SIX

# The Psychological Foundations of Everyday Morality and Moral Expertise

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THE COMMON IMAGE OF THE MORAL AGENT IS ONE WHO *MAKES DECISIONS*. Moral decisions are the product of vast calculation. Principles are discerned, judgments are formed, rules of application are weighed. The requirements of duty, the probative force of outcomes and consequences, and the adjudication of competing claims are all fairly transparent to the rational, deliberative agent who engages in extensive cognitive effort in order to resolve dilemmas, make choices, and justify actions. Indeed, the costly investment of cognitive resources into moral deliberation is thought to underlie the very notion of moral autonomy. Moral freedom is grounded in the rational capacity to discern options, make decisions, and enact intentions.

We are not merely reactive to external contingencies; we are, indeed, liberated from "stimulus control" *because* of our ability to bring our behavior under the explicit guidance of rational deliberation.

This image of the moral agent has dominated psychological research on moral development for nearly five decades. Indeed, the cognitive developmental tradition assumes that the child is a "naïve philosopher" whose moral perspective becomes progressively transformed along a developmental path of increasing philosophical and psychological adequacy (Kohlberg 1981, 1984). Moral development is discernable in the conscious deliberations and choices made by individuals as they wrestle with the moral quandaries of hypothetical dilemmas. The quality of explicit judgments and the developmental sophistication of conscious reasoning have been the target of inquiry in the cognitive developmental tradition (Colby and Kohlberg 1987; Rest 1979; Turiel 1983).

Moreover, this tradition insists on the "principle of phenomenalism" (Kohlberg, Levine, and Hewer 1983) to define the domain of inquiry. This principle asserts that the phenomenological perspective of the moral agent is crucial for determining the moral status of behavior (Blasi, this volume). That is, according to this view, a behavior has no particular moral status *unless it is motivated by an explicit moral judgment.* Hence no matter how praiseworthy a commitment, prosocial a line of action, or heroic the display of virtue, none of these has any distinctly moral significance unless the agent is motivated by an explicit moral judgment. A moral behavior is something undertaken for moral reasons, known to the agent. A moral behavior is one that is motivated by an explicit recognition of the prescriptive force of moral rules. It is behavior beleaguered by the weight of moral duty. Consequently, the subjective intention of the rational moral agent is the object of inquiry in moral development research just because, in the absence of explicit judgments or rational deliberation, there can be no distinctly *moral* phenomena in the first place (Lapsley and Narvaez, this volume). [1]

The principle of phenomenalism is the background assumption even of moral development research programs that agree on little else. It is endorsed, of course, by proponents of Kohlberg's stage theory, but also by advocates of domain-based social reasoning who place stricter boundaries around the moral domain (e.g., Turiel 1983). Larry Nucci (2000), for example, in his presidential address to the Jean Piaget Society, wondered about the moral significance of prosocial behavior attributed to "moral exemplars" who were nominated for study on the basis of renown for their moral commitments (see, e.g., Hart and Fegley 1995; Hart, Yates, Fegley, and Wilson 1995; Colby and Damon 1992). "It is not clear," he notes,

> that the actions described constitute moral conduct. If, for example, I volunteer to work in a soup kitchen because it will increase my chance of getting into my college of choice, is my volunteerism moral? If I volunteer because it will make me feel good about myself, rather than because I feel compelled to volunteer in order to alleviate the suffering of others, is my action moral? *Without knowing why I volunteered, one cannot know to what extent I either did or did not engage in moral deliberation.* (emphasis added)

And absent moral deliberation, one cannot warrant moral conduct.

We contend that an uncritical reliance on the principle of phenomenalism has had three untoward effects on moral psychology. First, the principle unacceptably narrows the range of behavior that can be the target of legitimate moral psychological inquiry. Decisions made outside of consciousness and actions taken without deliberation—in other words, most human behavior—are disqualified from analysis and explanation.

Second, the principle of phenomenalism isolates moral psychology from the theoretical and empirical literatures of other relevant domains of psychological research. It requires that the field of moral psychology ignore advances in a number of otherwise relevant psychological domains—including cognition, social cognition, and personality—if this research reveals models of functioning at variance with the principle. Adhering to the principle leads to vast systems of explanation about situations and phenomena that are rare, specialized, and largely hypothetical. It ignores the commonplaces of everyday moral life, or else rules them out-of-bounds by fiat and by definitional preferences. This a priori constraint on legitimate lines of inquiry cuts off moral psychology from strong integrative possibilities with these literatures, and instead encourages theoretical isolation, atrophy, and irrelevance.

Third, as a result of its narrow focus and theoretical isolation, the principle of phenomenalism gravely distorts and truncates psychological explanation of moral functioning. Indeed, psychological research has much that could inform research in moral psychology, though it has not yet done so. In fact, the principle of phenomenalism violates the contemporary understanding of human action held by cognitive psychologists. For example, in a series of articles John Bargh presents compelling evidence that much of the activity of our daily lives is governed by cognitive processes that are preconscious and automatic (e.g., Bargh 1989, 1990, 1996, 1997; Uleman and Bargh 1989). This literature would seem to radically undermine the

psychological foundation of the principle of phenomenalism and to pose a significant challenge to the traditions of developmental research that accept it as a premise, notably moral psychology. Bargh and Ferguson (2000) noted, for example, that "higher mental processes that have traditionally served as quintessential examples of choice and free will—such as goal pursuit, judgment, and interpersonal behavior—have been shown recently to occur in the absence of conscious choice or guidance" (926). If automatic cognitive processes govern much of the behavior of everyday life, very little human behavior stems from deliberative or conscious thought and far less receives moral deliberation. Behavior driven by moral decision making becomes a rare, unusual occurrence, pushed to the margins of human activity. If moral conduct hinges on conscious, explicit deliberation, then much of human behavior simply does not qualify.

In our view, moral psychology is better served by jettisoning starting points that are motivated more by philosophical than by psychological considerations (Lapsley and Narvaez, this volume). Rather than a "moralized psychology" whose parameters and terms of reference are set by certain philosophical goals (e.g., defeating ethical relativism), we opt instead for a "psychologized morality" that attempts to study moral functioning within the framework of contemporary psychological theories and methods. After all, literatures that are rich with data and insight about psychological functioning are not irrelevant for understanding moral functioning. Advances in cognitive science, learning, motivation, and personality are not irrelevant for understanding moral rationality, moral socialization, and the formation of moral identity. We advocate enriching moral psychology with these perspectives, not reinventing moral psychology from the ground up. It should also be said that advances in research in moral psychology can also provide important insights for other domains of psychology.

In this chapter we begin the work of steering moral psychology towards the mainstream of psychological theory and research. We first describe a number of cognitive realities that moral psychological theory will have to integrate, illustrating how cognitive science literatures can further our understanding of moral functioning. We briefly review research on expertise because it is a notion that is gaining ground among those who study intelligence (Sternberg 1998, 1999), learning (Reber 1993), and decision making (Ericcson and Smith 1991; Hogarth 2001). Specifically, we propose that the expertise literature can provide rich insights into the psychological development of moral character and conduct. We apply these findings to the ethical domain and to moral education.

