The Emerging Comprehensive Moral Psychology of Darcia Narvaez

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ABSTRACT Key Words: Darcia Narvaez, moral psychology, moral development, four-component model, triune ethics, tacit knowledge, implicit processing, moral intuitionism, Michael Polanyi.
This review essay offers an overview of Darcia Narvaez's work in moral psychology based on a representative selection of essays published over roughly the last decade. I trace the roots of her work in post-Kohlbergian moral psychology and show how her work has developed over time into one of the few attempts to articulate a normative and comprehensive moral psychology that is conversant with both moral philosophy and the neurosciences.

Darcia Narvaez will present a paper on "The Moral Person: Psychology, Neuroscience, and Polanyi" at this fall's Annual Meeting of the Polanyi Society. In preparation for the meeting, this article offers an overview of her work in moral psychology based on a representative selection of essays published over the last decade or so. The development of her work appears to unfold over time such that one phase lays the groundwork for the next, leaving her poised to develop one of the more expansive and inclusive moral psychologies available today. Those who know Polanyi well will see affinities between his work and hers at several points, among them a stress on the role of tacit knowledge and the importance of perception, education as a mentoring process in which students learn to inhabit a tradition of inquiry, and a sense of the person as a mind/body whole.

Her work first came to my attention during the fall of 2008 when I was doing research on character development and pedagogy. Her work stood out to me for several reasons, not least of which is that she makes explicit reference to Michael Polanyi for helping her appreciate the importance of the tacit dimension in moral reasoning. Moreover, as her work develops over time it largely seems to offer contemporary psychological confirmation that Aristotle's ancient account of moral development is on target. In addition, her work seeks to integrate philosophy and the neurosciences into her psychology. Finally, she is not content simply to work at the theoretical level; she explicitly develops and puts into practice a pedagogy for moral development that is informed by her research. Before reviewing her work, I begin with a biographical sketch.

Narvaez is currently Associate Professor of Psychology at the University of Notre Dame.[1] Born in Minneapolis, MN to a professor of Spanish and a "Minnesota farm girl," Narvaez spent much of her childhood in Puerto Rico, Guadalajara, Bogota, Pamplona, and Mexico City. She earned her bachelor's degree at the University of Northern Colorado where she double-majored in Music and Spanish and minored in Psychology. After college, she taught music to elementary and secondary students in both the Philippines and Minnesota before earning a M.Div. at Luther Northwestern Seminary in St. Paul, MN. She also ran a business and served as church organist before earning her Ph.D. in Educational Psychology at the University of Minnesota, where she worked with James Rest, the developer of the Defining Issues Test. From 1993 until her move to Notre Dame in 2000, Narvaez taught at the University of Minnesota and worked for the Center for the Study of Ethical Development, which had been founded earlier by Rest.

Narvaez has co-edited six books, three of which have won awards from the American Educational Research Association. She has authored twenty-five articles in refereed journals and co-authored an additional forty-two, making it easy to understand why she has twice been recognized as one of the most productive educational psychologists by *Contemporary Educational Psychology*. In addition to this more formal scholarly production, Narvaez has also published textbooks and teaching materials for character education programs.

Recognizing the Role of Tacit Knowledge in Moral Reasoning

Narvaez's early work with James Rest positioned her to be on the cutting edge of what some authors call a post-Kohlberg era in moral psychology. Lawrence Kohlberg (1927-1987), the widely recognized pioneer in moral development research, identified six stages in the development of moral reasoning clustered into three levels that he called the preconventional (Stages 1 and 2), conventional (Stages 3 and 4), and post-conventional (Stages 5 and 6).[2] These levels can be distinguished by the basis upon which a person makes moral decisions. According to the theory, at the level of preconventional reasoning, one's moral decisions are based on the impact they will have on the self and loved ones. At the conventional level, they are based more on fit with social conventions and laws. At the post-conventional level, decisions are based on so-called "transcendent ideals," such as human rights or moral principles like justice. What Kohlberg suggests, in essence, is that one's moral imagination expands to include more and more considerations in decision making.

