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Moral Complexity: The Fatal Attraction of Truthiness and the Importance of Mature Moral Functioning

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Abstract

Recently, intuitionist theories have been effective in capturing the academic discourse about morality. Intuitionist theories, like rationalist theories, offer important but only partial understanding of moral functioning. Both can be fallacious and succumb to *truthiness*: the attachment to one's opinions because they "feel right," potentially leading to harmful action or inaction. Both intuition and reasoning are involved in deliberation and expertise. Both are malleable from environmental and educational influence, making questions of normativity—which intuitions and reasoning skills foster—of utmost importance. Good intuition and reasoning inform mature moral functioning, which needs to include capacities that promote sustainable human well-being. Individual capacities for habituated empathic concern and moral metacognition—moral locus of control, moral self-regulation, and moral self-reflection—comprise mature moral functioning, which also requires collective capacities for moral dialogue and moral institutions. These capacities underlie moral innovation and are necessary for solving the complex challenges humanity faces.

Keywords

moral development, intuition, reasoning, deliberation, empathy, imagination

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Sub/Truthiness: Things that a person claims to know intuitively or "from the gut" without regard to evidence, logic, intellectual examination, or facts. (Stephen Colbert, 2005)

In her award-nominated book, Jane Mayer (2008) describes how newly minted U.S. interrogators garnered misguided intuitions about the effectiveness of torture from the TV show, "24," in which the hero, Jack Bauer, used torture to extract valuable information to save America each week. It didn't matter that real-life interrogators had different intuitions and practical knowledge about the ineffectiveness of torture based on their extensive training and experience (Roper, 2004; Sands, 2008). Military commanders reported that the show was promoting unethical and illegal behavior among young soldiers who both imitated Bauer's actions and judged the conduct patriotic (Mayer, 2007). These soldiers believed they were doing the right thing based on the intuitions they had developed from their media experience.

For decades, it has been assumed that the nuclear family (mother, father, children) is best for children and so billions of federal dollars have been put into heterosexual marriage promotion (National Catholic Reporter, 2006). Even the U.S. Supreme Court has made decisions based on this "accumulated wisdom of several millennia of human experience" (Lofton v. Secretary of Florida Department of Children and Families, 2005; Greenhouse, 2005). As it turns out from extensive anthropological and epidemiological research, children's well-being benefits most from multiple committed caregivers (perhaps three is ideal; van Ijzendoorn, Sagi, & Lambermon, 1992). It does not matter who the several caregivers are, but how much they support the child through responsiveness and provisioning (for a review, see Hrdy, 2009). Historical evidence indicates that the nuclear family has existed only for about 100 years (Coontz, 1992). The government and business policies supporting nuclear families at the expense of other family configurations were put in place with deliberation and forethought, based on information, reasoning, and intuitions that have turned out to be incorrect.

In both these instances, the actors felt the "rightness" of their actions, a "moral mandate," or truthiness (Skitka & Morgan, 2009). Part of the attraction of truthiness is the way human information processing occurs (with rapid interpretation and inference), and how it makes humans feel like they perceive reality directly (for a review, see Burton, 2008). Although most of human life is governed by implicit processes, the context often "engulfs the mind" (Hogarth, 2001, p. ix), influencing which intuitions come to the fore and which reasons seem reasonable—thus affecting decision making in often unhelpful ways. Considerable research has shown that judgments are easily manipulated (for reviews, see Hogarth, 1982; Stanovich, 1996; Tversky & Kahneman, 1974).¹ Even the intuitions and decisions of seasoned baseball scouts are outdone by statistical models that better predict future stars (Lewis, 2003) due to the fact that the models are able to

take into account more data without the biases of human processing systems (Meehl, 1954).

Making accurate judgments about others requires relevant information to be available. But it also requires an ability to detect and properly use important cues. Most of the time, we do not have or attend to critical information, leading to flawed reasoning (Funder, 1995) and a “here and now” bias (Hoffman, 2000).² Poor intuitions and deficient reasoning cripple our compassion (Trout, 2009) and foster “dysrationality” about the causes of, for example, poverty, crime, and climate instability, leading to policies that aggravate rather than alleviate true causes and adversely affect the lives of millions (Stanovich, 1994).

Moral psychology arrives at an interesting juncture. For many years, the field was dominated by a rationalist approach that emphasized reasoning (i.e., Kohlberg, 1981, 1984, who used a neo-Kantian framework to map cognitive change), a view now strongly challenged by intuitionism (Haidt, 2001). Although intuitionism brings an important corrective to the study of moral functioning, intuition is not a straightforward construct. Moreover, moral functioning is more complex than either the intuitionist or rationalist camp makes it out to be. Both the rationalist and intuitionist paradigms provide incomplete views. Rationalism neglects implicit processes, narrowing morality to a small slice of human behavior. Intuitionism ignores the complexities of moral functioning that rely also on complex interplays between reasoning, intuition, and other factors. Viewing constructs as either/or is a human tendency, perhaps because it clarifies differences, but ultimately each perspective represents only a partial view. In this article, I note how both intuition and reasoning are integrated into realms of moral functioning. Although historically my work is associated with the rationalist view because I grew up academically in the rationalist camp, I have long been interested in implicit processes primarily from the perspective of expertise and expertise development. In every expertise domain, intuition and reasoning are constitutive, interactive, and educable; so also in the moral domain.

How do we sort out the competing views of intuitionism and rationalism? This article examines the two contrasting views in regards to moral functioning and moral development, pointing out strengths and weaknesses of each approach. Both come together in ethical expertise and moral deliberation, in which well-educated intuitions and good reasoning are vital. Both are fostered by experience, making normative questions integral to a theory of moral development.

MORALITY AS INTUITION

Since the early days of psychology (e.g., Ebbinghaus, 1885/1913), it has been evident that individuals access considerable amounts and types of knowledge without phenomenological awareness (Bargh, 1989) and beyond the participant’s ability to verbally articulate (e.g., Kihlstrom, Shames, & Dorfman, 1996). People know much more than they can say (Polanyi, 1966). Implicit processes appear to be the default operations

of the mind, whereas consciousness and phenomenological awareness are relatively recent developments (Reber, 1993). Recently, intuitionist approaches to human functioning have gained in popularity across academic and popular psychology (e.g., Klein, 2003) in part due to the converging work of several scientific disciplines (e.g., evolutionary psychology, neurosciences, and the cognitive sciences).

In the past, gut feelings and heuristics were often ridiculed as irrational (perhaps in part because their evolutionary purpose often went unexamined; see Cummins, 2003). But now, the pendulum is swinging in the other direction and reasoning is often considered unnecessary. Intuitionist approaches assume that judgment is essentially quick and effortless—that fast, emotion-based heuristics guide judgment. Moreover, these views contend that reasoning and deliberation are post hoc rationalizations, hopelessly biased, or rarely used in judgment. Ever since Gazzaniga’s (1985) groundbreaking work with split-brain patients demonstrating how easy it is for people to make up indiscernible reasons for their behavior, reasoning and rationality have lost respect. Hundreds of studies on motivated cognition also demonstrate how reasoning can be biased by implicit processes (for a review, see Molden & Higgins, 2005).⁵ Psychology now gives major credit to implicit processes, and not conscious reasoning, for just about everything (e.g., Bargh & Chartrand, 1999). Previously, emotions were suspect because they were thought to be a source of contamination or a distraction from reasoning; now, they are viewed as either primary or integral to cognition (Lewis, 2009) and to social and moral judgment (Damasio, 1994; Lazarus & Lazarus, 1994). Intuition is fashionable and considered natural (Gladwell, 2005), even in the moral domain (Haidt, 2001; Krebs, 2008).

