping is less likely when people think they can escape from their own negative feelings of distress without helping the victim (Cialdini et al., 1987). Subsequent rounds of experiments established that empathic and selfish motives are both at work under some circumstances, but that empathic feelings of concern, including the goal of helping the victim, really do exist, and sometimes do motivate people to help strangers at some cost to themselves (Batson et al., 1988). Even when participants were given a good justification for not helping, or when others couldn't know whether the participant helped, those who felt empathy still helped (Fultz, Batson, Fortenbach, McCarthy, & Varney, 1986). (For reviews of the debate, see Batson, 1991; Dovidio et al. 2006, Chapter 4). There is also evidence that feelings of gratitude can motivate helping behavior, above and beyond considerations of reciprocity (Bartlett & DeSteno, 2006).

Moral intuitions related to suffering and empathy sometimes lead to undesirable consequences such as a radically inefficient distribution of charity. In one study, participants who were encouraged to feel more sympathy toward a fictitious child with a fatal illness were more likely to assign the child to receive immediate help, at the expense of other children who had been waiting for a longer time, were more needy, or had more to gain from the help (Batson, Klein, Highberger, & Shaw, 1995). On a larger scale, charitable giving follows sympathy, not the number of people in need. One child who falls down a well or who needs an unusual surgery triggers an outpouring of donations if the case is covered on the national news (see Loewenstein and Small, 2007 for a review). Lab studies confirm the relative power of sympathy over numbers: Small, Loewenstein, and Slovic (2007) found that a charitable appeal with a

single identifiable victim became *less* powerful when statistical information was added to the appeal. Even more surprising, Vastfjall, Peters, and Slovic (in prep) found that a charitable appeal with one identifiable victim became less effective when a second identifiable victim was added. Anything that interferes with one's ability to empathize appears to reduce the charitable response (see also Schelling, 1968; and Kogut & Ritov, 2005).

In addition to feelings of sympathy for the victim, irrelevant external factors often push people toward helpful action, further suggesting the primacy of intuitive reactions. Good weather (Cunningham, 1979), hearing uplifting or soothing music (Fried & Berkowitz, 1979; North, Tarrant, & Hargreaves, 2004), remembering happy memories (Rosenhan, Underwood, & Moore, 1974), eating cookies (Isen & Levin, 1972), and smelling a pleasant aroma such as roasted coffee (Baron, 1997) all led participants to offer more help.

Even if intuitions have "primacy," there is still room for conscious reasoning to exert some direction; manipulations of basic facts, such as the cost-benefit ratio of the helpful action, do alter behavior (Dovidio, Piliavin, Gaertner, Schroeder, Clark, 1991; Latane & Darley, 1970; Midlarsky & Midlarsky, 1973; Piliavin, Piliavin, & Rodin, 1975). It is not clear, however, whether participants evaluated costs and benefits consciously and deliberately, or whether they did it intuitively and automatically.

### Counter-Evidence: When Deliberation Matters

The review so far indicates that most of the action in moral psychology is in automatic processes—particularly but not exclusively emotional reactions. It is crucial to note that no major contributors to the empirical literature say that moral reasoning doesn't happen or doesn't matter. In the social intuitionist model, for example (Haidt, 2001), four of the six links are reasoning links, and reasoning is said to be a frequent contributor to moral judgment in discussions *between people* (who can challenge each others' confirmation bias), and within individuals *when intuitions conflict* (as they often do in lab studies of quandary ethics). The two most critical reviews of the SIM (Huebner et al., 2009; Saltzstein & Kasachkoff, 2004) reduce it erroneously to the claims that emotions (not intuitions) are necessary for all judgments and that reasoning never has causal efficacy, not even between people.

The modal view in moral psychology nowadays is that reasoning and intuition both matter, but that intuition matters more. This is not a normative claim (for even a little bit of good reasoning can save the world from disaster); it is a descriptive one. It is the claim that automatic, intuitive processes happen more quickly and frequently than moral

reasoning, and when moral intuitions occur, they alter and guide the ways in which people subsequently (and only sometimes) deliberate. Those deliberations can—but rarely do—overturn one's initial intuitive response. This is what is meant by the principle "intuitive primacy—but not dictatorship."

There are, however, important researchers who do not endorse this principle. First and foremost, there is a large and important group of moral psychologists based mostly in developmental psychology that is strongly critical of the shift to intuitionism (see Killen & Smetana, 2006). Turiel (2006) points out that people make judgments that are intentional, deliberative, and reflective in many realms of knowledge such as mathematics, classification, causality, and intentionality. Children may acquire concepts in these domains slowly, laboriously, and consciously, but once mastered, these concepts can get applied rapidly and effortlessly. Therefore, even when moral judgments are made intuitively by adults, moral knowledge might still have been acquired by deliberative processes in childhood. (Pizarro and Bloom, 2003, make a similar point about the acquisition of moral expertise in adulthood).

Even among moral psychologists who endorse the principle of intuitive primacy, there are active debates about the relationships between intuition and reasoning. How are they to be put together into a dual-process model? The social intuitionist model proposes a dual process model in which reasoning is usually the servant of intuitive processes, sent out to find confirming evidence, but occasionally returning with a finding so important that it triggers new intuitions, and perhaps even a change of mind. In contrast to the SIM, Greene and colleagues (2004) have proposed a more traditional dual process model in which the two processes work independently and often reach different conclusions (for a review of such models in social psychology, see Chaiken & Trope, 1999). Greene (2008) describes these two modes of processing as "controlled cognitive processing," which generally leads to consequentialist conclusions that promote the greater good, and "intuitive emotional processing," which generally leads to deontological conclusions about the inviolability of rights, duties, and obligations. Hauser (2006) argues for yet another arrangement in which moral "cognition" comes first in the form of rapid, intuitive applications of an innate "grammar of action," which leads to moral judgments, which give rise to moral emotions.

The precise roles played by intuition and reasoning in moral judgment cannot yet be established based on the existing empirical evidence. Greene, Morelli, Lowenberg, Nystrom, and Cohen (2008) used cognitive load to try to resolve this question, but their results are equivocal. Cognitive load did slow down consequentialist responses to difficult dilemmas, suggesting that reasoning played some role in judgment, but cognitive load did not alter the

judgments made, which is inconsistent with the view of two independent processes pushing against each other to reach the final judgment.

A further difficulty is that most research has used stories about dying wives, runaway trolleys, lascivious siblings, or other highly contrived situations. In these situations, usually designed to pit nonutilitarian intuitions (about rights or disgust) against extremely bad outcomes (often involving death), people do sometimes override their initial gut feelings and make the utilitarian choice. But do these occasional overrides show us that moral reasoning is best characterized—contra Hume—as an independent process that can easily veto the conclusions of moral intuition (Greene, 2008)? Or might it be the case that moral reasoning is rather like a lawyer (Baumeister & Newman, 1994) employed by moral intuition, which largely does its client's bidding, but will occasionally resist when the client goes too far and asks it to make an argument it knows to be absurd? It is useful to study judgments of extreme cases, but much more work is needed on everyday moral judgment—the evaluations that people make of each other many times each day (rare examples include Nucci & Turiel, 1978; Sabini & Silver, 1982). How rapidly are such judgments made? How often are initial judgments revised? When first reactions are revised, is the revision driven by competing intuitions, by questions raised by a discussion partner, or by the person's own private and unbiased search for alternative conclusions? What are the relevant personality traits or ecological contexts that lead to more deliberative judgments? When is deliberative judgment superior to judgment that relies on intuitions and heuristics? Progress will be made on these questions in coming years. In the meantime, we can prepare for the study of everyday moral judgment by examining what it is good for. Why do people judge each other so frequently in the first place? The second principle of the New Synthesis offers an answer.

### MORAL THINKING IS FOR SOCIAL DOING

Functionalist explanations have long been essential in many sciences. Broadly speaking, functionalist explanations involve “interpreting data by establishing their consequences for larger structures in which they are implicated” (Merton, 1968, p. 101). The heart contracts in the complex ways that it does *in order to* propel blood at variable rates within a larger circulatory system, which is itself a functional component of a larger structure, the body. Psychology has long been a functionalist science, not just about behavior (which produces consequences for the organism; Skinner, 1938), but also about thought (Katz, 1960; Tetlock, 2002). William James (1890/1950, p. 333) insisted

on this approach: “My thinking is first and last and always for the sake of my doing.” Our goal in this section is to apply James's dictum by exploring the different kinds of “doing” that moral thinking (including intuition and reasoning) might be for. (See S. T. Fiske, 1993, for a previous application of James's dictum to social cognition.)

A crucial first step in any functionalist analysis is to specify the larger structure within which a component and its effects are implicated. For moral thinking, there are three larger structures that have been discussed in the literature, which give us three kinds of functionalism.<sup>3</sup> In *intrapsychic functionalism*,<sup>4</sup> the larger structure is the psyche, and moral thinking is done in order to provide intrapsychic benefits such as minimizing intrapsychic conflict (Freud, 1923/1962), or maintaining positive moods or self-esteem (Cialdini et al., 1987; Jost & Hunyady, 2002). In *epistemic functionalism* the larger structure is a person's representation of the world, and moral thinking is done in order to improve the accuracy and completeness of that knowledge structure (e.g., Kohlberg, 1971). In *social functionalism*, the larger structure is the social agent embedded in a still larger social order, and moral thinking is done in order to help the social agent succeed in the social order (e.g., Dunbar, 1996). This section of the chapter examines various literatures in moral psychology from a social-functional perspective. Many of the puzzles of human morality turn out to be puzzles only for epistemic functionalists, who believe that moral thinking is performed *in order to* find moral truth.

### The Puzzle of Cooperation

The mere existence of morality is a puzzle, one that is deeply intertwined with humanity's search for its origins and its uniqueness (Gazzaniga, 2008). Two of the most dramatic and plot-changing moments in the Hebrew Bible involve the receipt of moral knowledge—in the Garden of Eden and on Mt. Sinai. Both stories give Jews and Christians a narrative structure in which they can understand their obligations (especially obedience to authority), the divine justification of those obligations, and the causes and consequences of failures to live up to those obligations.

Morality plays a starring role in evolutionary thinking about human origins as well. Darwin was keenly aware

<sup>3</sup>These three functionalisms are similar to Katz's (1960) list of the four functions of attitudes: knowledge, ego-defense, utilitarian, and value-expressive. We merge the last two together as social functions.

<sup>4</sup>It should be noted that intrapsychic functionalism can often be subsumed within social functionalism because evolution often uses feelings of pleasure and displeasure as the proximal mechanisms that motivate organisms to engage in adaptive behaviors.

that altruism, in humans and other animals, seemed on its face to be incompatible with his claims about competition and the survival of the fittest. He offered a variety of explanations for how altruism might have evolved, including group-level selection—groups with many virtuous members outcompete groups with fewer. But as the new sciences of genetics and population genetics developed in the twentieth century, a new mathematical rigor led theorists to dismiss group selection (Williams, 1966) and to focus instead on two other ideas—kin selection and reciprocal altruism.

*Kin selection* refers to the process in which genes spread to the extent that they cause organisms to confer benefits on others who share the same gene because of descent from a recent common ancestor (Hamilton, 1964). Evidence for the extraordinary degree to which resources and cooperation are channeled toward kin can be found throughout the animal kingdom (Williams, 1966) and the ethnographic record (Fiske, 1991; Henrich & Henrich, 2007). Trivers (1971, p. 35) sought to move beyond kin selection when he defined altruism as “behavior that benefits another organism, not closely related, while being apparently detrimental to the organism performing the behavior.” He proposed *reciprocal altruism* as a mechanism that could promote the spread of genes for altruism, if those genes led their bearers to restrict cooperation to individuals likely to return the favor. Evidence for the extraordinary power of reciprocity is found throughout the ethnographic (A. P. Fiske, 1991) and the experimental literature (Axelrod, 1984) with humans, but, contrary to Trivers’s expectations, reciprocal altruism among animals is extremely rare (Hammerstein, 2003). There is some ambiguous experimental evidence for inequity aversion among chimpanzees and capuchin monkeys (Brosnan & De Waal, 2003; Wynne, 2004), and there is some compelling anecdotal evidence for several kinds of fairness among other primates (Brosnan, 2006), but the difficulty of documenting clear cases of reciprocal altruism among non-kin suggests that it may be limited to creatures with very advanced cognitive capacities.

Kin selection and reciprocal altruism are presented as the evolutionary foundations of morality in many social psychology textbooks and in most trade books on morality (e.g., Dawkins, 1976; Hauser, 2006; Ridley, 1996; Wright, 1994). Rather than dwell any further on these two overemphasized processes, this chapter now skips ahead to what they cannot explain: cooperation in large groups. The power of both processes falls off rapidly with increasing group size. For example, people share 50% of their variable genes with full siblings, 12.5% with first cousins, and just 3% with second cousins. Kin selection therefore cannot explain the intense cooperation found among extended families and clans in many cultures. Reciprocal altruism has a slightly greater reach: People can know perhaps a few hundred others well

enough to have had direct interactions with them and remember how those interactions went. Yet even if reciprocal altruism can create hundreds of cooperative *dyads*, it is powerless to create small cooperative *groups*. Commons dilemmas, in which the group does best when all cooperate but each person does best free-riding on the contributions of others (Hardin, 1968), cannot be solved if each player’s only options are to cooperate or defect. When there is no mechanism by which defectors can be singled out for punishment, the benefits of free-riding outweigh the benefits of cooperating and, as evolutionary and economic theories both predict, cooperation is rare (Fehr & Gächter, 2002). Even in collectivist cultures such as Japan, when participants are placed in lab situations that lack the constant informal monitoring and sanctioning systems of real life, cooperation rates in small groups are low, even lower than those of Americans (Yamagishi, 2003). Collectivism is not just an “inside-the-head” trait that expresses itself in cooperative behavior; it requires “outside-the-head” environmental constraints and triggers to work properly.

Yet somehow, hunter-gatherers cooperate with groups of non-kin on difficult joint projects such as hunting buffalo, weaving large fishnets, and defending territory. And once humans domesticated plants and animals and began living in larger and denser groups, they began to engage in large-scale cooperative projects such as building city walls, changing the course of rivers, and conquering their neighbors. How did this happen, and happen so suddenly in several places over the course of just a few thousand years?

We can think of large-scale cooperation as the Rubicon that our ancestors crossed, founding a way of life on the other side that created a quantum leap in “non-zero-sumness” (Wright, 2000). The enormous and accelerating gains from cooperation in agriculture, trade, infrastructure, and governance are an example of what has been called a “major transition” in evolution (Maynard Smith & Szathmari, 1997), during which human beings went from being a social species like chimpanzees to being an “ultrasocial” species (Campbell, 1983; Richerson & Boyd, 1998), like bees and ants, able to live in groups of thousands with substantial division of labor. What “inside the head” mechanisms were already in place in pre-agricultural minds such that when early agriculturalists created the right “outside the head” products—such as virtues, institutions, social practices, and punitive gods—ultra-large-scale cooperation (i.e., civilization) materialized so rapidly? Many explanations have been offered, but two of the most widely discussed are reputation and moralistic rule enforcement.

### Reputation, Rules, and the Origin of Conscience

Scholars have long wondered why people restrain themselves and follow rules that contradict their self-interest.

Plato opened *The Republic* with the question of why anyone would behave justly if he possessed the mythical “ring of Gyges,” which made the wearer invisible at will. One of the first speakers, Glaucon, is a social-functionalist: He proposes that it is only concern for one’s reputation that makes people behave well. Socrates, however, eventually steers the group to an epistemically functional answer: Goodness is a kind of truth, and those who know the truth will eventually embrace it. Freud (1900/1976), in contrast, was an intrapsychic-functionalist; he proposed that children internalize the rules, norms, and values of their opposite-sex parent *in order to* escape from the fear and shame of the Oedipus complex.

Darwin sided with Glaucon. He wrote extensively about the internal conflicts people feel between the “instincts of preservation” such as hunger and lust, and the “social instincts” such as sympathy and the desire for others to think well of us (Darwin, 1871/1998, Part I Ch. IV). He thought that these social instincts were acquired by natural selection—individuals that lacked them would be shunned and would therefore be less likely to prosper. Alexander (1987) developed this idea further; he proposed that “indirect reciprocity” occurs when people help others in order to develop a good reputation, which elicits future cooperation from others.

Game-theoretic approaches have elucidated the conditions under which indirect reciprocity can produce high rates of cooperation in one-shot interactions among large groups of strangers. The most important requirement is that good information is available about reputations—i.e., an overall measure of the degree to which each person has been a “good” player in the past (Nowak & Sigmund, 1998). But “good” does not mean “always cooperative,” because a buildup of indiscriminating altruists in a population invites invasion by selfish exploiters. The second requirement for indirect reciprocity to stabilize cooperation is that individuals punish those with a bad reputation, at least by withholding cooperation from them (Panchanathan & Boyd, 2004). A “good” indirect reciprocator is therefore a person who carefully monitors the reputations of others and then limits cooperation to those with good reputations. When people have the capacity to do more than shun—when they have the ability to punish defectors at some cost to themselves—cooperation rates rise particularly quickly (Fehr & Gächter, 2002). Such punishment has been called “altruistic punishment” because it is a public good: It costs the punisher more than it earns the punisher, although the entire group benefits from the increased levels of cooperation that result from the punisher’s actions (Fehr & Gächter, 2002).