In order to test the theory and measure the stage at which a person characteristically reasons, Kohlberg developed a moral judgment interview that presented people with different dilemmas and asked them to give reasons for what the main character in that scenario should do. For example, in one of the better known dilemmas, a man named Heinz needs to purchase medicine for his seriously ill wife, but does not have the money to do so. The pharmacist refuses to work with Heinz and so Heinz debates whether or not to steal the drug. Readers are asked to tell what they think Heinz should do and then give their reasons for it. Those answers are scored in such a way as to identify the dominant stage of reasoning one uses. For example (and overly-simplistically), someone who said that Heinz should not steal the drug because stealing is against the law would be rated at the conventional level.

This theory has been criticized extensively, including by Kohlberg himself. As he worked with and refined this process, he and others discovered that very few people seemed to attain post-conventional levels of moral reasoning, thus leading him at one point even to doubt the existence of stage 6. Some studies have found that most of those who exhibit stage 5 reasoning have participated in graduate education, while those who have attained stage 6 have all received formal training in philosophy or a similar discipline. The theory has been criticized by others on many counts, e.g., for being too wedded to a problematic philosophical understanding of moral agency (i.e., Kantianism), for being too male, and/or for defining the moral domain too narrowly.[3] These various shortcomings, combined with the realization that advanced levels of moral reasoning did not always lead to recognizably moral behavior, spurred others to suggest alternative theories of moral development.

One of those people was James Rest (d. 1999), who articulated a four-component model that posited four mutually-influential psychological processes that together lead to moral behavior.[4] The first component is that of interpretation or moral sensitivity. Persons must be able to "read" the moral import of a situation from various environmental clues, as well as attend to the emotional expressions and perspectives of others, and sort through various plans of action and their consequences. The second component is moral or ethical

judgment. Persons must be willing and able to judge a course of action as morally right or obligatory. The third component is ethical focus. One must prioritize moral considerations over other competing concerns. The final component is action: the agent must have both a strong enough self-identity and the requisite skills by which to implement action, in spite of any difficulties one may encounter.

Rest also developed a new test of moral reasoning by modifying both Kohlberg's dilemmas and the scale of development.[5] The resulting Defining Issues Test (DIT) has become the most used instrument for assessing moral reasoning among college students and young adults. It is a multiple-choice instrument that asks students to respond to six different stories that present a moral dilemma. The DIT gives students a list of twelve issues that the story potentially raises and asks them to rank which ones they think are most important in choosing a course of action. Student responses are then scored to determine the stage of moral reasoning they exhibit. These stages roughly correspond to those of Kohlberg, but the most significant score on the DIT is the P score, which measures the relative importance of postconventional reasoning in resolving moral dilemmas; this score roughly correlates with stages 5 and 6 in Kohlberg's schema. In an analysis of the over 500 studies that have used the DIT, Rest discovered that moral judgment does indeed become more complex and sophisticated over time, such that many people—contra Kohlberg's findings—do in fact reason at the higher stages.

It is in seeking to explain this difference between the findings of Kohlberg and Rest that Narvaez and Tonia Bock explicitly make use of Polanyi.[6] They argue that the moral judgment interview developed by Kohlberg puts a premium on the ability to articulate one's moral knowledge, whereas the DIT measures recognition knowledge, a form of tacit knowledge. They argue that the DIT measures three schemas by which people are disposed to perceive moral situations. These schemas (personal interest, maintaining moral norms, and post-conventional) roughly correspond to Kohlberg's levels but differ in that they represent predispositions that influence one's perceptions of a situation's salient features by organizing and applying prior knowledge.[7] The DIT, by the choices it offers, taps into a person's preferred schema, one that remains largely inarticulate.

At the end of this article, Narvaez and Bock suggest three options for further research in moral judgment, thereby hinting at the next phase of Narvaez's work.[8] If one wants to study conscious processes, they say that one should study moral experts who can verbally articulate their thought processes. If one wants to study what they call "the middle zone" of understanding, one should study recollection of moral texts. If one wants to study naturalistic human development, one should study tacit responses. Narvaez chooses to study experts, although as we shall see, she discovers that tacit knowledge is important for understanding expertise.