Moral intuitionist theories include the social intuitionist model (SIM; Haidt, 2001), heuristics (Cosmides & Tooby, 2004; Gigerenzer, 2008), and universal moral grammar (Hauser, 2006; Hauser, Young, & Cushman, 2008; Mikhail, 2007). These approaches highlight the quick gut reactions people have to evaluating the actions or character of others. They share the view that intuitive moral judgments are fundamental to human moral behavior and contend that moral intuitive responses arise from innate computational modules derived from the evolutionary history of the human species and are shaped by cultural upbringing. Moral intuitionists typically consider the use of moral reasons, reasoning, and reflection to be unusual and rare causes of moral judgment. The discussion here primarily centers on Haidt’s SIM for space reasons and because other theorists rely on Haidt’s data and theory to support their versions of moral intuitionism (e.g., Gigerenzer, 2008).

Haidt and associates proposed a SIM of moral functioning (Haidt, 2001; Haidt & Bjorklund, 2008b; Haidt & Joseph, 2007; Haidt & Graham, 2007). According to the SIM, social intuitions are central and occur rapidly and without awareness of their source, conveying a sense of rightness or wrongness without the assistance of reasons or reasoning. Indeed, according to Haidt and Bjorklund (2008b), “Moral judgment is a product of quick and automatic intuitions that then give rise to slow, conscious moral reasoning” (p. 181). The intuitive decision may or may not be followed by reasoning.

When reasoning follows, it is used primarily to rationalize an intuition or to persuade others to change their intuitions (in both cases, this involves acting like a lawyer and finding arguments to support the judgment). In fact, moral judgment is “best understood as a social process”—a form of “distributed cognition” (Haidt & Bjorklund, 2008b, p. 181). On rare occasions, reasoning may be used for private reflection or as a way to form a judgment, particularly by those whose professional role requires it.

The SIM paradigm was initially based on data from a particular set of scenarios that are designed to elicit disgust (e.g., Bjorklund, Haidt, & Murphy, 2000; Haidt, Koller, & Dias, 1993).³ For example, one scenario involved consensual sexual intercourse between adult siblings. Another scenario involved eating the family dog after a hit and run accident. In a third scenario, a man cooked and ate a chicken after masturbating with it. Participants presented with selected instances of behavior promoting disgust judged whether the actions were right or wrong and indicated why. Participants typically were quick to decide rightness or wrongness. But when their attempts to give reasons were neutralized by explanations that no harm could result from the putatively disgusting behavior, the participants were then unable to give a reason for the judgment in many instances. This phenomenon is called “moral dumbfounding.” Haidt’s perspective on social intuitions and its relationship to reasoning and moral dumbfounding has been influential. Indeed, other approaches to intuitionism rely on Haidt’s data to support their rejection of deliberate reflection and the primacy of emotional intuition in the making of moral judgments (e.g., Gigerenzer, 2008; Hauser, 2006; Hauser et al., 2008; Mikhail, 2007).

Contributions of Moral Intuitionism

Moral intuitionism makes significant contributions to the study of moral functioning in several respects. First, moral intuitionism demonstrates the power of intuitions in shaping some moral judgments. Moral intuitionism’s embrace of intuitive-emotional systems to describe moral functioning is a useful corrective to overly rationalistic approaches that have long dominated moral psychology. Second, moral intuitionism embraces the data on the primacy of implicit processes for human functioning (for reviews, see Bargh, 1989; Reber, 1993; Uleman & Bargh 1989), making it central to the story. Indeed, converging psychological evidence indicates that much of human information processing occurs automatically, including processes that lead to moral action (for reviews, see Lapsley & Narvaez, 2004; Narvaez, 1993, 1996; Narvaez & Lapsley, 2005). The vast research showing that humans often operate using implicit processes cannot be true everywhere except in the moral domain. Third, moral intuitionism obtains data difficult for a rationalist approach to explain. Using data from college students in the laboratory, moral intuitionism research shows that people make judgments about others quickly, based on an emotional approach/avoidance response, and without explicit reasoning. A reasoning-first perspective is sorely pressed to explain these phenomena. Fourth, moral intuitionism presents a credible interpretation of the

data, challenging the view that reason and deliberation are central for moral judgments about others. In moral intuitionism data, reason does not seem to play a role. People evaluate others using implicit processes without reason’s guidance. Fifth, and most important, moral intuitionist data demonstrate how intuitions can mislead in the moral domain (e.g., Baron, 1994; Trout, 2009). The intuitionist challenge to rationalism is formidable.

Critiques of Moral Intuitionism

The moral intuitionist approach has been criticized on multiple grounds for oversimplifying and misrepresenting moral functioning (Appiah, 2008; Blasi, 2009; Narvaez, 2008b; Pizarro & Bloom, 2003; Saltzstein & Kasachkoff, 2004) and has been defended in response (e.g., Haidt & Bjorklund, 2008b). Here, the critique focuses on how the SIM (a) is imprecise in its definition of intuition when distinctions need to be made; (b) is simplistic when applied to moral functioning generally, overlooking that much of the moral life involves complexities not examined or explained by intuitionism as it is built on simple problems of moral evaluation; (c) overlooks findings about reasoning and deliberation; and (d) equates enculturation with virtue.

The Broad and Imprecise Discussion of Intuition

Moral intuition is described as “the sudden appearance in consciousness, or at the fringe of consciousness, of an evaluative feeling (like-dislike, good-bad)...without the conscious awareness of having gone through steps of search, weighing evidence, or inferring a conclusion” (Haidt & Bjorklund, 2008b, p. 188). The definition seems to mix affect with implicit processes generally. Does this mean that all implicit processes, even conceptual knowledge, are intuition? Humans have a great deal of conceptual knowledge that they cannot put into words (Keil & Wilson, 2000). Much of what we learn and know involves multiple implicit systems (Hogarth, 2001; more below), making the most of our knowledge, and understanding tacit. The knowledge residing in implicit systems may or may not activate linguistic centers and, as a result, may or may not be accessible for verbal description, but it is evident through behavior (DiSessa, 1982; McCloskey & Kohl, 1983), much like the skills of an expert craftsman. As a result, it is misleading to characterize conceptual knowledge solely in terms of the ability to provide explanations and/or to characterize the inability to articulate knowledge indicative of emotional response. Further discussion of implicit processes occurs below.

The SIM’s Simplistic Approach to General Moral Functioning

Haidt originally defined moral judgments as “evaluations (good versus bad) of the actions or character of a person that are made with respect to a set of virtues held by a culture or subculture to be obligatory” (Haidt, 2001, p. 817). Evaluating a stranger according to his or her behavior in unfamiliar scenarios is a limited problem and task set from which to build a moral theory (Narvaez, 2008a). Recently, Haidt expanded the SIM to be a moral choice model in which individuals can deliberate using both intuition and conscious reasoning (Haidt & Bjorklund, 2008b). Although how this occurs is unclear, it is a helpful

modification that needs to be more widely understood. However, other aspects of the moral domain, such as moral motivation, moral identity, empathy, and moral actions, are not explained by the SIM.

Overlooked Findings Regarding Reasoning and Deliberation

Research in the cognitive development tradition shows that, starting at least from the late preschool years, individuals are not surprised when they are asked to reason about moral problems (for reviews see Blasi, 2009; Rest, 1979, 1983; Turiel, 1998, 2006;).⁴ Research into mental preoccupations suggests that individuals deliberate about moral issues, including relational problems, much of the time (Klinger, 1978). Moral philosophical discussions since Kant often have addressed moral decision making. Moral decision making includes such things as determining what one's responsibilities are (Frankfurt, 1993), weighing which action choice among alternatives is best (Rawls, 1971), ascertaining which personal goals and plans to set (Williams, 1973), reconciling multiple considerations (Wallace, 1988), evaluating the quality of moral decisions made and actions taken (Blum, 1994), and juggling metacognitive skills such as monitoring progress on a particular moral goal or controlling attention to fulfill moral goals (Kekes, 1988). It is not evident where these types of activities fit in the original or revised SIM. To lump them into either intuition or reasoning (in the revised SIM; Haidt & Bjorklund, 2008a) is insufficient. Later in this article, I describe moral imagination as a third aspect of moral functioning that combines intuition and reasoning in moral deliberation.