Gossip, then, has emerged as a crucial catalyst of cooperation (Nowak, 2006; Wiessner, 2005). In a gossipy social world, reputations matter for survival, and natural selection favors those who are good at tracking the reputations of

others while simultaneously restraining or concealing their own selfish behavior. Dunbar (1996) has even suggested that language and the large human frontal cortex evolved in part for the selective advantages they conferred on those who could most effectively share and manipulate information about reputations.

Norms and rules provide cultural standards that make it easy for people to identify possible violators and then share their concerns with friends. Other primates have norms—shared expectations about each others’ behavior—such as when and how to show deference, or who is “allowed” to mate with whom (de Waal, 1996). However, there is no evidence that any non-human animal feels shame or guilt about violating such norms—only fear of punishment (Boehm, in press). Humans, in contrast, live in a far denser web of norms, mores, and folkways (Sumner, 1907) and have an expanded suite of emotions related to violations, whether committed by others (e.g., anger, contempt, and disgust) or by the self (e.g., shame, embarrassment, and guilt, although the differentiation of these emotions varies across cultures; see Haidt, 2003, for a review). Furthermore, humans devote an enormous portion of their gossip to discussions of norm violators within the immediate social group, particularly free-riders, cheaters, and liars (Dunbar, 1996). Given that gossip is often a precursor to collective judgment and some degree of social exclusion, it can be quite costly to become the object of gossip. In a gossipy world where norms are clear and are carefully and collectively monitored, the possession of a conscience is a prerequisite for survival. As the humorist H. L. Mencken once quipped: “Conscience is the inner voice that warns us somebody may be looking.” Glaucon and Darwin would agree.

Turning now to the social psychological literature, what is the evidence for a social-functionalist approach to morality? The literature can be divided into research on people as actors, and research on people as judges or prosecutors who investigate the actions of others.

### The Intuitive Politician

Tetlock (Lerner & Tetlock, 2003; Tetlock, Skitka, & Boettger, 1989) has argued that accountability is a universal feature of social life. It is a pre-requisite for any non-kin-based cooperative enterprise, from a hunting party to a multi-national corporation. Tetlock points out that the metaphor of people as intuitive scientists searching for truth with imperfect tools is not generally applicable in a world of accountability pressures. In place of such epistemic functionalism, Tetlock (2002) has proposed a social-functionalist framework for the study of judgment and choice. He suggests the metaphor that people often

become “intuitive politicians” who strive to maintain positive identities with multiple constituencies; at other times they become “intuitive prosecutors” who try to catch cheaters and free-riders.

The condition that activates the mindset of an intuitive politician is the knowledge that one is “under the evaluative scrutiny of important constituencies in one’s life who control valuable resources and who have some legitimate right to inquire into the reasons behind one’s opinions or decisions” (Tetlock, 2002, p. 454). Because people are so often under such scrutiny, many phenomena in moral psychology reveal the intuitive politician in action.

1. *Impression management.* Rationalists are usually epistemic functionalists; they believe that moral thinking is like thinking about science and math (Turiel, 2006), and it is done *in order to* find a closer approximation of the truth. For a rationalist, the presence or absence of an audience should not affect moral thinking any more than it should affect scientific thinking. But intuitive politicians are not scientists; they are intuitive (good politicians have sensitive instincts and respond rapidly and fluently, not necessarily logically), and they are politicians (who are hypersensitive to the desires of each audience). Tetlock’s research on decision making shows that complex, open-minded “exploratory” thinking is most common when people learn prior to forming any opinions that they will be accountable to a legitimate audience whose views are unknown, who is interested in accuracy, and who is reasonably well informed (Lerner & Tetlock, 2003). Because this confluence of circumstances rarely occurs, real decision makers usually engage in thought that is more simple-minded, more likely to conform to the audience’s desires, and more “confirmatory”—that is, designed to find evidence to support the decision makers’ first instinct. A great deal of research in classic (e.g., Newcomb, 1943) and recent (e.g., Pennington & Schlenker, 1999; Sinclair, Lowery, Hardin, & Colangelo, 2005) social psychology shows that people have a tendency to “tune” their attitudes to those of the people and groups with whom they interact, or expect to interact. The tuning process is so automatic and ubiquitous that it even results in behavioral mimicry, which improves the impression one makes on the person mimicked (Chartrand & Bargh, 1999).

Audiences alter moral behavior in several ways. In general, people are more likely to behave prosocially in the presence of others (Baumeister, 1982). For example, in one study, people donated several times more money to a research fund when the donation was made publicly rather than privately (Satow, 1975). The audience need not even be present: Security cameras increase helping (van Rompay, Vonk, & Fransen, 2009). The audience need not even be

real: People are more generous in a dictator game when they play the game on a computer that has stylized eye-spots on the desktop background, subliminally activating the idea of being watched (Haley & Fessler, 2005).

When politicians have mollified their audiences, they can lower their guard a bit. Monin and Miller (2001) found that participants who established their “moral credentials” as being non-prejudiced by disagreeing with blatantly sexist statements were subsequently more likely to behave in a sexist manner than participants who first responded to more ambiguous statements about women, and who were therefore more concerned about impressing their audience. And finally, when the politician’s constituents prefer antisocial behavior, there is a strong pressure to please. Vandalism and other crimes committed by teenagers in groups are, in Tetlock’s terms, politically motivated.

2. *Moral confabulation.* People readily construct stories about why they did things, even though they do not have access to the unconscious processes that guided their actions (Nisbett & Wilson, 1977; T. D. Wilson, 2002). Gazzaniga (1985) proposed that the mind contains an “interpreter module” that is always on, always working to generate plausible rather than veridical explanations of one’s actions. In a dramatic recent example, participants chose which of two female faces they found most attractive. On some trials, the experimenter used sleight-of-hand to swap the picture of the chosen face with the rejected face and then asked participants why they had chosen that picture. Participants did not notice the switch 74% of the time; in these cases they readily generated reasons to “explain” their preference, such as saying they liked the woman’s earrings when their original choice had not been wearing earrings (Johansson, Hall, Sikstrom, & Olsson, 2005).

For an epistemic functionalist, the interpreter module is a puzzle. Why devote brain space and conscious processing capacity to an activity that does more to hide truth than to find it? But for an intuitive politician, the interpreter module is a necessity. It is like the press secretary for a secretive president, working to put the best possible spin on the administration’s recent actions. The press secretary has no access to the truth (he or she was not present during the deliberations that led to the recent actions) and no particular interest in knowing what really happened. (See Kurzban & Akipis, 2007, on modularity and the social mind.) The secretary’s job is to make the administration look good. From this perspective, it is not surprising that—like politicians—people believe that they will act more ethically than the average person, whereas their predictions for others are usually more accurate (Epley & Dunning, 2000). People think that they are less likely than their peers to deliver electric shocks in the Milgram

paradigm, and more likely to donate blood, cooperate in the prisoner's dilemma, distribute collective funds fairly, or give up their seat on a crowded bus to a pregnant woman (Allison, Messick & Goethals, 1989; Bierbrauer, 1976; Goethals, Messick, & Allison, 1991; Van Lange, 1991; Van Lange & Sedikides, 1998).

3. *Moral hypocrisy.* The ease with which people can justify or "spin" their own bad behavior means that, like politicians, people are almost certain to practice some degree of hypocrisy. When people behave selfishly, they judge their own behavior to be more virtuous than when they watch the same behavior performed by another person (Valdesolo & DeSteno, 2007). When the same experimental procedure is carried out with participants under cognitive load, the self-ratings of virtue decline to match those of the other groups, indicating that people employ conscious, controlled processes to find excuses for their own selfishness, but they do not use these processes when judging others, at least in this situation (Valdesolo & DeSteno, 2008). People also engage in a variety of psychosocial maneuvers—often aided by the institutions that organize and direct their actions (Darley, 1992)—which absolve them from moral responsibility for harmful acts. These include reframing the immoral behavior into a harmless or even worthy one; the use of euphemisms; diffusion or displacement of responsibility; disregarding or minimizing the negative consequences of one's action; attribution of blame to victims; and dehumanizing victims (Bandura, 1999; Glover, 2000; Zimbardo, 2007).

People are especially likely to behave in morally suspect ways if a morally acceptable alibi is available. Batson and colleagues (Batson, Kobrynowicz, Dinnerstein, Kampf, & Wilson, 1997; Batson, Thompson, Seufferling, Whitney, & Strongman, 1999) asked participants to decide how to assign two tasks to themselves and another participant. One of the tasks was much more desirable than the other, and participants were given a coin to flip, in a sealed plastic bag, as an optional decision aid. Those who did not open the bag assigned themselves the more desirable task 80 to 90% of the time. But the same was true of participants who opened the bag and (presumably) flipped the coin. Those who flipped may well have believed, before the coin landed, that they were honest people who would honor the coin's decision: A self-report measure of moral responsibility, filled out weeks earlier, correlated with the decision to open the bag, yet it did not correlate with the decision about task assignment. As with politicians, the ardor of one's declarations of righteousness does not predict the rightness of choices made in private, with no witnesses, and with an airtight alibi available. The coin functioned, in effect, as the Ring of Gyges. (See also Dana, Weber, & Kuang, 2007, on

the ways that "moral wiggle room" and plausible deniability reduce fairness in economic games.)

In another study, participants were more likely to avoid a person with a disability if their decision could be passed off as a preference for one movie over another (Snyder, Kleck, Strenta, & Mentzer, 1979). Bersoff (1999) created even more unethical behavior in the lab by handing participants an overpayment for their time, apparently as an experimenter error, which only 20% of participants corrected. But when deniability was reduced by the experimenter specifically asking, "Is that correct?" 60% did the right thing. Politicians are much more concerned about getting caught in a direct lie than they are about preventing improper campaign contributions.

4. *Charitable giving.* Conscience, for an epistemic functionalist, is what motivates people to do the right thing when faced with a quandary. The philosopher Peter Singer (1979) has argued that we are all in a quandary at every moment, in that we could all easily save lives tomorrow by increasing our charitable giving today. Singer has further argued that letting a child die in a faraway land is not morally different from letting a child drown in a pond a few feet away. Whether one is a utilitarian or a deontologist, it is hard to escape the unsettling conclusion that most citizens of wealthy nations could and should make greater efforts to save other people's lives. But because the conclusion is unsettling, people are strongly motivated to find counterarguments and rationalizations (Ditto & Lopez, 1992; Ditto et al., 1998), such as the fallacious "drop in the bucket" argument.

Because charitable giving has such enormous reputational consequences, the intuitive politician is often in charge of the checkbook. Charitable gifts are sometimes made anonymously, and they are sometimes calculated to provide the maximum help per dollar. But in general, charitable fundraisers gear their appeals to intuitive politicians by selling opportunities for reputation enhancement. They appoint well-connected people to boards and then exploit those people's social connections; they throw black-tie fundraisers and auctions; and they offer to engrave the top donors' names in stone on new buildings. An analysis of the 50 largest philanthropic gifts made in 2007 (all over \$40 million) shows that 28 went to universities and cultural or arts organizations (<http://philanthropy.com/topdonors/>, retrieved October 14, 2008). The remainder went to causes that can be construed as humanitarian, particularly hospitals, but even these cases support the general conclusion that megagifts are usually made by a very rich man, through a foundation that bears his name, to an institution that will build a building or program that bears his name. These patterns of charitable giving are more consistent



with a social-functionalist perspective that stresses reputational enhancement than with an epistemic functionalist perspective that stresses a concern for the objectively right or most helpful thing to do. The intuitive politician cares first and foremost about impressing his constituents. Starving children in other countries don't vote.

### The Intuitive Prosecutor

In order to thrive socially, people must protect themselves from exploitation by those who are trying to advance through manipulation, dishonesty, and backstabbing. Intuitive politicians are therefore up against intuitive prosecutors who carefully track reputations, are hypervigilant for signs of wrong-doing, and are skillful in building a case against the accused. Many documented features and oddities of moral judgment make more sense if one adopts a social-functionalist view in which there is an eternal arms race between intuitive politicians and intuitive prosecutors, both of whom reside in everyone's mind. The adaptive challenge that activates the intuitive prosecutor is "the perception that norm violation is both common and commonly goes unpunished" (Tetlock, 2002, p. 454).

1. *Negativity bias in moral thinking.* Across many psychological domains, bad is stronger than good (Baumeister, Bratlavsky, Finenauer, & Vohs, 2001; Rozin & Royzman, 2001; Taylor, 1991). Given the importance of reputation for social success, the same is true for morality. Reputation and liking are more strongly affected by negative information than by equivalent positive information (Fiske, 1980; Riskey & Birnbaum, 1974; Skowronski & Carlston, 1987). One scandal can outweigh a lifetime of public service, as many ex-politicians can attest. The intuitive prosecutor's goal is to catch cheaters, not to hand out medals for good citizenship, and so from a signal detection or "error management" perspective (Haselton & Buss, 2000), it makes sense that people are hypervigilant and hyperreactive to moral violations, even if that blinds them to some cases of virtuous action.

A recent illustration of negativity bias is the Knobe effect (Knobe, 2003), in which people are more likely to say that a person intentionally caused an outcome if the outcome was unintended, foreseeable, and negative (e.g., harming the environment) than if the outcome was unintended, foreseeable, and positive (e.g., improving the environment). From an epistemic functionalist perspective, this makes no sense: Appraisals of intentionality are assumed to precede moral judgments and should therefore be independent of them. But from a social functionalist perspective, the Knobe effect makes good sense: The person who caused the negative outcome is a bad person who should

be punished, and in order to convince a jury, the prosecutor must show that the defendant intended to cause the harm. Therefore, the prosecutor interprets the question about "intention" in whatever way will yield the highest possible value of intentionality, within the range permitted by the facts at hand. Similarly, Alicke (1992) showed that judgments about the degree to which a young man had control over his car just before an accident depended on why the man was speeding home. If he was driving fast to hide cocaine from his parents, then he was judged to have had more control (and therefore to be more culpable for the accident) than if he was driving fast to hide an anniversary gift for his parents. As with appraisals of intentionality, appraisals of control are commissioned by the prosecutor, or, at least, they are revised by the prosecutor's office when needed for a case.

2. *A cheater detection module?* Much of evolutionary psychology is a sustained argument against the idea that people solve social problems using their general intelligence and reasoning powers. Instead, evolutionary psychologists argue for a high degree of modularity in the mind (Barrett & Kurzban, 2006; Tooby, Cosmides, & Barrett, 2005). Specialized circuits or modules that gave individuals an advantage in the arms race between intuitive prosecutors and intuitive politicians (to use Tetlock's terms) have become part of the "factory-installed" equipment of human morality. Cosmides (1989; Cosmides & Tooby, 2005) argued that one such module is specialized for social exchange, with a subroutine or sub-module for the detection of cheaters and norm violators. Using variants of the Wason four-card problem (which cards do you have to turn over to verify a particular rule?), she has shown that people perform better when the problem involves rules and cheaters (e.g., the rule is "if you are drinking in the bar, you must be 18 or older") than when the problem does not involve any cheating (e.g., the rule is "if there is an A on one side, there must be a 2 on the other"). More specifically, when the task involves a potential cheater, people show an increase in their likelihood of correctly picking the "cheater" card (the card that describes a person who is drinking in a bar, who may or may not be 18); this is the one people often miss when the task is described abstractly. (For a critique of this work, see Buller, 2005; for a response, see Cosmides, Tooby, Fiddick, & Bryant, 2005.) Regardless of whether there is an innate module, there is other evidence to support Cosmides' contention that people have a particular facility for cheater detection. People are more likely to recognize faces of individuals who were previously labeled as cheaters than those labeled non-cheaters (Mealy, Daoood, & Krage, 1996). People are also above chance in guessing who defected in a Prisoner's dilemma game, suggesting that they can detect

subtle cues given off by cheaters (Yamagishi, Tanida, Mashima, Shimoma, & Kanazawa, 2003).

3. *Prosecutorial confabulations.* Intuitive prosecutors are not impartial judges. They reach a verdict quickly and then engage in a biased search for evidence that can be presented to a judge (Kunda, 1990; Pyszczynski & Greenberg, 1987). When evidence is not forthcoming, intuitive prosecutors, like some overzealous real prosecutors, sometimes make it up. In the study by Wheatley and Haidt (2005) described earlier, some participants made up transparently post-hoc fabrications to justify their hypnotically influenced judgments that “Dan” had done something wrong by choosing discussion topics that would appeal to professors as well as students. Having just leveled a charge against Dan in their ratings, these participants wrote out supporting justifications such as “Dan is a popularity-seeking snob” and “It just seems like he’s up to something.” The motto of the intuitive prosecutor is “make the evidence fit the crime.”