Construing Moral Education as Developing Expertise

The concept of moral expertise seems to occupy much of Narvaez's attention from 2005-2006. Here, she draws on research into expertise to enrich her understanding of moral development. She argues that experts differ from novices in several ways.[9] First, they have a richer base of factual and procedural knowledge, as well as more highly developed schemas for organizing knowledge. Secondly, this richer knowledge base allows experts to perceive the world differently so that they are better able to pick out relevant information than novices. Finally, experts exhibit more highly developed skills in reasoning that draw, in part, on their memories of extensive experience in a field. Put differently, the tacit knowledge of experts is richer than that of others, thereby allowing them to make decisions quickly—even automatically.

Narvaez thus compares moral development to the development of expertise in a number of processes so as to coordinate "the entire brain-mind-body system" for the sake of moral behavior.[10] Building on the four-component model, Narvaez delineates 84 different skills entailed in moral action, skills in which one presumably needs to develop some degree of expertise. Take for example, the component of ethical focus.[11] For Narvaez, this component comprises skills of respecting others, cultivating one's conscience, acting responsibly, helping others, finding meaning in life, valuing traditions and institutions, as well as developing ethical identity and integrity. For the purpose of classroom education, Narvaez and colleagues identified sample subskills for each skill. For example, "cultivating one's conscience" requires one to practice self-command, manage influence and power, and be honorable. While one might wonder about some of the terminology and logic behind this classificatory scheme, it represents an impressive attempt to offer a thick description of the skills involved in moral behavior.

If one is to become an expert in these skills, one needs an account of how experts develop their expertise. Narvaez offers such an account by noting that the education of experts differs in significant ways from much regular education, primarily because education in expertise takes the form of mentorship that involves several elements.[12] The first is that novices are immersed in "good environments" that foster appropriate intuitions. Second, from their mentors they learn deliberative understanding and explicit theories that have been developed in the prior history of the domain, thereby learning to "see" from the perspective of those who inhabit (dare one say, indwell?) a particular domain. Moreover, novices put in significant amounts of extensive, coached practice applying theories to new situations. Perhaps most striking is that it takes upwards of ten years to become an expert in any given field.[13]

If an educational goal is to develop expertise in each of these interdependent processes, moral education will follow the general pattern of education in expertise. Informed by her work with character education programs, Narvaez develops a four-tiered pedagogy for instructing students in these processes that she calls Integrative Ethical Education.[14] The first, most elementary level, is to immerse students in examples, thereby giving students opportunity to recognize broad patterns and begin to discern some of the constituent elements in those patterns. The second level is to focus attention on details as the student moves from more basic to more elaborate concepts. The third level is that of developing skills in problem-solving through practice in applying the knowledge gained in the first two levels. The fourth and final level entails practicing the skill or procedure set in multiple contexts so that situated cognition is widespread. Through all this process of learning, student development is facilitated by mentoring relationships as they become more adept at using and adapting knowledge to respond to increasingly complex problems. All of this requires establishing a caring relationship with each student and creating a supportive classroom climate.[15]

It is when working through her account of the kind of education that fosters moral development that Narvaez becomes more explicitly philosophical in her reflections. For example, she notes that Integrative Ethical Education deliberately links contemporary behavioral sciences to ancient Greek ideas of *arête*, *techne*, and *eudaimonia,* also hinting at the importance of the *polis* when she worries that the larger culture, particularly the consumerism and violence promoted by the media, make it difficult to sustain moral development.[16] This synthesis yields three "foundational" ideas that themselves have educational implications: (1) that moral development is best construed as development of moral expertise, (2) that interactive education is by nature transformative, and (3) that human nature is generally cooperative and self-actualizing.[17] In the context of this latter discussion, Narvaez mentions Darwin's view of morality's evolutionary adaptiveness, as well as

contemporary work in evolutionary psychology, thereby foreshadowing the next step in the development of her work, one that begins a conversation with the neurosciences.

