The Neo-Kohlbergian Tradition and Beyond:

Schemas, Expertise and Character

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Kohlberg's cognitive developmental paradigm has been enormously influential,

spawning hundreds of research projects in this country and around the world. From Kohlberg we

have much for which to be grateful. For example, he was among the vanguard against the

behaviorist majority who helped bring about the cognitive revolution. He helped bring American

attention to the work of Piaget. He provided a new way to look at morality beyond that of virtues

and traits. He did not shrink from difficult problems, trying to do the impossible in tackling the

naturalistic fallacy on philosophers' terms. He encouraged contrary viewpoints and supported

alternative research paradigms (e.g., Gilligan, 1982). He developed the just community approach

to education which my colleague Clark Power addresses in this volume.

The cognitive revolution, although still evolving, has moved far beyond the stereotyped

ages and stages of Piaget and Kohlberg. Critics have pointed out the oversimplified perspectives

and globality of their theories, noting that the view from the ground is much more complicated

and messy. Yet there is more empirical support for Kohlberg's general theory than ever before.

Thus it is important to give it a second look, with the caveats and modifications necessary to fit

the data. First I will describe the criticisms of Kohlberg's approach and then describe how neo-

Kohlbergian theory addresses them. But then I too will move beyond Kohlberg, describing an

approach that seeks to incorporate cognitive science and social-cognitive psychology into a moral psychology theory. Finally, I discuss some implications of these moves for deliberative character education in the classroom and in everyday life.

Responding to critiques of Kohlberg: The shift to a neo-Kohlbergian perspective[1]

Like the theory of his intellectual mentor, Jean Piaget, Kohlberg's theory has fallen on hard times among psychologists for a variety of reasons. Stage theories generally are viewed as too broad-brushed, missing much of development, and underestimating early signs of change in younger children and infants.

Recently, a neo-Kohlbergian perspective was formulated in Minnesota by four of us: the late Jim Rest, Mickey Bebeau, Steve Thoma and myself (Rest, Narvaez, Bebeau, & Thoma, 1999; 2000). We sought to address the issues raised by critics and to exploit the massive data collected with the Defining Issues Test, an objective measure of moral judgment. The Defining Issues Test (or DIT) consists of several dilemmas and sets of considerations for respondents to rate and rank according to how important they are for making a decision about the dilemma. Data have been collected on tens of thousands of respondents from around the world. Our re-conceptualization of Kohlberg's theory is based on DIT data that have been collected for over 25 years. This fact is both a help and a hindrance in building a theory. Whereas using the same instrument for a lengthy time enables one to establish extensive validity and relate scores to many variables over time, the instrument itself is only one small tool for examining a vast area that needs to be explored with many tools in many different ways.

Kohlberg's critics from the ranks of psychology have made the following contentions. I mention briefly how neo-Kohlbergian theory approaches these controversies (for a more thorough discussion, see Rest et al., 1999).

1) <u>Kohlberg focuses on one small piece of morality in terms of important psychological</u> <u>processes</u>. For Kohlberg, moral judgment was the key to moral development. If you could explain a person's moral judgment stage, you had a window into their motivations, sensitivities and potential for action. Yet, the neo-Kohlbergian view agrees with critics that the moral judgment window is not big enough**.** Blasi (1982), Eisenberg (1982) and others have long considered moral judgment as too narrow a focus for moral psychology. Likewise, neo-Kohlbergian theory has long-standing roots in considering moral judgment as only one of at least four psychological processes that must occur for moral behavior to ensue (Rest, 1982; Narvaez & Rest, 1995). Later I discuss in more detail the importance of four processes in moral behavior: moral sensitivity, moral motivation, and moral action, along with moral judgment.

2) <u>Kohlberg focuses on only one piece of morality in terms of justice</u>. Kohlberg addressed the perfect duties of justice and minimized the imperfect duties of care (Nunner-Winkler, 1982). Although the neo-Kohlbergian perspective also emphasizes the primacy of justice, like Kohlberg it conceives of care as inherent in justice, which becomes more fundamentally integrated in the later stages (Kohlberg, Levine & Hewer, 1983). What is usually called 'care' reasoning often falls into what neo-Kohlbergians call moral sensitivity (e.g., considering the needs of others) or motivation (e.g., feeling responsible). The development of imperfect duties is discussed as part of the ethical expertise model I propose in this chapter.

3) <u>Kohlberg overextended Piaget's operations to moral thinking</u>. Kohlberg's enterprise was to build the logical necessity of moral stage development as Piaget did with logical operations. But Kohlberg's attempt has been criticized as inadequate (e.g., Gibbs, 1979).

The neo-Kohlbergian perspective has abandoned any attempt to measure formal operations, such as the INRC group (a single mental structure representing the operations of Identity, Negation, Reciprocity, and Commutative properties—see Piaget, 1969), and instead adopts a more cognitive science perspective, looking for changes in schemas, adopting a more fuzzy-trace theory of activation in which structure is not so easily separated from content, as in expert knowledge. Experts have more and better organized knowledge. Likewise, those with higher levels of moral judgment have more and better organized understandings of social cooperation. In fact my work (Gleason & Narvaez, 2003; Narvaez, 1999; 2001) shows that those with higher levels of moral judgment perform like other experts, for example, in terms of how they react to domain texts when thinking aloud.

4) Kohlberg's hard stage model is too strict. Some say that Kohlberg was more Piagetian than Piaget, sticking to hard stages when Piaget himself maintained a softer view. The data in moral judgment research have rarely, if ever, supported a hard stage model in which a person's functioning can be defined by one stage. Parallel to moves in developmental psychology (e.g., Siegler, 1997), neo-Kohlbergian theory adopts a soft-stage model of cognitive development, focusing instead on how types of reasoning change in distribution across development.

5) Kohlberg's method is overly dependent on verbal expressiveness. Neo-Kohlbergian theory is in agreement with those who say that individuals know more than they can express in words (Keil & Wilson, 1999). The DIT examines tacit moral judgment as measured by recognition memory, rather than relying on interview methods that tend to reward verbal articulation with higher scores.

6) In Kohlberg's interview studies, there is little evidence for stages 5-6 (postconventional) thinking. When using an interview methodology in which the respondent must articulate philosophical argumentation in order to receive a high moral judgment score, it is rare to find a capable respondent. However, when one measures tacit moral judgment with the DIT, one can find evidence of post-conventional thinking. One of the characteristics of cognitive development that has been emphasized in a post-Piagetian world is the emergent quality of developmental structures, from less elaborated (e.g., identification knowledge) to more elaborated knowledge (Marshall, 1995). Later, I discuss the sequential development of schemas.

7) Kohlberg underestimates children's moral capabilities. Like Piaget, Kohlberg placed high demand characteristics on subjects for evidence of development. Subtler measures find propensities in very young children. Based on the work of Turiel and colleagues (Turiel, 1998), we agree that children have more capacities than are evident in Kohlbergian and neo-Kohlbergian research. However, the moral judgment data we use (from the DIT) are from adolescents and adults and does not provide us with anything specific to say about children.

8) According to Turiel, Kohlberg confuses two domains: convention and morality. Turiel (Turiel, 1993; 1998) separates convention from morality and argues that each follows a separate track of development. We disagree, aligning neo-Kohlbergian theory with Blasi's (1990) view that Turiel (1983) has made *a priori* philosophical decisions about what morality entails, defining too narrowly and as an intrinsic characteristic of actions, ignoring what subjects might think about his distinctions and abandoning the phenomenological perspective that Kohlberg adopted.

As it turns out, the evidence for the development of Turiel's moral domain is close to non-existent, consisting of one cross-sectional study of 61 subjects of 6, 8, and 10 years of age (Davidson, Turiel & Black; 1983). Using ANOVA, two of the nine categories of justification categories showed statistical significance for age-group differences ("personal choice" at $p < .0001$; and "appeal to authority" at $p < .05$). However, Tisak and Turiel (1988) failed to replicate age-based differences, demonstrating instead differences at all ages. No subsequent studies showing developmental differences in the moral domain have been published.

Domain theory studies do show that people distinguish one kind of action from another. Yet we agree with Blasi (1990) and Lourenço and Machado (1996) that, although people do make distinctions among types of actions, there is no evidence that they do so on moral grounds. "From the subjects' perspective (though not from Turiel's external perspective), the two classes of action may be differentiated and yet be seen as equally moral, in the same way that adults differentiate altruism and honesty within the domain of morality" (p. 44, Blasi, 1990).