Pizarro, Laney, Morris, and Loftus (2006) caught the prosecutor tampering with evidence in a different way. Participants read a story about “Frank,” who walked out of a restaurant without paying the bill. One-third of participants were given extra information indicating that Frank was a dishonest person; one-third were given extra information indicating that Frank was an honest person and the action had been unintentional; and one-third were given no extra information. When asked a week later to recall what they could about the story, participants who had been told that Frank was a bad person remembered the restaurant bill to have been larger than it actually was, and the degree of distortion was proportional to the degree of blame in participants’ original ratings.

### All Cognition Is for Doing

Epistemic functionalism was popular during the cognitive revolution, when theorists assumed that the mind must first create accurate maps of the world before it can decide upon a course of action. This assumption underlies Kohlberg’s (1969) argument that children move up through his six stages of cognitive development because each level is more “adequate” than the one before.<sup>5</sup> But

<sup>5</sup>The claim that children move up along the same path in all cultures, coupled with the claim that higher levels are more adequate, was the warrant for one of Kohlberg’s most audacious claims: that one could in fact derive an “ought” (a normative claim about justice) from an “is” (about how children develop toward a justice-based morality; see Kohlberg, 1971).

it is now becoming increasingly clear that cognition is embodied and adapted for biological regulation (Smith & Semin, 2004). Animal brains cannot and do not strive to create full and accurate mental maps of their environments (Clark, 1999). Even cockroaches can solve a variety of complex problems, and they do so by using a grab-bag of environment-specific tricks and heuristics that require no central representations. As Clark (1999, p. 33) states in his review of animal, human, and robotic cognition: “The rational deliberator turns out to be a well camouflaged Adaptive Responder. Brain, body, world, and artifact are discovered locked together in the most complex of conspiracies.”

Even perceiving is for doing. When people are asked to estimate the steepness of a hill, their estimates are influenced by the degree of effort they would have to make to climb the hill. Wearing a heavy backpack makes estimates higher; standing beside a friend makes them lower (see review in Proffitt, 2006). These distortions are not evidence of bad thinking or motivated inaccuracy, but they do suggest that visual perceptions, like memories and many judgments, are constructed on the fly and influenced by the task at hand (Loftus, 1975) and by the feelings one has as one contemplates the task (Clare, Schwarz, & Conway, 1994). When we move from the physical world to the social world, however, we find many more cases where distorted perceptions may be more useful than accurate ones. Chen and Chaiken (1999) describe three motives that drive systematic processing, including an “accuracy motive,” which is sometimes overridden by a “defense motive” (to preserve one’s self-concept and important social identities, including moral identities) and by an “impression motive” (to advance one’s reputation and other social goals).

The many biases, hypocrisies, and outrageous conclusions of (other) people’s moral thinking are hard to explain from an epistemic functionalist perspective, as is the frequent failure of intelligent and well-meaning people to converge on a shared moral judgment. But from a social-functionalist perspective, these oddities of moral cognition appear to be design features, not bugs.

### MORALITY BINDS AND BUILDS

The previous section adopted a social functionalist perspective and examined moral psychology as a means by which individuals compete for advantage within groups. The section focused on gossip and punishment as longstanding and ubiquitous features of human society that made natural selection favor individuals who were skilled as intuitive politicians and prosecutors. This section takes the social functionalist approach a step further, exploring

the possibility that humanity's moral nature was shaped not just by the competition of individuals *within* groups, but also by the competition of groups *with other groups* (Brewer & Caporael, 2006; Henrich, 2004; Richerson & Boyd, 2005; Turchin, 2006; D.S. Wilson, 2002). Humanity's ancestors have been living in groups with at least occasional violent intergroup hostility for most or all of the last seven million years (Boehm, in press). Human beings therefore can be expected to have many ancient "inside the head" mechanisms (such as for coalitions, tribalism, and territoriality [Kurzban, Tooby, & Cosmides, 2001]) that co-evolved in more recent times with "outside the head" cultural creations (such as law, religion, and political institutions), to serve the function of suppressing selfishness and increasing group cohesion, trust, and coordinated action.

The idea that natural selection works on multiple levels simultaneously was stated clearly by Darwin, but it was rejected forcefully by evolutionary theorists beginning in the 1960s (Dawkins, 1976; Williams, 1966). This section of the chapter shows that the main objection to group-level selection—the free-rider problem—has been answered. It also shows how the multilevel perspective has the potential to broaden and improve thinking about morality. Morality is not just about issues of harm and fairness, as many came to believe during the "great narrowing." From a descriptive point of view, morality is also about binding groups together in ways that build cooperative moral communities, able to achieve goals that individuals cannot achieve on their own. The next major section of the chapter will suggest that this broadening of the moral domain is a crucial analytical move that must be made in order to understand the moralities of traditional societies and of political conservatives within Western societies.

### Multilevel Selection

Natural selection does not require genes or organisms. It is a process that occurs whenever there is competition among variations that are in some way heritable. When a fast-food restaurant chain modifies its menu and its sales rise (at the expense of its competitors), more outlets will be opened, each with the modified menu, and this is an example of natural selection. In *The Descent of Man*, Darwin (1998/1871) focused on competition among individual organisms, but he recognized the generality of his theory and he believed that human tribes are higher-level entities subject to natural selection:

A tribe including many members who, from possessing in a high degree the spirit of patriotism, fidelity, obedience, courage, and sympathy, were always ready to aid one another,

and to sacrifice themselves for the common good, would be victorious over most other tribes; and this would be natural selection. At all times throughout the world tribes have supplanted other tribes; and . . . morality is one important element in their success. (p. 137)

Darwin was well aware that the free-rider problem worked against group-level selection:

It is extremely doubtful whether the offspring of the more sympathetic and benevolent parents, or of those who were the most faithful to their comrades, would be reared in greater numbers than the children of selfish and treacherous parents belonging to the same tribe. (p. 135)

Darwin believed, however, that there were a variety of forces at work among human groups that solved the free-rider problem and made selfishness unprofitable; foremost among these was the need for a good reputation. Darwin also believed that religion helped bind groups together and suppress selfishness.

But in the 1960s, as claims proliferated about evolution working for the "good of the group" or even the "good of the species," Williams (1966) wrote a devastating critique that largely blocked discussion of group-level selection for three decades. Williams acknowledged that multilevel selection was possible in principle, and he reviewed purported instances of it among many animals, such as restraints on fertility and consumption when food supplies are limited. He concluded that these behaviors were all better explained by the natural selection of alternative alleles as individuals competed with other individuals. A fleet herd of deer is really just a herd of fleet deer, he said; nothing is gained by talking about groups as emergent entities. Given prevailing (and erroneous) assumptions about the slowness of genetic change, the porousness of groups, and the difficulty of suppressing free-riding, Williams argued that the math just does not work out to enable group-level selection to have any appreciable effect on genes. Williams disagreed with Darwin that morality was an adaptation; rather, he believed that morality was "an accidental capability produced, in its boundless stupidity, by a biological process that is normally opposed to the expression of such a capability" (Williams, 1988, p. 438). Dawkins (1976) cemented this idea in the popular and scientific imaginations with his metaphor of the "selfish gene," and his demonstrations that apparently altruistic acts in animals (including humans) can always be explained as benefiting the individual or other people likely to share the individual's genes. For the rest of the twentieth century, most books and essays on the evolution of morality focused on kin selection and reciprocal altruism (including indirect reciprocity).

In the last 20 years, however, three breakthroughs have enabled theorists to escape from the *de facto* ban imposed by Williams and Dawkins. The first was the formulation of “major transitions” theory (Maynard Smith & Szathmari, 1997). At several points in the history of life, mechanisms emerged that solved the free-rider problem and created larger emergent entities. Replicating molecules joined together to form chromosomes; prokaryotes merged together to become the cooperative organelles of eukaryotic cells; single-cell eukaryotes stayed together after division to form multi-cellular organisms; and some multi-cellular organisms stayed together after birth to form hives, colonies, and societies. In each of these cases, the evolution of a mechanism for suppressing free-riding at one level led to cooperation by entities at that level, which produced enormous gains for the emergent group, largely through division of labor.

Major transitions are rare in nature, but their effects are transformative. The super-organisms produced spread rapidly, outcompeting and marginalizing less cooperative groups (Wilson, 1990). Maynard Smith and Szathmari (1997) note that the transition from small primate societies to large human societies meets all the requirements for being a major transition. The explosion of human biomass, the rapid human domination of so many varied ecosystems, and the frequency of intergroup competition all exemplify the patterns seen after previous major transitions. Group-level analyses are no longer heretical in biology; in a sense, all life forms are now understood to be groups, or even groups of groups. (For reviews see Wilson, Van Vugt, & O’Gorman, 2008; Wilson & Wilson, 2007).

For all previous major transitions, the resolution of the free-rider problem involved suppression of individual opportunities for replication, for example by concentrating all breeding in a single queen. Human groups obviously do not reproduce in this way. The second major theoretical breakthrough was to recognize that culture was a biological adaptation that made it possible for humans to find many new solutions to the free-rider problem. Boyd and Richerson (1985) proposed “dual inheritance theory,” which posited that the gene pool of a population and the cultural pool of a population are two separate pools of information that undergo natural selection across many generations. The evolutionary processes are different—cultural mutations can spread rapidly and laterally when they are copied by other group members, whereas genetic change is slower and spreads only by descent—but the two pools of information interact and mutually shape each other over the course of dozens or hundreds of generations. This co-evolutionary process has been occurring in humans for several hundred thousand years, with an upsurge in its speed and intensity in the last forty or fifty thousand

years—the period of massively cumulative cultural learning (Richerson & Boyd, 2005).

Natural selection can shape genes only by acting on the expressed phenotype (Mayr, 1963), but human phenotypes, at least for traits related to morality, are usually jointly shaped by genes and culture (Richerson & Boyd, 2005). When cultural groups promote uniformity in dress, food choice, ritual practice, and other behaviors used as markers of group membership, they are reducing the phenotypic variation of members within their group, increasing the phenotypic differences between the group and other groups, and setting up the kind of clustering that can allow pockets of cooperation to form within larger populations (Kurzban, DeScioli, & O’Brien, 2007; D.S. Wilson, 2002). These effects of culture make human groups more like single entities or organisms—at least, when compared to herds or flocks of other animals—and therefore better candidates for group-level selection. Williams’ (1966) debunking of group-level selection in other species may not be relevant to the special case of humans, who went through a major transition only after becoming cultural creatures. Most important, a great deal of cultural innovation involves practices and institutions that detect and punish cheaters and that reward and promote group-beneficial behaviors. Williams was surely right that a fleet herd of deer is just a herd of (individually) fleet deer, but it is obviously not true that a cohesive group of humans is just a group of (individually) cohesive humans. Darwin appears to have been correct: Human groups are good candidates for being the sorts of entities that natural selection can work upon. Tribes have long supplanted other tribes, and morality has indeed been a crucial element in their success.

The third breakthrough has only occurred in the last few years, and is not yet well known by psychologists. It is the discovery that genetic evolution can happen rapidly, and that it sped up greatly in the last 10,000 years. The prevailing assumption among psychologists, even evolutionary psychologists, has long been that biological adaptation occurs at a glacial pace, requiring tens of thousands of years of sustained selection pressure to leave any lasting mark on the genome. A corollary of this view is that there has been little genetically based behavioral change since human beings spread beyond Africa 50,000 years ago. The period of greatest interest has therefore been the Pleistocene (from 1.8 million years ago until 10,000 years ago). Reconstructions based on interpolation from primate behavior, archeological evidence, and extant isolated societies suggests that our Pleistocene ancestors lived as hunter-gatherers in small mobile groups of a few dozen or less, with egalitarian relationships among the adult males (Boehm, *in press*). When Cosmides and Tooby say that “our modern skulls house a Stone Age mind” (1997,

p. 85), they mean that the set of genetically encoded modules and subroutines that make up the human mind were shaped largely by the adaptive pressures of Pleistocene life.

But only in the last few years have human genomes from around the world been available, and when genomes from multiple populations are compared using techniques that can distinguish genetic variations due to selection pressure from those due to random drift, the results show something astonishing: Hundreds and perhaps thousands of genes have changed in response to selection pressures within local populations during the Holocene era—the last 10,000 years (Voight, Kudaravalli, Wen, & Pritchard, 2006; Williamson et al., 2007). The human genome has not been changing at a glacial pace; in fact, the rate of change accelerated rapidly throughout the last 50,000 years (Hawks, Wang, Cochran, Harpending, & Moyzis, 2007), particularly after the agricultural revolution. Human beings developed new food sources, increased their population density, exposed themselves to new pathogens from livestock and from each other, and in dozens of other ways subjected their cultures and genomes to new selection pressures as they set up camp on the far bank of the Rubicon.

One of the best studied examples of Boyd and Richerson's dual inheritance model in action is the co-evolution of genes for adult lactose tolerance with the cultural innovation of dairy farming (Richerson & Boyd, 2005). This co-evolutionary process occurred independently in several populations, leading to different genetic changes in each case, all within the last 7,000 years (Tishkoff et al., 2007). If cow-herding can lead to rapid genetic changes in localized populations, then social changes such as the adoption of hierarchical societies, caste systems, monotheistic religions, monogamy, and dozens of other innovations during the Holocene era can be expected to have altered patterns of cooperation, competition, and reproduction, leading to the co-evolution of civilization with brains that were better adapted for living in those civilizations. Ten thousand years is surely not enough time to create a new cognitive module from scratch, and one should be careful generalizing from the case of a single-gene mutation such as the one involved in lactose tolerance. Nevertheless, this new work, combined with other research on the rapidity with which new behavioral traits can emerge (such as in foxes domesticated in just 30 years [Trut, 1999]), justifies an equally strong caution: No longer can psychologists make genetic stasis in the last 50,000 years the null hypothesis, placing the entire burden of proof (at  $p < .05$ ) on the shoulders of those who would argue for recent gene-culture co-evolution.

Co-evolution does not imply group-level selection. Co-evolution is discussed here to help readers escape from

the old and deep prejudice that genes change too slowly, groups are too porous and similar to each other, and free-riding is too profitable to have permitted group-level selection to influence human genes. A corollary of the new and more dynamic view of evolution is that the last 10,000 years is an important and underappreciated period for the evolution of human morality. Our modern skulls do not house stone-age minds; they house modern minds that still bear strong traces of many earlier eras. An implication of this corollary is that intergroup conflict may have played a larger role in human evolution than is generally thought, based on analyses of Pleistocene life with its very low population densities. The last 10,000 years has been a long era of struggle, conquest, coalition-building, and sometimes genocide among hierarchically organized and symbolically marked tribes and empires (Bowles, 2006; Turchin, 2006). The Holocene is part of our cultural *and* genetic heritage; it is likely to have left some mark on our modern moral psychology.

### Group Selection in Action

Long before Darwin, the fourteenth-century Arab philosopher Ibn Khaldun explained how tribes supplant other tribes. The process is driven, he said, by *asabiya*, the Arabic word for solidarity (Turchin, 2006). Ibn Khaldun noted that kingdoms and empires along the northern coast of Africa went through cycles in which a tribe with high *asabiya* came out of the desert to conquer an existing state, but then, after three or four generations of urban life, solidarity declined and a new tribe came out of the desert to repeat the cycle. Ibn Khaldun hit upon Darwin's essential insight that natural selection operates on tribes and selects for virtues that increase group solidarity, cohesion, and trust. The desert was a particularly fertile ground for the creation of solidarity because, as Ibn Khaldun noted, only tribes that had found ways to cooperate intensively could survive in such a harsh and lawless place. Turchin (2006) has recently expanded Ibn Khaldun's thesis to demonstrate that new empires almost always arise on the fault lines or "meta-ethnic frontiers" between religious or racial groups because the protracted wars in those regions spur cultural innovations that increase the solidarity of each group. Ultimately one group prevails and uses its amplified cohesiveness to conquer other opponents as well.

Just as Darwin said, "tribes have supplanted other tribes; and . . . morality is one important element in their success." But this morality is not Turiel's (1983) morality of harm, rights, and justice, which protects the autonomy of individuals; this is a more traditional morality of patriotism, fidelity, obedience, and solidarity. This is a morality that binds individuals together, suppresses selfishness, and

directs people's strongest moral passions toward the heroes and martyrs who die for the group and toward the traitors and apostates who must be put to death in the name of the group. This is morality as it is defined in this chapter—as a moral system in which inside-the-head psychological mechanisms and outside-the-head cultural products interlock and work together to suppress selfishness and make social life possible.