Identifying the Neurobiological Substrates of Moral Development

This move takes place in part because the neurosciences have forced a paradigm shift in psychology by alerting psychologists to the fact that many human decisions are "driven by internal multiple unconscious systems operating in parallel, often automatically, and without our awareness."[18] Kohlberg and much of cognitive psychology's earlier emphasis on explicit, conscious and articulate judgments therefore must be tempered by the new findings on implicit processing. At the same time that psychology must attend to these findings, they should not be accepted uncritically, according to Narvaez. She notes that the neurosciences could inform the psychology of moral development in three ways.[19] One might seek to demonstrate that healthy moral functioning requires proper brain functioning. Alternatively, one might argue that studies of brain function might reinforce and/or challenge more traditional accounts of morality. Finally, one might argue that surgical, electronic, or other interventions into brain function can correct or even enhance moral functioning. Narvaez explicitly distances herself from the latter option, because even if one judged such interventions to be ethical, the current state of our knowledge of brain function is too elementary at this point to do so.

Narvaez incorporates two major insights from the neurosciences into her own works. First, the neurosciences help her identify the portions of the brain that correlate with the four component model.[20] For example, Narvaez suggests that moral sensitivity is hardwired in primate brains and is rooted in the work of mirror neurons and the anterior insula. Moreover, early experience is critical for developing this capacity. Moral judgment, it seems, makes use of many parts of the brain, with justice and care reasoning activating different combinations of brain geography. Drawing from studies in reciprocity using games, Narvaez suggests that moral motivation seems to involve activity in both the anterior insula, which is a portion of the brain associated with negative emotions, and the dorsolateral prefrontal cortex, an area that involves reason and planning. Moral action seems to involve the prefrontal cortex.

The second insight from the neurosciences that Narvaez emphasizes is the brain's plasticity, i.e., the continued growth and cultivation of neurons over one's lifetime. Given this fact, initial conditions may be crucial to later development, as seems to be the case with how the development of conscience seems linked to the quality of one's attachment to one's mother.[21] Moreover, since brain structures continue to develop with aging and experience, practice becomes crucial for developing certain capacities, such as those of perception and sensitivity.[22]

Narvaez synthesizes the neurosciences with her previous work into what she calls Triune Ethics Theory (TET). Using Paul McLean's schema of the triune brain as an organizing principle, Narvaez argues that "three types of affectively-rooted moral orientation emerged from human evolution."[23] They are an ethic of security, an ethic of engagement, and an ethic of imagination. Each ethic can be situationally evoked and represents a dispositional tendency that develops in one's formative years and is activated in different situations. While each ethic can be distinguished by its characteristic focus, each can also be turned in more or less adaptive directions.[24] The Ethic of Security is rooted in the most primitive parts of the brain that are associated with self-preservation. This ethic is especially sensitive to matters of threat and safety. It is obviously adaptive in certain circumstances, i.e., situations of real threat to physical survival, but can become problematic in one

of two ways: it can be defensively aggressive (what Narvaez calls "bunker security") or passive ("wallflower security"). The ethic of engagement is more right-brain and deals with relationships and emotions of compassion and gratitude. In healthy form, it allows one to be fully present with others, but can also take maladaptive forms. If interpersonal engagement is characterized by stress, it can foster a co-dependent morality. If characterized by calm, it can foster a harmony morality. The ethic of imagination is more left-brain and allows one to abstract from the present moment. When combined with pro-social emotions, Narvaez says that this ethic lends itself to a communal imagination. It can, however, become an intellectualized or detached imagination (if detached from pro-social emotions) or a vicious imagination (if linked too strongly to one's ego needs).

Hinting at a Normative Trajectory for Moral Development

Narvaez hints at a normative goal for moral development in her discussion of "mindful morality."[25] Such a morality emerges from the integration of all levels of TET and thus involves the entire brain. This morality maintains both an orientation to the here and now, as well as openness to others. This morality particularly builds on (1) knowledge of the competing ethical orientations within the self and the role of emotions in fostering one's mindset; (2) dispositions toward pro-social emotions that include sympathy, being non-judgmental and the ability to take the perspective of others; (3) skills in being aware of one's own feelings, being attentive to the moment, and controlling social biases; and (4) the process skills that are part of the four-component model.