Instead of separating convention from morality, we agree with Kohlberg that moral judgment development is in part a matter of moving into convention (from pre-conventional) and beyond it (to post-conventional). The most important growth in moral judgment occurs in adolescence when initially convention is seen as moral and then later, in the college years, convention is distinguished from the moral in the move to post-conventional thinking.

9) Culture overwhelms developmental differences in morality. Shweder and colleagues have argued that culture is more important than individual development. Yet moral judgment data

show that more variability exists within cultures rather than between them (Jensen, 1996). The data indicate developmental differences worldwide in terms of the preconventional and conventional types of moral thinking, so culture does not overwhelm justice moral thinking as currently measured (Rest, 1986; Snarey, 1985). Development in tacit postconventional moral thinking, as measured by the DIT, is evident world wide as well, but is dependent on an education system that fosters critical thinking (Gielen, & Markoulis, 1994; McNeel, 1994). Explicit postconventional reasoning is exhibited largely only among those who participate in deliberative, focused study (Edelstein, & Krettenauer, in press; Narvaez, 1999).

Shweder (Shweder, 1982; 1991; Shweder, Mahapatra, & Miller, 1987) has attempted to show the priority of culture in moral judgment but these studies have used Turiel's (1983) narrow definitions of morality and convention, making their findings non-comparable with Kohlbergian and neo-Kohlbergian research.

Kohlberg's critics came not only from the ranks of psychologists. Kohlberg defined his domain of study in philosophical terms, building on Hare's (1963) neo-Kantian definition of morality: a judgment is moral if it is prescriptive or obligatory and if it is universalizable; moral judgment development is the increasing "differentiation of prescriptive and universalizable judgments from prudential and aesthetic judgments" (Kohlberg et al., 1983). As he intruded onto the terrain of philosophy, among his critics were philosophers who viewed a deontological perspective as too narrow for a moral psychology. As philosophy moved away from foundational principlism in the late 20th century, Kohlberg was criticized for grounding his theory in principles--a la Rawls (1971), as if principles were guide enough in the particularity of situations (Clouser & Gert, 1990; DeGrazia, 1992; Strike, 1982; Toulmin, 1981). In not revising the

philosophical side of his theory, Kohlberg ignored the field's moves toward a more useful "bottom up" morality—the use of paradigmatic cases (Beauchamp & Childress, 1994) emphasizing communal and historical contexts, and toward a "common morality" approach to solving moral dilemmas in which common sense and the reflective traditions of the community (the "bottom up") interact with moral principles (the "top-down") in a type of reflective equilibrium (Beauchamp & Childress, 1994). Neo-Kohlbergian theory has attempted to respond to these criticisms by embracing a wider moral philosophical foundation beyond principlism, by emphasizing the importance of intermediate ethical constructs for situational decision making, and by supporting a "common morality" approach to solving ethical problems. (For further discussion, see Rest et al., 1999).

The neo-Kohlbergian theory of moral judgment maintains Kohlberg's emphasis on rationality, on development and the construction of a moral epistemology, and on the critical shift from Conventional to Postconventional thinking. Furthermore, the neo-Kohlbergian perspective uses Kohlberg's same starting point: assessing responses to a limited set of hypothetical dilemmas and the systematic measure of phenomenological psychological moral development. Moreover, neo-Kohlbergian theory adopts Kohlberg's perspective on moral psychology theory as "a rational reconstruction of the ontogenesis of justice reasoning" (Kohlberg et al., 1983).

The three moral schemas measured by the DIT.

In several factor analyses, the DIT has been found to measure three different types of thinking or schemas (see Table 1). These three schemas do not correspond to Kohlberg's three levels. According to neo-Kohlbergian theory, the DIT's three schemas measure the ways that people answer macro morality questions, how to organize society-wide cooperation with

unknown others, rather than micro-morality questions, those relevant to getting along with family and friends.

PUT TABLE 1 ABOUT HERE

The <u>Personal Interests Schema</u> develops in childhood and its use is on the wane at the time individuals take the DIT (one must have a 12-year-old reading capacity). The Personal Interests schema includes not only the instrumental hedonism of Kohlberg's Stage 2 but the personal relational orientation of Stage 3 (Kohlberg, 1976). Using this type of thinking, a person filters moral stimulus information based on its effects on matters of personal interest. There is no sociocentric perspective. Cooperating with others is viewed as if there were only micro-morality relationships to consider. This kind of thinking appeals to the personal stake a decision maker has in the situation; prudence and personal advantage are considered virtues.

One of the most noticeable advances in cognitive development during adolescence is the "discovery of society," the awareness that people relate to each other through institutions, role-systems, and established practices as well as on a personal, face-to-face basis (Adelson, 1971; Youniss & Yates, 1997). Questions of moral authority become increasingly paramount: How does one organize a fair society? How should wealth, power and opportunity be distributed? What is the role of government and the use of force? These issues of macro-morality are distinctive from those of micro-morality (i.e., getting along with people you know) and mark the shift from the Personal Interest Schema to the <u>Maintaining Norms Schema</u>. The Maintaining Norms Schema emerges as a more sophisticated form of moral thinking because the individual begins to be able to take into account the welfare of unknown others. The reasoner begins to discern the advantages of role systems and established practices. The reasoner perceives a need for generally-accepted norms to govern the social collective and that these norms must apply to

everyone in the society. The norms provide a rule of law that is clear, uniform and categorical. The norms establish the reciprocity of each citizen's duty to obey the law with the expectation that all others do the same. The norms include the establishment of hierarchical role structures, chains of command, and authority.

According to this schema, interpersonal relationships, even respect for other people, are less important than upholding the system itself. One obeys authority out of respect for the system not for the personal qualities of the office holder. This schema centers so much on law and order that it is inconceivable that order would exist without upholding the law. Without the law and one's duty to uphold it and the roles that derive from order, there would be anarchy. There is no felt need to appeal to moral criteria beyond the law itself. The Maintaining Norms schema offers a sense of moral certainty, invigorating many of its adherents with missionary zeal.

The development of the <u>Postconventional Schema</u> is a breakthrough in cognitive development, marking one of the primary features of late adolescent development and has become one of the best indicators of college student development (McNeel, 1994; Pascarrella & Terenzini, 1991; Rest & Narvaez, 1991). The Postconventional Schema is more advanced in a normative ethical sense as well as in terms of developmental complexity. Four elements comprise the Postconventional schema: (1) Primacy of moral criteria in making decisions about social cooperation in that conventions are not inviolate (i.e., a law does not trump moral goals- laws are instruments of morality, not moral themselves); (2) Appeal to an ideal rather than a rejection of the status quo for its own sake; (3) Moral obligations are to be based on sharable ideals rather than ethnocentric preference or personal intuition—this requires an openness to scrutiny and debate, in contrast to the ideals of conventional thinking which are shielded by the privileges of authority; (4) Full reciprocity that views the application of laws uniformly, like

conventional thinking, but also scrutinizes the laws themselves for fairness. Laws are subjected

to tests of logical consistency, coherence with accepted practice and community experience.

With DIT data, we are able to focus on the chasm between conventionality and

postconventionality. We see the effects of this chasm in the polarization of views on public

policy issues such as religion in public schools, abortion, euthanasia, and the rights of

homosexuals, about which more will be said later.[2]

The validity of the DIT

The validation strategy for the DIT has made it one of the best-validated measures in

psychology. The DIT meets all the criteria that a test of moral judgment should have (a thorough

discussion is available in Rest et al, 1999). Here is a brief outline of several validation criteria

and research findings.

(1) The DIT differentiates groups with different levels of expertise. Several large composite

samples of DIT respondents have been compiled and show that postconventional thinking

increases through college and post graduate education. When comparing the performance of

high and low scorers in postconventional thinking, the high scorers perform more like

experts do in other domains (see Narvaez, 1999; 2001). The DIT does not discriminate on

irrelevant factors such as sex. These are minimal and, if they occur at all, generally favor

females (<.1% of variance).

(2) Longitudinal studies show significant upward gains. Longitudinal studies indicate that

individuals do develop through different types of thinking. They move from more

egocentric to more sociocentric thinking. Their thought structures become more complex

and they are able to solve more complex problems. Using Kohlberg's theory, individuals

do move from lower-stage thinking to higher stage thinking. The greatest shifts occur in

adolescence when the individual becomes aware of the larger society, moving into the Maintaining Norms schema, social order thinking and then in college moving into the Postconventional schema.