The SIM's Equation of Enculturation With Moral Virtue

One of the most critical discussions in the history of moral development research was the distinction between social conformity and moral development (Kohlberg, 1969). The distinction was required to explain how social conformity works against moral development in some situations (e.g., Germany in the 1930s), whereas resistance to social pressures is the virtuous path in other situations (U.S. civil rights movement of the 1950s and 1960s). Much like the behaviorist and psychoanalytic traditions in the 20th century, the SIM focuses on social conformity ("a fully enculturated person is a virtuous person"; Haidt & Bjorklund, 2008a, p. 29) and, unlike the moral development tradition, has no way of condemning Hitler and supporting Martin Luther King Jr. The value of postconventional thinking is taken up below.

Whereas it may be true that humans often operate from knowledge that cannot be articulated (Keil & Wilson, 2000; Polanyi, 1966), this doesn't mean that such knowledge is comprised solely of impulsive emotional ("good-bad") responses, that it is based on innate brain modules, or that it is comprised of nonrational knowledge. Distinctions must be made among types of implicit knowledge.

The Complexities of Implicit Knowledge

Discussions of intuition often lack precision. Definitions of intuition from the Columbia Encyclopedia are as follows: (a) the apprehension of universal principles, as distinguished from sense perception; (b) sense perceptions as distinguished from

intuitions of space and time (Kant); and (c) a conscious evolved instinct, an unmediated grasp of the self or of the external world (Bergson). Moral intuitionism, the grasping of moral truths without effort (Haidt, 2001, p. 814), does not clearly fit into any of these general categories. Is moral intuition sensory based or not? Is it an instinct? When and how do emotions play a role?

Intuition depends on accessing large banks of implicit knowledge. Much of what a person knows is implicit or tacit knowledge formed from unarticulated person-environment exchanges that occur implicitly between environmental stimulation and the individual's phenomenological experience (Ciancolo, Matthew, Sternberg, & Wagner, 2006). The tacit system operates with little effort or deliberation, often without conscious awareness, according to "nonintentional, automatic acquisition of knowledge about structural relations between objects or events" (Frensch, 1998, p. 76; for reviews, see Hogarth, 2001, Reber, 1993). Hogarth (2001) identified three levels or systems of automatic information processing that underlie intuitive processes across domains (from social practices to physical causality). The three levels of automatic information processing (basic, primitive, and sophisticated) represent primitive, default systems that share commonalities such as low variability among individuals, robustness when explicit systems are damaged, age and IQ independence, and commonality of process across species (Reber, 1993).

The basic system is comprised of instinctive behaviors that regulate body functions, such as the feeling of hunger precipitated by a drop in blood sugar that leads to a conscious desire to seek food. Survival mechanisms triggered by external events (e.g., ducking from a loud bang) may also be represented here. The second system, the primitive information processing system, involves various kinds of subsymbolic processing of stimuli (Rumelhart & McClelland, 1986), ranging from mechanistic registration of covariation and frequencies of events to inferring implicit rules of systems that are experienced (e.g., grammar). The basic and primitive systems are considered phylogenetically older because they do not vary according to motivation, education, or intelligence (Hasher & Zacks, 1979) and are possessed by many animals (Reber, 1993). The third system, the sophisticated unconscious, is built from experience and attends to meaning and emotion. Introspective reports suggest that meaning is perceived prior to the details in a stimulus array (Neisser, 1976), such as the ability to perceive *affordances* without effort. An affordance is the perceived interface between organism and environment—that is, the apprehension of how the organism's capacities can make use of environmental resources (Gibson, 1966). Easily detected affordances include noticing the location of an exit door in a hall, apprehending the drift of a conversation, or picking up on the undertone in a comment (Neisser, 1976). What we often call "understanding" belongs to the sophisticated unconscious, implicit awareness that extends beyond correlation of variables (Keil & Wilson, 2000, p. 97).

As a result of implicit learning through these systems, the effects of prior experiences are manifest in a task even though previous learning is not consciously evident to the performer. In other words, implicit learning is "phenomenally unconscious"

(Buchner & Wippich, 1998). School learning, in contrast, is predominantly phenomenally conscious, contributing to the feeling of effort that imbues schoolbook learning in contrast to most learning in the rest of life.

Tacit knowledge systems operate on a nonverbal level most of the time, which means that humans know things they cannot verbalize (e.g., how a car engine works). Both children and adults know far more than they can explain. Keil and Wilson (2000) distinguish between a basic explanatory set of preverbal conceptual schemas (Mandler, 2004), evident even in infant behavior, and more advanced explanatory schemas, built on layers of automatized conceptual knowledge, that include statements of principles and are evident through verbal performance. There are nearly infinite bits of constructed “common sense” knowledge on which people base judgments and decisions, which may look like modular knowledge (M.F. Schwartz & Schwartz, 1994), making humanistic artificial intelligence especially challenging (Minsky, 2006). As with all of basic cognitive development, eventual mental understanding is founded on the physical experience of interaction with the environment through the “interiorization of action” (Chapman, 1988, p. 9). That is, understanding develops from initial reflexes toward more differentiated conceptual structures, moving from implicit to verbalizable understanding (Gelman & Baillargeon, 1983).

The type of deep tacit knowledge discussed here cannot be categorized as impulsive emotional reactions nor nonrational knowledge. Tacit knowledge allows for rapid perception and interpretation of phenomena; its content facilitates backwards inferences (explanation) and forward inferences (prediction) based on understandings of causality (Hogarth, 2001). From this vast knowledge base come intuitions—that feeling of knowing without explanation.

Scientific understanding of tacit knowledge and the inclination toward intuitionism are mostly recent phenomena. For many centuries, rationalism was the predominant view of human higher functioning, including morality.

MORALITY AS REASONING

For much of the 20th century, moral psychology emphasized rationalism, agreeing with philosophers that deliberate reflection was a sign of mature decision making. Judgment was considered moral only if moral criteria were applied through deliberation (Kohlberg, Levine, & Hower, 1983; Lapsley, 1996). However, such a process may become automatized with practice, making it look like intuition even though it was initially guided by prior reasoning and reflection (Dreyfus & Dreyfus, 1990).

The most sophisticated level of reasoning, according to the rationalist approach in psychology, is postconventional reasoning, which became the aim of moral education and development (Kohlberg, 1981, 1984; Lapsley, 2006; Rest, 1979). Rooted in Enlightenment values, cognitive developmentalists typically emphasized the ability of the postconventional reasoner to take an impartial moral point of view in which the reasoner, for example, considers the welfare of everyone alike, acts on principle, and universalizes

his principles (Frankena, 1973, p. 114). Although postconventional reasoning was initially cast in terms of deontology (Kohlberg, 1981), more recently it was freed from any particular philosophical tradition (Rest, Narvaez, Bebeau, & Thoma, 1999, 2000). According to Rest and colleagues (Rest et al., 1999), postconventional thinking is characterized by more agile perspective taking, an ability to appeal to ideals that are shareable and not exclusive, ideals through which existing laws are evaluated. It includes an expectation for full reciprocity between the law and the individual (one must follow the laws but the laws must be just) with an emphasis on the coordination between community-wide cooperation and respect for individuals. In this view, postconventional thinking reflects more mature moral functioning than do preconventional thinking (focused on personal interests) or conventional thinking (emphasizing maintaining norms, which includes only partial reciprocity—following laws whether or not they are just). In other words, postconventional thinking allows the individual to step away from his own interests and from current norms to consider more inclusive and logically just forms of cooperation.