## AUTOMATICITY AND SOCIAL BEHAVIOR

It is now clear that much of human behavior is governed by cognitive systems that are characterized by varying degrees of automaticity. Traditionally, automaticity is inferred if cognitive processes are engaged unintentionally, involuntarily, with little or no expenditure of attention or cognitive resources, without effort, and outside of conscious awareness. Automaticity is typically contrasted with controlled cognitive processes that are flexibly under intentional control and conscious awareness. Yet the distinction between automatic and controlled processing is not a rigid one, nor does the designation of automaticity require the co-occurrence of all of the traditional criteria. Indeed, Bargh (1989) argues that awareness, attention, intention, and control are somewhat independent qualities that co-occur in different combinations, elicited under specific enabling circumstances. Moreover, the ascription of automaticity to behavior (e.g., walking, driving, reading) does not necessarily imply that the behavior is not intentional, or that it cannot be controlled or halted (Logan 1989).

Three varieties of automaticity can be distinguished in social information processing. *Preconscious automaticity* describes the involuntary activation of social constructs (e.g., schemas, scripts, plans, stereotypes, prototypes) outside of conscious awareness, as a result of a triggering event. Preconscious activation of chronically accessible (frequently activated) constructs exerts a pervasive interpretive influence over social information-processing and underwrites social judgments of all kinds. Moreover, Bargh (1989) suggests that preconscious automaticity is responsible for our strong feelings of certainty or conviction regarding our social judgments. That is, just because our interpretations and evaluations are generated preconsciously, and without any awareness of inferential activity or cognitive effort, they are trusted as valid and accurate. "Thus, these interpretations are not questioned, but are seen as undoubtedly valid sources of information, and are as a result a prime source of judgments and decisions" (11). Of course, the degree to which our *moral* convictions are similarly the result of preconsciously activated social constructs has not been explored.

A second variety of automaticity, *post-conscious automaticity,* operates after a recent conscious experience or recent deployment of attentional resources, 'the nonconscious consequences of conscious thought' (Bargh, 1989). That is, a triggering event induces conscious awareness or attention, but has "post-conscious" cognitive consequences that are generated automatically and outside of conscious awareness (Bargh 1989). For example, the conscious activation of a moral concept can reverberate throughout the cognitive system to automatically influence the threshold for social perception of other related concepts. Moreover, evaluative affect can have a

residual effect after encountering social stimuli for which one has a strong attitude. This suggests a reciprocal influence: accessible social categories can automatically activate affective reactions and mood states can influence category accessibility. Hence, post-conscious automaticity describes a reverberation effect, or spreading activation, of related social constructs, judgments, and affects. Post-conscious automaticity is also illustrated by priming effects (Higgins and Bargh 1987; Higgins, Bargh, and Lombardi 1985). For example, activation of a social construct (e.g., "hostile") in one context can nonetheless be available and utilized for social information-processing in other, unrelated contexts, even after the triggering event has long left conscious awareness. In other words, a primed construct (including more elaborate mental representations, such as decision rules and the self-concept) can have a residual effect on subsequent information-processing.

Finally, a third kind of automaticity is "goal-dependent," and requires both conscious processing and a particular processing goal. Bargh (1989) draws attention to two forms of *goal-dependent automaticity,* one whose outcomes are *intended* and one whose outcomes are *unintended.* One example of unintended goal-dependent automaticity is when one forms spontaneous personality trait inferences as a side effect when performing a task under a different processing goal (e.g., memorization). This suggests that "an automatic and unintended way in which people understand and encode social behavioral information is in terms of personality trait dimensions, even when they are processing behaviors for purposes unrelated to their social aspects" (21). In other words, extracting dispositional information is an unintended side effect of cognitive processing engaged for some other purpose. Another example is when impressions and evaluations of others, or interpretations of events, are unintentionally influenced by the *intentional* activation of related social categories. "Subsequent evaluation of and behavior toward that person or event may then proceed in line with the context-driven evaluation, even when there is other information present that might lead to a different conclusion" (23).

Intended goal-dependent automaticity is evident as a consequence of skilled or expert performance (Bargh 1989). Well-learned situational scripts or highly routinized action sequences typically operate autonomously, with little need of conscious control or significant attentional resources. Skilled behaviors fall within this category of automaticity, as well as procedural knowledge that has become autonomous of conscious control as a result of frequent practice or application (e.g., driving a car).

What implications do the three varieties of conditional automaticity have for moral psychology? Although the large social psychology literature on automaticity does indeed have implications for understanding social cognition, perception, and

evaluation, these implications are rarely drawn for purposes relevant to moral psychology. Yet it is our view that the "morality of everyday life" must be governed necessarily by cognitive processes categorized as various forms of conditional automaticity. To put it differently, the intersection of the "morality of everyday life" and the "automaticity of everyday life" must be large and extensive, suggesting promising new lines of productive, integrative research.

For example, we have already noted the possible linkage between preconsciously activated social constructs and the felt certainty that attaches to our moral convictions (see Haidt 2001). In addition, we have suggested that the chronic accessibility of moral schemas and other knowledge structures may be critical to the functioning of moral character, indeed, may even define what it means to possess a moral personality (Lapsley 1999; Lapsley and Narvaez 2004, this volume). Accordingly, one has a moral character to the extent that moral schemas are chronically accessible for social information processing. One advantage of this theory is that it readily accounts both for the automaticity by which individuals of exemplary moral commitment reach their judgments and for their felt conviction that their judgments are appropriate, justified, and true. As Colby and Damon (1992) have shown, individuals who display extraordinary moral commitments rarely report engaging in an extensive, agonized decision-making process. Instead, they "just knew" what was required of them, automatically as it were, without controlled processing, without the experience of wrestling with intractable quandary. Indeed, any theory of moral character, any theory that attempts to explain the exemplary behavior of "moral saints" along with more prosaic forms of moral identity necessarily requires a specification of the social-cognitive sources of preconscious automaticity (Lapsley & Narvaez, this volume).

The literature on post-conscious automaticity also holds much promise for understanding moral functioning. For example, the reverberatory effects associated with spreading activation can help us understand how moral perception and moral emotions are linked. The literature on priming effects offers surprising insight on a common practice of character education programs that attempt to teach a virtue of the week or month by prominently posting the trait word (e.g., "honesty") or its example around the classroom or school. Although the efficacy of this practice in bringing about moral character is doubted (Kohn 1997; Nash 1997), its real function may lie in its ability to prime the accessibility of virtue-relevant social constructs, which are made available to interpret, appraise, and evaluate social information long after the trait-term has left conscious awareness. Indeed once social constructs (in this case, virtue-constructs) are built in the mind of the child, they are available for social information-processing, either *chronically* as an individual differences variable

or as a result of situational priming. Both chronic and situational priming may be rich sources of insight for character development education.