This idea of mindful morality then gets expanded into an account of "mature moral functioning", terminology Narvaez coins in the context of criticizing intuitionist approaches to human behavior, especially the Social Intuitionist Model (SIM) of Jonathan Haidt.[26] According to Haidt and associates, "social intuitions are central and occur without awareness of their source, conveying a sense of rightness or wrongness without the assistance of reasons or reasoning."[27] Her critique is even-handed in that it identifies both contributions and weaknesses.[28] On the positive side, SIM demonstrates the power of intuitions in shaping moral judgments, incorporates the research on implicit processing into moral psychology, accounts for data that rationalist approaches to moral psychology find anomalous, and offers a credible interpretation of data, and acknowledges how moral intuitions can, at times, mislead. On the other hand, Narvaez argues that intuitionist theories oversimplify moral functioning by neglecting issues of moral motivation and other dimensions identified in the four-component model. They also ignore data on how explicit functioning contributes to moral functioning. Nor do they provide enough critical perspective on a culture's convictions, resulting in the inability to distinguish between the morality of a Martin Luther King, Jr. and an Adolf Hitler. Her final complaint is that intuitionist theories conflate instinctive responses, primitive information processes, sophisticated unconscious processes, and tacit knowledge, which is not adequately described as either impulsive emotional reaction or nonrational knowledge. Given how both explicit reasoning and implicit processes contribute to human behavior, Narvaez calls for educating intuition along the lines of expertise training.[29]

She also argues that mature moral functioning largely consists of making morality central to one's self-identity so that one is disposed to take responsibility for one's behavior, is able to monitor one's perceptions and reactions, and can reflect on one's own motives.[30] According to Narvaez, mature moral functioning builds on several skills and capacities, such as basic socialization (especially the capacity for emotional self-regulation), commitments to ongoing self-development, the employment of moral imagination when confronted with novel circumstances, ethical expertise in some domain, such as community organizing, and the capacity for moral innovation, i.e., the ability to adapt in ways that foster positive outcomes for persons and communities. [31]

Narvaez develops that last point as she recognizes both that moral decisions and actions are most difficult in the public realm and that institutions have power in shaping individual action. Thus she ends this phase of her work by calling for the development of "collective capacities" that are needed to foster corporate wellbeing.[32] She focuses on two: practices that foster communal dialogue about moral obligations and "well-planned moral institutions" that can serve as checks and balances to poor intuitions and reasoning that undermine social good. Such communal capacities, she suggests, will be crucial in addressing global interdependence and unprecedented challenges to human survival, such as climate change.

Taking Stock

In looking back over roughly a decade's work, we see that Narvaez's theory of moral development develops in ever increasingly expansive ways. The picture of moral development that emerges from this cross-section of Narvaez's work is that mature moral function is rooted in neurobiological processes (TET) for which initial conditions are crucial. But moral maturity is not simply biological, for it requires the development of expertise in skills in multiple areas (the four-component model) and specific domains, skills that are learned by apprenticeship in a supportive community—all of which rely on and build on tacit knowledge—so that one may mindfully attend to the rubs of the moral life. Always solidly rooted in the four-component model first developed by her mentor, James Rest, Narvaez's work thus digs back behind the model to explore its neurobiological roots and also expands it to hint at a normative direction, something social scientists are often hesitant to do. In doing so, she comes to identify her work explicitly with key aspects of ancient Greek philosophy.

How shall we assess this emerging comprehensive theory of moral development? Narvaez herself suggests several tests that such a theory must pass.[33] Such a theory will first need to describe what optimal or mature functioning means for both individuals and groups. Next, such a theory will need to describe the direction of development, identify the mechanisms that foster development, and prescribe methods that promote the development of moral maturity. Finally, a theory must offer explanations for common moral failure.