It should be noted that Ibn Khaldun's work demonstrates *cultural* group selection, not necessarily genetic group selection. Cultural group selection is the process by which cultural innovations that lead groups to prosper and grow (e.g., a new religion or technology) become more widespread as groups with the innovation replace or assimilate less successful groups (Richerson & Boyd, 2005). There is now a widespread consensus that cultural group selection occurs, and there has never been any serious objection to the idea that "outside-the-head" stuff spreads in this way. The controversy over group selection is limited to the issue of whether the *genes* that contribute to the "inside-the-head" stuff were selected in part by the process of "tribes supplanting other tribes." Some leading theorists say yes (e.g., Wilson & Wilson, 2007). Others say no (e.g., Dawkins, 2006), or are uncertain (Richerson & Boyd, 2005).

One way to pick sides in this controversy is to look at the empirical facts about morality. Do any social-psychological phenomena make more sense when viewed as adaptations that helped groups cohere, coordinate, and compete with other groups, rather than as adaptations that helped individuals outcompete their neighbors? As Brewer and Caporael (2006) state, "the result of selection in groups would be the evolution of perceptual, affective, and cognitive processes that support the development and maintenance of membership in groups" (p. 145).

### Seeing and Being Groups

Campbell (1958) addressed the question of when aggregations of people can be called entities. He drew on principles of gestalt psychology that govern the perception of entities in the physical world, and he concluded that the most important cause of social "entitativity" was common fate, followed by similarity, proximity, and "pregnanz" or good continuation with clear borders. Groups that move together, share the ups and downs of fortune together, come together periodically, mark and patrol their borders (physical or social), and mark their group membership with clothing, hairstyles, bodily alterations, or other badges are more likely to be perceived as entities. Such groups also meet Campbell's requirement for *being* entities—for being proper objects of scientific study. The fact that ethnic groups, sports teams, military units, and college

fraternities go to great lengths to exploit all four of these gestalt principles suggests that groups—particularly those in competition with other groups—are trying to enhance their entitativity, and by extension, their solidarity.

The fact that people easily see faces in the clouds, but never see clouds in faces, is due to the presence of specialized circuits in the visual system for facial detection (Guthrie, 1993). Similarly, if people have a hyperactive tendency to see social groups where groups don't exist, it suggests the presence of specialized social-cognitive structures designed for intergroup relations (see Yzerbyt & Demoulin, this volume, for a review). Tajfel's work on "minimal groups" suggests that we do indeed have such a tendency. People readily identify with and discriminate in favor of groups to which they have been assigned based on arbitrary criteria such as underestimating versus overestimating the number of dots on a screen (Tajfel, Billig, Bundy, & Flament, 1971). Even a random lottery assignment is sufficient to make people identify with groups and treat ingroup members better (Locksley, Ortiz, & Hepburn, 1980). Sherif's famous "Robbers Cave" study examined what happened when two groups of boys who had previously not known of each other's presence suddenly came into competition (Sherif et al., 1961). Illustrating Turchin's (2006) thesis, the discovery of a "frontier" made both groups rapidly develop practices that increased their solidarity, including creating new customs, folkways, and moral identities for themselves (e.g., Rattlers cursed, but Eagles used clean language), using disgust to express shared revulsion for the other side (e.g., holding their noses in the vicinity of outgroup members), becoming more hierarchical, and suppressing divisions that had existed within groups before the intergroup conflict.

According to Social Identity Theory, one's identity and self-esteem are intimately tied to the standing of the groups to which one belongs (Tajfel & Turner, 1979). People sometimes adopt the interests of their groups as their own, even when doing so compromises their self-interest. A well-documented example of this effect is found in research on voting and public opinion. Many people cynically assume that people vote for the politician who panders to them by promising them money and other benefits, but in fact "self interest is surprisingly unimportant when it comes to predicting American public opinion" (Kinder, 1998, p. 801). Rather, public opinions function as badges of social membership; one's views on abortion, war, and gay marriage are in part declarations of social identities (Smith, Bruner, & White 1956). Kinder (1998, p. 808) summarizes decades of research in this way:

Interests, it is now clear, do have a part to play in public opinions—that is, interests that are collective rather than personal,

group-centered rather than self-centered. In matters of public opinion, citizens seem to be asking themselves not “What’s in it for me?” but rather “What’s in it for my group?” (as well as “What’s in it for other groups?”). (p. 808)

### Prosociality Within Groups

Most Western philosophical approaches to morality call for impartiality and universalism as normative ideals (Hare, 1981; Kant, 1785/1959; Singer, 1979). But if multi-level selection shaped human beings, then we can expect that parochialism is, descriptively, the normal, default, evolutionarily prepared (Seligman, 1971) form of human sociality. A basic requirement for group-level selection to occur is that group members preferentially channel their altruism and cooperation to other group members, rather than helping or cooperating with all individuals equally and indiscriminately. The empirical evidence shows that people are indeed more likely to care for ingroup members than for outgroup members across various types of helping behavior (e.g., Dovidio, 1984; Levine & Thomson, 2004). For example, a bystander is more likely to offer help in an emergency situation if she perceives the victim as a member of the same social group as herself (Levine, Cassidy, Brazier, & Reicher, 2002), and ingroup favoritism becomes even more common when group membership is made salient (Levine, Prosser, Evans, & Reicher, 2005). Pointing to shared identity and creating psychological fusion with others such as feelings of “one-ness,” “we-ness,” or common fate leads to the same effect (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Dovidio, Gaertner, Validzic, & Matoka, 1997; Flippen, Hornstein, Siegal, & Weitzman, 1996; Gaertner et al., 1999). We-ness helps to solve cooperative problems too; higher identification with the group leads to higher investment in a public goods dilemma and higher self-restraint in consuming the group’s resources (Barreto & Ellemers, 2002; De Cremer & Van Vugt, 1999; Kramer & Brewer, 1984).

It’s as though human beings have a slider switch in their heads that runs from “me” to “we.” Brewer and Caporael (2006, p. 148) posit that selfish and group-oriented motivations are “two separate, semiautonomous regulatory systems that hold each other in check . . . which is to be expected from selection at both individual and group levels.” People are well equipped to survive in social situations governed by “every man for himself,” but they take just as readily, and a lot more joyfully, to situations in which it is “one-for-all, all-for-one.”

### Maintaining Groups

The joy of we-ness may draw people together into groups, but to keep them there, to keep groups stable over time and to

prevent the dissipation of solidarity requires psychological and institutional mechanisms for group maintenance in the face of external threats and internal divisions. Chimpanzee groups—which compete in sometimes lethal combat with neighboring groups—have a variety of such mechanisms, including the ability of high-ranking individuals to broker reconciliation among feuding members (de Waal, 1982; Goodall, 1986).

People have a larger suite of tools for maintaining intragroup harmony and cohesion. Foremost among these is the human propensity to generate norms for behavior, adhere to them, and work together to sanction those who do not (Fehr & Fischbacher, 2004). Many classic studies show that people tend to follow norms generated by those around them (Asch, 1956; Deutsch & Gerard, 1955; Sherif, 1936; for a review see Hogg, this volume). Yet norms do not exist in a free-floating Kantian space shared by all rational creatures; they are group-bound and they achieve their full power to regulate behavior in real groups. For example, people are much more likely to follow norms set by ingroup members. In one Asch-type study, participants who were psychology students conformed 58% of the time to other psychology students, whereas they conformed only 8% of the time to ancient history students (Abrams, Wetherell, Cochrane, & Hogg, 1990). The more people identify with a group, the more they like others who follow the group’s norms, and this effect is larger for moral norms than for non-moral norms (Christensen, Rothgerber, Wood, & Matz, 2004). People also exert more pressure on ingroup members to adhere to norms: According to the “black sheep effect,” people are generally less tolerant toward an ingroup member who transgresses social norms than they are toward an equally transgressive outgroup member (Abrams, Marques, Bown, & Henson, 2000; Marques, Yzerbyt, & Leyens, 1988).

Ethnicity appears to be a major factor in the generation of cooperation within multiethnic societies (Henrich & Henrich, 2007). Groups of strangers playing an anonymous coordination game in which they can use arbitrary pseudo-ethnic markers to improve coordination learn to use those markers and increase their payoffs (Efferson, Lalive, & Fehr, 2008). Ethnic enclaves within diverse cities have long created moral systems saturated with parochial trust, which sometimes enables them to gain an economic edge over less groupish competitors and thereby dominate certain trades and professions (Henrich & Henrich, 2007). A widely cited example is the dominance in the diamond trade of ultra-orthodox Jews, whose ability to trust each other greatly reduces the transaction costs that non-ethnic merchants would incur as they tried to monitor and guard each diamond sent out for examination, trade, or sale (Coleman, 1988). On the other hand, it should be noted that

Putnam (2007) has found that ethnic diversity within towns and cities in the United States correlates with reduced trust, cooperation, and social capital, not just across groups (which he calls “bridging capital”) but within groups as well (“bonding capital”). A possible resolution of this paradox may come from Ibn-Khaldun (Turchin, 2006): If we take “bonding capital” to be a synonym of *asabiya* or collective solidarity, then it stands to reason that some ethnic groups respond to diversity by increasing their separateness and solidarity, thereby creating a more binding moral system; others move gradually toward assimilation with the dominant culture, thereby becoming more individualistic and creating a less binding and less consensually shared moral system.

A willingness to punish norm-violators, cheaters, and free-riders is a crucial component of group maintenance. In economic games, people often punish defectors even if they have to pay for it themselves (Fehr & Gächter, 2002). Moreover, when people punish free-riders, brain areas related to the processing of rewards are activated, suggesting that such punishment feels good (de Quervain et al., 2004). Such “altruistic punishment”<sup>6</sup> in turn has been shown to uphold cooperation levels in public goods games, in the absence of which cooperation quickly dissipates (Fehr & Gächter, 2002). When subjects in a lab experiment are given the choice of playing a cooperative game in a group that allows punishment versus one that does not, many people initially choose to take part in the group that seems “nicer.” They quickly discover, however, that in the absence of punishment there is little cooperation, and the majority of participants soon elect to move to the group that allows punishment (Gürerk, Irlenbusch, & Rockenbach, 2006). Those who move cooperate fully on the next round; they need no trial-and-error experience to understand that cooperative behavior is now required and rewarded.

The discussion of group maintenance so far has focused on norms and the punishment of norm violators, for that is where the lab-based empirical research has been concentrated. But if one takes a more ethnographic approach and simply lists a few additional group-maintenance mechanisms, the list would include harsh initiation rites with shaming for those who refuse to take part or who later fail to live up to the group’s standards (Herdt, 1981); the use of monuments, holidays, and other techniques for memorializing and sacralizing heroes and martyrs (Eliade, 1957/1959;

Lowenthal, 1986); the widespread practice of punishing treason and apostasy with death (Ben-Yehuda, 2001); the reflex to rally around the flag and the leader when the group is under assault (Duckitt, 1989; Stenner, 2005); and the use of synchronized group movement to build *esprit de corps*, a practice that stretches back long before recorded history (McNeill, 1995) and that has recently been shown to increase cooperation and trust in the lab (Wiltermuth & Heath, 2008).

### Religion and Morality

Across cultures and eras, people have often thought that religion was the foundation of morality. That claim was challenged in the Enlightenment; philosophers tried to offer secular justifications for doing good when it is not in one’s self-interest to do so. But even Enlightenment icons such as John Locke (1689/1983) argued that religious toleration should not be extended to atheists: “Promises, covenants, and oaths, which are the bonds of human society, can have no hold upon an atheist” (p. 51).

A new chapter opened recently in the debate over atheism and morality when several books appeared in quick succession merging scientific evidence and philosophical argument to claim that God is not just a “delusion” (Dawkins, 2006); deities and religions are in fact *obstacles* to ethical behavior because they blind people to scientific and moral truths and then lead to socially destructive behavior (Dennett, 2006; Harris, 2006). A feature common to these books (see also Atran, 2002) is that they raise the possibility that religion evolved because it is adaptive for groups, but then they dismiss group selection by citing Williams (1966) and the free-rider problem. They then go on to search for ways that religiosity might have helped individuals outcompete their less-religious neighbors. Finding no such advantages and many disadvantages, they conclude that human minds were not shaped by natural selection to be religious. Rather, they argue that religion is a byproduct, a cultural parasite that exploits mental structures that evolved for other purposes, such as a “hyperactive agency detection device” (Barrett, 2000) that is so prone to detecting agency that it misfires and detects agency when no real agent is present. On this view, religion is like a parasite that infects ants’ brains and makes them climb to their death at the top of blades of grass, where grazing animals can consume the ant and continue the life cycle of the parasite (Dennett, 2006).

But from a multilevel selection perspective, religions are generally well suited for solving the free-rider problem within groups, increasing their levels of cohesion, cooperation, and coordination, and improving their chances of outcompeting less religious groups. The idea that religions

<sup>6</sup>See Kurzban, DeScioli, and O’Brien (2007) for a critique of altruistic punishment, including evidence that people engage in little such punishment when the action is fully anonymous. This pattern suggests that it is done for reputational enhancement and is not truly altruistic.



are really about creating group cohesion was stated clearly by Durkheim (1915/1965, p. 47):

A religion is a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden—beliefs and practices which unite into one single moral community called a church, all those who adhere to them.

David Sloan Wilson (2002) has developed Durkheim's perspective into an evolutionary theory in which religion played a key role in pulling human beings through the last major transition in evolutionary history (Maynard Smith & Szathmari, 1997). Religions differ enormously around the world, but despite their diversity, supernatural agents are inordinately concerned about the promises people make to each other and the degree to which they help or harm ingroup members (Boyer, 2001). Furthermore, the world's major religions generally include a well-developed set of practices and beliefs for suppressing not just selfishness but also the discomfort of self-consciousness (Leary, 2004). Religion might even be described as a co-evolved set of psychological mechanisms, social practices, and factual beliefs that use gods in the service of shifting the balance between the two regulatory systems described by Brewer and Caporael (2006): down with the self-oriented system, up with the group-oriented system.

Even if the byproduct theorists are right that the initial tendency to perceive supernatural agency was a byproduct, not an adaptation, this byproduct could easily have been drawn into co-evolutionary processes with enormous consequences for the survival and spread of groups. Consistent with this view, a review of the historical and cross-cultural evidence indicates that gods seem to become more powerful, moralistic, and punitive as group size grows (Shariff, Norenzayan, & Henrich, in press). "Meaner" gods can better serve the social function of suppressing free-riding and cheating, thereby making larger groups possible. In fact, a recent lab study found that cheating on a math test was positively correlated with the niceness of participants' god-concepts. People who believed in an angry, punishing god cheated less; people who believed in a loving, forgiving god cheated the most (Shariff & Norenzayan, 2009).

A great deal of research has examined whether religious people are more prosocial than others. There is evidence on both sides: Religious people report giving much more to charities, even to non-religious charities, than do secular people (Brooks, 2006). But in experimental studies, people's self-reported religiosity rarely predicts actual helping or cooperative behavior (Norenzayan & Shariff, 2008); situational factors are usually much more powerful (e.g., Darley & Batson, 1973). From a multilevel selection perspective, however, there is no reason to expect that religion would turn people into unconditional altruists.

Religious prosociality should be targeted primarily toward co-religionists, and it should be most vigorous when one believes that others, particularly God or ingroup members, will know of one's actions. A recent review (Norenzayan & Shariff, 2008) concludes that these two conditions are indeed important moderators of the relationship between religion and prosociality. When religious people can interact with fellow group members, they do indeed achieve higher rates of cooperation than do members of a matched secular group (Sosis & Ruffle, 2003). An examination of the longevity of communes in nineteenth-century America shows the same thing: During each year after the founding of the commune, religious communes were four times as likely to survive as were communes based on secular principles such as socialism (Sosis & Bressler, 2003). Religions do indeed function to increase trust, cooperation, generosity, and solidarity within the moral community. Religions bind and build, and the psychology of religion should be integrated with the psychology of morality.

## THE MANY FOUNDATIONS OF A BROADER MORALITY

An earlier section of this chapter asserted that moral psychology to date has been largely the psychology of *Gesellschaft*—a search for the psychological mechanisms that make it possible for individuals to interact with strangers in a large modern secular society. The two centers of gravity in such a psychology are harming vs. helping (involving a large literature on altruism toward strangers, linked explicitly or implicitly to the philosophical tradition of consequentialism) and fairness/justice/rights (involving a large literature on justice and social justice, linked explicitly or implicitly to the philosophical tradition of deontology).

What's missing? What else could morality be? Haidt and Joseph (2004) reviewed four works that offered lists or taxonomies of moral values or social practices across cultures (Brown, 1991; Fiske, 1991; Schwartz, 1992; Shweder et al., 1997). They also included de Waal's (1996) description of the "building blocks" of morality that are found in other primates. Haidt and Joseph did not aim to identify virtues that appeared in all cultures, nor did they try to create a comprehensive taxonomy that would capture every human virtue. Rather, they tried to identify the best candidates for being the psychological foundations (the "inside-the-head" mechanisms) upon which cultures create an enormous variety of moral systems.