Finally, goal-dependent automaticity, the automaticity that attaches to scripts, routine action sequences, and highly skilled performance, is a source of integrative insights concerning moral conduct. Moral character may depend upon a kind of socialization that inculcates highly routinized action sequences, scripted interpersonal procedures, and patterns of discrimination and judgment. Indeed, such automaticity is "a well-practiced procedure that one intentionally employs in social judgment or pattern discrimination or as part of a complex skilled action" (Bargh 1989, 20).

These three types of automaticity—preconscious, post-conscious and goal-dependent—are representative of a vast area in psychology that has rarely been tapped by moral psychologists: that of tacit or implicit processing and knowledge. Tacit automatic responses expend energy efficiently in obtaining necessary information and facilitating rapid responses to information (Abernathy and Hamm 1995). Increasingly, researchers are pointing out the predominance of tacit processing and decision making (Hogarth 2001; Reber 1993).

## THE DOMINANCE OF TACIT PROCESSING

Tacit processing often has been labeled "intuition." Hammond (2000) defines intuition as cognitive activities that somehow produce an answer, solution, or idea without the use of a conscious, logically defensible, step-by-step process. Intuition occurs automatically, happens quickly, yet weighs multiple pieces of information in a wholistic manner.

Robin Hogarth (2001) summarizes a host of findings that indicate that intuitive responses are reached with little apparent effort, typically without conscious awareness, and with little or no conscious deliberation. Hogarth describes three levels or systems of automatic information processing that underlie intuitive processes that take place across domains, from physical causality to social practice. The three systems are termed basic, primitive, and sophisticated. These three levels of automatic information processing represent primitive, default processing systems that share commonalities such as robustness when explicit systems are damaged, low variability among individuals, age and IQ independence, and commonality of process across species.

The first system, the *basic unconscious,* consists of instinctive behaviors that regulate life, such as the feeling of hunger precipitated by a drop in blood sugar that results in the conscious desire to seek food. The second system, the *primitive unconscious,* is

involved in basic information processing largely devoid of meaning or interpretation, including subsymbolic processing of environmental stimuli (Rumelhart and McClelland 1986), ranging from mechanistic registration of the frequencies and covariation of events to inferring the implicit rules of systems that are encountered (e.g., grammar). For example, everyone can respond with a rough idea of the number of times in the last six months that he or she has been to a favorite store or has seen a particular friend. This kind of tallying occurs automatically without awareness. These types of processes are considered phylogenetically older because they do not vary according to motivation, education, or intelligence (Hasher and Zacks 1984). The primitive system learns implicitly and without effort and, like the basic system, it is possessed by many animals (Reber 1993).

The third system, the *sophisticated unconscious,* guides perceptual processing, attending to meaning and affect. Introspective reports indicate that meaning is perceived prior to the details in a stimulus array (Neisser 1976). Neisser argues that in a normal environment, individuals perceive meaningfulness or "affordances" without effort. An affordance is the reciprocity of the organism and the environment, that is, the offerings of the environment and the way the organism (through evolution and through experience) can use the resources (Gibson 1966). Perception guides action and action informs perception. The organism balances the environmental supports available and its own dynamic capacities for action. Perceiving an affordance is to perceive the relationship between environmental support and personal capacity. Affordances that are easily detected include apprehending the drift of an argument, noticing the location of an exit door in a hall, or picking up on the undertone or feeling in a comment (Neisser, 1976). What we often call "understanding" belongs to the sophisticated unconscious and is "a cognitive state that remains largely implicit but that goes beyond merely being able to correlate variables" (Wilson and Keil 2000, 97). The sophisticated unconscious has many operations including the three types of automaticity mentioned previously—preconscious, post-conscious, and goal-dependent.

Inasmuch as most of what we learn and know involves these three intuitive systems, most of what we learn and known is tacit. The perceived regularities picked up by the primitive system may or may not activate linguistic centers and, as a result, may or may not be accessible for verbal description (McCloskey and Kohl 1983). The meaningful understanding of how things work (the sophisticated system) may be more evident by behavior than by any kind of verbal explanation. As a result, it is misleading to characterize knowledge solely in terms of the ability to provide explanations. Humans know a great many things that they cannot put into words. Both children and adults know far more than they can explain. Keil and Wilson (2000)

distinguish between a basic explanatory set of schemas, evident even in infants, and more advanced explanatory schemas that include statements of principles and are evident through verbal performance. Thus, to characterize knowledge solely in terms of the ability to provide explanations leads one to underestimate what is known, and renders a poor measure of knowledge and understanding.

Converging psychological evidence suggests that most human decisions are made without deliberative thought (Hammond 2000; Hogarth 2001). The sense that we consciously make most of our decisions is ephiphenomenal and not empirically supported (Cotterill 1999; Damasio 1999; Libet 1985; Wegner 2002). A person may think he or she is deliberately making decisions because the chain of processing events—sensory registration to activation of neurons to matching patterns with stored patterns in memory—occurs in milliseconds (e.g., Cotterill, 1999). Wegner and Wheatley (1999) demonstrated that people mistakenly believe that they intentionally acted when in fact they were led to think about the act just prior to being forced to take the action. Wegner and Wheatley suggest that people commonly assume conscious, willed choice when they associate their thoughts with their actions, even when the movement towards action precedes the thought (Libet 1985). Instead, many decisions are based on simple decision rules such as recognition of familiar configurations that evoke routinized responses governed by one of the intuitive or tacit systems. For example, Damasio (1999) contends that we are often driven by emotion without awareness:

> However, although many important choices involve feelings, a good number of our daily decisions apparently proceed without feelings. That does not mean that the evaluation that normally leads to a body state has not taken place. . . . Quite simply, a signal body state or its surrogate may have been activated but not been made the focus of attention. Without attention, neither will be part of consciousness, although either can be part of a covert action on the mechanisms that govern, without willful control, our appetitive (approach) or aversive (withdrawal) attitudes toward the world. While the hidden machinery underneath has been activated, our consciousness will never know it. (184–85)

We believe that much of moral functioning is similarly "intuitive," is similarly governed by tacit processes. In other words, psychological processes that are not and cannot be accessed explicitly guide everyday behavior. Indeed, individuals have more moral knowledge than they can express. Although moral psychology should be expected to give some account of tacit moral knowledge, the field has neglected to do so because of a bias towards the principle of phenomenalism.

Further, just because much of our moral behavior—like all of our behavior—is governed by implicit, tacit processes does not mean that it cannot be the object of education, development, or training. Indeed, one could argue that the whole point of moral education is to educate moral intuitions so that moral action is not always beleagured by moral deliberation. We do not want our children to have to torturously sort through a vast decision-making calculus in order to come to some basis for action.[2] Moreover, the tacit processes of educated moral intuition that we strive for is similar to what experts do. Experts across domains use intuitive, automatic decision making as a matter of course. This suggests that a study of expertise might provide important clues for understanding the process by which educated moral intuitions might be inculcated in children. Hence we turn to the expertise literature for insights relevant to moral education.