By those criteria, how does she fare? Her construal of mature moral functioning certainly identifies the general shape of mature moral functioning for individuals, from which one can infer what mature moral functioning for groups might entail. Narvaez's work arguably addresses the next task most fully in her account of how moral expertise develops by means of a novice to expert pedagogy that relies on mentoring in a supportive environment. Narvaez says little about the last test, although one can infer that moral failure can largely be explained by poor socialization and unsupportive environments.[34] At this stage of the game then, by her own standards, Narvaez has made progress on the first two tests, but needs to give attention to the final. In saying this, I do not mean to imply that her work so far is beyond scrutiny. It does, however, raise interesting questions that I suspect will make for intriguing conversation.

Endnotes

[1]The information in this sketch is drawn from Darcia Narvaez's CV and biographical information available at http://psychology.nd.edu/people/faculty/narvaez-darcia/ (accessed 14 March 2011).

[2]Secondary summaries of Kohlberg are legion. I follow that found in Lynn Swaner, "Educating for Personal and Social Responsibility: A Planning Project of the Association of American Colleges and Universities," 2004, 8-9.

[3]On the problematic philosophy behind Kohlberg, see Daniel K. Lapsley and Darcia Narvaez, "Moral Psychology at the Crossroads," in *Character Psychology and Character Education*, ed. Daniel K. Lapsley and Clark F. Powers (Notre Dame: University of Notre Dame Press, 2005), 22-23. Carol Gilligan, a student of Kohlberg, argues that women's moral choices are governed more by concern about maintaining personal relationships than in establishing justice. See her *In a Different Voice* (Cambridge, MA: Harvard University Press, 1993). For the failure to be comprehensive, see James Rest, "Background: Theory and Research," in *Moral Development in the Professions*, ed. James R. Rest and Darcia Narvaez (Hillsdale, NJ: Lawrence Erlbaum Associates Publishers, 1994), 9.

[4]James Rest with Muriel Bebeau and Joseph Volker, "An Overview of the Psychology of Morality" in *Moral Development: Advances in Research and Theory* (New York: Praeger, 1986), 3-18. My summary includes nuances made by Narvaez in "Integrative Ethical Education" in *Handbook of Moral Development*, ed. Melanie Killen and Judith G. Smetana (Mahwah, NJ: Lawrence Erlbaum Associates, 2006), 717, as well as her "The Neo-Kohlbergian Tradition and Beyond: Schemas, Expertise, and Character" in *Moral Motivation Through the Lifespan*, ed. Gustavo Carlo and Carolyn Pope Edwards (Lincoln, NE: University of Nebraska Press, 2005), 138-148.

[5]My summary of the DIT draws from James Rest, et al, *Moral Development,* 176-179. See also his "Research on Moral Judgment in College Students," in *Approaches to Moral Development: New Research and Emerging Themes*, ed. Andrew Garrod (New York: Teachers College Press, 1993), 201-227.

[6]Darcia Narvaez and Tonia Bock, "Moral Schemas and Tacit Judgment or How the Defining Issues Test is Supported by Cognitive Science," *Journal of Moral Education* 31, No. 3 (2002): 297-314.

[7]Narvaez and Bock, 302.

[8]*Ibid*, 311.

[9]See Darcia Narvaez and Daniel K. Lapsley, "The Psychological Foundations of Everyday Morality and Moral Expertise," in *Character Psychology and Character Education*, ed. Daniel K. Lapsley and Clark F. Powers (Notre Dame: University of Notre Dame Press, 2005), 150-151.

[10]Narvaez, "Integrative Ethical Education," 717. This summary draws widely from the rest of this chapter.

[11]Narvaez, "Neo-Kohlbergian Tradition," 145-146.

[12]This summary of education for expertise comes from Narvaez and Lapsley, "Psychological Foundations," 152-154.