Haidt and Joseph found five groups of virtues or issues discussed by most or all of the five theorists. For each one, a plausible evolutionary story had long been told, and for

four of them (all but Purity), there was some evidence of continuity with the social psychology of other primates. The five hypothesized foundations are:

1. Harm/care: Concerns for the suffering of others, including virtues of caring and compassion.
2. Fairness/reciprocity: Concerns about unfair treatment, cheating, and more abstract notions of justice and rights.
3. Ingroup/loyalty: Concerns related to obligations of group membership, such as loyalty, self-sacrifice, and vigilance against betrayal.
4. Authority/respect: Concerns related to social order and the obligations of hierarchical relationships, such as obedience, respect, and the fulfillment of role-based duties.
5. Purity/sanctity: Concerns about physical and spiritual contagion, including virtues of chastity, wholesomeness, and control of desires.

The five best candidates ended up being most closely related to Shweder's "three ethics" of moral discourse (Shweder et al., 1997): the ethics of *autonomy*, in which the self is conceived of as an autonomous agent with preferences and rights (and therefore moral virtues related to harm/care and fairness/reciprocity are highly developed); the ethics of *community*, in which the self is conceived of as an office holder in a larger interdependent group or social system (and therefore virtues related to ingroup/loyalty and authority/respect are highly developed); and the ethics of *divinity*, in which the self is conceived of as a creation of God, housing a divine soul within (and therefore virtues related to purity, self-control, and resistance to carnal pleasures become highly developed). Moral Foundations Theory (Haidt & Joseph, 2004; Haidt & Graham, 2009) can therefore be seen as an extension of Shweder's three ethics, bringing it into the "new synthesis" by describing psychological mechanisms and their (speculative) evolutionary origins. Shweder's theory of the three ethics has long proven useful for describing variations in moral judgments across and within nations (Haidt et al., 1993; Jensen, 1997; Shweder et al., 1997).

Graham, Haidt, and Nosek (2009) investigated whether moral foundations theory could be used to understand the "culture war" (Hunter, 1991) between political liberals and conservatives in the United States. They devised three very different self-report measures for assessing the degree to which a person's morality is based on each of the five foundations. These questionnaires were completed by three large Internet samples, and all three methods produced the

same conclusion: Political liberals greatly value the first two foundations (Harm and Fairness) and place much less value on the remaining three, whereas political conservatives construct their moral systems on all five foundations. This pattern was also found across nations, and it was found in two studies using more naturalistic methods. One study examined the frequency of words related to each foundation that were used in religious sermons given in liberal and conservative Christian churches (Graham, Haidt, & Nosek, 2009, study 4). The second study used qualitative methods to code the narrative statements offered by religious Americans who were asked to narrate important events in their lives (McAdams et al., 2008). McAdams et al. summarized their findings as follows:

When asked to describe in detail the most important episodes in their self-defining life narratives, conservatives told stories in which authorities enforce strict rules and protagonists learn the value of self-discipline and personal responsibility, whereas liberals recalled autobiographical scenes in which main characters develop empathy and learn to open themselves up to new people and foreign perspectives. When asked to account for the development of their own religious faith and moral beliefs, conservatives underscored deep feelings about respect for authority, allegiance to one's group, and purity of the self, whereas liberals emphasized their deep feelings regarding human suffering and social fairness. (p. 987)

This quote, and other writing on political ideology (Sowell, 2002), suggest that liberals and conservatives are trying to build different kinds of moral systems using different but overlapping sets of moral intuitions. Liberals are trying to build the ideal *Gesellschaft*, an open, diverse, and cosmopolitan place in which the moral domain is limited to the issues described by Turiel (1983): justice, rights, and welfare. Moral regulation that does not further those goals (e.g., restraints on sexuality or gender roles) is immoral. The harm/care and fairness/reciprocity foundations may be sufficient for generating such a secular, contractual society, as John Rawls (1971) did with his "veil of ignorance" thought experiment.<sup>7</sup> In such a society the other three foundations are less important, and perhaps even morally suspect: Ingroup/loyalty is associated with racism, ethnocentrism, and nationalism; authority/respect is associated

<sup>7</sup>In which he asked what kind of society and government people would choose to create if they did so while not knowing what role or position they would occupy in that society. Rawls asserted that people would prioritize individual rights and liberties, and would have a special concern for the welfare of those at the bottom.

with oppression, authoritarianism, and system justification (Jost & Hunyady, 2002); and purity/sanctity is associated with homophobia and other disgust-based restrictions on the rights of women and some minority or immigrant groups (Nussbaum, 1999).

Conservatives—at least, social conservatives of the sort exemplified by the Religious Right in the United States—are trying to build a very different kind of moral system. That system is much more like the *Gemeinschaft* described by Tönnies. It uses all five moral foundations to create tighter local communities and congregations within which free-rider problems are solved effectively and therefore trust, cooperation, and mutual aid can flourish (Ault, 2005). It uses God as a coordination and commitment device (Graham & Haidt, in press; Shariff, Norenzayan, & Henrich, in press; D. S. Wilson, 2002), which increases similarity, conformity, and solidarity among community members.

This social-functional approach, which interprets liberalism and conservatism as two families of approaches to creating two very different kinds of moral systems, may be a useful corrective to the tendency in social psychology to explain conservatism (but not liberalism) using an intrapsychic functionalist perspective. Conservatives have often been equated with authoritarians, and their moral and political values have long been explained away as means for channeling hostility, raising self-esteem, or justifying either a high or a low position in a social hierarchy (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950; Jost, Glaser, Frenkel-Brunswick, Levinson, & Sanford, 2003). From a social-functional perspective, conservatism is no puzzle; it is a way—the most common way, historically—of creating moral systems, although not ones that liberals approve of.

## CONCLUSION AND FUTURE DIRECTIONS

The goal of this chapter was to offer an account of what morality really is, where it came from, how it works, and why McDougall was right to urge social psychologists to make morality one of their fundamental concerns. The chapter used a simple narrative device to make its literature review more intuitively compelling: It told the history of moral psychology as a fall followed by redemption. (This is one of several narrative forms that people spontaneously use when telling the stories of their lives [McAdams, 2006]). To create the sense of a fall, the chapter began by praising the ancients and their virtue-based ethics; it praised some early sociologists and psychologists (e.g., McDougall, Freud, and Durkheim) who had “thick” emotional and sociological conceptions of morality; and it praised Darwin for his belief that intergroup competition

contributed to the evolution of morality. The chapter then suggested that moral psychology lost these perspectives in the twentieth century as many psychologists followed philosophers and other social scientists in embracing rationalism and methodological individualism. Morality came to be studied primarily as a set of beliefs and cognitive abilities, located in the heads of individuals, which helped individuals to solve quandaries about helping and hurting other individuals. In this narrative, evolutionary theory also lost something important (while gaining much else) when it focused on morality as a set of strategies, coded into the genes of individuals, that helped individuals optimize their decisions about cooperation and defection when interacting with strangers. Both of these losses or “narrowings” led many theorists to think that altruistic acts performed toward strangers are the quintessence of morality.

The chapter tried to create a sense of redemption, or at least of hopeful new directions, in each of the three principles that structured the literature review. The long debate over the relative roles of “emotion” and “cognition” seems to have given way to an emerging consensus on the first principle: “intuitive primacy but not dictatorship.” New discoveries about emotion, intuition, and the ways that brains respond to stories about moral violations have led to a pronounced shift away from information processing models and toward dual process models. In these models, most (but not all) of the action is in the automatic processes, which are cognitive processes that are usually affectively valenced. The second principle, “moral thinking is for social doing,” reflects the growing recognition that much of human cognition was shaped by natural selection for life in intensely social groups. Human cognition is socially situated and socially functional, and a great deal of that functionality can be captured by viewing people as intuitive politicians and prosecutors, not as intuitive scientists. The third principle, “morality binds and builds,” reflects the emergence of multilevel selection theory and of gene-culture co-evolutionary theory. Groups may not be significant units of selection for the great majority of other species, but once human beings developed the capacity for cumulative cultural learning, they invented many ways to solve the free-rider problem, increase the entitativity of their groups, and increase the importance of group-level selection pressures relative to individual-level pressures (which are always present and powerful).

Many other narratives could be told about the last century of moral psychology, and any narrative leaves out inconvenient exceptions in order to create a coherent and readable story. The particular narrative told in this chapter will probably be rejected by psychologists who were already united by a competing narrative. For example, many cognitive developmentalists believe the redemption occurred forty

years ago when Lawrence Kohlberg (1969) vanquished the twin demons of behaviorism and psychoanalysis. Moral psychology, like any human endeavor, is influenced by moral psychology, which means that there is often a tribal or team aspect to it. It remains to be seen whether the intuitionist team replaces the rationalist team and gets to write the history of moral psychology that graduate students will learn in 20 years.

For today's young researchers, however, this chapter closes with three suggestions, each meant to be analogous to the nineteenth-century American journalist Horace Greeley's advice to "go west young man!"

1. *Go beyond harm and fairness!* The psychology of harm/care and fairness/reciprocity has been studied so extensively that it will be difficult for young researchers to make big contributions in these areas. But if you re-examine the psychology of ingroups, authority, and purity from a social-functionalist perspective—one that takes them seriously as part of our moral nature, rather than dismissing them with intrapsychic-functionalist explanations—you will find it much easier to say or discover something new.

2. *Transcend your own politics!* One reason that nearly all moral psychology has focused on harm/care and fairness/reciprocity may be that nearly everyone doing the research is politically liberal. A recent study of professors in the humanities and social sciences at elite American schools found that 95% voted for John Kerry in 2004, and 0% voted for George Bush (Gross & Simmons, 2007). An analysis that focused on academic psychology (Redding, 2001) reached a similar conclusion about the politics of the profession and warned that the lack of sociopolitical diversity creates a hostile climate for the few young conservatives who try to enter the field. When almost everyone in an academic field is playing on the same team, there is a high risk that motivated reasoning and conformity pressures will create political correctness, herd-like behavior, and collective blindness to important phenomena. As in most investment situations, when the herd goes one way, you should go the other. If you want to do or discover something big, look for credible scientific ideas that are politically unpopular (e.g., group-level selection and fast genetic evolution) and apply them to moral psychology. Expose yourself to people and cultures whose moral values differ from your own, and do it in a way that will trigger empathy in you, rather than hostility. Good places to start include Ault (2005) for religious conservatism, Sowell (2002) for conservatism more broadly, and Shweder, Much, Mahapatra, and Park (1997) for a Hindu perspective on morality.

3. *Read widely!* The new synthesis in moral psychology really is a synthesis. No longer can a graduate student in

one field read only work from that field. Basic literacy in moral psychology now requires some knowledge of neuroscience (Damasio, 2003; Greene, in press), primatology (de Waal, 2008), and the related fields of game theory and evolutionary theory (Gintis, Bowles, Boyd, & Fehr, 2005b; Richerson & Boyd, 2005).

If major transitions in evolution happen when disparate elements begin to work together for the common good, then one can almost say that moral psychology is in the middle of a major transition. The enormous benefits of division of labor are beginning to be felt, and a few large-scale multidisciplinary projects are bearing fruit (e.g., Henrich et al., 2005). The analogy is imperfect—there was no suppression of free-riding or competition with other academic superorganisms—but something has changed in moral psychology in recent years as the questions asked, tools used, and perspectives taken have expanded. Social psychology has been a major contributor to, and beneficiary of, these changes. If McDougall were to come back in a few years to examine social psychology's progress on its "fundamental problem," he'd likely be quite pleased.

## REFERENCES

- Abelson, R. P., Kinder, D. R., Peters, M. D., & Fiske, S. T. (1982). Affective and semantic components in political person perception. *Journal of Personality and Social Psychology*, 42, 619–630.
- Abrams, D., Marques, J. M., Bown, N., & Henson, M. (2000). Pro-norm and anti-norm deviance within and between groups. *Journal of Personality and Social Psychology*, 78, 906–912.
- Abrams, D., Wetherell, M., Cochrane, S., & Hogg, M. A. (1990). Knowing what to think by knowing who you are: Self-categorization and the nature of norm formation, conformity and group polarization. *British Journal of Social Psychology*, 29, 97–119.
- Adorno, T. W., Frenkel-Brunswick, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality* (1st ed.). New York: Harper & Row.
- Alexander, R. (1987). *The biology of moral systems*. New York: Aldine De Gruyter.
- Alicke, M. D. (1992). Culpable causation. *Journal of Personality and Social Psychology*, 63, 368–378.
- Allison, S. T., Messick, D. M., & Goethals, G. R. (1989). On being better but not smarter than others: The Muhammad Ali effect. *Social Cognition*, 7, 275.
- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, 111, 256–274.
- Anderson, S. W., Bechara, A., Damasio, H., Tranel, D., & Damasio, A. R. (1999). Impairment of social and moral behavior related to early damage in human prefrontal cortex. *Nature Neuroscience*, 2, 1032–1037.
- Appiah, K. A. (2008). *Experiments in ethics*. Cambridge, MA: Harvard.
- Aristotle. (1941). *Nicomachean ethics* (W. D. Ross, Trans.). New York: Random House.
- Aronson, E., Wilson, T. D., & Akert, R. M. (2007). *Social psychology* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