(3) The data show evidence of a developmental hierarchy. Moral comprehension studies (e.g., Rest, 1969; 1973; Rest, Turiel, & Kohlberg, 1969) show that comprehension of moral reasoning is cumulative. Respondents with higher stage thinking abilities are able to understand reasoning pitched at lower levels. Although they can understand reasoning at stages lower than those they can paraphrase, they tend to disparage them and to prefer reasoning that is at or above the stage they can articulate.

(4) DIT scores are sensitive to interventions designed to improve moral judgment. Schlaefli, Rest, and Thoma (1985) performed a meta-analysis of 55 intervention studies and found an effect size of .41 (modest) for experimental groups in contrast with an effect size of .09 for control groups. Interventions need to last longer than three weeks and a dilemma-discussion approach works best (in contrast with lectures and readings alone).

Let me summarize what we know about what fosters development in moral judgment. (1) In a composite sample of 56 studies (n=6,863), Thoma found over 52% of the variance explained by education. Across studies, education is the most powerful demographic correlate with DIT scores, accounting for 30-50% of the variance (Rest, et al, 1999). (2) The richer the social environment and the greater the general social experience-- including multicultural experience (Endicott, Bock, & Narvaez, in press) – the greater the gains in postconventional thinking (Rest, 1986).

5) DIT data significantly predict to real-life moral behavior. Does a moral judgment score predict to anything beyond itself? Higher Postconventional scores on the DIT are linked

to prosocial behaviors such as community involvement (r=.31, *p*<.01) and civic responsibility (*r*=.44, *p*<.01) (Rest, 1986). In a review of studies, Thoma, Rest and Barnett (1985) found 32 of 47 statistical analyses of behavioral measures significant, both prosocial and antisocial. Interestingly, high postconventional scores are not all sweetness and light. Moral judgment sophistication appears independent of happiness (Schiller, 1997), can strain friendships (Thoma, MaloneBeach, & Ladewig, 1997) and, from Kohlberg's work, postconventional reasoning can lead you to behave in ways that make others want to kill you (Kohlberg, 1981).

6) <u>DIT scores significantly predict to political attitudes and choices</u>. Our research shows that moral judgment cannot be reduced to cultural ideology, or vice versa. Narvaez, Getz, Rest and Thoma (1999) measured religious ideology, political identity, and moral judgment. When each construct is measured separately, then combined, the product predicts powerfully to attitudes towards human rights (Narvaez et al, 1999)-- as much as 67% of the variance. We argue that what occurs through development is an interaction between autonomous and heteronomous moral processes (not the move from one to the other, as Piaget maintained). That is, individual conceptual development in moral judgment and socialization into cultural ideology co-occur, simultaneously and reciprocally, in parallel, and not serially. Individual development in moral judgment provides the epistemological categories for cultural ideology which in turn influences the course of moral judgment, all of which influence moral thinking about social issues (e.g., opinions about abortion, free speech).

In fact, our work provides some insight into the clash between orthodoxy and progressivism that is on the rise in this country and elsewhere (Hunter, 1991) and is

considered by some to be the most important clash in ideology since the Cold War (see

Marty & Appleby, 1993). By definition, religious fundamentalism regards the

questioning of its authority as beyond human scrutiny, forbidden to inquiry and debate.

Religious authoritarianism is related to high Maintaining Norms scores on the DIT. If at

the point when most people shift to postconventional thinking a person is embedded in a

fundamentalist social context, chances are that the individual will be blocked from

progression into Postconventional thinking which is based on open scrutiny and debate.

Therefore in Orthodoxy we have an example of moral judgment influencing cultural

ideology, and vice versa.

Regardless of how you study them or name them, Kohlbergian stages and neo-Kohlbergian

schemas are global structures that don't offer specific help in deciding about particular situations.

This has been noted especially in the professions that aspire to teach ethics (e.g., Strike, 1982). Neo-

Kohlbergian theory emphasizes the importance of studying intermediate ethical concepts, the

concepts that guide everyday decision making. For example, Bebeau and Thoma (1999) found

differences between novices (freshman dentistry students) and experts (senior students) in the

identification and application of intermediate ethical constructs within dentistry, such as "patient

autonomy" and "informed consent."

The shift toward cognitive science

Neo-Kohlbergian theory as described in the 1999 book (Rest et al., 1999) began to bridge

the gap between current trends in psychology, such as cognitive science, and moral psychology.

As part of this transformation, neo-Kohlbergian theory integrated schema theory into its

reconceptualization of moral judgment development. Kohlberg sought to measure cognitive

structure apart from particular content. But when studying expertise in a particular domain, it is

not so easy to separate structure from content. Experts have more and better organized domain knowledge which is often characterized as schemas.

Schemas play an important role in my work so let me spend a little time discussing them. What are schemas? The notion of schemas is one that has driven research in cognitive psychology for decades and underlies most theories of knowledge acquisition. Piaget described cognitive structures as schemas that organize an individual's operational activities (Piaget, 1970). Classic schema theorists (e.g., Rummelhart, 1980; Taylor & Crocker, 198l) describe schemas as general knowledge structures residing in long term memory. According to Marshall (1999), schemas have three key sets of features: their form, their creation, and their application.

Form. Schemas are basic storage devices represented by a tightly organized network structure. Schemas vary in size and can be embedded in or overlap with other schemas. Schemas are noted for their flexibility in accessibility and adaptation. There are usually several routes available for accessing a schema. No instantiation of the schema is identical to another, and each instantiation alters the schema.

Creation. Schemas are not memorized but constructed from understandings, from prior knowledge. A schema will develop in response to repeated opportunities to solve a particular kind of problem. Although individuals experience life uniquely, the similarity of their experiences brings about the development of similar schemas.

Application. Schemas include both procedural knowledge (rules) and declarative knowledge (concepts and facts). Schemas can be applied subconsciously and automatically or in a consciously and controlled manner.

The DIT is now understood as a device that activates moral judgment schemas from long-term memory. That is, it activates the schemas that are present in the mind of the respondent.

Subsequent processing of considerations is concept-driven processing (top-down) based on the networks of ideas that have been activated. The DIT presents a dilemma about which the respondent makes a decision (e.g., for "Heinz and the drug," the respondent decides whether or not Heinz should steal the drug). The respondent is then presented with 12 considerations and asked to rate how important each was in his or her decision making and which were the most important. From the rating and rankings of items, several scores are constructed, including the postconventional score which is the most widely used.

DIT items strike a balance between too much and too little information, necessitating the activation of existent schemas. Humans work most of the time with partial information from the stimulus array or environmental input. Schemas help fill in the blanks. When the respondent is presented with an item that relates to a schema the participant has, that item is given a high rating. When an item does not fit an activated schema, the item is rated of low importance.

Schemas facilitate information processing, allowing a person to more rapidly process information by providing a framework for analyzing stimuli (Taylor & Crocker, 1981). Schemas focus attention and affect processing time, speed of information flow, and speed of problem solving, including during reading (Gernsbacher, 1996). In fact, speeded recognition or reaction time is method widely-used by cognitive psychology to measure activated mental information (e.g. Higgins & Kruglanski, 1996). Respondents react more quickly when tested with a concept that is activated than when tested with a concept that is not activated. We find that this is the case when we compare more and less expert reasoners by timing their ratings of DIT items. Those who prefer the Maintaining Norms Schema are significantly faster in responding to items representing this schema while those who score high on the Postconventional Schema are significantly faster in rating items representing that schema (Narvaez, Endicott, & Thoma, 2001).

<u>Schemas and moral discourse processing</u>

I've been testing moral schemas in action with various studies in moral discourse processing. I've studied schema activation both during and after reading moral texts. In each case, schemas structure experience, often determining which information will be encoded during reading and what will be retrieved from long term storage at recall. Narvaez (1998) asked groups with different levels of moral judgment development--8th graders and college students-- to read and recall narratives about moral situations. Fragments of moral reasoning at Kohlberg stages 2-5 were embedded in the narratives. The results indicated that both groups recall equally the lower stage moral arguments (Kohlberg's stages 2, 3 and 4). Yet only readers with higher Postconventional scores were more likely to recall Postconventional (stage 5) reasoning (Narvaez, 1998).