Whether or not a person is measurably capable of reasoning postconventionally is influenced by what level of understanding one measures—tacit knowledge, verbalizable knowledge or something in between—and plays a large role in empirical findings (see Narvaez & Bock, 2002). When moral judgment is measured through interviews that require articulation of concepts (e.g., Moral Judgment Interview, Colby et al., 1987), very few respondents reach postconventional reasoning levels (Snarey, 1985) and those that do are primarily persons trained in philosophy. When moral judgment is measured with tools that tap into tacit knowledge such as recognition measures (e.g., Defining Issues Test, a multiple choice test that has respondents rate and rank for importance arguments at different stages or schemas after reading a dilemma; Rest, 1979; Rest et al., 1999), many more respondents exhibit a preference for the postconventional level and do so in a developmental manner (Rest, 1979, 1986; Rest et al., 1999). With life experience, moral reasoning develops from tacit to explicit understanding. In moral judgment, understanding is evinced first when tacit measures (e.g., preference) are used, followed by measures of comprehension (e.g., paraphrasing, recall), followed by measures of spontaneous production (Narvaez, 1998; Narvaez & Gleason, 2007; Rest, 1973; Rest, 1979; Rest, Turiel, & Kohlberg, 1969). As Piaget noted: “Thought always lags behind action and cooperation has to be practised for a very long time before its consequences can be brought fully to light by reflective thought” (Piaget, 1932/1965, p. 64). Thus with development, formerly inexpressible intuitions become articulated reasons, making it is easier to find higher stages using recognition measures instead of interview methods (see Chapman, 1988).

Contributions of the Rationalist Approach

Perhaps the greatest contributions of the rationalist approach are the demonstrations that reasoning changes with age and experience (e.g., Piaget,

1932/1965), that such changes can be promoted by particular practices and activities (e.g., DeVries & Zan, 1994; Power, Higgins, & Kohlberg, 1989), and that reasoning is related (although modestly) to behavior (Thoma, 1994). Postconventional reasoning increases with most educational experiences in secondary school and beyond. In college, students immersed in a liberal arts education increase their postconventional moral judgment scores (from freshman to senior), showing the largest effect size of any variable used to measure college effects (for a review, see Pascarella & Terenzini, 1991). Moral judgment scores also improve in courses in which moral reasoning skills such as social perspective taking are directly taught (McNeel, 1994) and when students immerse themselves in diverse social experiences (Rest, 1986). Higher scores are linked to greater social perspective taking (McNeel, 1994). Professional ethics education that supports the development of postconventional reasoning shows a relationship between moral judgment and better job performance beyond IQ (for reviews, see Bebeau & Monson, 2008; Rest & Narvaez, 1994). Postconventional reasoning scores predict attitudes toward public policy issues (e.g., gay rights, free speech, abortion) over and above measures of political and religious attitudes (Narvaez, Getz, Rest, & Thoma, 1999; Thoma, Barnett, Rest, & Narvaez, 1999; for reviews, see Rest, 1979, 1986; Rest et al., 1999).

The rationalists verify that individuals are not caged by their socialization. The cognitive development approach theoretically describes and empirically demonstrates the growth in conceptual structures, the move from heteronomy to autonomy, and the capacity to mentally move beyond and question social norms and to create new norms by consensus, which is a key aspect of moral development (Piaget, 1932/1965). Without these postenculturation, postconventional abilities, there might still be an Atlantic slave trade and black slavery in America. Development occurs in a bottom-up fashion among peers; interaction with equals compels social perspective taking and induces cognitive disequilibrium, pressing individuals to build new understandings that propel them forward to increasingly adequate and more complex reasoning and social perspective taking (Piaget, 1932/1965). Postconventional thinking, which represents a more sophisticated set of tools than conventional thinking for moral decision making, is completely absent from models like the SIM that emphasize enculturation as the goal of moral development.

Critiques of the Rationalist Approach

There have been several waves of criticism against Kohlberg's rationalist approach that include both methodological critiques (e.g., reliance on verbal skill, the use of a narrow range of hypothetical dilemmas) and theoretical critiques (e.g., hard stage theory, narrow philosophical view; for more critiques, see Krebs & Denton, 2005; Rest et al., 1999; Shweder, 1991). There are two that are relevant to this article. The rationalist approach typically emphasizes a priori reasoning, assuming that moral behavior derives from conscious reasoning. Locked into the principle of phenomenalism—the need for moral cognition to be conscious and explicit, and for moral action to be chosen for moral

reasons—Kohlberg's rationalist approach typically excludes most of human behavior from examination (Lapsley & Narvaez, 2005), despite the fact that reasoning is only one element of the moral life and one that does not explain moral exemplarity (Walker & Frimer, 2009).

Moral rationality theory also ignores the bottom-up roots of human functioning in the viscera of embodied experience (M. Johnson, 2007). Rationality, including moral rationality, is founded in “the action of biological drives, body states, and emotions ... the neural edifice of reason” which is “shaped and modulated by body signals, even as it performs the most sublime distinctions and acts accordingly” (Damasio, 1994, p. 200). From early life, emotions “give birth” to the ability to think and invent symbols; “sensory and subjective experiences... are the basis for creative and logical reflection” (Greenspan & Shanker, 2004, p. 2). In developing symbolic thinking, humans learn to transform basic emotions into increasingly complex emotional signaling, which eventually allows the separation of an image or desire from immediate action: the birth of ideas. Ideo-affective structures are initiated in early life and underlie moral functioning (Narvaez, 2008c).

Rest and colleagues (Rest et al., 1999, 2000) responded to what they consider to be valid criticisms of Kohlberg's theory. They re-envisioned development of moral judgment (justice reasoning) as tacitly constructed schemas (personal interest, maintaining norms, postconventional) that emerge as explicit reasoning with greater experience. Multiple schema use is normal (soft stage theory), and the distribution of schema use changes with age, education, and general social experience. They used data from a tacit measure of moral judgment (Defining Issues Test) that does not require the verbal articulation necessary for high scores in interviews, and they reviewed considerable evidence for postconventional thinking across cultures. They included components beyond moral judgment to describe processes that play a role in moral behavior (i.e., moral sensitivity, moral motivation, moral implementation) as cognitive-emotional-action schemas. They also suggested that domain-specific ethical reasoning constructs be measured (Bebeau & Thoma, 1999).

However, reasoning has its dangers too. It can be a tool for rationalizing immoral action as moral action, as occurs in moral disengagement (Bandura, 1999). Although reasoning is vital, like intuition alone, it cannot describe the whole of moral functioning.

The Complexities of Reasoning

Reasoning is not all of a piece. One can make distinctions between good and poor reasoning. For example, Perkins (1995) reviewed research showing the faults in typical human thinking as “*hasty* (impulsive, insufficient investment in deep processing and examining alternatives), *narrow* (failure to challenge assumptions, examine other points of view), *fuzzy* (careless, imprecise, full of conflation), and *sprawling* (general disorganization, failure to advance or conclude)” (Ritchhart & Perkins, 2005, p. 780).

Such poor thinking includes the “my-side bias” (Molden & Higgins, 2005), drawing firm conclusions from limited evidence (Perkins, 1989, 1995), rapid categorization of people and events with lack of review (Langer, 1989), and dismissal of challenges to personal views (Chi & Ohlsson, 2005).

In contrast, good reasoning or critical thinking represents “the power to interrogate reality” (Kozol, 2009). Critical thinking skills, such as weighing evidence, forming justifiable conclusions (LeBoeuf & Shafir, 2005), and using cost–benefit analyses (Nisbett, 1993), include not only processing and belief-generating skills but a committed habit to use them to guide behavior (Scriven & Paul, 1987).