- Asch, S. (1956). Studies of independence and conformity: A minority of one against a unanimous majority. *Psychological Monographs*, 70, (Whole No. 416).
- Atran, S. (2002). *In gods we trust*. New York: Oxford.
- Ault, J. M. J. (2005). *Spirit and flesh: Life in a fundamentalist Baptist church*. New York: Knopf.
- Axelrod, R. (1984). *The evolution of cooperation*. New York: Basic Books.
- Baillargeon, R. (1987). Object permanence in 3 1/2- and 4 1/2-month-old infants. *Developmental Psychology*, 23, 655–664.
- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, 3, 193–209.
- Bargh, J. A. (1994). The four horsemen of automaticity: Awareness, efficiency, intention, and control in social cognition. In J. R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (2nd ed., pp. 1–40). Hillsdale, NJ: Erlbaum.
- Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist*, 54, 462–479.
- Barkow, J. H., Cosmides, L., & Tooby, J. (Eds.). (1992). *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford.
- Baron, R. A. (1997). The sweet smell of . . . helping: Effects of pleasant ambient fragrance on prosocial behavior in shopping malls. *Personality and Social Psychology Bulletin*, 23, 498–503.
- Barreto, M., & Ellemers, N. (2002). The impact of anonymity and group identification on progroup behavior in computer-mediated groups. *Small Group Research*, 33, 590.
- Barrett, H. C., & Kurzban, R. (2006). Modularity in cognition: Framing the debate. *Psychological Review*, 113, 628–647.
- Barrett, J. L. (2000). Exploring the natural foundations of religion. *Trends in Cognitive Sciences*, 4, 29.
- Bartels, D. M. (2008). Principled moral sentiment and the flexibility of moral judgment and decision making. *Cognition*, 108, 381–417.
- Bartlett, M. Y., & DeSteno, D. (2006). Gratitude and prosocial behavior: Helping when it costs you. *Psychological Science*, 17, 319–325.
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Erlbaum.
- Batson, C. D. (1998). Altruism and prosocial behavior. In D. T. Gilbert & S. T. Fiske (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 262–316). Boston: McGraw-Hill.
- Batson, C. D., Dyck, J. L., Brandt, J. R., Batson, J. G., Powell, A. L., McMaster, M. R., et al. (1988). Five studies testing two new egoistic alternatives to the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, 55, 52–77.
- Batson, C. D., Klein, T. R., Highberger, L., & Shaw, L. L. (1995). Immorality from empathy-induced altruism: When compassion and justice conflict. *Journal of Personality and Social Psychology*, 68, 1042–1054.
- Batson, C. D., Kobrynowicz, D., Dinnerstein, J. L., Kampf, H. C., & Wilson, A. D. (1997). In a very different voice: Unmasking moral hypocrisy. *Journal of Personality and Social Psychology*, 72, 1335–1348.
- Batson, C. D., O'Quinn, K., Fulty, J., Vanderplass, M., & Isen, A. M. (1983). Influence of self-reported distress and empathy on egoistic versus altruistic motivation to help. *Journal of Personality and Social Psychology*, 45, 706–718.
- Batson, C. D., Thompson, E. R., Seufferling, G., Whitney, H., & Strongman, J. A. (1999). Moral hypocrisy: Appearing moral to oneself without being so. *Journal of Personality and Social Psychology*, 77, 525–537.
- Baumeister, R. F. (1982). A self-presentational view of social phenomena. *Psychological Bulletin*, 91, 3–26.
- Baumeister, R. F., Bratlavsky, E., Finenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5, 323–370.
- Baumeister, R. F., & Bushman, B. J. (2008). *Social psychology and human nature*. Belmont, CA: Thomson/Wadsworth.
- Baumeister, R. F., & Newman, L. S. (1994). Self-regulation of cognitive inference and decision processes. *Personality and Social Psychology Bulletin*, 20, 3–19.
- Ben-Yehuda, N. (2001). *Betrayals and treason: Violations of trust and loyalty*. Boulder, CO: Westview Press.
- Bennett, W. J. (1993). *The book of virtues: A treasury of great moral stories*. New York: Simon & Schuster.
- Berkowitz, L. (1965). Some aspects of observed aggression. *Journal of Personality and Social Psychology*, 2, 359–369.
- Bersoff, D. (1999). Why good people sometimes do bad things: Motivated reasoning and unethical behavior. *Personality and Social Psychology Bulletin*, 25, 28–39.
- Bierbrauer, G. (1979). Why did he do it? Attribution of obedience and the phenomenon of dispositional bias. *European Journal of Social Psychology*, 9, 67.
- Blair, R. J. R. (1999). Responsiveness to distress cues in the child with psychopathic tendencies. *Personality and Individual Differences*, 27, 135–145.
- Blair, R. J. R. (2007). The amygdala and ventromedial prefrontal cortex in morality and psychopathy. *Trends in Cognitive Sciences*, 11, 387–392.
- Bloom, P. (2004). *Descartes' baby: How the science of child development explains what makes us human*. New York: Basic.
- Boehm, C. (in press). Conscience origins, sanctioning selection, and the evolution of altruism in homo sapiens. *Brain and Behavioral Sciences*.
- Botvinick, M. M., Braver, T. S., Barch, D. M., Carter, C. S., & Cohen, J. D. (2001). Conflict monitoring and cognitive control. *Psychological Review*, 108, 624–652.
- Bowles, S. (2006). Group competition, reproductive leveling, and the evolution of human altruism. *Science*, 314, 1569–1572.
- Boyd, R., & Richerson, P. J. (1985). *Culture and the evolutionary process*. Chicago: University of Chicago Press.
- Boyer, P. (2001). *Religion explained: The evolutionary origins of religious thought*. New York: Basic.
- Brewer, M. B., & Caporael, L. R. (2006). An evolutionary perspective on social identity: Revisiting groups. In M. Schaller, J. Simpson, & D. Kenrick (Eds.), *Evolution and social psychology* (pp. 143–161). New York: Psychology Press.
- Brooks, A. C. (2006). *Who really cares: The surprising truth about compassionate conservatism*. New York: Basic Books.
- Brosnan, S. F. (2006). Nonhuman species' reactions to inequity and their implications for fairness. *Social Justice Research*, 19, 153–185.
- Brosnan, S. F., & De Waal, F. (2003). Monkeys reject unequal pay. *Nature*, 425, 297–299.
- Brown, D. E. (1991). *Human universals*. Philadelphia: Temple University Press.
- Buller, D. J. (2005). Evolutionary psychology: The emperor's new paradigm. *Trends in Cognitive Science*, 9, 277–283.
- Bushman, B. J., & Baumeister, R. F. (1998). Threatened egotism, narcissism, self-esteem, and direct and displaced aggression: Does self-love or self-hate lead to violence? *Journal of Personality and Social Psychology*, 75, 219–229.
- Campbell, D. T. (1958). Common fate, similarity, and other indices of the status of aggregates of persons as social entities. *Behavioral Science*, 3, 14–25.
- Campbell, D. T. (1983). The two distinct routes beyond kin selection to ultrasociality: Implications for the humanities and social sciences. In D. Bridgeman (Ed.), *The nature of prosocial development: Theories and strategies* (pp. 11–39). New York: Academic Press.
- Caruthers, P., Laurence, S., & Stich, S. (2006). *The innate mind Volume 2: Culture and cognition*. New York: Oxford University Press.

- Casebeer, W. D. (2003). *Natural ethical facts*. Cambridge, MA: MIT Press.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, 39, 752–766.
- Chaiken, S., Giner-Sorolla, R., & Chen, S. (1996). Beyond accuracy: Defense and impression motives in heuristic and systematic information processing. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 553–578). New York: Guilford.
- Chaiken, S., & Trope, Y. (Eds.). (1999). *Dual process theories in social psychology*. New York: Guilford.
- Chappell, T. D. J. (2006). *Values and virtues: Aristotelianism in contemporary ethics*. Oxford, UK: Oxford University Press.
- Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception-behavior link and social interaction. *Journal of Personality and Social Psychology*, 76, 893–910.
- Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 73–96). New York: Guilford.
- Christensen, P. N., Rothgerber, H., Wood, W., & Matz, D. C. (2004). Social norms and identity relevance: A motivational approach to normative behavior. *Personality and Social Psychology Bulletin*, 30, 1295–1309.
- Churchland, P. M. (1998). Toward a cognitive neurobiology of the moral virtues. *Topoi*, 17, 83–96.
- Cialdini, R., Schaller, M., Houlihan, D., Arps, K., Fultz, J., & Beaman, A. (1987). Empathy based helping: Is it selflessly or selfishly motivated? *Journal of Personality and Social Psychology*, 52, 749–758.
- Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., & Neuberg, S. L. (1997). Reinterpreting the empathy-altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology*, 73, 481.
- Clark, A. (1999). *Being there: Putting brain, body, and world together again*. Cambridge, MA: MIT Press.
- Clark, G. (2007). *A farewell to alms: A brief economic history of the world*. Princeton, NJ: Princeton University Press.
- Cleckley, H. (1955). *The mask of sanity*. St. Louis, MO: Mosby.
- Clore, G. L., Schwarz, N., & Conway, M. (1994). Affective causes and consequences of social information processing. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (Vol. 1, pp. 323–417). Hillsdale, NJ: Erlbaum.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95–S120.
- Cosmides, L. (1989). The logic of social-exchange—Has natural selection shaped how humans reason—Studies with the Wason Selection Task. *Cognition*, 31, 187–276.
- Cosmides, L., & Tooby, J. (1997). The modular nature of human intelligence. In A. B. Scheibel & J. W. Schopf (Eds.), *The origin and evolution of intelligence* (pp. 71–101). Boston: Jones and Bartlett.
- Cosmides, L., & Tooby, J. (2005). Neurocognitive adaptations designed for social exchange. In D. M. Buss (Ed.), *The handbook of evolutionary psychology* (pp. 584–627). Hoboken, NJ: John Wiley & Sons.
- Cosmides, L., Tooby, J., Fiddick, L., & Bryant, G. A. (2005). Detecting cheaters: Comment. *Trends in Cognitive Sciences*, 9, 505–506.
- Crisp, R. (Ed.). (1996). *How should one live?: Essays on the virtues*. Oxford, UK: Oxford University Press.
- Cunningham, M. R. (1979). Weather, mood, and helping behavior: Quasi experiments with the sunshine samaritan. *Journal of Personality and Social Psychology*, 37, 1947–1956.
- Cushman, F., Young, L., & Hauser, M. (2006). The role of conscious reasoning and intuition in moral judgment: Testing three principles of harm. *Psychological Science*, 17, 1082–1089.
- Damasio, A. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Putnam.
- Damasio, A. (2003). *Looking for Spinoza*. Orlando, FL: Harcourt.
- Dana, J., Weber, R. A., & Kuang, J. X. (2007). Exploiting moral wiggle room: Experiments demonstrating an illusory preference for fairness. *Economic Theory*, 33, 67–80.
- Darley, J. M. (1992). Social organization for the production of evil. *Psychological Inquiry*, 3, 199–218.
- Darley, J. M., & Batson, C. D. (1973). From Jerusalem to Jericho: A study of situational and dispositional variables in helping behavior. *Journal of Personality & Social Psychology*, 27, 100–108.
- Darwin, C. (1998/1871). *The descent of man and selection in relation to sex*. Amherst, NY: Prometheus Books.
- Dawkins, R. (1976). *The selfish gene*. London: Oxford University Press.
- Dawkins, R. (2006). *The God delusion*. Boston: Houghton Mifflin.
- de-Quervain, D. J. F., Fischbacher, U., Treyer, V., Schellhammer, M., Schnyder, U., Buck, A., et al. (2004). The neural basis of altruistic punishment. *Science*, 305, 1254–1258.
- De Cremer, D., & Van Vugt, M. (1999). Social identification effects in social dilemmas: A transformation of motives. *European Journal of Social Psychology*, 29, 871.
- de Waal, F. B. M. (1982). *Chimpanzee politics*. New York: Harper & Row.
- de Waal, F. B. M. (1996). *Good natured: The origins of right and wrong in humans and other animals*. Cambridge, MA: Harvard University Press.
- de Waal, F. B. M. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology*, 59, 279–300.
- Dennett, D. C. (2006). *Breaking the spell: Religion as a natural phenomenon*. New York: Penguin.
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology*, 51, 629–636.
- Dewey, J. (1922). *Human nature and conduct: An introduction to social psychology*. New York: Holt.
- Ditto, P. H., & Lopez, D. F. (1992). Motivated skepticism: Use of differential decision criteria for preferred and nonpreferred conclusions. *Journal of Personality and Social Psychology*, 63, 568–584.
- Ditto, P. H., Pizarro, D. A., & Tannenbaum, D. (2009). Motivated moral reasoning. In D. M. Bartels, C. W. Bauman, L. J. Skitka & D. L. Medin (Eds.), *The Psychology of Learning and Motivation*, Vol. 50 (Vol. 50, pp. 307–338). Burlington, VT: Academic Press.
- Ditto, P. H., Scepansky, J. A., Munro, G. D., Apanovitch, A. M., & Lockhart, L. K. (1998). Motivated sensitivity to preference-inconsistent information. *Journal of Personality and Social Psychology*, 75, 53–69.
- Douglas, M. (1982). *In the active voice*. London: Routledge.
- Dovidio, J. F. (1984). Helping behavior and altruism: An empirical and conceptual overview. In *Advances in experimental social psychology* (Vol. 17, pp. 361–427). New York: Academic Press.
- Dovidio, J. F., Gaertner, S. L., Validzic, A., & Matoka, K. (1997). Extending the benefits of recategorization: Evaluations, self-disclosure, and helping. *Journal of Experimental Social Psychology*, 33, 401.
- Dovidio, J. F., Piliavin, J. A., Gaertner, S. L., Schroeder, D. A., & Clark, R. D., III. (1991). The arousal: Cost-reward model and the process of intervention: A review of the evidence. In M. S. Clark (Ed.), *Prosocial behavior* (pp. 86–118). Newbury Park, CA: Sage Publications.
- Dovidio, J. F., Piliavin, J. A., Schroeder, D. A., & Penner, L. (2006). *The social psychology of prosocial behavior*. Mahwah, NJ: Erlbaum.
- Duckitt, J. (1989). Authoritarianism and group identification: A new view of an old construct. *Political Psychology*, 10, 63–84.

- Dunbar, R. (1996). *Grooming, gossip, and the evolution of language*. Cambridge, MA: Harvard University Press.
- Durkheim, E. (1965). *The elementary forms of religious life* (J. W. Swain, Trans.). New York: The Free Press. (Original work published in 1915.)
- Durkheim, E. (1973). *Moral education* (E. Wilson & H. Schnurer, Trans.). New York: The Free Press. (Original work published in 1925.)
- Efferson, C., Lalive, R., & Fehr, E. (2008). The coevolution of cultural groups and ingroup favoritism. *Science*, 321, 1844–1849.
- Eliade, M. (1957/1959). *The sacred and the profane: The nature of religion*. W. R. Task (trans.). San Diego: Harcourt Brace.
- Epley, N., & Dunning, D. (2000). Feeling “holier than thou”: Are self-serving assessments produced by errors in self- or social prediction? *Journal of Personality & Social Psychology*, 79, 861–875.
- Epstein, S., Pacini, R., Denes-Raj, V., & Heier, H. (1996). Individual differences in intuitive-experiential and analytical-rational thinking styles. *Journal of Personality and Social Psychology*, 71, 390–405.
- Fazio, R. H., Sanbonmatsu, D. M., Powell, M. C., & Kardes, F. R. (1986). On the automatic evaluation of attitudes. *Journal of Personality and Social Psychology*, 50, 229–238.
- Fehr, E., & Fischbacher, U. (2004). Social norms and human cooperation. *Trends in Cognitive Science*, 8, 185–190.
- Fehr, E., & Gächter, S. (2002). Altruistic punishment in humans. *Nature*, 415, 137–140.
- Fischer, K. W., & Tangney, J. P. (1995). Self-conscious emotions and the affect revolution: Framework and overview. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*. New York: Guilford.
- Fiske, A. P. (1991). *Structures of social life*. New York: Free Press.
- Fiske, A. P. (2004). Relational Models Theory 2.0. In N. Haslam (Ed.), *Relational models theory: A contemporary overview* (pp. 3–25). Mahwah, NJ: Erlbaum.
- Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, 38, 889–906.
- Fiske, S. T. (1993). Social cognition and social perception. *Annual Review of Psychology*, 44, 155–194.
- Flippen, A. R., Hornstein, H. A., Siegal, W. E., & Weitzman, E. A. (1996). A comparison of similarity and interdependence as triggers for in-group formation. *Personality and Social Psychology Bulletin*, 22, 882.
- Frank, R. (1988). *Passions within reason: The strategic role of the emotions*. New York: Norton.
- Freud, S. (1962). *The ego and the id* (J. Riviere, Trans.). New York: Norton. (Original work published in 1923.)
- Freud, S. (1976). *The interpretation of dreams* (J. Strachey, Trans.). New York: Norton. (Original work published in 1900.)
- Fried, R., & Berkowitz, L. (1979). Music hath charms . . . and can influence helpfulness. *Journal of Applied Social Psychology*, 9, 199.
- Fultz, J., Batson, C. D., Fortenbach, V. A., McCarthy, P. M., & Varney, L. L. (1986). Social evaluation and the empathy-altruism hypothesis. *Journal of Personality and Social Psychology*, 50, 761–769.
- Gaertner, S. L., Dovidio, J. F., Rust, M. C., Nier, J. A., Banker, B. S., Ward, C. M. et al. (1999). Reducing intergroup bias: Elements of intergroup cooperation. *Journal of Personality and Social Psychology*, 76, 388.
- Gazzaniga, M. S. (1985). *The social brain*. New York: Basic Books.
- Gazzaniga, M. S. (2008). *Human: The science behind what makes us unique*. New York: Ecco.
- Gibbard, A. (1990). *Wise choices, apt feelings*. Cambridge, Mass: Harvard University Press.
- Gibbs, J. C. (2003). *Moral development and reality: Beyond the theories of Kohlberg and Gibbs*. Thousand Oaks, CA: Sage.
- Gigerenzer, G. (2007). *Gut feelings: The intelligence of the unconscious*. New York: Penguin.
- Gilbert, D. (1999). What the mind’s not. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 3–11). New York: Guilford.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women’s development*. Cambridge, MA: Harvard University Press.
- Gilovich, T., Keltner, D., & Nisbett, R. E. (2006). *Social psychology*. New York: Norton.
- Gintis, H., Bowles, S., Boyd, R., & Fehr, E. (2005a). Moral sentiments and material interests: Origins, evidence, and consequences. In H. Gintis, S. Bowles, R. Boyd & E. Fehr (Eds.), *Moral sentiments and material interests: The foundations of cooperation in economic life*. (pp. 3–39). Cambridge, MA: MIT Press.
- Gintis, H., Bowles, S., Boyd, R., & Fehr, E. (Eds.). (2005b). *Moral sentiments and material interests: The foundations of cooperation in economic life*. Cambridge, MA: MIT Press.
- Glover, J. (2000). *Humanity: A moral history of the twentieth century*. New Haven, CT: Yale University Press.
- Goethals, G. R., Messick, D. M., & Allison, S. T. (1991). The uniqueness bias: Studies of constructive social comparison. In J. Suls & T. A. Wills (Eds.), *Social comparison: Contemporary theory and research* (pp. 149–176). Hillsdale, NJ: Erlbaum.
- Goodall, J. (1986). *The chimpanzees of Gombe: Patterns of behavior*. Cambridge, MA: Belknap Press.
- Graham, J., & Haidt, J. (in press). Beyond beliefs: Religion binds individuals into moral communities. *Personality and Social Psychology Review*.
- Graham, J., Haidt, J., & Nosek, B. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96, 1029–1046.
- Greene, J. D. (2008). The secret joke of Kant’s soul. In W. Sinnott-Armstrong (Ed.), *Moral psychology: Vol. 2. The cognitive science of morality* (pp. 35–79). Cambridge, MA: MIT Press.
- Greene, J. D. (in press). The cognitive neuroscience of moral judgment. In M. Gazzaniga (Ed.), *The cognitive neurosciences IV*. Cambridge, MA: MIT Press.
- Greene, J. D., Morelli, S. A., Lowenberg, K., Nystrom, L. E., & Cohen, J. D. (2008). Cognitive load selectively interferes with utilitarian moral judgment. *Cognition*, 107, 1144–1154.
- Greene, J. D., Nystrom, L. E., Engell, A. D., Darley, J. M., & Cohen, J. D. (2004). The neural bases of cognitive conflict and control in moral judgment. *Neuron*, 44, 389–400.
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI study of emotional engagement in moral judgment. *Science*, 293, 2105–2108.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74, 1464–1480.
- Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test. *Journal of Personality and Social Psychology*, 85, 197–216.
- Gross, N., & Simmons, S. (2007). *The social and political views of American professors*. Unpublished manuscript, Harvard University.
- Gurker, O., Irlenbusch, B., & Rockenbach, B. (2006). The competitive advantage of sanctioning institutions. *Science*, 312, 108–111.
- Guthrie, S. E. (1993). *Faces in the clouds*. New York: Oxford.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108, 814–834.