Another finding with schemas is that readers will distort information to conform with preexisting schemas (e.g., Bartlett, 1932). This occurred in this study as well. Those with higher postconventional scores were significantly more likely to reconstruct Stage 5 moral arguments during recall, including stage-5 arguments that were not included in the original text. Whereas both high and low reasoners were equally like to construct stage 1-4 reasoning <u>not</u> in the text, only higher-level reasoners constructed stage-5 reasons that were not in the text.

Schemas drive on-line processing of information. Those with the appropriate schemas are able to apply them to problem solving. For example, I've compared performance of groups with more expertise to that of groups with less expertise in moral judgment and find that the more-expert group performs like experts from other domains (Narvaez, 1999). For example in one study, I asked participants to think aloud (saying everything that comes to mind) while reading two moral narratives embedded with moral reasoning. Those with more moral judgment

expertise (graduate students in philosophy and political science) performed like experts in other

domains (Pressley & Afflerbach, 1995). They gave more explanations and total expressions,

indicating a deeper understanding of and engagement with the texts. They also made more

predictions and evaluations, further evidence for task engagement. In addition, they expressed

more coherence breaks (e.g., disagreeing with the logic of events). Like experts in other

domains, they performed as if they had more and better organized knowledge (Chi & Ceci,

1987).

As a result of my studies with groups differing in expertise, I believe that moral judgment

is a domain that is similar to that of music. Most people have some knowledge of music. For

example they can sing songs, having learned from general experience how to carry a tune. Yet

general experience does not lead to expertise in music. Rather, expertise in music—whether it be

composition or performance—requires extensive, deliberative, focused study (e.g., Ericsson &

Smith, 1991). Likewise, although one can learn a great deal about moral reasoning in everyday

life, in order to reach the highest levels one must undergo deliberative, focused study. Like

Edelstein & Krettenauer (in press), I see moral judgment development comprising two kinds—

normative and specialized.

The lower end of moral judgment development is not tapped by the DIT because the DIT

is written at a 12-year-old reading level. So how might one study tacit moral judgment in

younger children? I begin with stories. When a reader processes a text, not only do they decode

the data before their eyes, they apply their world knowledge to what they are reading. That is,

their preexisting schemas interpret and drive their reading and understanding as they make

meaning of the text. As a result of individual active and constructive reading, readers do not form

the same mental representation from a text. Schema effects on reading comprehension have

been documented with culturally-specific texts (Bartlett, 1932; Harris, Lee, Hensley, & Schoen, 1988) and with level of reader familiarity with text material (e.g., Chiesi, Spilich, & Voss, 1979; Crafton, 1983; Spilich et al., 1979). When pondering the effect of schemas on reading some years ago, I wondered how moral development affected children's understanding of moral stories. Some traditionalists, like William Bennett, have convinced parents and teachers that reading moral stories to children will build their moral literacy and consequently their moral characters (e.g., Bennett, 1993). This assumes that readers come to a text with similar schemas and create the same meanings. For anyone who knows about reading comprehension, Bennett's premise and the conclusion are dubious.

To examine the effects of moral schemas on reading moral stories, my colleagues and I conducted several studies (Narvaez, Bentley, Gleason, & Samuels, 1998; Narvaez, Gleason, Mitchell, & Bentley, 1999). We tested third grade, fifth grade and college students using stories about getting along with others. For example, "Kim" concerns a girl whose family, while moving across the country, stops at a gas station where Kim receives too much change from the cashier. The moral messages concern honesty and self-control. After reading a story, participants were asked to rate and select the best matches to the original story theme from a set of paragraph-long stories and from a list of themes. We measured and controlled for reading comprehension. There were vast developmental differences in theme comprehension. For example, the 8-year-olds were much less likely to select the correct theme (11% of the time across stories) and they were consistently attracted to vignettes with the same actions (all groups were more attracted to this type of distractor, but the attraction decreased with age). In contrast to the younger children, the 11-year-olds selected the theme about half the time (45%) and the college students selected the theme nearly all of the time (91%). When selections and ratings were combined into an overall

"theme comprehension score" and reading comprehension was controlled, the statistical significance was large ($F(2,129) =74.65$, $p < .0001$, effect size=1.00).

In summary, discourse processing techniques are useful for examining the effects of schemas on moral cognition. Discourse processing focuses on a more everyday kind of moral thinking than the more global approaches (e.g., the DIT, Moral Judgment Interview) in which individuals process moral information that is mixed with other kinds of information, as is often the case in real life. Moral discourse research also allows more control over stimuli so that differences between input and output can be compared.

The shift toward a social-cognitive view of moral personality and expertise

The Kohlbergian tradition avoided speaking of personality and virtues and yet research into moral exemplars indicates that those who are nominated by their communities to moral exemplary status, are not nominated because of their moral reasoning. (And, although most nominees are conventional reasoners by interview standards [Colby & Damon, 1992; Hart, Fegley, & Wilson, 1995], it is likely that their DIT scores would indicate postconventional reasoning). Despite the importance of moral reasoning and its relation, for example to professional conduct, in everyday life other things matter more. Most researchers point to virtues or traits of character as the key to exemplary status. I would like to suggest a correction to this view.

Remember the four processes: moral sensitivity, moral judgment, moral motivation, moral action? Briefly, moral sensitivity has to do with noticing and interpreting events, moral motivation with maintaining an ethical identity, and moral action with striving to follow through and implement an action. It was ingenious of Rest (1983) to focus attention on the processes needed for a particular moral behavior. Unlike most analyses of moral behavior, he avoids talk of

virtues or personality traits. This is appropriate for two reasons I mention here. First, it fits with a socio-cognitive understanding of personality (Cantor, 1990; Mischel, 1990; 1999). According to this perspective, personality is not a static set of traits that is exhibited in some constant fashion across situations. Rather, it is a shifting set of dispositional ways of acting that correspond to context-specific features (Lapsley & Narvaez, in press-a; in press-b; Narvaez & Lapsley, in press). Second, it fits with our understanding of human learning. We learn in increments, we learn responses in particular situations to particular content. We develop declarative, procedural and conditional knowledge in each domain we experience, developing more and more complex schemas (Derry, 1996; Schank & Abelson, 1977). Now let me say more about these two points.

Personality is more like a set of evolving schemas than about static traits. A social cognitive view considers the construction of a moral personality as a construction of schemas and their accoutrements. For example, Cantor (1990) suggests that the cognitive substrate of personality consists of schemas, tasks and strategies. Schemas are organized around specific life experiences. Tasks are integrations of our cultural goals and schemas into personal goals. Strategies are a complex network of feelings, thoughts, efforts and actions that work together to bring about our life tasks. So, here again schemas are "meat and potatoes" constructs. Schema theories are fundamental constructs not only in social-cognitive personality theory (Cantor, 1990), but also in social perception (e.g., Fiske & Taylor, 1990), and in expertise literature (Chi, Glaser, & Farr, 1988).

Cantor (1990) suggests that the notion of expertise is applicable to the formation of personality. Three features of schemas underlie this proposal. First, individuals have chronically-accessible schemas that influence information processing, directing attention, filtering and organizing stimuli. Each person functions as an expert with the chronically accessible schemas

they have, tuning into key information that others miss. Second, chronically salient schemas will influence the selection of life tasks and goals. Third, chronic schemas translate into behavioral routines that become highly practiced and automatic. In a way, then, we are each "experts" in our own personalities. Our personal schemas guide our attention, our selection of life tasks and our behavioral routines.

Experts are qualitatively different from novices. First, experts have large, rich, organized networks of schemas, containing a great deal of knowledge about the domain of study (Chi, Glaser & Feltovitch, 1981; Sternberg, 1998). Second, because they have more and better organized knowledge in a domain, experts actually perceive the world differently. "Information can be picked up only if there is a developmental format ready to accept it" (Neisser, 1976, p. 55). Perception is inherently selection" (ibid, p. 55). What you see depends on who you are (Meilander, 1984). In other words, you see what you have a knowledge base to see. Third, the skills of experts differ from those of novices in several important ways. Unlike novices, experts know what knowledge to access, which procedures to apply, how to apply them and when it is appropriate. Vicente and Wang (1998) point out that the memory of experts is facilitated by prior knowledge in part because it provides goals and constrains what they look for and see, limiting the complexity of what they see (the "constraint attunement hypothesis").