Reflective judgment bridges moral reasoning and critical thinking (Kitchener & King, 1994; Perry, 1968). Higher education primes reflective judgment development, which shifts from an initial simplistic, concrete, black/white, reflexive intuitive thinking (i.e., what is perceived is assumed to be a single true reality) to an inquiry-based reflective orientation (i.e., knowledge is constructed and changes with new information and better explanations). Whereas immaturity entails believing that one has unmediated access to truth, leaving one to be less skeptical of a quick intuition, mature reflective judgment operates under the assumptions that no one has unmediated access to truth and that reflective reasoning can help discern better and worse options. Most adaptively, this entails actively seeking alternate viewpoints after formulating one’s first intuition. The active process of seeking alternative, viable perspectives is one that goes beyond the capabilities of the intuitive system alone.⁶

INTUITION AND REASONING ARE PARTNERS

Although dual processing theories can help illuminate the difference in emphasis taken by rationalists and intuitionists approaches (i.e., rationalists focus on the deliberative, effortful, analytic system, and intuitionists emphasize the implicit, effortless, experiential system; for a review, see Lapsley & Hill, 2008), the proposal here is that there are multiple systems for processing information, as noted above. What these systems are and the complex ways they interact is not yet fully understood. Nevertheless, it is clear that multiple systems are involved in deliberation and in expert functioning.

Deliberation

Deliberation allows one to assess the signals of intuition and the construction of reasons and to scrutinize their validity. Reason assesses the rationale behind instinctive attitudes, whereas intuition provides evaluative signals for reasoning’s products (Sen, 2009). Deliberation permits one to step back from the current flow of events to consider additional information and alternative cues, facts, and paths from those to which one first attends. Deliberation and its tools (e.g., scientific method) allow one to adjudicate among intuitions and reasons, test them for accuracy, and reject those that are wrong (Hogarth,

2001). Deliberation is often a matter of shifting between reasoning and intuition, principles and goals, and values and abilities as one weighs options and monitors goals and reactions.

In the course of deliberation, perceptions can shift, altering one’s intuition and/or reasoning. For example, verbal reflection and self-regulation strategies can transform both emotional states and cognitive interpretations as shown in neuroscientific studies (e.g., Barbas, Saha, Rempel-Clower, & Ghashghaei, 2003; Hariri, Bookheimer, & Mazziotta, 2000). All sorts of implicit processes (some of which we cannot yet name) can influence decisions, as can various controlled processes. The context influences both how these processes proceed and the conclusions reached. Some kinds of deliberation for some kinds of experts can occur very quickly (e.g., an experienced teacher keeping control of a classroom, an experienced mother in meeting the needs of a baby). Other kinds of expert deliberation occur more slowly (e.g., preparing a brief for a legal court case).

Moral Deliberation as Moral Imagination

Moral imagination is a sophisticated type of deliberation. It includes “the capacity to concretely perceive what is before us in light of what could be” (Dewey in Feshbach, 2003, p. 2)—a primary task for moral judgment. It works through dramatic rehearsal of alternative courses of action—thought experiments that foresee outcomes—as internalized social action—tasks that tap into both intuition and reasoning. It allows one the “ability to choose ends and goals” that are, unlike in our cousin animals, “not restricted to the ends dictated to them by biology,” along with the ability to calculate the means to reach them (Neiman, 2008, pp. 189, 191). Moral imagination involves a variety of higher order thinking skills considered to be key factors in astute thinking (Perkins, 1995), such as the ability to decenter away from one’s current view and to generate alternative scenarios and look for counterevidence to first reactions, impulses, and preconclusions.

The more practiced and refined one’s imagination is, the richer the bank of possibilities and the more reliable one’s evaluations are (Dewey, 1922/2000). Fluency in generating alternative viewpoints, particularly the perspective of others, is a skill that develops from prefrontal cortex brain maturation (Goldberg, 2002) through life experience generally and within particular domains (Feshbach, 1989; Selman, 2003). It is facilitated through cooperative learning (for a review, see D.W. Johnson & Johnson, 2008), and teamwork that promotes cooperative exchange for mutual interest (Selman, 2003). Capturing moral imagination in a common action goal can transform relations between conflicting groups (Sherif, Harvey, White, Hood, & Sherif, 1961) or spark a self awareness that changes long-held views of the self (Milburn & Conrad, 1996).

Moral intuitions are malleable under the right circumstances and with the appropriate guidance. New information can change cause–consequence chains of reasoning that undergird an intuition, leading to a different intuition. For example, people

who become vegetarians report feeling repulsed and heartsick when they first found out about the suffering of animals they used for food sources, prompting a change in belief, intuition, and behavior (e.g., Masson, 2009). The new information changed conceptual understanding, induced an emotional response, and shifted intuitions and subsequent behavior. Mindfulness training alters automatic thinking and modifies intuitions, as demonstrated with obsessive-compulsive disorder (J.M. Schwartz & Begley, 2002) and depression (Teasdale et al., 2000).

Research on prejudice suggests that the racism that many people display intuitively is countered with the use of deliberative processes by those who value nondiscrimination (Devine, Monteith, Zuwerink, & Elliot, 1991). Racist intuitions (e.g., implicit or explicit anti-Black bias) are diminished through education coursework, including empathy and role-taking training (for a review, see Plous, 2003). Similar changes in intuitions can also occur in psychotherapy (for a review, see Beck, 2005) and 12-step self-help groups (e.g., Steigerwald, 1999) in which the individual is guided through a deliberate examination and reworking of implicit assumptions and judgments (including moral judgments) about the self and others.

Deliberation allows “self-authorship” (Baxter Magolda, 2001). When we feel a sense of injustice or upset, we can step back from the response and ask whether it is an appropriate response and whether it is a reliable guide for action (Sen, 2009). School-based programs in social and emotional learning are documented to help students stop the rapid emotional response and think more carefully about action (e.g., Elias, Parker, Kash, Weissberg, & O’Brien, 2008) and increase cognitive competencies in decision making (see Catalano, Hawkins, & Toumbourou, 2008, for a review), allowing the individual to monitor intuitions. Reason allows us to select the environments that “tune up” our intuitions (Hogarth, 2001), a means to self-cultivate virtue.

Reason can also be altered by intuition. Emotions highlight some details over others, narrow options, and make salient particular courses of action. It is interesting to note that when emotions are high, a specific course of action that would be senseless according to “cool” reason can seem self-evident and right (e.g., when shame and pride make high risk taking seem reasonable; Fessler, 2001). Social climates, cultures, and situations affect intuitions indirectly by influencing affect (e.g., people in good moods are more helpful; Isen & Levine, 1972). Or emotions can kick in to counter logical thought. Greene, Sommerville, Nystrom, Darley, and Cohen (2001) studied responses to the trolley problem and found that moral judgments shifted illogically when the dilemmas were made more personal, presumably because the individuals relied more on emotion than on utilitarian logic. Small, Loewenstein, and Slovic (2007) showed that overwhelming statistics hold far less power than does a single anecdote in eliciting moral emotion and action. Experiencing a situation can change one’s preconceptions or tacit knowledge about it, correcting deliberative thought. For example, politicians who have daughters are more likely than those without daughters to vote for women’s issues as legislators (Washington, 2006), showing how implicit experience influences deliberative functions. The mere-exposure hypothesis (Zajonc, 1968) demonstrates that our implicit

familiarity with something increases favorable response (and that testing people with unfamiliar scenarios is likely to evoke negative reactions). Similarly, applications of social contact theory (equal status contact between minority and majority group members in pursuit of joint goals, especially when institutions or situation emphasize common humanity and interests; Allport, 1954), has been shown in meta-analyses to reduce prejudice 94% of the time across 25 countries and nearly 100,000 participants (Pettigrew & Tropp, 2000). Experts are less swayed by inconsequential emotions but can sense something amiss and change the usual reasoned procedures to save lives (see Lehrer, 2009, for a review).