## 828 Morality

- Haidt, J. (2003). The moral emotions. In R. J. Davidson, K. R. Scherer & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 852–870). Oxford, UK: Oxford University Press.
- Haidt, J. (2007). The new synthesis in moral psychology. *Science*, 316, 998–1002.
- Haidt, J. (2008). Morality. *Perspectives on Psychological Science*, 3, 65–72.
- Haidt, J., & Bjorklund, F. (2008). Social intuitionists answer six questions about morality. In W. Sinnott-Armstrong (Ed.), *Moral psychology: Vol. 2. The cognitive science of morality* (pp. 181–217). Cambridge, MA: MIT Press.
- Haidt, J., & Graham, J. (2009). Planet of the Durkheimians, where community, authority, and sacredness are foundations of morality. In J. Jost, A. C. Kay & H. Thorisdottir (Eds.), *Social and psychological bases of ideology and system justification* (pp. 371–401). New York: Oxford.
- Haidt, J., & Hersh, M. A. (2001). Sexual morality: The cultures and reasons of liberals and conservatives. *Journal of Applied Social Psychology*, 31, 191–221.
- Haidt, J., & Joseph, C. (2004, Fall). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. *Daedalus*, 55–66.
- Haidt, J., Koller, S., & Dias, M. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology*, 65, 613–628.
- Haidt, J., McCauley, C., & Rozin, P. (1994). Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. *Personality and Individual Differences*, 16, 701–713.
- Haley, K. J., & Fessler, D. M. T. (2005). Nobody's watching? Subtle cues affect generosity in an anonymous economic game. *Evolution and Human Behavior*, 26, 245–256.
- Hamilton, W. D. (1964). The genetical evolution of social behavior, parts 1 and 2. *Journal of Theoretical Biology*, 7, 1–52.
- Hamlin, J. K., Wynn, K., & Bloom, P. (2007). Social evaluation by preverbal infants. *Nature*, 450, 557–560.
- Hammerstein, P. (2003). Why is reciprocity so rare in social animals? In P. Hammerstein (Ed.), *Genetic and cultural evolution of cooperation* (pp. 55–82). Cambridge, MA: MIT Press.
- Hardin, G. (1968). Tragedy of the commons. *Science*, 162, 1243–1248.
- Hare, R. D. (1993). *Without conscience*. New York: Pocket Books.
- Hare, R. M. (1981). *Moral thinking: Its levels, method, and point*. Oxford, UK: Oxford University Press.
- Harris, S. (2006). *Letter to a Christian nation*. New York: Knopf.
- Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology*, 78, 81–91.
- Hauser, M. (2006). *Moral minds: How nature designed our universal sense of right and wrong*. New York: HarperCollins.
- Hawks, J., Wang, E. T., Cochran, G. M., Harpending, H. C., & Moyzis, R. K. (2007). Recent acceleration of human adaptive evolution. *Proceedings of the National Academy of Sciences of the United States of America*, 104, 20753–20758.
- Henrich, J. (2004). Cultural group selection, coevolutionary processes and large-scale cooperation. *Journal of Economic Behavior & Organization*, 53, 3–35.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., et al. (2005). 'Economic man' in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavioral and Brain Sciences*, 28, 795–855.
- Henrich, N., & Henrich, J. (2007). *Why humans cooperate: A cultural and evolutionary explanation*. Oxford: Oxford University Press.
- Herd, G. (1981). *The Sambia: Ritual and gender in New Guinea*. New York: Holt, Rinehart and Winston.
- Hogg, M. A. (2010). Influence and leadership. In S. Fiske & D. Gilbert (Eds.), *The handbook of social psychology* (5th ed.). Hoboken, NJ: Wiley & Sons.
- Hsu, M., Anen, C., & Quartz, S. R. (2008). The right and the good: Distributive justice and neural encoding of equity and efficiency. *Science*, 320, 1092–1095.
- Huebner, B., Dwyer, S., & Hauser, M. (2009). The role of emotion in moral psychology. *Trends in Cognitive Sciences*, 13, 1–6.
- Hume, D. (1960). *An enquiry concerning the principles of morals*. La Salle, IL: Open Court. (Original work published in 1777.)
- Hunter, J. D. (1991). *Culture wars: The struggle to define America*. New York: Basic Books.
- Hunter, J. D. (2000). *The death of character: Moral education in an age without good and evil*. New York: Basic.
- Ibn-Khaldun. (2004). *The Muqaddimah* (F. Rosenthal, Trans. Abridged and edited by N. J. Dawood ed.). Princeton, NJ: Princeton University Press.
- Inbar, Y., Pizarro, D. A., & Bloom, P. (in press). Conservatives are more easily disgusted than liberals. *Emotion*.
- Inbar, Y., Pizarro, D. A., Knobe, J., & Bloom, P. (in press). Disgust sensitivity predicts intuitive disapproval of gays. *Emotion*.
- Isen, A. M., & Levin, P. F. (1972). Effect of feeling good on helping: Cookies and kindness. *Journal of Personality and Social Psychology*, 21, 384–388.
- James, W. (1950). *The principles of psychology* (Vol. 2). New York: Dover. (Original work published in 1890.)
- Jensen, L. A. (1997). Different worldviews, different morals: America's culture war divide. *Human Development*, 40, 325–344.
- Johansson, P., Hall, L., Sikstrom, S., & Olsson, A. (2005). Failure to detect mismatches between intention and outcome in a simple decision task. *Science*, 310, 116–119.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.
- Jost, J. T., & Hunyady, O. (2002). The psychology of system justification and the palliative function of ideology. *European Review of Social Psychology*, 13, 111–153.
- Joyce, R. (2006). *The evolution of morality*. Cambridge, MA: MIT.
- Kagan, J. (1984). *The nature of the child*. New York: Basic Books.
- Kahan, D. M. (2005). The logic of reciprocity: Trust, collective action, and law. In H. Gintis, S. Bowles, R. Boyd, & E. Fehr (Eds.), *Moral sentiments and material interests* (pp. 339–378). Cambridge, MA: MIT Press.
- Kant, I. (1959). *Foundation of the metaphysics of morals* (L. W. Beck, Trans.). Indianapolis: Bobbs-Merrill. (Original work published in 1785.)
- Kassin, S. M., Fein, S., & Markus, H. R. (2008). *Social psychology* (7th ed.). Boston: Houghton Mifflin.
- Katz, D. (1960). The functional approach to the study of attitudes. *The Public Opinion Quarterly*, 24, 163–204.
- Kiehl, K. A. (2006). A cognitive neuroscience perspective on psychopathy: Evidence for paralimbic system dysfunction. *Psychiatry Research*, 142, 107–128.
- Killen, M., & Smetana, J. G. (2006). *Handbook of moral development*. Mahwah, NJ: Erlbaum.
- Kinder, D. E. (1998). Opinion and action in the realm of politics. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (pp. 778–867). New York: McGraw-Hill.
- Kinler, K. D., Dupoux, E., & Spelke, E. S. (2007). The native language of social cognition. *Proceedings of the National Academy of Sciences of the United States of America*, 104, 12577–12580.
- Knobe, J. (2003). Intentional action in folk psychology: An experimental investigation. *Philosophical Psychology*, 16, 309–324.



- Koenigs, M., Young, L., Adolphs, R., Tranel, D., Cushman, F., Hauser, M., et al. (2007). Damage to the prefrontal cortex increases utilitarian moral judgements. *Nature*, 446, 908–911.
- Kogut, T., & Ritov, I. (2005). The 'identified victim' effect: An identified group, or just a single individual? *Journal of Behavioral Decision Making*, 18, 157–167.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago: Rand McNally.
- Kohlberg, L. (1971). From is to ought: How to commit the naturalistic fallacy and get away with it in the study of moral development. In T. Mischel (Ed.), *Psychology and genetic epistemology* (pp. 151–235). New York: Academic Press.
- Kohlberg, L., Levine, C., & Hewer, A. (1983). *Moral stages: A current formulation and a response to critics*. Basel, Switzerland: Karger.
- Kramer, R. M., & Brewer, M. B. (1984). Effects of group identity on resource use in a simulated commons dilemma. *Journal of Personality and Social Psychology*, 46, 1044.
- Kuhn, D. (1991). *The skills of argument*. Cambridge: Cambridge University Press.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108, 480–498.
- Kurzban, R., & Akipis, C. A. (2007). Modularity and the social mind: Are psychologists too self-ish? *Personality and Social Psychology Review*, 11, 131–149.
- Kurzban, R., DeScioli, P., & O'Brien, E. (2007). Audience effects on moralistic punishment. *Evolution and Human Behavior*, 28, 75–84.
- Kurzban, R., Tooby, J., & Cosmides, L. (2001). Can race be erased? Coalitional computation and social categorization. *Proceedings of the National Academy of Sciences of the United States of America*, 98, 15387–15392.
- Lakoff, G. (1996). *Moral politics: What conservatives know that liberals don't*. Chicago: University of Chicago Press.
- Lakoff, G. (2004). *Don't think of an elephant: Know your values and frame the debate*. White River Junction, VT: Chelsea Green.
- Lakoff, G. (2008). *The political mind*. New York: Viking.
- Latane, B., & Darley, J. M. (1970). *The unresponsive bystander*. Englewood Cliffs: Prentice Hall.
- Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, 46, 352–367.
- Lazarus, R. S. (1984). On the primacy of cognition. *American Psychologist*, 39, 124–129.
- Leary, M. (2004). *The curse of the self: Self-awareness, egotism, and the quality of human life*. Oxford, UK: Oxford.
- Lerner, J. S., & Tetlock, P. E. (2003). Bridging individual, interpersonal, and institutional approaches to judgment and decision making: The impact of accountability on cognitive bias. In S. L. Schneider & J. Shanteau (Eds.), *Emerging perspectives on judgment and decision research* (pp. 431–457). New York: Cambridge.
- Levine, M., Cassidy, C., Brazier, G., & Reicher, S. (2002). Self-categorization and bystander non-intervention: Two experimental studies. *Journal of Applied Social Psychology*, 32, 1452.
- Levine, M., Prosser, A., Evans, D., & Reicher, S. (2005). Identity and emergency intervention: how social group membership and inclusiveness of group boundaries shape helping behavior. *Personality and Social Psychology Bulletin*, 31, 443.
- Levine, M., & Thompson, K. (2004). Identity, place, and bystander intervention: Social categories and helping after natural disasters. *Journal of Social Psychology*, 144, 229.
- Lewis, M., & Haviland-Jones, J. M. (Eds.). (1993). *Handbook of emotions*. New York: Guilford Press.
- Leys, S. (1997). *The analects of Confucius* (S. Leys, Trans.). New York: Norton.
- Locke, J. (1983/1689). *A letter concerning toleration* (J. Tully, Trans.). Indianapolis: Hackett Publishing.
- Locksley, A., Ortiz, V., & Hepburn, C. (1980). Social categorization and discriminatory behavior: Extinguishing the minimal intergroup discrimination effect. *Journal of Personality and Social Psychology*, 39, 773–783.
- Loewenstein, G., & Small, D. A. (2007). The Scarecrow and the Tin Man: The vicissitudes of human sympathy and caring. *Review of General Psychology*, 11, 112–126.
- Loftus, E. F. (1975). Leading questions and eyewitness report. *Cognitive Psychology*, 7, 560–572.
- Lowenthal, D. (1986). *The past is a foreign country*. New York: Cambridge University Press.
- Luo, Q., Nakic, M., Wheatley, T., Richell, R., Martin, A., & Blair, R. J. R. (2006). The neural basis of implicit moral attitude—An IAT study using event-related fMRI. *Neuroimage*, 30, 1449–1457.
- MacIntyre, A. (1981). *After virtue*. South Bend, IN: University of Notre Dame Press.
- Margolis, H. (1987). *Patterns, thinking, and cognition*. Chicago: University of Chicago Press.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Marques, J. M., Yzerbyt, V. Y., & Leyens, J.-P. (1988). The 'Black Sheep Effect': Extremity of judgments towards ingroup members as a function of group identification. *European Journal of Social Psychology*, 18, 1–16.
- Maynard Smith, J., & Szathmari, E. (1997). *The major transitions in evolution*. Oxford, UK: Oxford University Press.
- Mayr, E. (1963). *Animal species and evolution*. Cambridge, MA: Harvard.
- McAdams, D. P. (2006). *The redemptive self: stories Americans live by*. New York: Oxford University Press.
- McAdams, D. P., Albaugh, M., Farber, E., Daniels, J., Logan, R. L., & Olson, B. (2008). Family metaphors and moral intuitions: How conservatives and liberals narrate their lives. *Journal of Personality and Social Psychology*, 95, 978–990.
- McDougall, W. (1998). *An introduction to social psychology*. Boston: John W. Luce. (Original work published in 1908.)
- McDowell, J. (1979). Virtue and reason. *Monist*, 62, 331–350.
- McNeill, W. H. (1995). *Keeping together in time: Dance and drill in human history*. Cambridge, MA: Harvard University Press.
- Mealy, L., Daoood, C., & Krage, M. (1996). Enhanced memory for faces of cheaters. *Ethology and Sociobiology*, 17, 119–128.
- Merton, R. K. (1968). *Social theory and social structure*. New York: Free Press.
- Midlarsky, E., & Midlarsky, M. (1973). Some determinants of aiding under experimentally-induced stress. *Journal of Personality*, 41, 305–327.
- Mikhail, J. (2007). Universal moral grammar: Theory, evidence and the future. *Trends in Cognitive Sciences*, 11, 143–152.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371–378.
- Miller, L. C., Murphy, R., & Buss, A. H. (1981). Consciousness of body: Private and public. *Journal of Personality and Social Psychology*, 41, 397–406.
- Moll, J., Krueger, F., Zahn, R., Pardini, M., de Oliveira-Souza, R., & Grafman, J. (2006). Human fronto-mesolimbic networks guide decisions about charitable donation. *Proceedings of the National Academy of Sciences of the United States of America*, 103, 15623–15628.