## THE NATURE OF EXPERTISE

In order to study how information processing and knowledge develop, it has become fashionable to study the continuum of learning within a domain. Human learning proceeds along a continuum between novice status and expert status (e.g., Sanderson 1989). In comparison to a novice, an expert is more experienced and has developed a more complex understanding of the domain in terms of conceptual associations, action skills, and conditional knowledge (Abernathy and Hamm 1995; Sternberg 1998, 1999).

Experts differ from novices in several systematic ways. First, experts have a different set of representations. According to Sternberg (1998), experts have large, rich, organized networks of representations (schemas) containing a great deal of declarative knowledge about the domain, and well-organized, higher interconnected units of knowledge in the domain. They also have conditional knowledge that guides them in the application of declarative knowledge. Novices, in contrast, have smaller, less organized, shallower knowledge networks.

Second, experts see the world differently (Johnson and Mervis 1997; Myles-Worsley, Johnston, and Simons 1988). Because they have more and better organized knowledge in a domain, experts perceive things differently than do novices. They perceive different affordances. Perception of affordances is highly influenced by the amount of experience that one has with similar situations. Neisser (1976) contends that "information can be picked up only if there is a developmental format ready to

accept it. Information that does not fit such a format goes unused. Perception is inherently selection" (55). Whereas a novice is overwhelmed by the information array, the expert quickly and automatically apprehends information that facilitates the goal at hand. Thus, the affordance that one perceives depends on one's level of experience or one's level of expertise in a domain. Experts, for example, possess more relevant schemas, which permit detection and encoding of more domain-relevant information. Experts in morality, like experts of all kinds, can be expected to perceive and act upon the world in a markedly different way than do moral novices. For example, experts in moral sensitivity are able to more easily pick up on the morally relevant affordances in the environment (e.g., What is my role in this situation? What should I do? What am I capable of doing? What does the context allow?).

Third, experts have a different set of skills. Expertise is comprised of more and better content and processes built from extensive experience in the domain. Expert decision making focuses on the critical features in the problem space, initially seeking to define the problem. The expert tries to match the problem with problems held in memory. Problem solving is schema driven and goal oriented. Unlike novices, experts know *what* knowledge to access, *which* procedures to apply, *how* to apply them, and *when* it is appropriate. In other words, experts have a greater amount of conditional knowledge. Experts apply complex rules and heuristics in solving a problem and use automatized routines. Their tacit knowledge or intuition is well trained and complements their explicit knowledge. In contrast, non-expert decision making is shallow and superficial, value-driven and opportunistic. Novices use simple heuristics, applied step by step. They try to solve the problem immediately instead of first defining the problem (Abernathy and Hamm 1995).

One of the clear behavioral differences between and experts and novices is that experts often make decisions rapidly and automatically, whereas novices proceed deliberatively and slowly. Experts use automatic, intended, goal-dependent processing, seeing meaningful information where novices do not. An expert presented with a domain problem can come up with an effective solution relatively quickly by accessing appropriate knowledge and by applying appropriate procedures to the degree and at the time they are needed. A novice presented with the same problem will likely come up with a solution that is superficial and ineffective, based on an incorrect understanding of the problem and/or a misapplication of procedures (Gijselaers and Woltjer 1997; Novick 1988). In short, experts have a richer declarative and procedural knowledge base that increases processing speed, directs attention and perceptual pick up, and triggers automatic, goal-dependent skill usage. Vicente and Wang (1998)

point out that the memory of experts is facilitated by prior knowledge in part because it provides goals, constrains what they look for, and limits the complexity of what they see (the "constraint attunement hypothesis"). Ignoring information irrelevant to the current goal, experts use automatic, goal-dependent processing.

Experts demonstrate how all humans can routinize repeated behaviors that subsequently operate beneath consciousness. With much practice, experts become more automatic and less aware of the processes they use in decision making (Ericcson and Smith 1991). Indeed, to study how far humans can develop in skill and knowledge in any domain, we must study experts. This should be as true for moral psychology as for any other domain. Hence we advocate the study of expertise in all aspects of morality—sensitivity, judgment, motivation, and action. Moreover, we advocate using expertise development as a fundamental framework for character development education.

## EDUCATING EXPERTS

We have noted what every individual effortlessly does with stimuli through interaction with the environment: she finds contingencies and regularities, creates representations and schemas, and forms a huge base of tacit understanding. The majority of non-school learning occurs in this way, that is, according to "nonintentional, automatic acquisition of knowledge about structural relations between objects or events" (Frensch 1998, 76). 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 and Wippich 1998). School learning, on the other hand, is predominantly phenomenally conscious. This contributes to the feeling of effort that imbues schoolbook learning in contrast to most learning about the rest of life.

For all learning, interaction with the social and physical environment plays a large role in what is learned. In the words of Hogarth (2001), the environment provides "learning structures" (the characteristics of the task in which we learn from experience), which shape our intuitions. For example, the social environment provides feedback, coaching, mentoring, and zone-of-proximal development interactions. Through direct experience, people learn content and rules, and develop "cultural capital." The associations and contingencies rewarded or punished through relationships encourage memories for some associations and responses to others. From positive and

negative outcomes, the person develops expectancies (Kirsch 1999; Mowrer 1960) and assumptions about the world that mold memories, perceptions, and judgments (Bransford, Brown, and Cocking 1999). From interactions with the environment, individuals form action and reaction schemas—behaviors that are triggered by contextual cues. These sets of action and reaction schemas form memories and constitute most learning for most people (Hogarth 2001). Interestingly, most experts have a different sort of education.

How do experts become expert? First, experts learn from interaction or education that has three characteristics: (1) they learn in situations that reward *appropriate* behaviors—behaviors that lead to success in the domain; (2) they learn explicit theory as they build tacit knowledge, in other words, strategy instruction and meta-cognitive coaching; (3) they experience extensive, focused practice (Hogarth 2001). Unlike most novices, experts learn their skills in favorable (well-structured) environments, interactive situations that provide mentoring from experts, who offer precise feedback on whether they are learning what works to solve problems in the domain and guide them with one-on-one coaching appropriate to their level of skill.