So what is it that moral experts have? They are more expert in the kinds of schemas that we call moral. The four process model allows us to view moral behavior as a set of responses to particular situational features. Experts in the skills of moral sensitivity are better at quickly and accurately 'reading' a moral situation and determining what role they might play. Experts in the skills of moral judgment have many tools for solving complex moral problems. Experts in the skills of moral self/identity cultivate an ethical identity that leads them to prioritize ethical goals.

Experts in the skills of moral striving know how to keep their "eye on the prize," enabling them to stay on task and take the necessary steps to get the ethical job done. Viewed this way, moral behavior is pried from the rigidity of personality temperament and put into the realm of learnable behavior. It appears more like behavior in other domains like football or chess, as a set of skills that can be learned. This is not a new idea. Repeatedly throughout *The Republic*, Plato draws analogies from professions and vocations as analogies of the just person—one who has certain skills that are cultivated to expertise. According to this perspective, the variability that we see in moral behavior across contexts can be explained as variability in schema development and skill application across contexts, not necessarily as poor temperament or a lack of virtue. A more advantageous approach to describing moral exemplars is to look at their characteristics not as a bag of traits but as a set of highly developed skills, or *techne*, as proposed by Plato.

Yet, many character education programs use a trait understanding of character. This level of analysis is not helpful if one is desirous of specific guidelines on how to develop virtues in children. A belief in traits appears to drive the poor pedagogy that plagues many approaches to character education. If honesty, for example, is considered a trait, the best way to get children to be honest is to tell them to adopt the trait (hence the posters and assemblies emphasizing its importance). Of course, this is not an instructional approach that an educator would consider using to teach math or reading. Math and reading are viewed as domains whose skills can be learned. Adults should overcome their wariness of adopting such an attitude towards moral behavior. It is time to consider much of moral behavior as skills.

Application: Deliberative Character Education[3]

What schemas do moral experts have and how do we cultivate them? Let me address the 'what' question first. The four process model gives us a starting point (see Table 2 for brief

descriptions). Experts in moral sensitivity are better at generating usable solutions to problems because of their greater understanding of the consequences of possible actions. Experts in moral judgment can see the crux of a problem quickly and bring with them many schemas for reasoning about what to do. Their information processing tools are more complex but also more efficient. Experts in moral self/identity are directed by an organized structure of moral self-identity. Experts in moral striving demonstrate superior performance when completing an ethical action.

<div align="center">**PUT TABLE 2 ABOUT HERE**</div>

And now I'm going into the classroom to teach….but what do I teach? As you can tell, the four process model is not specified enough for instruction. In 1998, the Minnesota department of education was given a federal Character Education Partnership grant for work with middle school teachers. I was designer of the project and adopted the four process model as a foundational framework for developing a new model of character development. We collaborated with teachers and education leaders over the four years as we developed a framework for guiding character education. My student colleagues and I combed the literature to identify the features of moral personhood. We grounded our work in three areas: (1) common understandings of what it means to be good*;* (2) conclusions from the social sciences about what helps humans develop into flourishing prosocial beings; (3) the consensus among leaders worldwide on the necessary characteristics for citizens in the 21st century.

First, following Blasi (1990), we define goodness according to common understandings and ordinary language. According to this view, 'we know it when we see it.' The individual recognizes "(1) when the conditions for a certain meaning have or have not been fulfilled and (2) when an interpretation corresponds to his experience" (ibid, p. 62). Etzioni (1996) states: "certain

concepts present themselves to us as morally compelling in and of themselves" (p. 241). We do not explain the nature of a good person precisely. Instead, we delineate the skills that a person needs to have in order to function as a moral being in the world and we call this the Ethical Expertise model (EthEx). The Ethical Expertise model offers a framework of skills that are based on universals such as human rights (e.g., the United Nations Declaration of Human Rights), common notions of democratic citizenship, and the elements that foster human flourishing, individually and within community. These are based on the perspective that we all breathe the same air and walk the same globe. Individuals are so interdependent that it is hard to separate individual flourishing from group flourishing. Personal flourishing enables others to flourish. Whitehead (1929) states:

> "We inhibit the world when we inhibit our own growth. We are each a potential for every
>
> becoming. We inhibit all other human beings with our own limitations. Immediate acts
>
> pass into universal experience… Our decisions open and close other possibilities, we
>
> open and close the future." (p. 348)

Moral being is a joint effort. Individuals co-create the future, having much influence on one another's well being and becoming. It should be noted that is not always possible in the articulation of curriculum to make the fine distinctions of philosophy because what is analytical in philosophy becomes synthetic in educational practice. As one will notice, the skills of moral personhood overlap and are not orthogonal but we tried to simplify the picture for the sake of educational practicality. Throughout the project we balanced theoretical purity with practical need doing our best to make the framework user-friendly to teachers.

Second, the Ethical Expertise model is grounded fundamentally in a psychological description of human flourishing rather than in a philosophical one. But we are not unique in this

regard. Recently, philosophers have emphasized the importance of integrating psychology into a moral philosophy (Flanagan, 1996; Johnson, 1996). We agree with McKinnon's (1999) proposal for a functionalistic naturalism:

> "Given their nature, humans have certain quintessentially human needs and human abilities. These [are] relevant in determining what counts as a good human life. The point of morality is to assist us in leading better human lives, so we need to understand how our nature constrains what counts as a good human life…The normative component of ethics will be seen to emerge from certain natural facts about human beings and from the ways in which these facts constrain what counts as a good human life." (p. 6)

The normative claims of a moral theory ought to relate the characteristics of a good person to the characteristics of optimally-functioning individuals and communities. Individuals and communities may exist more or less optimally. When we identify the characteristics of an optimal life, we rule out choices that we know are harmful to humans (e.g., a violent upbringing) or to communities (extreme individualism. Plato suggested that actions that jeopardize well-being are unjust (The Republic, book four, part three). Human well-being and potential go hand in hand with virtuous behavior. Virtue is its own reward in terms of personal flourishing.

What are human needs? What are humans able to do? What are the constraints for human achievement and morality? The philosophical and psychological foundations of a moral education theory must directly connect to the daily experience of an individual in a practical way. A practical focus requires an operationalization of optimal functioning that addresses human needs, capacities and constraints.

In recent years, psychological science has learned quite a lot about human flourishing. Martin Seligman (2002) has initiated a positive psychology movement that focuses on optimal

human functioning—what it is and how to foster it in persons and communities. Positive psychology identifies particular factors that are generally related to positive outcomes and mental health. Our model includes these skills which are vital for social and psychological flourishing.

Third, it bears emphasizing that the good life is not lived in isolation. One does not flourish alone. The Ethical Expertise model is implemented in and with a community. It is the community who establishes, and nourishes the individual's moral voice, providing a moral anchor. Indeed, both Plato and Aristotle agreed that a good person is above all a good citizen. Hunter (2000) suggests that we find the answers to our existential questions in the particularities that we bring to a civic dialogue: "Character outside of a lived community, the entanglements of complex social relationships, and their shared story, is impossible" (p. 227). It is in the community that students apply and hone their ethical competencies.

Citizenship education fosters skills, attitudes and knowledge in students that enable them to effectively and responsibly participate in civic life. Davidson (2000) aptly points out that in a global world it is no longer feasible to consider citizenship "within the terms of the nation as something whose parameters are national" (p. 5). Rather, citizenship becomes a global "public" value. Consequently, citizenship in the 21st century must be considered in terms of what it means to be a citizen in a global society, rather than in a local or national society.

The Citizenship Education Policy Study Project (Cogan, 1997) was undertaken to yield a global consensus on the demands of citizenship in the early 21st century from a global society perspective. Policy experts (*n*=182) from nine countries and many different fields (e.g., government, business, science, education) participated in the project. They were asked to identify the global trends that will have a significant impact in the next 25 years, and the necessary characteristics of citizens to enable them to cope with these trends. The experts identified

several global trends that should be treated as priorities by policy makers. Trends to be encouraged include more regional alliances, fewer systematic mistreatments of marginalized groups, and the necessary adoption of environmentally-friendly methods by business and industry. Trends to be assuaged include increased disparities among peoples, a deterioration of the environment, increased consumerism and rising government control.