- Monahan, J. L., Murphy, S. T., & Zajonc, R. B. (2000). Subliminal mere exposure: Specific, general, and diffuse effects. *Psychological Science*, 11, 462–466.
- Monin, B., & Miller, D. T. (2001). Moral credentials and the expression of prejudice. *Journal of Personality and Social Psychology*, 81, 33–43.
- Mullen, E., & Skitka, L. J. (2006). Exploring the psychological underpinnings of the moral mandate effect: Motivated reasoning, group differentiation, or anger? *Journal of Personality and Social Psychology*, 90, 629–643.
- Myers, D. (2008). *Social psychology* (9th ed.). New York: McGraw-Hill.
- Neuberg, S., Shaller, M., & Kenrick, D. (2010). Evolution. In S. Fiske & D. Gilbert (Eds.), *The handbook of social psychology* (5th ed.). Hoboken, NJ: John Wiley & Sons.
- Newcomb, T. M. (1943). *Personality and social change: Attitude formation in a student community*. New York: Dryden.
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2, 175–220.
- Nisbet, R. A. (1966/1993). *The sociological tradition* (2nd ed.). New Brunswick, NJ: Transaction. (Original work published 1966).
- Nisbett, R. E., & Cohen, D. (1996). *Culture of honor: The psychology of violence in the South*. Boulder, CO: Westview Press.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231–259.
- Norenzayan, A., & Shariff, A. F. (2008). The origin and evolution of religious prosociality. *Science*, 322, 58–62.
- North, A. C., Tarrant, M., & Hargreaves, D. J. (2004). The effects of music on helping behavior: A field study. *Environment and Behavior*, 36, 266.
- Nowak, M. A. (2006). Five rules for the evolution of cooperation. *Science*, 314, 1560–1563.
- Nowak, M. A., & Sigmund, K. (1998). The dynamics of indirect reciprocity. *Journal of Theoretical Biology*, 194, 561–574.
- Nucci, L., & Turiel, E. (1978). Social interactions and the development of social concepts in preschool children. *Child Development*, 49, 400–407.
- Nussbaum, M. C. (1999). "Secret sewers of vice": Disgust, bodies, and the law. In S. A. Bandes (Ed.), *The passions of law* (pp. 19–62). New York: New York University Press.
- Panchanathan, K., & Boyd, R. (2004). Indirect reciprocity can stabilize cooperation without the second-order free rider problem. *Nature*, 432, 499–502.
- Pennington, J., & Schlenker, B. R. (1999). Accountability for consequential decisions: Justifying ethical judgments to audiences. *Personality and Social Psychology Bulletin*, 25, 1067–1081.
- Perkins, D. N., Farady, M., & Bushey, B. (1991). Everyday reasoning and the roots of intelligence. In J. F. Voss, D. N. Perkins & J. W. Segal (Eds.), *Informal reasoning and education* (pp. 83–105). Hillsdale, NJ: Erlbaum.
- Piliavin, I. M., Piliavin, J. A., & Rodin, J. (1975). Costs, diffusion, and the stigmatized victim. *Journal of Personality and Social Psychology*, 32, 429–438.
- Pincoffs, E. L. (1986). *Quandaries and virtues: Against reductivism in ethics*. Lawrence: University of Kansas.
- Pinker, S. (2002). *The blank slate: The modern denial of human nature*. New York: Viking.
- Pizarro, D. A., & Bloom, P. (2003). The intelligence of the moral intuitions: Comment on Haidt (2001). *Psychological Review*, 110, 193–196.
- Pizarro, D. A., Laney, C., Morris, E. K., & Loftus, E. F. (2006). Ripple effects in memory: Judgments of moral blame can distort memory for events. *Memory & Cognition*, 34, 550–555.
- Prinz, J. J. (2008). *The emotional construction of morals*. New York: Oxford.
- Proffitt, D. R. (2006). Embodied perception and the economy of action. *Perspectives on Psychological Science*, 1, 110–122.
- Putnam, R. D. (2007). E Pluribus Unum: Diversity and community in the twenty-first century. *Scandinavian Political Studies*, 30, 137–174.
- Pyszczynski, T., & Greenberg, J. (1987). Toward an integration of cognitive and motivational perspectives on social inference: A biased hypothesis-testing model. *Advances in Experimental Social Psychology*, 20, 297–340.
- Rawls, J. (1971). *A theory of justice*. Cambridge, MA: Harvard University Press.
- Redding, R. E. (2001). Sociopolitical diversity in psychology: The case for pluralism. *American Psychologist*, 56, 205–215.
- Richerson, P. J., & Boyd, R. (1998). The evolution of human ultra-sociality. In I. Eibl-Eibesfeldt & F. K. Salter (Eds.), *Indoctrinability, ideology, and warfare: Evolutionary perspectives* (pp. 71–95). New York: Berghahn.
- Richerson, P. J., & Boyd, R. (2005). *Not by genes alone: How culture transformed human evolution*. Chicago: University of Chicago Press.
- Ridley, M. (1996). *The origins of virtue*. Harmondsworth, UK: Penguin.
- Rilling, J. K., Glenn, A. L., Jairam, M. R., Pagnoni, G., Goldsmith, D. R., Elfenbein, H. A., et al. (2007). Neural correlates of social cooperation and non-cooperation as a function of psychopathy. *Biological Psychiatry*, 61, 1260–1271.
- Riskey, D. R., & Birnbaum, M. H. (1974). Compensatory effects in moral judgment: Two rights don't make up for a wrong. *Journal of Experimental Psychology*, 103, 171–173.
- Robinson, P. H., Kurzban, R., & Jones, O. D. (2007). The origins of shared intuitions of justice. *Vanderbilt Law Review*, 60, 1633–1688.
- Rosenhan, D. L., Underwood, B., & Moore, B. (1974). Affect moderates self-gratification and altruism. *Journal of Personality and Social Psychology*, 30, 546–552.
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5, 296–320.
- Sabini, J., & Silver, M. (1982). *Moralities of everyday life*. Oxford: Oxford University Press.
- Saltzstein, H. D., & Kasachkoff, T. (2004). Haidt's moral intuitionist theory. *Review of General Psychology*, 8, 273–282.
- Sanfey, A. G., Rilling, J. K., Aronson, J. A., Nystrom, L. E., & Cohen, J. D. (2003). The neural basis of economic decision-making in the ultimatum game. *Science*, 300, 1755–1758.
- Satow, K. L. (1975). Social approval and helping. *Journal of Experimental Social Psychology*, 11, 501–509.
- Schelling, T. C. (Ed.). (1968). *The life you save may be your own*. Washington DC: The Brookings Institute.
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (2008). Disgust as embodied moral judgment. *Personality and Social Psychology Bulletin*, 34, 1096–1109.
- Schwartz, S. H. (1992). Universals in the content and structure of values. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). New York: Academic Press.
- Seligman, M. E. P. (1971). Phobias and preparedness. *Behavior Therapy*, 2, 307–320.
- Shariff, A. F., & Norenzayan, A. (2009). *Mean gods make good people: Different views of god predict cheating behavior*. Unpublished manuscript, University of British Columbia.
- Shariff, A. F., Norenzayan, A., & Henrich, J. (in press). The birth of high gods: How the cultural evolution of supernatural policing influenced the emergence of complex, cooperative human societies, paving the way for civilization. In M. Schaller, A. Norenzayan, S. Heine, T. Yamagishi & T. Kameda (Eds.), *Evolution, culture and the human mind*. Mahwah, NJ: Erlbaum.

- Sherif, M. (1936). *The psychology of social norms*. New York: Harper.
- Sherif, M., Harvey, O. J., White, B. J., Hood, W., & Sherif, C. (1961). *Intergroup conflict and cooperation: The Robbers Cave experiment*. Norman: University of Oklahoma Institute of Group Relations.
- Shweder, R. A. (1990). Cultural psychology: What is it? In J. W. Stigler, R. A. Shweder & G. Herdt (Eds.), *Cultural psychology: Essays on comparative human development* (pp. 1–43). New York: Cambridge University Press.
- Shweder, R. A., & Bourne, E. (1984). Does the concept of the person vary cross-culturally? In R. Shweder & R. LeVine (Eds.), *Culture theory* (pp. 158–199). Cambridge, UK: Cambridge University Press.
- Shweder, R. A., & Haidt, J. (1993). The future of moral psychology: Truth, intuition, and the pluralist way. *Psychological Science*, 4, 360–365.
- Shweder, R. A., Mahapatra, M., & Miller, J. (1987). Culture and moral development. In J. Kagan & S. Lamb (Eds.), *The emergence of morality in young children* (pp. 1–83). Chicago: University of Chicago Press.
- Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The “big three” of morality (autonomy, community, and divinity), and the “big three” explanations of suffering. In A. Brandt & P. Rozin (Eds.), *Morality and health* (pp. 119–169). New York: Routledge.
- Sinclair, S., Lowery, B. S., Hardin, C. D., & Colangelo, A. (2005). Social tuning of automatic racial attitudes: The role of affiliative motivation. *Journal of Personality and Social Psychology*, 89, 583–592.
- Singer, P. (1979). *Practical ethics*. Cambridge, UK: Cambridge University Press.
- Skinner, B. F. (1938). *The behavior of organisms*. New York: Appleton-Century-Crofts.
- Skitka, L. J., Bauman, C. W., & Sargis, E. G. (2005). Moral conviction: Another contributor to attitude strength or something more? *Journal of Personality and Social Psychology*, 88, 895–917.
- Skowronski, J. J., & Carlston, D. E. (1987). Social judgment and social memory—the role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology*, 52, 689–699.
- Sloman, S. A. (1996). The empirical case for two systems of reasoning. *Psychological Bulletin*, 119, 3–22.
- Slovic, P. (2007). ‘If I look at the mass I will never act’: Psychic numbing and genocide. *Judgment and Decision Making*, 2, 79–95.
- Smail, D. L. (2008). *On deep history and the brain*. Berkeley, CA: University of California.
- Small, D. A., Loewenstein, G., & Slovic, P. (2007). Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims. *Organizational Behavior and Human Decision Processes*, 102, 143–153.
- Smith, E. R., & Semin, G. R. (2004). Socially situated cognition: Cognition in its social context. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 36, pp. 53–117). San Diego, CA: Elsevier Academic Press.
- Smith, M. B., Bruner, J., & White, R. W. (1956). *Opinions and personality*. New York: Wiley.
- Snyder, M., & Swann, W. B. (1978). Hypothesis-testing processes in social interaction. *Journal of Personality and Social Psychology*, 36, 1202–1212.
- Snyder, M. L., Kleck, R. E., Strenta, A., & Mentzer, S. J. (1979). Avoidance of the handicapped: An attributional ambiguity analysis. *Journal of Personality and Social Psychology*, 37, 2297.
- Sosis, R., & Bressler, E. R. (2003). Cooperation and commune longevity: A test of the costly signaling theory of religion. *Cross-Cultural Research: The Journal of Comparative Social Science*, 37, 211–239.
- Sosis, R., & Ruffle, B. J. (2003). Religious ritual and cooperation: Testing for a relationship on Israeli religious and secular kibbutzim. *Current Anthropology*, 44, 713–722.
- Sowell, T. (2002). *A conflict of visions: The ideological origins of political struggles*. New York: Basic.
- Stenner, K. (2005). *The authoritarian dynamic*. New York: Cambridge University Press.
- Sumner, W. G. (1907). *Folkways: A study of the sociological importance of usages, manners, customs, and morals*. Boston: Ginn & Co.
- Sunstein, C. R. (2005). Moral heuristics. *Brain and Behavioral Sciences*, 28, 531–573.
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, 1(2), 149–178.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks-Cole.
- Taylor, S. E. (1991). Asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis. *Psychological Bulletin*, 110, 67–85.
- Tetlock, P. E. (2002). Social functionalist frameworks for judgment and choice: Intuitive politicians, theologians, and prosecutors. *Psychological Review*, 109, 451–457.
- Tetlock, P. E., Skitka, L., & Boettger, R. (1989). Social and cognitive strategies for coping with accountability: Conformity, complexity, and bolstering. *Journal of Personality and Social Psychology*, 57, 632–640.
- Thaler, R. (1988). The ultimatum game. *Journal of Economic Perspectives*, 2, 195–206.
- Tishkoff, S. A., Reed, F. A., Ranciaro, A., Voight, B. F., Babbitt, C. C., Silverman, J. S., et al. (2007). Convergent adaptation of human lactase persistence in Africa and Europe. *Nature Genetics*, 39, 31–40.
- Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, 308, 1623–1626.
- Tönnies, F. (2001). *Community and civil society* (J. Harris & M. Hollis, Trans.). Cambridge, UK: Cambridge University Press. (Original work published in 1887.)
- Tooby, J., Cosmides, L., & Barrett, H. C. (2005). Resolving the debate on innate ideas: Learnability constraints and the evolved interpenetration of motivational and conceptual functions. In P. Carruthers, S. Laurence, & S. Stich (Eds.), *The innate mind: Structure and contents* (pp. 305–337). New York: Oxford University Press.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Trivers, R. L. (1971). The evolution of reciprocal altruism. *Quarterly Review of Biology*, 46, 35–57.
- Trut, L. N. (1999). Early canid domestication: The farm fox experiment. *American Scientist*, 87, 160–169.
- Turchin, P. (2006). *War and peace and war*. New York: Pi Press.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. Cambridge, UK: Cambridge University Press.
- Turiel, E. (2006). Thought, emotions, and social interactional processes in moral development. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (pp. 7–35). Mahwah, NJ: Erlbaum.
- Valdesolo, P., & DeSteno, D. (2006). Manipulations of emotional context shape moral judgment. *Psychological Science*, 17, 476.
- Valdesolo, P., & DeSteno, D. (2007). Moral hypocrisy: Social groups and the flexibility of virtue. *Psychological Science*, 18, 689–690.
- Valdesolo, P., & DeSteno, D. (2008). The duality of virtue: Deconstructing the moral hypocrite. *Journal of Experimental Social Psychology*, 44, 1334–1338.

## 832 Morality

- Van Lange, P. A. (1991). Being better but not smarter than others: The Muhammad Ali effect at work in interpersonal situations. *Personality and Social Psychology Bulletin*, 17, 689–693.
- Van Lange, P. A. M., & Sedikides, C. (1998). Being more honest but not necessarily more intelligent than others: Generality and explanations for the Muhammad Ali effect. *European Journal of Social Psychology*, 28, 675–680.
- van Rompay, T. J. L., Vonk, D. J., & Fransen, M. L. (2009). The eye of the camera: Effects of security cameras on prosocial behavior. *Environment and Behavior*, 41, 60–74.
- Vastfjall, D., Peters, E., & Slovic, P. (in prep). *Representation, affect, and willingness to donate to children in need*. Unpublished manuscript.
- Vitz, P. C. (1990). The use of stories in moral development: New psychological reasons for an old educational method. *American Psychologist*, 45, 709–720.
- Voight, B. F., Kudaravalli, S., Wen, X., & Pritchard, J. K. (2006). A map of recent positive selection in the human genome. *Plos Biology*, 4, e72.
- Walker, L. J. (1984). Sex differences in the development of moral reasoning: A critical review. *Child Development*, 55, 677–691.
- Warneken, F., & Tomasello, M. (2006). Altruistic helping in human infants and young chimpanzees. *Science*, 311, 1301–1303.
- Wason, P. C. (1969). Regression in reasoning? *British Journal of Psychology*, 60, 471–480.
- Westen, D. (2007). *The political brain*. New York: Public Affairs.
- Wheatley, T., & Haidt, J. (2005). Hypnotic disgust makes moral judgments more severe. *Psychological Science*, 16, 780–784.
- Wiessner, P. (2005). Norm enforcement among the Ju/'hoansi Bushmen. *Human Nature*, 16, 115–145.
- Williams, G. C. (1966). *Adaptation and natural selection: A critique of some current evolutionary thought*. Princeton, NJ: Princeton University Press.
- Williams, G. C. (1988). Reply to comments on “Huxley’s evolution and ethics in sociobiological perspective.” *Zygon*, 23, 437–438.
- Williamson, S. H., Hubisz, M. J., Clark, A. G., Payseur, B. A., Bustamante, C. D., & Nielsen, R. (2007). Localizing recent adaptive evolution in the human genome. *Plos Genetics*, 3, e90.
- Wilson, D. S. (2002). *Darwin’s cathedral: Evolution, religion, and the nature of society*. Chicago: University of Chicago Press.
- Wilson, D. S., Van Vugt, M., & O’Gorman, R. (2008). Multilevel selection theory and major evolutionary transitions: Implications for psychological science. *Current Directions in Psychological Science*, 17, 6–9.
- Wilson, D. S., & Wilson, E. O. (2007). Rethinking the theoretical foundation of sociobiology. *Quarterly Review of Biology*, 82, 327–348.
- Wilson, E. O. (1975). *Sociobiology*. Cambridge, MA: Harvard University Press.
- Wilson, E. O. (1990). *Success and dominance in ecosystems: The case of the social insects*. Oldendorf, Germany: Ecology Institute.
- Wilson, E. O. (1998). *Consilience: The unity of knowledge*. New York: Alfred A. Knopf.
- Wilson, T. D. (2002). *Strangers to ourselves: Discovering the adaptive unconscious*. Cambridge, MA: Belknap Press.
- Wiltermuth, S., & Heath, C. (2008). Synchrony and cooperation. *Psychological Science*, 20, 1–5.
- Winter, L., & Uleman, J. S. (1984). When are social judgments made? Evidence for the spontaneity of trait inferences. *Journal of Personality and Social Psychology*, 47, 237–252.
- Wright, R. (1994). *The moral animal*. New York: Pantheon.
- Wright, R. (2000). *Non-zero: The logic of human destiny*. New York: Vintage.
- Wundt, W. (1907). *Outlines of psychology*. Leipzig, Germany: Wilhelm Englemann.
- Wynne, C. D. L. (2004). Animal behaviour: Fair refusal by capuchin monkeys. *Nature*, 428, 140.
- Yamagishi, T. (2003). Cross-societal experimentation on trust: A comparison of the United States and Japan. In E. Ostrom & J. Walker (Eds.), *Trust and reciprocity: Interdisciplinary lessons from experimental research* (pp. 352–370). New York: Russell Sage Foundation.
- Yamagishi, T., Tanida, S., Mashima, R., Shimoma, E., & Kanazawa, S. (2003). You can judge a book by its cover—Evidence that cheaters may look different from cooperators. *Evolution and Human Behavior*, 24, 290–301.
- Yzerbyt, V. Y., & Demoulin. (2010). Intergroup relations. In S. Fiske & D. Gilbert (Eds.), *The handbook of social psychology* (5th ed.). Hoboken, NJ: John Wiley & Sons.
- Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, 35, 151–175.
- Zimbardo, P. G. (2007). *The Lucifer effect: Understanding how good people turn evil*. New York: Random House.