Often it is hard to sort out which of multiple elements play a role in a particular moral decision. Factors such as mood and energy (Hornstein, LaKind, Frankel, & Manne, 1975; Isen, 1970; Isen & Levin, 1972), social influence (Hornstein, 1976), current goals and preferences (Darley & Batson, 1973), environmental affordances (Gibson, 1979), contextual cue quality (Staub, 1978), one’s social position (Sen, 2009), and logical coherence with self image (Colby & Damon, 1991) and prior history (Grusec, 2002) can shift attention, influencing both intuition and reasoning.

Expertise

In most domains in life, we can see a range of capacities that run from novice to expert. Expertise refers to a refined, deep understanding that is evident in practice and action. Experts and novices differ from one another in three basic ways. First, experts in a particular domain have more and better organized knowledge than do novices (Chi, Glaser, & Farr, 1988; Sternberg, 1998, 1999). There are several kinds of expert knowledge that interact in performance: for example, declarative (what), procedural (how), and conditional (when and how much). Second, experts perceive and react to the world differently, noticing details and opportunities that novices miss (K.E. Johnson & Mervis, 1997). Third, experts behave differently. Whereas novices use conscious, effortful methods to solve problems, many expert skills are highly automatic and effortless (Feltovich, Prietula, & Ericsson, 2006). Expertise is contextualized, involving “reflexively activated, context-specific schemata” (Richart & Perkins, 2005, p. 789) deliberately cultivated over years and thousands of hours of deliberate study (Ericsson & Charness, 1994). The well-educated intuition of experts is far different from naive intuition, incorporating far more sophisticated, unconscious deep and automatized knowledge that may have been painfully learned from rules (Dreyfus & Dreyfus, 1990).

Thus, a distinction can be made between naive intuition and well-formed intuition. Moral intuitionist theories often seem to rely on data from novices using seat-of-the-pants intuition—a quick, pre-reflective, front-end intuition that novices typically display (Lapsley & Hill, 2008). Having a gut reaction to something does not indicate that a person is well-informed, knowledgeable, or trustworthy. In contrast, experience-based, postreflective, well-educated intuition comes about at the back end of experience (when conscious effort becomes automatized; Narvaez & Lapsley, 2005). Accessing considerable tacit knowledge in their responses to domain problems (Ericsson et al.,

2006), experts have better intuitions than novices, meaning they know what action would be effective and how to carry it out. Moreover, they have “negative expertise”—they know what actions not to take in solving a problem (Minsky, 1997) and pay attention to intuitions that signal uncertainty (Hogarth, 2001). Expert judgment does not typically operate in a flash, and time pressure can decrease accuracy (Gladwell, 2005). A more differentiated understanding of intuition allows us to see that the intuition that has been studied in SIM studies is typically naive intuition. Studying well-educated moral intuition may provide a different picture of intuition effects (see Kahneman & Klein, 2009, for a similar view).

Intuitions develop from immersion and extensive, focused practice. When in “kind” or informative environments with coached guidance, good (i.e., effective) intuitions are formed, whereas in “wicked” environments, poor intuitions are formed (Hogarth, 2001). Education toward expertise in a particular domain cultivates reasoning and intuitions simultaneously in real-life contexts. Immersion in the domain and explanations by mentors are presented together, cultivating both intuitions and deliberative understanding (Abernathy & Hamm, 1995). Through the course of expertise training, interpretive frameworks are learned and, with practice, applied automatically; action schemas are honed to high levels of automaticity (Hogarth, 2001). Generally, then, education is best structured using a novice-to-expert pedagogy in kind environments (Bransford, Brown, & Cocking, 1999),

Adaptive Ethical Expertise

Moral psychology has spent most of its time examining special cases of decision making (e.g., Heinz dilemma, trolley problems, eating dog) rather than real-life situations. As a result, we know very little about “everyday ethical coping” (Dreyfus & Dreyfus, 1990). From his studies of patients with brain damage, Goldberg (2002) shows that there are two types of decision making: veridical and adaptive. In veridical decision making, the parameters are preselected—an approach typically used in psychological experiments (e.g., “what should Heinz do [in this situation I’ve laid out for you]?”). In contrast, adaptive decision making requires making sense of an array of complex stimuli in real time, a task that requires sorting and prioritizing inputs, weighing possible actions and effects, checking intuitions and reasoning, and a multitude of other functions that lead to successful action. Adaptive expertise in a domain leads to innovation (Hatano & Inagaki, 1986).

Everyday ethical coping is visible in the superior skills of ethical expertise, most frequently delineated in one or more of four processes (Narvaez & Rest, 1995; Rest, 1983; Rest & Narvaez, 1994). Experts in ethical sensitivity are better, for example, at quickly and accurately reading a moral situation, taking the perspectives of others, and determining what role they might play. Experts in ethical judgment solve complex moral problems by reasoning about, for example, codes, duty, and consequences for a particular situation. Experts in ethical focus revere life and deepen commitment. Experts

in ethical action know how to keep their “eye on the prize,” enabling them to stay on task and take the necessary steps to get the ethical job done. Experts in a particular excellence have more and better organized knowledge about it, have highly tuned perceptual skills for it, have deep moral desire for it, and use at least some highly automatized, effortless responses.

Social and moral expertise develops from birth. Early experience establishes trajectories for intuitions and later reasoning in social (e.g., Schore, 2001), cognitive (Greenspan & Shanker, 2004), and moral domains (Narvaez, 2008c). Repeated experience fosters the development of percepts and concepts that become chronically accessed constructs (Narvaez, Lapsley, Hagele, & Lasky, 2006). Education toward ethical expertise is best gained through a novice-to-expert approach that moves through several stages of instruction mimicking naturalistic learning within a climate of support: immersion in examples and opportunities, attention to facts and skills, practicing procedures, and integrating across contexts (Narvaez, 2005, 2006).

TOWARD A PRESCRIPTION OF MATURE MORAL FUNCTIONING

We know now that neither moral reasoning nor moral intuition is set in stone but that each is cultivated within the dynamic interplay among the developing organism; environment; and the timing, duration, and intensity of interaction (Narvaez, 2008c). If moral reasoning and intuitions are not innate blueprints but are artifacts that are shaped and molded by culture and experience, normative questions become of utmost importance. Which intuitions and deliberative skills should be cultivated? How should society, institutions, and families be structured to cultivate them? How large a role each should play in decision making?

Developmental theory necessarily addresses both descriptive and normative aspects because it attends to human nature, how human development occurs, and what the characteristics of optimal functioning are. In fact, since the work of Jean Piaget, it has been acknowledged that an implied standard of adequacy is built into the notion of development. “When one says that the goal or aim of development is to attain a particular endpoint...one is not simply making an empirical claim about the natural course of development...one is also making an evaluative and normative claim” (Lapsley, 1996, p. 6). Developmental theory implies a direction of growth that is descriptively better—more adequate, more stable, more adaptive, and/or more desirable. Factual and normative issues are mutually implicated in developmental theory.

Mature Moral Functioning

A comprehensive moral development theory necessarily provides a description of optimal or mature functioning for individuals and groups, a description of development toward maturity and developmental mechanisms, prescriptions for reaching maturity, and

explanations for common moral failure. For our ancestors, virtue corresponded with actions that promoted survival, reproduction, and thriving (SRT), such as various forms of cooperation. As humans moved into more complex societies, notions of virtue changed and became culturally transmitted rather than grounded in everyday causal learning; the clear links among virtuous action and SRT were less apparent. Now, we live in a globalized society in which the action of one group affects that of another group on the other side of the world. In such a context, definitions of virtue must change. Consequently, defining mature moral functioning for today's world may require incorporating not only evolved propensities (e.g., Darwin's "moral sense"—social instincts for community living; Darwin, 1871/1981), ancient notions of moral virtue (e.g., Mencius, 2003), and the effective moral practices of the majority of traditionalist societies around the world (Fry, 2006), but also skills required for global citizenship (Cogan, 1997) and humanity's sustainable flourishing (Korten, 2006).