Second, experts become experts in part because they learn to use explicit theory developed by previous generations of experts in their profession. Mentors of experts-in-training explain to their charges how theory relates to the underlying structures of domain problems and why certain choices or responses are better than others. Experts-in-training learn to make decisions in an explicit, deliberate way in the context of explicit theory and explanation (Abernathy and Hamm 1995). Early on they learn to embed explanations in a theory that drives understanding and action.[3] Thus, along with the implicit learning that comes from immersion in a situation, experts-in-training are given theoretical tools with which to "see" the domain (Hinds, Patterson, and Pfeffer 2001). These tools steady them through the process of solving domain problems. For example, experts in moral judgment have learned moral theory from various perspectives and are able to apply the framework of a perspective to a particular domain problem without personal concerns impeding their performance. As a person moves from less-expert status to more-expert status, they get better not only at performing and solving problems in the domain (Kuhara-Kojima and Hatano 1991; Sternberg 1998), but at explaining their action choices.

Third, experts put in a lot of time and focused practice in the domain. Experts in moral judgment have spent countless hours wrestling with and developing solutions to moral problems. Experts are able to sustain interest through tedious hours of focused effort. Some argue that this is the key to expertise and that it takes about

ten thousand hours or ten years of focused practice (Ericsson, Krampe, and Tesch-Roemer 1993). In fact, after lengthy practice these skills can become so automatic (Ericsson and Smith 1991) that some experts are unable to instruct others in what they do (Kihlstrom, Shames, and Dorfman 1996).

In sum, experts benefit from an education that differs from that experienced by most novices. Experts are immersed in well-structured environments. They explicitly learn theory, and they spend a great deal of time on focused, deliberative practice developing appropriate intuitions. Unlike the lay person, experts have the benefit of learning tacit knowledge and explicit knowledge in tandem. They have networks of schemas linking their tacit and explicit knowledge banks. They develop a whole set of skills including reflective, deliberative skills, routines, and superior processing capabilities. Taking into account what we know about expertise and its construction, what does expertise in morality look like and how should we teach it?

## EDUCATING ETHICAL EXPERTISE

Narvaez (forthcoming-a; forthcoming-b) has recently articulated an expertise model of character development and education, called Integrative Ethical Education (IEE).[4] IEE elucidates both *character* education and character *education.* According to this model, character is a set of component skills that can be cultivated to high levels of expertise. This is not a new idea. Plato believed that the just person is like a craftsman who has specific, well-developed skills that have been cultivated through training and practice (Plato 1974). In *The Republic,* Plato repeatedly draws an analogy between the practice of professional skills and the practices of a just person. Plato describes the skilled artisan as knowledgeable and effective in an art. A just person is one who has particular, highly cultivated skills, namely, is knowledgeable and effective in ethical "know-how" (*techne*). Accordingly, character development can be described as a skill-developing activity in which one becomes more expert through practice and apprenticeship. Of course, ethical expertise encompasses more than judgment and decision making. Effective ethical know how is dynamic and responsive in real time to events in the world. True ethical expertise requires concurrent, competent interaction with the challenges of the environment using a plethora of processes, knowledge, and skills.

Based on a follow up of Rest's (1983; Narvaez and Rest 1995) review of social development research, Narvaez has identified the characteristic skills of persons with good character (Narvaez, Bock and, Endicott forthcoming; Narvaez, Bock, Endicott,

and Lies, 2004; Narvaez et al. 1999). These skills extend Rest's four psychologically distinct processes (ethical sensitivity, ethical judgment, ethical motivation, and ethical action) by outlining a set of social, personal, and citizenship skills. The four process model provides a wholistic understanding of the moral person, who is able to demonstrate keen perception and perspective taking, skilled reasoning, moral motivational orientations, and skills for completing moral action (Narvaez 2002, forthcoming-a, forthcoming-b).

Experts in the skills of Ethical Sensitivity, for example, are able to more quickly and accurately "read" a situation and determine what role they might play. These experts are also better at generating usable solutions due to a greater understanding of the consequences of possible actions. Experts in the skills of Ethical Judgment are more adept at solving complex problems, seeing the crux of a problem quickly, and bringing with them many schemas for reasoning about what to do. Their information processing tools are more complex but also more efficient. Experts in the skills of Ethical Motivation are capable of maintaining their focus on prioritizing the ethical ideal. Their motivation is directed by an organized structure of moral self-identity. Experts in the skills of Ethical Action are able to keep themselves focused and take the necessary steps to get the ethical job done. They demonstrate superior performance when completing an ethical action. The IEE approach suggests seven ethical skills, each with three suggested subskills, for each of the four processes (see table 1).

Not only *character* education, but character *education* should be based on psychologically valid research. The pedagogy used in IEE is based on the expertise paradigm that has gained prominence among educational researchers (e.g., Sternberg 1998, 1999) and provides a map for instruction. Adopting a cognitive approach to learning and teaching that assumes that children actively construct representations of the world (Narvaez 2002; Piaget 1952, 1965, 1970), IEE offers guidelines for helping children move along a continuum from novice to expert in each ethical skill that they study. Best practice instruction provides opportunities for students to develop more accurate and better organized representations and the procedural skills required to use them (Anderson 1989). In order to do this, children must experience an expert-in-training pedagogy for each ethical skill that they learn.

The three aspects to an expert-in-training pedagogy, mentioned previously, are a well-structured environment, simultaneous learning of theory and skill, and focused practice. Throughout the process of learning a skill, students must participate in at least one well-structured environment (e.g., school) that rewards the target ethical skill. In order for the school go be a well-structured environment, teachers must adopt an intentional, deliberative approach to structuring the school, its classrooms,

TABLE 1. Four Processes, Their Skills, and Subskills

| SENSITIVITY | JUDGMENT |
|---|---|
| *ES-1: Understand Emotional Expression* | *EJ-1: Understanding Ethical Problems* |
| Identify and express emotions | Gathering information |
| Finetune your emotions | Categorizing problems |
| Manage anger and aggression | Analyzing ethical problems |
| *ES-2: Take the Perspectives of Others* | *EJ-2: Using Codes and Identifying Judgment Criteria* |
| Take an alternative perspective | Characterizing codes |
| Take a cultural perspective | Discerning code application |
| Take a justice perspective | Judging code validity |
| *ES-3: Connecting to Others* | |
| Relate to others | *EJ-3: Reasoning Generally* |
| Show care | Reasoning objectively |
| Be a friend | Using sound reasoning |
| | Avoiding reasoning pitfalls |
| *ES-4: Responding to Diversity* | |
| Work with group and individual differences | *EJ-4: Reasoning Ethically* |
| Perceive diversity | Judging perspectives |
| Become multicultural | Reason about standards and ideals |
| | Reason about actions and outcomes |
| *ES-5: Controlling Social Bias* | *EJ-5: Understand Consequences* |
| Diagnose bias | Analyzing consequences |
| Overcome bias | Predicting consequences |
| Nurture tolerance | Responding to consequences |
| *ES-6: Interpreting Situations* | *EJ-6: Reflect on the Process and Outcome* |
| Determine what is happening | Reasoning about means and ends |
| Perceive morality | Making right choices |
| Respond creatively | Monitoring one's reasoning |
| *ES-7: Communicate Well* | *EJ-7: Coping* |
| Speak and listen | Apply positive reasoning |
| Communicate nonverbally and alternatively | Managing disappointment and failure |
| Monitor communication | Developing resilience |