[13]Interestingly, the ten-year window seems to apply to any field, including chess, mathematics, painting, or music composition. Narvaez's account of expertise is also echoed in the work of Paul B. Baltes and Ursula M. Staudinger, "Wisdom: a Metaheuristic (Pragmatic) to Orchestrate Mind and Virtue Toward Excellence," *American Psychologist* 55, No. 1 (January 2000):122-136; Elkhonen Goldberg, *The Wisdom Paradox: How Your Mind Can Grow Stronger as Your Brain Grows Older* (New York: Gotham Books, 2005), 19-20; Leslie Paul Thiele, *The Heart of Judgment: Practical Wisdom, Neuroscience, and Narrative* (Cambridge: Cambridge University Press, 2006), 93; John L. Horn and Hiromi Masunga, "On the Emergence of Wisdom," in *Understanding Wisdom: Sources, Science, and Society*, ed. Warren S. Brown (Philadelphia: Templeton Foundation Press, 2000), 262-267; and Robert J. Sternberg, et al, *Practical Intelligence in Everyday Life* (Cambridge: Cambridge University Press, 2001), 105 and 210. Malcolm Gladwell popularizes much of this research in his *Blink: the Power of Thinking without Thinking* (New York: Back Bay Books, 2005), 176-186.

[14]Narvaez and Lapsley, "Psychological Foundations," 149.

[15]Darcia Narvaez, "Human Flourishing and Moral Development: Cognitive and Neurobiological Perspectives of Moral Development," in *The Handbook of Moral and Character Education*, ed. Larry

Nucci and Darcia Narvaez (New York and Oxford: Routledge, 2008), 316-318.

[16]See Narvaez, "Integrative Ethical Education," 715, 719, and 725. Although she here recognizes similarities between her work and ancient philosophies, it is only recently that Narvaez begins to put philosophical theories to empirical test. In a recent essay, Narvaez and associates set out to test three different models relating moral virtue to practical wisdom. One model, associated with Aristotle, posits that moral virtue is indistinguishable from practical wisdom. A second, associated with Immanuel Kant, equates practical wisdom with prudential self-interest and thus not a part of the moral domain. The third model, inspired by what Aristotle says about the role of experience in developing wisdom, says that wisdom develops after moral virtue. By testing how different age groups comprehend different themes in stories, Narvaez and associates find modest evidence that moral perception develops earlier than prudential, thus corroborating the third model. Although the study is quite limited, as the authors explicitly acknowledge, it does signal a conscious attempt to begin an explicit conversation between ancient wisdom and contemporary psychological research. See Darcia Narvaez, Tracy Gleason, and Christyan Mitchell, "Moral Virtue and Practical Wisdom: Theme Comprehension in Children, Youth, and Adults," *The Journal of Genetic Psychology* 171, No. 4 (2010):363-388.

[17]Narvaez, "Integrative Ethical Education," 716-724.

[18]Narvaez, "Moral Development and Behavior Under the Spotlight of the Neurobiological Sciences," *Journal of Moral Education* 37, No. 3 (September 2008), 292. This article is also noteworthy for the extremely lucid primer of the research on what brain areas correlate with what moral functions (see Table 2, 293-294).

[19]*Ibid*, 290.

[20]*Ibid*, 296-300.

[21]*Ibid*, 300-303.

[22]*Ibid*, 303-4.

[23]*Ibid*, 305. Note that each ethic represents a modification of the three schemas measured by the DIT (personal interest, social conventions, and post-conventional), which are themselves modifications of Kohlberg's three levels of moral reasoning (preconventional, conventional, and post-conventional).

Interestingly, Narvaez elsewhere revises her language to talk about "three attractors for moral information processing," language that echoes chaos or complexity theory from physics. See Narvez, "Human Flourishing and Moral Development," 313. More detailed discussions of TET can also be found in Narvaez's "Triune Ethics: The Neurobiological Roots of Our Multiple Moralities," *New Ideas in Psychology* 26 (2008):95-119, and "Triune Ethics Theory and Moral Personality," in *Personality, Identity, and Character*, ed. Darcia Narvaez and Daniel K. Lapsley (Cambridge and New York: Cambridge University Press), 136-158.

[24]This description draws most heavily from "Moral Formation: Neurobiology and Virtue Cultivation," forthcoming in *Character, Practical Wisdom and Professional Formation Across the Disciplines*, ed. Mark Jones, Paul Lewis, and Kelly Reffitt (Macon, GA: Mercer University Press), pp. 3-4 in the unpublished mss. Although not explicit, there seems to be a kind of Aristotelian mindset at work here, for Narvaez essentially identifies virtuous and vicious manifestations of each ethic.