No doubt mature moral functioning comprises multiple skills and capacities. Here, several basic functions are mentioned that have stood the test of time and are empirically validated. First, mature moral functioning has long been understood to require the basic socialization generally expected of adults, such as the capacity for emotion regulation (Rutter & Taylor, 2002); those with poor self-regulation skills are more self-focused (Karr-Morse & Wiley, 1997), precluding mature functioning. Second, it involves basic habits and dispositions conducive to self-development as an ongoing task (Dweck, 2006); the virtuous life is one of self-development (Aristotle, 1988). Third, a key characteristic of mature morality is the employment of moral imagination, taking time to deliberate when appropriate while being aware of the fallibilities of both intuition and reason (Boydston, 1986). Fourth, moral maturity is displayed in ethical expertise in a particular domain (e.g., community organizing or long-term community service) through a demonstration of greater skills in ethical sensitivity, ethical judgment, or ethical focus (Colby & Damon, 1991; Walker & Frimer, 2009). Such expertise looks different in every individual, as happens among experts in other domains (e.g., cooking, art; Ericsson & Smith, 1991).⁷

Finally, the ethical expert of today necessarily exhibits flexible adaptation within networks of sustainable relationships, leading to positive outcomes for the community and the natural world—a contemporary high moral intelligence. Two individual and two collective capacities are fleshed out in greater detail: individual capacities for habituated empathic concern and moral metacognition and collective capacities for moral dialogue and moral institutions. As with any expert capacity, individuals develop such ethical know-how from extensive, focused and, typically, guided experience (novice-to-expert learning; Ericsson & Smith, 1991).

Habituated Empathic Concern

Habituated empathic concern combines feelings of compassion for others along with a sense of responsibility and a propensity to act on behalf of their dignity (Aron & Aron,

1996; Brown & Brown, 2006). Dewey named it "the animating mold of moral judgment": it is necessary but not sufficient for moral judgment (Boydston, 1986, p. 270). This proactive, cooperative openheartedness is illustrated by the higher order moral sentiments of community-oriented altruism that moral exemplars display (Walker & Frimer, 2009). It is also more typically found in collectivistic societies (Miller, 1994) in which habituated empathic concern is deliberately fostered, at least among ingroup members (e.g., Amish and other religious communities; Hostetler, 1993). Habituated concern involves commitment to cultivating the right affects toward others (e.g., sympathy rather than lust, respect rather than disdain), which enhances the motivation to generate alternative ways to help others (Monroe, 1994; Oliner, 2002). Habituated empathic concern does not necessarily rely on immediate affect as its fuel source but finds its superior grounding in habit (e.g., tithing, Brooks, 2006). Habitual ways of helping others that do not succumb to mood or distraction provide the type of disciplined action the poor and unfortunate require (Trout, 2009). They do not need a person's sympathy but a hand of assistance. The Amish are particularly skilled at fostering habituated empathic concern, living compassionately through an emphasis on virtuous living with principles such as submission, forgiveness, and modesty but also with institutional practices of economic and social support for those in need, even extending to those outside their community (Kraybill, Nolt, & Weaver-Zercher, 2008).

Habituated empathy develops naturally through the course of childhood under normal childrearing, encouraged by inductive discipline (e.g., "think of how your sister felt when you took her toy"; Hoffman, 2000). Children with responsive, nurturant caregivers in early life exhibit more empathy and agreeableness in childhood (Kochanska, 2002). Empathy can be increased through education: Classrooms that emphasize community and foster concern for others increase empathy and prosocial behavior (Gordon, 2001; Solomon, Watson, Delucchi, Schaps, & Battistich 1988). Even children damaged from abuse or neglect can increase their moral sensibilities about others from classroom experiences of habituated empathy (Watson & Eckert, 2003). Adolescents build caring commitments toward others with community service (Hart, Matsuba, & Atkins, 2008). The deliberative practices of empathic action can become intuitive habits, extending to outgroup members and, as modeled by societies around the world, maintain peaceful relations (Fry, 2009).

Moral Metacognition

Perhaps most important, mature moral agents care about morality and being a moral person; that is, moral responsibility is central to their identity (Blasi, 1984), entailing skills of moral metacognition (although others discuss agency as moral self-identity).⁸ Generally, metacognitive skills allow the self to manage and complete tasks well through monitoring progress toward a goal, changing course when necessary, modifying strategies as needed, and having a sense of efficacy in taking domain-specific action (Zimmerman, 2000). Likewise, mature moral functioning relies on moral metacognition

that includes processes such as moral locus of control, moral self-monitoring, and moral self-reflection. Truncated moral metacognition occurs when a person follows an ill-informed gut reaction or takes a particular endgoal, rule, reason, or habit and applies it to the circumstance with little reflection, commitment, or responsibility (Dewey, 1922/2000). This is the type of moral character that well-meaning but ill-informed educators advocate for children (Whitehead, 1929). The skills of moral metacognition access both intuitive and reasoning processes.

Moral locus of control means having an internalized sense of morality, that is, taking responsibility for oneself and one's behavior—a moral self-commitment. To take responsibility means to own one's thoughts, feelings, and actions and their consequences, possessing them as an agentic self (Blasi, 2009). The individual takes possession of the emotions, desires, and thoughts that arise as well as the actions of which he is the agentic source, understanding that all are under him or her to organize, control, and own (Blasi, 2009). Taking responsibility means attending to what inputs into your thinking you allow and attending to the moral intuitions one encourages in the self. For example, a person who listens to hate-filled talk radio day after day is influencing his or her motivations and judgments of the future and allowing the purveyor to form inferences and intentions in the listener; cognitive-emotional intent can be turned quickly into action because of longtime mental rehearsal (Burton, 2008), resulting in hate crimes or genocide, as in Rwanda in 1994 (Dallaire, 2003). In contrast, most mainstream and traditional religions emphasize an openhearted ethic that activates intuitions of empathy, social perspective taking, and self-sacrifice. When sympathy for outgroup members is fostered, compassionate action is more likely to follow (Kraybill et al., 2008; Oliner & Oliner, 1988). "What else could I do?" remarked the rescuers of Jews in World War II (Monroe, 1994). Moral exemplars exhibit at the same time high affiliation with others (communion and compassion) and high self efficacy or agency, a particularly well adapted style of psychological functioning (McAdams, 1993; Walker & Frimer, 2009). This may be most visible among ethical professionals (Gladwell, 2005).

Moral self-monitoring moves beyond the ability to deal imaginatively with hypotheticals. It is the capacity to step back from and monitor one's own processes (intuition and reasoning) and actions as they occur—for example, coordinating social perspectives and controlling prejudice (Monteith, Ashburn-Nardo, Voils, & Czopp, 2002). Introspective ongoing event and postevent analyses, reflecting on whether moral goals were met, make a critical difference in developing insight (Clark, 2008). Moral exemplar research demonstrates that taking moral action in challenging and difficult situations "demands self-control and -awareness, independence, assumption of responsibility, relentless pursuit of goals, and a sense of empowerment" (Walker & Frimer, 2009, p. 246).

Moral self-reflection is similar to moral imagination but turned inward. It keeps a critical eye on personal motives, for ethno- and ego-centrism among other biases, minimizing their influence on judgments and beliefs and evoking a self-critical attitude that seeks to avoid self-deception and distortions of facts and events (Blasi, 2009).

Figuring out what is right is sometimes a painstaking struggle. Martin Marty (2005) describes the self-reflection necessary for true dialogue with others as an inner exploration to discern partial answers to questions like "Why have I been fearful, paralyzed, immobilized, or rendered apathetic? Why have I been unable to find perspective, to look at the other person or group in open ways?" (p. 19). The development of reflective consciousness ("becoming conscious of your ways of knowing, of the coordinations of your actions"; Campbell, 2002, #78, on Piaget) allows individuals to be able to critique their own intuitions and reasons and modify them.