TABLE 1. Four Processes, Their Skills, and Subskills (*cont.*)

| MOTIVATION | ACTION |
|---|---|
| *EM-1: Respecting Others* | *EA-1: Resolving Conflicts and Problems* |
| Be civil and courteous | Solve interpersonal problems |
| Be non-violent | Negotiate |
| Show reverence | Make amends |
| *EM-2:Cultivate Conscience* | *EA-2: Assert Respectfully* |
| Self command | Attend to human needs |
| Manage influence and power | Build assertiveness skills |
| Be honorable | Use rhetoric respectfully |
| *EM-3: Act Responsibly* | *EA-3: Taking Initiative as a Leader* |
| Meet obligations | Be a leader |
| Be a good steward | Take initiative for and with others |
| Be a global citizen | Mentor others |
| *EM-4: Help Others Cooperate* | *EA-4: Planning to Implement Decisions* |
| Act thoughtfully | Thinking strategically |
| Share resources | Implement successfully |
| *EM-5: Finding Meaning in Life* | Determine resource use |
| Center yourself | *EA-5: Cultivate Courage* |
| Cultivate commitment | Manage fear |
| Cultivate wonder | Stand up under pressure |
| *EM-6: Valuing Traditions and Institutions* | Managing change and uncertainty |
| Identify and value traditions | *EA-6: Persevering* |
| Understand social structures | Be steadfast |
| Practice democracy | Overcome obstacles |
| *EM-7: Develop Ethical Identity and Integrity* | Build competence |
| Choose good values | *EA-7: Work Hard* |
| Build your identity | Set reachable goals |
| Reach for your potential | Manage time |
| | Take charge of your life |

and the activities that take place therein. Too often, school-based learning environments are poorly structured, resulting in children learning the wrong things. The primary redundancies, patterns, and rewards in the school environment that children pick up and learn are commonly the insubstantial accoutrements of schooling, such as standing in a straight line or sitting still. Frequently, the most redundant reward system is built around crowd control techniques. Instead of learning the usefulness and practical application of conflict resolution, for example, students learn about such things as writing neatly, being quiet, and waiting. Moreover, schooling generally is hit-or-miss in regards to character skill development—in part because teachers (and parents) do not like to think that teachers are teaching values. Nevertheless, teachers are teaching values by what they emphasize and reward, too often without deliberation and rather haphazardly. In a superior well-structured environment, all adults at the school are committed to the enterprise of maintaining an ethical climate and all adults model and coach the skills and behaviors students are to learn (see Baum and Gray 1992).

Besides immersion in a well-structured environment, students must experience instruction that mirrors that of experts-in-training. For novices and experts, tacit knowledge forms the rich base of practical intelligence within any domain (Sternberg 1998). But for expertise development, tacit knowledge development must be accompanied by the learning of theory and metacognitive strategies. How do educators begin to foster in students the vast network of tacit and explicit schemas that make up a domain's practical intelligence? According to Marshall (1995), there are several levels of knowledge in a fully developed conceptual network or schema, from less to more complex. Starting with the big picture, the student learns to identify basic aspects of the domain, building *identification knowledge* from many different kinds of experiences in the domain. Complexity is added when the teacher begins to draw attention to the details of problems and patterns, helping students build *elaboration knowledge.* The next layer of understanding involves extensive practice solving problems in the domain, allowing students to build *planning knowledge* by accessing and implementing identification and elaboration knowledge. Finally, students begin to integrate their knowledge across contexts and build their *execution knowledge* in the domain. In summary, students learn to solve domain problems through explicit instruction in "seeing the big picture" of the skill domain, attending to facts and specific detail in the domain, learning specific sets of procedures in the domain, and integrating skills across contexts. In this way they learn theory in tandem with the intuitions that develop in a well-structured environment. Many more years of practice

TABLE 2. Levels of Ethical Skill Instruction

*Level 1: Immersion in examples and opportunities.* In this initial phase, attention is drawn to the big picture and to the recognition of basic patterns in the skill domain. Accordingly, the teacher plunges students into multiple, engaging activities. Students learn to recognize broad patterns in the domain and begin to develop gradual awareness and recognition of elements in the domain (comprising identification knowledge).

*Level 2: Attention to facts and skills.* In this phase of development, knowledge is built through a focus on detail and prototypical examples. The teacher focuses the student's attention on the elemental concepts in the domain in order to build more elaborate concepts. Skills are gradually acquired through motivated, focused attention (comprising elaboration knowledge).

*Level 3: Practice procedures.* At this level, one sets goals, plans the steps of problem solving, and practices skills. The teacher coaches the student and allows the student to try out many skills and ideas throughout the domain to build an understanding of how skills relate and how best to solve problems in the domain. Skills are developed through practice and exploration (comprising planning knowledge).

*Level 4: Integrate knowledge and procedures.* At this level, one executes plans and solves problems. Deliberate practice at this level over a long period of time can lead to expertise. The student finds numerous mentors and/or seeks out information to continue building concepts and skills. There is a gradual systematic integration and application of skills and knowledge across many situations. The student learns how to take the steps in solving complex domain problems (comprising execution knowledge).

may lead to expertise in the domain. Table 2 contains a more detailed explanation for each of the four levels that were developed for the Minnesota Community Voices and Character Education project (Narvaez et al. 1999; Narvaez, Bock, and Endicott 2003; Narvaez, Bock, et al. 2004).

Finally like the expert, students learn to master the defining features and underlying structures of a domain through practice that is focused and coached (Ericsson and Charness 1994; Ericsson, Krampe, and Tesch-Roemer 1993). The educator provides authentic learning experiences that are structured according to what we know about levels of apprenticeship (Marshall 1995; Rogoff et al. 1995), providing students with opportunities for coached practice in many contexts and with many contents.

## CONCLUSION

In this chapter we attempted to show how a consideration of contemporary psychological research paradigms open up promising lines of research in moral psychology. In particular we argued that cognitive processes that are tacit, implicit, and automatic govern much of human functioning, and that a suitable moral psychology must take account of this fact. We tried to show how varieties of automaticity might play out in forms of moral behavior and suggested resulting implications for explaining some common features of character education pedagogy. Indeed, we took up the issue of how to inculcate moral intuitions, appealing to the expertise literature as an orienting framework. To this end we examined the Integrative Ethical Education approach developed by Narvaez as a prominent example of how an expertise approach to moral character can be applied with profit to the curricular challenges of middle school character education. We suggested that moral education should encourage students to develop multiple skill areas to higher levels of expertise in order to encourage the formation and application of moral intuitions.