The policy experts in the Citizenship Education Policy Study Project identified the public virtues and values that a global citizen should have in the 21st century. It is anticipated that if people around the world do not develop these characteristics, there will be more wars and threats of war. The experts agreed on the characteristics listed in Table 3, in descending order of importance.

<p align="center">***PUT TABLE 3 ABOUT HERE***</p>

Using these three sets of guidelines, common understandings of goodness, psychological flourishing, and citizenship requirements, we organized our review of literature following Marshall's (1999) guidelines for "selecting schemas to guide instruction" (outlined below). This method is intended to replace a longitudinal study of expert knowledge in identifying a basic set of expert schemas to guide instruction.

1. According to Marshall, one should <u>Define the Universe</u> of a skill as an expert understands it. We examined philosophical, psychological, and educational literatures for the sensitivities, motivations and problem-solving skills that are considered important for a moral person to have. Some of these are rooted in simpler forms of knowledge and skills, which we included in our final developmental list.

2. <u>Situation Description</u>. We followed the guideline to describe the sets of situations to which expert schemas pertain. For example, we identified 'emotional expression' as a

skill area. But what does this mean? We tried to break skills into teachable units as subskills (e.g., reading emotions in others, expressing one's own emotions). Even these, however, are parsable (e.g., reading emotions in one culture or another, in one medium or another, in different sexes or ages). We spent most of our time outlining the big picture—the big list of skills and subskills. Still to be done is to take each subskill and note the characteristics and defining features of each within particular contexts, identifying the relations among elements. So we haven't done the network mapping of features and their relations although we are able to combine skills and subskills into more complex problems as Marshall suggests.

3. <u>Status Quo Appraisal</u>. Take into account the schemas students have already: What prior knowledge do they have? How do they use prior knowledge and how is it organized? We aimed our skills at the middle school level with the understanding that some skills are simple and should be somewhat familiar to most children by that age whereas some skills require years of study into adulthood if not life-long practice.

4. <u>Source Evaluation</u>. We examined existing instructional materials for match up with identified features of domain. We collected ideas for teachers to use to teach each subskill. For areas untouched by existing materials, we created suggestions for academic instructional activities.

5. <u>Theoretical Verification</u>. We elaborated on the hypothetical schema structures to corroborate that they conform to schema theory by considering the four kinds of knowledge (identification, elaboration, planning, execution) and how they might be manifested in the newly identified schemas. We believe that the skills and subskills

we've identified can be characterized as schemas and we present activities according to the four kinds of knowledge Marshall has outlined.

6. Practicality check. Whether or not an individual can acquire the knowledge identified is an empirical question, largely answered in the affirmative for empirically-based skills. Some skills, like "Find meaning in life" are less clearly supported by available data yet we believe that identifying adult exemplars for each of the skills and subskills is an indication of their learnability.

Concurrently with identifying the skills of moral expertise, we fit them into the four process model of moral behavior. As is necessary in educational application, we had to simplify the picture to make it manageable for teaching. Hence, for example, although a skill might feature in more than one process, we placed each skill and subskill in only one process. See Table 4 for the list of skills and subskills.

PUT TABLE 4 ABOUT HERE

Here are the four processes outlined in more detail by schemas that cluster with each process. Moral sensitivity involves not only moral perception, noticing and picking up a problem, but also what some philosophers call 'moral imagination,' interpreting a situation according to who might be affected, what possible actions might be taken, what possible reactions and outcomes might ensue. Moral imagination requires perspective taking, empathy, and controlling social bias.

Moral judgment or reasoning concerns selecting the action to take that is the most moral of the choices at hand. It requires reasoning and reflection skills. Of course, the choices can be limited by one's moral imagination or sensitivity, or may not occur unless moral perception is

activated. One's disposition to reason morally is affected by habits of filtering the world, such as optimistic reasoning and other types of resilient coping strategies.

Moral motivation has two aspects. Rest emphasized the short term aspect, the selection of priorities in the immediate situation—for example, choosing to visit a friend in the hospital rather than taking a much needed nap, or giving money saved for a vacation to a needy friend. In this model the long term aspect of self/identity is emphasized, oftentimes reflected in a code of ethics, either personal, religious or professional. Moral self/identity comprises many of the skills often referred to as virtues: respect, responsibility, conscience, integrity.

Ethical striving has two parts as well, one involving the perseverance to stay the course until the ethical job is done, and the other concerning knowing how to reach the goal—what steps to take to get there. To complete an ethical action one must have skills in conflict resolution, assertiveness, leadership, and planning.

We have outlined moral expertise schemas but how and what do we teach children? How do we get started and what are we aiming for? We need to examine what kind of knowledge forms a schema and what kinds of instructional and learning environments facilitate learning schemas. According to Marshall (1995), there are four levels of knowledge in a fully-developed schema, from less to more complex. These aspects come about more or less sequentially as a person builds a schema from experience.

> With identification knowledge, the boundaries or 'big picture' of the domain are roughed out. The student becomes familiar with the essential nature of domain situations, learning to recognize essential elements in the dynamic context, simultaneously processing multiple elements. Identification or pattern recognition is made based on configuration of elements. Gijselaers and Woltjer (1997a) note that when solving domain problems

novices have superficial knowledge of problems (e.g., a label for the problem) which is the beginning of identification knowledge.

Elaboration knowledge is declarative knowledge that enables the creation of a situation or mental model. It includes individual experience, including sensory information, and general abstractions. Initially, students benefit from prototypical examples. Elaboration knowledge focuses on the details of the elements in particular situations (verbal and visual).

Planning knowledge refers to the way a schema can be used to make plans, create expectations, and set up goals and subgoals. The schema is updated with each usage. Given more than one situation in a problem student must acquire knowledge necessary for determining which situation to examine first and how the situations are related to one another. The student learns to formulate a plan of action. Planning knowledge is difficult to acquire; it is greatly dependent on having the right mental model and being comfortable working with it.

Marshall's outline of schema development is supported by Rummelhart and Norman's (1980) view that schemas change with the accretion of new knowledge (e.g., the increased knowledge depth of intermediate experts), and the tuning and reconstruction of prior schemas (e.g., experts' slightly changed representations of problems).

PUT TABLE 5 ABOUT HERE

The ethical expertise model articulates a set of strategies for developing expertise. The development of moral expertise is seen to proceed in four levels of activities that correspond to these types of knowledge (see Table 5). Here is an example of a teacher using the four aspects of schema knowledge to structure a lesson. First the teacher focuses the students' attention, thereby

building concern for it among students (if the teacher thinks it is important, it must be so). The teacher coaches the student in the subskills of a skill, for example, Moral Self/Identity 3: Acting responsibly: Subskill 2: Learning stewardship. The teacher immerses students in experiences of and the need for good stewardship (e.g., water conservation), designing lessons that draw student attention to aspects of the skill (e.g., for mathematics: keep a record of how much water your family uses in a week), and providing opportunities for practice (e.g. practice turning off the faucet when you are not using the water, see what effect it has on amount of water used in a week).

How do we structure deliberative character education?

We've identified the skills and the nature of the schemas that underlie them. But how do we teach moral expertise to children? Identifying the skills to be learned is not enough. One must say something about how the skills are to be taught. Looking at the structure of education for experts provides us with some guidance that is well-supported empirically. There are three elements that are critical to developing expert schemas: (1) the environment must provide the student with the correct feedback, (2) students must learn and use theory while they build domain-relevant intuitions, and (3) students must practice, practice, practice!

The right environment. Every individual effortlessly learns from interaction with the environment, finding contingencies and regularities, creating representations such as schemas, building knowledge about what works and what doesn't. Human experience is by and large dependent on vast networks of this kind of tacit or implicit knowledge, learned inside and outside of school. Because learning is automatic and operates on what is seen or experienced directly, it occurs in wicked as well as good environments so it is common for individuals can learn inappropriate as well as appropriate intuitions. As Hogarth (2001, p. 85) says: "The process that

leads to acquiring valid beliefs about the world is the same process that leads to acquiring superstitions and other erroneous beliefs." This means, for example, that a child raised in a white-supremacist environment will develop intuitions corresponding to that environment. The child is not able to develop appropriate intuitions about the hated groups if there is no direct positive experience with them. Hence intuitions garnered from the experienced and observed can be inappropriate intuitions that become firm beliefs (a self-fulfilling prophecy).