Collective Capacities

For all the difficulties of personal dilemmas, moral decision making is at its most difficult in the public realm. Perhaps it is the ultimate ill-structured problem in that it requires coordinating multiple viewpoints, causalities, and possibilities. Although the individual capacities described above are fundamental to individual moral functioning, they contribute to well-functioning democratic societies. However, additional collective capacities are necessary to facilitate well-being among all members of society and successful peaceful coexistence. Briefly, here are two examples that again involve coordinating deliberations, intuitions, and reasoned reflection among participants.

1. Community moral dialogue. Undergirded by the moral imagination, institutions, and narratives of a community (Boulding, 2000; Eidelson & Eidelson, 2003); community moral dialogue promotes discussions of "what we owe to each other" (Scanlon, 1998, p. 3) through social exchanges that improve reasoning, joint problem solving, and social change (as during the U.S. civil rights movement; Youniss, 2008). Interactive public discussions "weaken the refusal to reason" (Sen, 2009; p. xviii) and promote plurality as a credible outcome of good reasoning (Sen, 2009).

2. Well-planned moral institutions. Trout (2009) outlines two goals of a decent society: to provide resources to reduce human suffering (specifically to cover the basic needs of poor citizens) and to pursue effective policies that promote equality. Poor intuitions and reasoning undermine the social good and cause citizens to "suffer the painful consequences of avoidable mistakes" (Trout, 2009, p. 20). Well-planned moral institutions are fundamental to civil society (Berger & Zijderveld, 2009); they support social justice (Rawls, 1971) but also effectively promote it (Sen, 2009). Moral institutions can counter the unreliable and uncontrollable intuitions and dysrationality that can undermine social justice by setting the parameters for choice, lubricating the path to virtue (Trout, 2009).

Moral Innovation

The aforementioned skills of moral maturity can be marshaled for moral innovation and moral actions that transform lives for the better, increasing flourishing among the underprivileged and improving equality and well-being of society as a whole (Trout,

2009). Moral innovation relies on ethical know-how, a “virtue in action” that includes *effectivities*: capacities for action in particular situations (Shaw, Turvey, & Mace, 1982) built from extensive domain-relevant practice (Feltovich, Ford, & Hoffman, 1997). Taking from M.L. Johnson’s (1996) description of high moral functioning, moral innovation involves “moral insight and the guidance and direction that come from a deep and rich understanding of oneself, other people, and the complexities of human existence” and “the capacity to frame and to realize more comprehensive and inclusive ends that make it possible for us to live well together with others” (p. 66). Moral innovation comes about by someone who has a deep understanding of the context, typically an “insider” who can bring about local organic change from the ground up. Without contextual understanding, moral agents can do more harm than good (Easterly, 2007), as they get caught up in truthiness—deploying reasoning and intuitions about local needs and struggles that are not fact-based.

A real-life exemplar for moral innovation who demonstrates the interplay of mature moral skill deployment in a familiar context is Geoffrey Canada, whose project is described by Paul Tough (2008) and briefly illustrated here. For 5 years, Geoffrey Canada presided over the Rheedlen Centers for Children and Families, hosting grant-sponsored programs serving hundreds of children. Despite his success, Canada worried about the children outside the programs. Tough describes Canada’s analytical and intuitive reconsideration of the framework from which he had been working to set up a program, enlist participants, and measure outcomes and their impact and how he began tweaking programs for improved impact. Despite clear successes, hundreds if not thousands of other children remained on the waiting list, unserved—what about them? Aware of research findings demonstrating the short-lived effect of academic programs on poor children after programs ended, he imagined alternatives. He began to shift his thinking. Instead of starting with a program idea to meet a particular need, he began with an overall goal that reflected the goals of the community—to help children “grow into fully functioning participants in mainstream American middle-class life” (Tough, 2008, p. 4) and worked backwards from there.

With deliberation, Canada moved away from the haphazard and diffuse set of programs he directed previously and moved toward a comprehensive approach that wrapped children in a safety net from before birth until college. Selecting a small geographical area, the “Harlem Children’s Zone,” he designed a comprehensive, continuous, linked series of programs that combined social, educational, and medical services; services included Baby College for parents of young children, intensive prekindergarten, classroom aides, and after-school tutoring. Since its inception, Harlem Children’s Zone has grown from 24 to more than 97 blocks, serves over 7,000 children a year and graduates over 400 parents a year from its child development program (Tough, 2008). Canada demonstrates high moral intelligence: adaptive ethical expertise, moral imagination, habituated empathic concern, and the skills of moral metacognition. Using his capacities in a context with which he was familiar, he promoted moral dialogue and developed a moral institution.

CONCLUSION

The world faces unprecedented challenges that require mature moral responses if widespread death and destruction are to be avoided. Never before has the world faced global peril of the complexity and magnitude of today including climate instability (Intergovernmental Panel on Climate Change, 2007), unsustainable population growth, economic systems, and resource use—virtually every eco-system on the earth is under stress due to human activity (Millennium Eco Assessment, 2005), not to mention the risks of nuclear proliferation, millions of displaced persons, and hard feelings fueling conflicts around the world. The Citizenship Education Policy Study Project (Cogan, 1997) documented agreement across citizenship scholars that citizens in the 21st century would need skills of critical thinking, cooperation, tolerance, conflict resolution, as well as other skills—the skills of a positive, mature moral functioning.

Our prescriptive models of moral functioning need to change to accommodate the capacities required to meet the new demands of moral virtue. Democracy and globalization needs world citizens who demonstrate a commitment to moral excellence, who feel morally responsible for human well being, who are susceptible to the logic and feeling of each other’s arguments for a course of action (Galbraith, 1995; Rawls, 1971), and who see citizenship participation in the public good as a moral responsibility. As human life on a shrinking planet has become more complex, increasing the need for greater capacities for getting along with one another in sustainable ways, we must identify and cultivate the capacities needed to solve the immense challenges ahead.

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FOOTNOTES

¹These reviews point out that intuitive judgments are susceptible to framing effects, vividness (testimonials), availability (what pops into your mind), illusory correlation (things that occur together must be causally related), gambler's fallacy (a streak of bad luck must be balanced by a streak of good luck), confirmatory bias (finding the evidence you want to find and ignoring contrary evidence), and selection bias (favoring the familiar; what you are looking for is salient).

²I am grateful to Jeremy Frimer for pointing this out.

³Although the research studies have expanded beyond scenarios of disgust, the SIM itself has not changed.

⁴For decades in the cognitive developmental tradition, *moral judgment* has referred to decisions made in reference to any moral dilemma or issue. In the social psychological literature, it appears to refer only to positive or negative evaluations of another person's character or action.

⁵Although some say it is important to distinguish motivated cognition from unbiased cognition, I think it is safe to say that all cognition is motivated. The issue of whether a person is presenting arguments or reasons for social desirability purposes is, of course, an issue that has been studied in research on moral judgment (as decision making). For the Defining Issues Test, there are reliability checks to catch social desirability and purge subjects who fail them. Discriminant validity studies show that although Defining Issues Test scores are moderately correlated with measures of political attitudes and identity, moral judgment is a distinct construct (Thoma, Barnett, Rest, & Narvaez, 1999; for reviews, see Rest, 1986; Rest et al., 1999).

⁶Thanks to Jeremy Frimer for making these links clear.

⁷However, the naming of moral experts may depend on who is doing the nominating because what looks like strength to one person may look like rigidity to another.

⁸Typically this has been discussed as moral self-identity (Blasi, 1984, 1993, 1995; corroborated by Hardy & Carlo, 2005; Walker & Frimer, 2009). Moral self-identity is a socially constructed and socially supported self (Colby & Damon, 1991). Specifically, moral self-identity refers to the centrality of moral concerns to one's self concept, one's sense of personal responsibility for moral action, and one's desire for self-consistency between one's judgments and actions (Blasi, 1984, 1993, 1995).