## NOTES

1. Intention is considered a critical feature of motivation. Perhaps this is why verbalization and deliberative processing have been the focus of moral psychology. However, as pointed out by Blasi (in a personal communication), intention does not need to be explicit or consciously held. Intention has to do with the goal the actor has in mind, whether conscious or not. The examination of unconscious motive is certainly ripe for research in moral psychology. It is time to accept the importance of the unconscious in moral behavior and begin to study it in a scientific and rigorous way.

2. However, we must point out that deliberative reasoning has its place. The trick is to know when to trust intuition and when to deliberate. Both systems are goal driven, but it is impossible to deliberate on many actions/decisions, and so one must make sure that intuitions are appropriate. Intuition is not precise but approximate, so its errors are usually slight. On the other hand, although the deliberative system can be more precise, its errors are large and damaging. Further, deliberating on an intuitive process can result in less optimal performance (Beilcock and Carr 2001).

3. Gradually, however, with practice and experience, their decision-making processes become automatic as well. In fact, most experts become unable to explain their decision-making processes (e.g., Kihlstrom, Shames, and Dorfman 1996).

4. The IEE model was built upon the work of Narvaez and colleagues at the University of Minnesota in partnership with the Minnesota Department of Children, Families, and Learn-

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## REFERENCES

Abernathy, C. M., and R. M. Hamm. 1995. *Surgical Intuition.* Philadephia: Hanley & Belfus.

Anderson, L. M. 1989. Classroom instruction. In *Knowledge base for the beginning teacher,* ed. M. C. Reynolds, 101–15. Oxford: Pergamon Press.

Bargh, J. A. 1989. Conditional automaticity: Varieties of automatic influence in social perception and cognition. In *Unintended Thought,* ed. J. S. Uleman and J. A. Bargh, 3–51. New York: Guilford Press.

———. 1990. Auto-motives: Preconscious determinants of thought and behavior. In *Handbook of Motivation and Cognition,* vol. 2, ed. E. T. Higgins and R. M. Sorrentino, 93–130. New York: Guilford Press.

———. 1996. Principles of automaticity. In *Social Psychology: Handbook of Basic Principles,* ed. E. T. Higgins and A. Kruglanski, 169–83. New York: Guilford Press.

———. 1997. The automaticity of everyday life. In *The Automaticity of Everyday Life,* ed. R. S. Wyer, Jr. Advances in Social Cognition, vol. 10, 1–61. Mahwah, NJ: Lawrence Erlbaum Associates.

Bargh, J. A., and M. J. Ferguson. 2000. Beyond behaviorism: On the automaticity of higher mental processes. *Psychological Bulletin* 126:925–45.

Baum, B. E., and J. J. Gray. 1992. Expert modeling, self-observation using videotape, and acquisition of basic therapy skills. *Professional Psychology: Research and Practice* 23 (3): 220–25.

Beilcock, S. L., and T. H. Carr. 2001. On the fragility of skilled performance: What governs choking under pressure? *Journal of Experimental Psychology: General* 130 (4): 701–25.

Bransford, J. D., A. L. Brown, and R. R. Cocking, eds. 1999. *How People Learn: Brain, Mind, Experience, and School.* Washington, DC: National Academy Press.

Buchner, A., and W. Wippich. 1998. Differences and commonalities between implicit learning and implicit memory. In *Handbook of Implicit Learning,* ed. M. A. Stadler and P. A. Frensch, 3–46. Thousand Oaks, CA: Sage.

Colby, A., and W. Damon. 1992. *Some Do Care: Contemporary Lives of Moral Commitment.* New York: Free Press.

Colby, A., and L. Kohlberg. 1987. *The Measurement of Moral Judgement,* 2 vols. New York: Cambridge University Press.

Cotterill, R. 1998. *Enchanted Looms.* Cambridge: Cambridge University Press.

Damasio, A. 1999. *The Feeling of What Happens.* New York: Harcourt and Brace.

Ericsson, K. A., and N. Charness. 1994. Expert performance: Its structure and acquisition. *American Psychologist* 49:725–47.

Ericsson, K. A., R. T. Krampe, and C. Tesch-Roemer. 1993. The role of deliberate practice in the acquisition of expert performance. *Psychological Review* 100 (3): 363–406.

Ericsson, K. A., and J. Smith. 1991. *Toward a General Theory of Expertise.* New York: Cambridge University Press.

Frensch, P. A. 1998. One concept, multiple meanings: On how to define the concept of implicit learning. In *Handbook of Implicit Learning,* ed. M. A. Stadler and P. A. Frensch, 47–104. Thousand Oaks, CA: Sage.

Gibson, J. J. 1966. *The Senses Considered as Perceptual Systems.* Boston: Houghton-Mifflin.

Gijselaers, W. H., and G. Woltjer. 1997. Expert-novice differences in the representation of economics problems. Paper delivered at the annual meeting of the American Educational Research Association, Chicago.

Haidt, J. 2001. The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review* 108:814–34.

Hart, D., and S. Fegley. 1995. Prosocial behavior and caring in adolescence: Relations to self-understanding and social judgment. *Child Development* 66:1346–59.

Hart, D., M. Yates, S. Fegley, and G. Wilson. 1995. Moral commitment in inner-city adolescents. In *Morality in Everyday Life,* ed. M. Killen and D. Hart, 317–41. Cambridge: Cambridge University Press.

Hammond, K. R. 2000. *Judgments Under Stress.* New York: Oxford University Press.

Hasher, L., and R. T. Zacks. 1984. Automatic processing of fundamental information. *American Psychologist* 39:1372–88.

Higgins, E. T., and J. A. Bargh. 1987. Social cognition and social perception. *Annual Review of Psychology* 38:369–425.

Higgins, E. T., J. A. Bargh, and W. J. Lombardi. 1985. Nature of priming effects on categorization. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 11 (1): 59–69.

Hinds, P. J., M. Patterson, and J. Pfeffer. 2001. Bothered by abstraction: The effect of expertise on knowledge transfer and subsequent novice performance. *Journal of Applied Psychology* 86 (6): 1232–43.

Hogarth, R. M. 2001. *Educating Intuition.* Chicago: University of Chicago Press.

Johnson, K. E., and C. B. Mervis. 1997. Effects of varying levels of expertise on the basic level of categorization. *Journal of Experimental Psychology: General* 126 (3): 248–77.

Keil, F. C., and R. A. Wilson. 2000. Explaining explanations. In *Explanation and Cognition,* ed. F. C. Keil and R. A. Wilson, 1–18. Cambridge, MA: MIT Press.

Kihlstrom, J. F., V. A. Shames, and J. Dorfman. 1996. Intimations of memory and thought. In *Implicit Memory and Metacognition,* ed. L. Reder, 1–23. Mahwah, NJ: Lawrence Erlbaum Associates.

Kirsch, I., ed. 1999. *How Expectancies Shape Experience.* Washington, DC: American Psychological Association.

Kohlberg, L. 1981. *The Philosophy of Moral Development.* Essays on Moral Development, vol. 1, San Francisco: Harper & Row.