Tacit knowledge forms the rich base of practical intelligence within any domain (Sternberg, 1998). Experts-in-training learn in well-structured environments which provide them with the feedback they need to perform well. The key to developing moral character is selecting and designing the environments that influence the intuitions the child develops (Hogarth, 2001). The most important conclusion we can draw for education is that if the child is learning constantly from the regularities in the environments, then the environments in which educators and parents place them must be designed or chosen carefully. The environment for learning is critical for skill development. The environment reinforces and rewards particular responses. Too often, adults do not attend to the reward structures of the environments in which they place children, thinking that their intent is strong enough. If children don't get appropriate learning structures for character development in school, and they don't get them outside of school, what is the result? Their character development is haphazard. Their moral personhood is spotty and opportunistic.

How do educators begin to foster in students the vast network of schemas that make up a domain's practical intelligence. Since so much of human processing and decision making—including moral --- occurs on an intuitive level built from long-term experience, this must be the focus of moral education. Deliberative, intentional character education is critical because

children are going to automatically learn and if they don't learn ethical skills they will learn vice (Kekes, 1990).

Learn and use theory. It is not only an appropriate environment that contributes to the development of expertise. Learning from experience without reflection can be harmful, in part because one tends to engage in 'single-loop' learning, learning that confirms what you already know or think you know (Argyris, 1991). Instead, the most effective learning Argyris calls 'double-loop' learning in which people question what they know or think they know. Another way to say this is to point out how the deliberative mind is needed to counteract the automatic responses of intuitions, to rethink behaviors associated with those intuitions. This has been demonstrated in research with older adults who do not wish to be racists. They may have automatic prejudiced responses, but their deliberative mind keeps them from acting on them (Gilbert, 1989; Quattrone, 1982).

Experts become experts in part because they learn to use explicit theory developed by previous generations of experts (Abernathy & Hamm, 1995). Along with the implicit learning that comes from immersion in a situation, they are given theoretical tools with which to perceive the domain. In expert education, the intuitive mind and the analytical mind are developed together.

Practice. But there is more to building expertise than a well-structured environment and learning theory. Experts put in a lot of time and focused effort/practice in the domain (Ericsson 1994). The standard amount of time it takes to become a world-class expert is 10,000 hours or approximately 10 years (Chase & Simon, 1973). This practice is not just time on task, it is focused on the key skills of the domain and it is coached by an expert.

Practice should occur in authentic settings because real-world schemas involve multiple brain systems (e.g., visual, motor, language) and cognitive processes (Hogarth, 2001; Kesner, 1986). Schemas can involve one kind of system, for example, procedural knowledge (e.g., how to introduce one friend to another) or declarative knowledge (what morality means), or a combination of systems. Schema application can involve different types of reasoning (Ericcson & Smith, 1991), such as analogical and/or intuitive reasoning (Hogarth, 2001); different types of processing such as linear and/or parallel processing (McClelland, 1995); different levels of awareness such as subconscious and automatic or in conscious and controlled (Uleman & Bargh, 1991); and different types of knowledge (declarative, procedural). Essentially, a schema is a goal-oriented cognitive mechanism that operates in particular contexts using one or more of these systems (Neisser, 1976).

In summary, to build expertise you need a well-structured environment, explicit use and learning of theory and an enormous amount of focused, deliberative practice (Ericsson & Smith, 1991). Likewise, to become people of good character, students need opportunities to develop their intuitions in well-structured environments, explicit instruction about the theory behind the skills they are learning, and coached practice to develop their ethical skills properly. From all this, experts develop a whole set of skills including reflective skills, routines and superior processing capabilities (Abernathy & Hamm, 1995).

Character Development Day to Day

There are three aspects of character development education I want to emphasize. The model of skill development I've just presented is intended to be incorporated into standards-driven academic instruction at school. A second aspect is the climate of the school: the way that adults treat one another and treat the students is fundamental to building caring school communities that nurture

character and moral identity (Solomon, et al. 2002). The third aspect is related to both of these but focuses on the orientation of the adult. In other words, what should parents and teachers be doing moment to moment to foster character development in children?

Let me just mention two sets of actions that parents and teachers ought to take, based on research across psychology. Experts-in-training often experience these things in their training as their intuitions and schemas develop. These two areas stem from a longer list of preliminary suggestions that I am putting together (Narvaez, in preparation) and are things that good parents and teachers do, but more often accidentally: marketing morality and fostering a moral personal narrative. Within the current social context in which most of what children are experiencing encourages immoral character development, we must be intentional and deliberate in character development education. Essentially what needs to be done is to select the schemas you want them to have and build them from the ground up (Derry, 1996; Marshall, 1999).

Market morality. First, parents and teachers should market morality, that is, they should capture children's attention and influence preconscious and subconscious processing. Right now, children live in a world of marketing and branding (Quart, 2003). They are bombarded with messages and most of these messages do not encourage morality. Parents and teachers need to offer a counterweight, conscientiously fighting back. This means far more than putting up posters. Marketers use many techniques to make a brand attractive. Some of these techniques are included here for parents and teachers to use.

(a) Focus the child's attention on moral aspects of situations. We are easily led to believe in the importance of what our attention is drawn to by others, whether it is washing hands before a meal or watching the Super Bowl. Functioning like a spotlight, attention has the dominant function of facilitating all critical functions of the whole system: perception,

storage, retrieval, focus, sequencing and testing (Hamilton, 1983). Experts are coached to attend to certain features and to think in certain ways (Marshall, 2001). For deliberative character education, adults need to focus children's attention on being morally sensitive, reasoning morally, being morally motivated and taking moral action.

(b) Make moral processes familiar. We know from research in perception and social cognition that ease of processing breeds preference (Zajonc, 1980). The billions of dollars put into advertising attest to this effect. What is familiar becomes preferred. What kinds of things are children most familiar with these days? A few are: fast food products, movie merchandising, and violence.

(c) Focus on morality so much that the person will automatically orient themselves to it. Build automaticity by frequent presentation of constructs and frequent experience. There is evidence that people chronically gauge events and other people by particular measurements, `chronically accessible constructs' such as thinness, intelligence, or income (Fiske & Taylor, 1991; Higgins, 1999). Chronically-accessed constructs influence one's impressions of others, memory for and interpretation of social events (Higgins, 1999). This is true for moral constructs as well (Lapsley & Lasky, 1999). For example, a parent who is always worried about weight will likely raise a child with similar automatic orientations. Similarly, a parent who is explicitly concerned about being considerate of others will likely raise a child with a similar preoccupation. Right now, the U.S. culture is encouraging in its citizens the development of consumerism as a chronically accessible construct, and it is becoming the most elaborated schema many children have.

 (d) Prime with prosocial thoughts/actions. Strong claims are made for "the automaticity of everyday life" (Bargh, 1997). For example, there is evidence that non-conscious mental

systems direct self-regulation (Bargh & Chartrand, 1999), and that evaluations, social

perceptions, judgment, social interactions and internal goal structures are similarly operative

without conscious intention or acts of will (Bargh & Ferguson, 2000). Indeed, Bargh and

Chartrand (1999) argue that we are not normally engaged in active planning, selecting,

choosing or interpreting when processing information. Moreover, "the ability to exercise

such conscious, intentional control is actually quite limited" (ibid., p. 462). We are primed

by the actions of others, by the images and messages that surround us. Too often children

are primed with violence and cruelty rather than with concern and helpfulness.

(e) Influence processing at all times with a prosocial, proactive bias. Bruner (1957) noted

that a lot of social information is inherently ambiguous. The ambiguity about what was

happening to Kitty Genovese as she was murdered played into the inaction of the many

spectators who succumbed to the paralysis of the bystander effect (Staub, 1978) --the belief

that someone else would act if action was worthwhile (as the Genovese witnesses indicated).

Fiske and Taylor (1991), Bargh (1989) and others suggest that, because of this ambiguity,

social perception is driven by category accessibility, ease of category activation. As a result,

cue processing is affected by chronic accessibility constructs, priming and well-rehearsed

schemas. Better-rehearsed, schemas may be initially selected and held onto despite

evidence against them (Bargh, 1989; Korac & Collins, 1983). In order to counter the bias

towards inaction, we need to prepare our children to take action under ambiguity. We should

teach our children to be proactive regardless of what others do or don't do, with an attitude

of "What can I do to help?"