[25]See "Moral Formation," pp. 5-6.

[26]I draw primarily from her "Moral Complexity: the Fatal Attraction of Truthiness and the Importance of Mature Moral Functioning," *Perspectives in Psychological Science* 5, No. 2 (2010): 163-181 (a paper that appears to be a reworking of her 2009 presentation at the Association for Moral Education in Utrecht, Netherlands, "Truthiness is Fatal: The Complexity of Mature Moral Functioning").

That issue of *Perspectives in Psychological Science* also contains an exchange between Narvaez and Haidt. His response, found on pp. 182-184, is entitled, "Moral Psychology Must Not Be Based on Faith and Hope: Commentary on Narvaez (2010)." Narvaez's reply on pp. 185-186 is entitled "The Embodied Dynamism

of Moral Becoming: Reply to Haidt (2010)." To summarize briefly, Haidt applauds Narvaez for trying to build a bridge between the two psychological processes of reasoning versus intuition. While he subscribes to the view that intuition is the senior partner in the relationship, he suggests that Narvaez wants to treat them as equal partners, which is a view he does not think can be substantiated by the neurological research. He then suggests that social intuitionism can account for mature morality and complexity. In her reply, Narvaez notes that deliberation is like salt in cooking: some is necessary, but can be overdone. She also identifies four areas in need of greater study before a true synthesis can emerge: the embodied roots of moral functioning, the dynamic interplay of multiple capacities, the necessary initial conditions for moral maturity, and cooperation.

[27]Narvaez, "Moral Complexity," 165.

[28]*Ibid*, 165-167.

[29]*Ibid*, 171.

[30]*Ibid*, 173.

[31]*Ibid*, 172.

[32]*Ibid*, 173-175.

[33]*Ibid*, 172.

[34] Narvaez, in personal correspondence (15 May 2011), notes that she is developing ideas on this last test in a book to be submitted for publication in 2012. She has previewed some of those ideas on her blog: http://psychologytoday.com/blog/moral-landscapes/. Based on a quick reading, it would appear that my surmise is correct.

Notes on Contributors

Durwood Foster (adfoster@q.com) is a theologian who taught for many years at Pacific School of Religion/Graduate Theological Union. Foster took an A.B. at Emory University and then a B.D. and Ph.D. at Union Theological Seminary, where he was a student of Paul Tillich. He has written scholarly articles on Tillich (and other topics) and, in 1996, he edited *The Irrelevance and Relevance of the Christian Message* (Cleveland:Pilgrim Press). This book is the 1963 Earl Lectures given at Pacific School of Religion by Tillich, the occasion of Tillich's meeting with Polanyi. Foster contributed "Michael and Paulus: A Dynamic Uncoordinated Duo" to the second *TAD* discussion (35:3 [2008-09]) of Polanyi and Tillich.

Richard Gelwick (rprogel@juno.com) is Professor Emeritus of Medical Ethics and Humanities at the University of New England and Adjunct Professor at Bangor Theological Seminary. Gelwick was a graduate student working with Polanyi, writing the first theological dissertation on Polanyi's postcritical thought, at the time he helped arrange the conversation between Polanyi and Paul Tillich in 1963. Gelwick contributed an essay in both the first (22:1 [1995-96]) and second (35:3 [2008-09]) discussions of Polanyi and Tillich. Gelwick has served as a Polanyi Society leader since the establishment of the Society. In addition to many articles treating Polanyi's thought, he is the author of *The Way of Discovery: An Introduction to the Thought of Michael Polanyi* (1977).

Murray Jardine (jardimu@auburn.edu) is Jane Dickson Lanier Professor of Political Science at Auburn University. His field is political philosophy. He completed his Ph.D. at Duke University in 1992, and has been at Auburn since 1997. He has published two books—both discussed in this issue of *TAD*—and several articles dealing with philosophical and theological issues related to questions of social and political order.

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