———. 1984. *The Psychology of Moral Development.* Essays on Moral Development, vol. 2. San Francisco: Harper & Row.

Kohlberg, L., C. Levine, and A. Hewer. 1983. *Moral Stages: A Current Formulation and a Response to Critics.* Contributions to Human Development, vol. 10. New York: Karger.

Kohn, A. 1997. How not to teach values: A critical look at character education. *Phi Delta Kappan* 78 (February): 429–39.

Kuhara-Kojima, K., and G. Hatano. 1991. Contribution of content knowledge and learning ability to the learning of facts. *Journal of Educational Psychology* 83 (2): 253–63.

Lapsley, D. K. 1999. An outline of a social-cognitive theory of moral character. *Journal of Research in Education* 8:25–32.

Lapsley, D. K., and D. Narvaez. 2004. A social-cognitive view of moral character. In *Moral Development: Self and Identity,* ed. D. Lapsley and D. Narvaez, 189–212. Mahwah, NJ: Lawrence Erlbaum Associates.

Libet, B. 1985. Unconscious cerebral initiative and the role of conscious will in voluntary action. *Behavioral and Brain Sciences* 8:529–66.

Logan, G. D. 1989. Automaticity and cognitive control. In *Unintended Thought,* ed. J. S. Uleman and J. A. Bargh, 52–74. New York: Guilford Press.

Marshall, S. P. 1995. *Schemas in Problem Solving.* Cambridge: Cambridge University Press.

McCloskey, M, and D. Kohl. 1983. Naive physics: The curvilinear impetus principle and its role in interactions with moving objects. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 9 (1): 146–56.

Mowrer, H. O. 1960. *Learning and* Behavior. New York: John Wiley and Sons.

Myles-Worsley, M., W. Johnston, and M. A. Simons. 1988. The influence of expertise on x-ray image processing. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 14 (3): 553–57.

Narvaez, D. 2002. The expertise of moral character. *Education Matters* 8 (6, July/August): 1, 6.

Narvaez, D. Forthcoming-a. Integrative ethical education. In *Handbook of Moral Development,* ed. M. Killen and J. Smetana. Mahwah, NJ: Lawrence Erlbaum Associates.

Narvaez, D. Forthcoming-b. The neo-Kohlbergian tradition and beyond: Schemas, expertise and character. In *Moral Motivation through the Lifespan,* ed. C. Pope-Edwards and G. Carlo. Nebraska Symposium on Motivation, vol. 51. Lincoln: University of Nebraska Press.

Narvaez, D., T. Bock, and L. Endicott. 2003. Who should I become? Citizenship, goodness, human flourishing, and ethical expertise. In *Teaching in Moral and Democratic Education,* ed. Wiel Veugelers and Fritz K. Oser, 43–63. Bern, Switzerland: Peter Lang Publishers.

Narvaez, D., T. Bock, L. Endicott, and J. Lies. Forthcoming. Community voices and character education: Research findings. Manuscript submitted for publication.

Narvaez, D., R. Herbst, S. Hagele, and A. Gomberg. 2003. Nurturing peaceful character. *Journal of Research in Education* 13:41–50.

Narvaez, D., C. Mitchell, L. Endicott, and T. Bock. 1999. *Nurturing Character in the Middle School Classroom: A Guidebook for Teachers.* Roseville: Minnesota Department of Children, Families, and Learning.

Narvaez, D., and J. Rest. 1995. The four components of acting morally. In *Moral Behavior and Moral Development: An Introduction,* ed. W. Kurtines and J. Gewirtz, 385–400. New York: McGraw-Hill.

Nash, R. J. 1997. *Answering the Virtuecrats: A Moral Conversation on Character Education.* New York: Teachers College Press.

Neisser, U. 1976. *Cognition and Reality: Principle and Implications of Cognitive Psychology.* New York: W. H. Freeman.

Novick, L. R. 1988. Analogical transfer, problem similarity, and expertise. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 14 (3): 510–20.

Nucci, L. 2000. The promise and limitation of the moral self construct. Presidential address delivered at the thirtieth annual meeting of the Jean Piaget Society, Montreal, June 3. http://tigger.uic.edu/~lnucci/MoralEd/articles/nuccipromise.html.

Piaget, J. 1952. *The Origin of Intelligence in Children.* New York: International University Press.

———. 1965. *The Moral Judgment of the Child.* Trans. M. Gabain. New York: Free Press. (Orig. pub. 1932.)

———. 1970. *Genetic Epistemology.* Trans. E. Duckworth. New York: Columbia University Press.

Plato. 1974. *The Republic.* Trans. D. Lee. London: Penguin Books.

Reber, A. S. 1993. *Implicit Learning and Tacit Knowledge: An Essay on the Cognitive Unconscious.* New York: Oxford University Press.

Rest, J. 1979. *Development in Judging Moral Issues.* Minneapolis: University of Minnesota Press.

———. 1983. Morality. In *Cognitive Development,* ed. J. Flavell and E. Markman. Manual of Child Psychology, 4th ed., vol. 3, ed. P. Mussen, 556–629. New York: John Wiley and Sons.

Rogoff, B., J. Baker-Sennett, P. Lacasa, and D. Goldsmith. 1995. Development through participation in sociocultural activity. In *Cultural Practices as Contexts for Development,* ed. J. J. Goodnow, P. J. Miller, and F. Kessel, 45–65. San Francisco: Jossey-Bass.

Rumelhart, D. E., and J. L. McClelland, eds. 1986. *Parallel Distributed Processing,* 2 vols. Cambridge, MA: MIT Press.

Sanderson, P. M. 1989. Verbalizable knowledge and skilled task performance: Association, dissociation, and mental models. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 15 (4): 729–47.

Sternberg, R J. 1998. Abilities are forms of developing expertise. *Educational Researcher* 3:22–35.

———. 1999. Intelligence as developing expertise. *Contemporary Educational Psychology* 24 (4): 359–75.

Turiel, E. 1983. *The Development of Social Knowledge: Morality and Convention.* Cambridge: Cambridge University Press.

Uleman, J. S., and J. A. Bargh, eds. 1989. *Unintended Thought.* New York: Guilford Press.

Vicente, K. J., and J. H. Wang. 1998. An ecological theory of expertise effects in memory recall. *Psychological Review* 105 (1): 33–57.

Wegner, D. M. 2002. *The Illusion of Conscious Will.* Cambridge, MA: MIT Press.

Wegner, D. M., and T. Wheatley. 1999. Apparent mental causation: Sources of the experience of will. *American Psychologist* 54 (7): 480–92.

Wilson, R. A., and F. C. Keil. 2000. The shadows and shallows of explanation. In *Explanation and Cognition,* ed. F. C. Keil and R. A. Wilson, 82–114. Cambridge, MA: MIT Press.

Wyer, R. S. 1997. *The Automaticity of Everyday Life.* Mahwah, NJ: Lawrence Erlbaum Associates.