Provide narrative elaboration. We learn who we are from stories, the stories told about us and the

stories we tell ourselves (e.g., Schank, 1999). Parents and adults need to use narrative elaboration to

develop the child's sense of self and through it, the child's moral motivation. Children hear many self-engrossing narratives from current society and most of them focus on hedonism, consumerism, and status. If parents and teachers don't provide children with a scaffolded narrative, marketers are all too happy to do so.

(a) Verbalize and interpret things for the child. The child internalizes adult speech and adult cultural knowledge (Rogoff, 1998; Vygotsky, 1987). Put moral thinking into words. Talk, reason, tell stories about moral goals. Develop the child's moral imagination.

(b) Foster a prosocial moral narrative. Individuals operate in a narrative world framework that they themselves have structured and in which they make behavioral choices (McAdams, 1993; Schank, 1999). Adults influence this world by what they emphasize, what they expect, and by what environments they set up for children.

(c) Fill memories with moral schemas. Not only is more of an experience remembered when it is accompanied by words, the way the adult helps the child remember events -- for example, the types of questions an adult asks -- actually structures the child's memory (Fivush, 1991; Nelson, 1986). To foster personal moral schemas, adults can remind children how they helped and how they were good, teaching children to automatically self-assess in these ways.

(d) Teach metacognitive skills. Children can learn the metacognitive skills that moral experts have, including those of self control (Mischel, 1990): (a) Self-monitoring of attention away from temptations; (b) Top-down executive control of negative impulses; (c) Awareness of susceptibilities to particular stimuli; (d) Self-cheerleading when energy flags.

Conclusion

Piaget and Kohlberg gave life to the psychological study of moral development. They provided us with routes to study the deliberative moral mind. We have looked at the transformation of moral development theory from a focus on moral judgment stages to moral judgment schemas, from a focus on moral judgment schemas to a broader focus on the schemas of moral personality. We discussed the importance of schemas in human information processing, including multiple moral processes. I outlined the kinds of skills and schemas moral experts have and made suggestions for how to nurture them in children. This requires an emphasis on creating good environments for intuition development, providing analytical tools, and providing extensive coached practice. It is time to focus on developing the intuitive moral mind. It is time to be deliberative about helping children develop prosocial intuitions. It is time to coach children on developing character skills. With such an education, students will develop schemas of goodness, of justice, of compassion. They will learn routines of helping, reasoning, and following through. They will learn skills of leadership, commitment and respect. They will build memories of personal ethical action and build empathic reactions to others. With such an education, they will become the citizens we need for the 21st century.

Endnotes

[1] The topics discussed in this section are fully described in Rest, Narvaez, Bebeau, & Thoma, 1999.

[2] It is necessary to point out that the distinction between Maintaining Norms and Postconventional schemas is not the same as a left-right political distinction. Rather, it is possible to be right-wing conventional (e.g., those who argue that it is unpatriotic to criticize one's government when it is at war) or left-wing conventional (e.g., those who argue that it is illiberal to criticize the philosophical positions taken by the traditionally oppressed). And it is possible to be left-wing postconventional (e..g., John Rawls, 1971) or right-wing postconventional (e.g., as a libertarian like Robert Nozick, 1974 or a communitarian like Michael Walzer, 1983).

[2] The topics discussed in this section are more fully developed in Narvaez (in preparation).

References

Abernathy, C.M., & Hamm, R. M. (1995). *Surgical intuition*. Philadelphia: Hanley & Belfus, Inc.

Adelson, J. (1971). The political imagination of the young adolescent. *Daedalus, 100,* 1013-1050.

Argyris, C. (1991, May-June). Teaching smart people how to learn. *Harvard Business Review*, 44-54.

Bargh, J.A. & Ferguson, M.J. (2000). Beyond behaviorism: On the automaticity of higher mental processes. *Psychological Bulletin, 126*, 925-945.

Bartlett, F. A. (1932). *A study in experimental and social psychology.* New York: Cambridge University Press.

Beauchamp, T. L. & Childress, J. F. (1994). *Principles of biomedical ethics, Fourth Edition.* New York: Oxford University Press.

Bebeau, M., Rest, J. R. & Narvaez, D. (1999). Beyond the promise: A framework for research in moral education. *Educational Researcher, 28* (4), 18-26.

Bebeau, M.J. & Thoma, S.J. (1999). "Intermediate" concepts and the connection to moral education. *Educational Psychology Review, 11,* 343-360.

Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin, 88*, 1-45.

Blasi, A. (1983). Moral cognition and moral action: A theoretical perspective. *Developmental Review, 3*, 178-210.

Blasi, A. (1984). Moral identity: Its role in moral functioning. In W.M. Kurtines & J.L. Gewirtz (Eds.), *Morality, moral behavior and moral development* (pp. 128-139). New York: Wiley.

Blasi, A. (1990). How should psychologists define morality? Or, the negative side effects of philosophy's influence on psychology. In T. Wren (Ed.), *The moral domain: Essays in the ongoing discussion between philosophy and the social sciences* (pp. 38-70). Cambridge, MA: MIT Press.

Blasi, A. (1993). The development of identity: Some implications for moral functioning. In G. G. Noam & T.E. Wren (Eds.), *The moral self* (pp. 99-122). Cambridge, MA: MIT Press.

Cantor, N. (1990). From thought to behavior: "Having" and "doing" in the study of personality and cognition. *American Psychologist, 45*, 735-750.

Cervone, D. & Shoda, Y. (1999) Social-cognitive theories and the coherence of personality. In D. Cervone & Y. Shoda (Eds.), *The coherence of personality: Social-cognitive bases of consistency, variability and organization* (pp. 3-36). New York: Guilford Press.

Chi, M.T.H., & Ceci, S.J. (1987). Content knowledge: Its role, representation, and restructuring in memory development. In Reese, H. W. (Ed.), *Advances in child development and behavior, Vol. 20* (pp. 91-142). San Diego, CA: Academic Press, Inc.

Chi, M.T.H., Glaser, R., Farr, M.J. (1988). *The nature of expertise*. Hillsdale, NJ: Erlbaum.

Clouser, K. D. & Gert, B. (1990). A critique of principlism. *The Journal of Medicine and Philosophy, 15,* 219-236.

Colby, A., Kohlberg, L., Gibbs, J., & Lieberman, M. (1983). A longitudinal study of moral judgment. *Society for Research in Child Development: Monograph Series,* Chicago.

Colby, A., Kohlberg, L., Speicher, B., Hewer, A., Candee, D., Gibbs, J., & Power, C. (1987). *The Measurement of Moral Judgment, Vols. 1 and 2*. New York: Cambridge University Press.

Davidson, P. Turiel, E., & Black, A. (1983). The effect of stimulus familiarity on the use of criteria and justifications in children's social reasoning. *British Journal of Developmental Psychology, 1,* 49-65.

DeGrazia, D. (1992). Moving forward in bioethical theory: Theories, cases, and specified principlism. *The Journal of Medicine and Philosophy, 17,* 511-539.

Derry, S.J. (1996) Cognitive schema theory in the constructivist debate. *Educational Psychologist, 31*, 163-174.

Edelstein, W. & Krettenauer, T. (in press). Many are called, but few are chosen: Moving beyond the modal levels in normal development. In D. Lapsley & D. Narvaez (Eds.), *Moral development: Self and identity*. Mahwah, NJ: Erlbaum.

Eisenberg, N. (Ed.) (1982). *The development of prosocial behavior*. New York: Academic Press.

Endicott, L., Bock, T., & Narvaez, D. (in press). Multicultural experience, moral judgment and intercultural development. *International Journal of Intercultural Relations*.

Ericsson, K. A., & Smith, J. (Eds.) (1991). *Toward a general theory of expertise*. New York: Cambridge University Press.

Fiske, S. T. & Taylor, S. E. (1991). *Social cognition* (2nd ed.). NY: McGraw-Hill.

Fivush, R. (1991). The social construction of personal narratives. *Merrill-Palmer Quarterly, 37*(1) 59-81.

Gibbs, J. (1979). Kohlberg's moral stage theory. A Piagetian revision. *Human Development, 22,* 89-112.

Gleason, T., & Narvaez, D. (2003). *Expertise differences in comprehending moral narratives*. Manuscript in preparation.

Gielen, U. P., & Markoulis, D. C. (1994). Preference for principled moral reasoning: A developmental and cross-cultural perspective. In L. L. Adler & U. P. Gielen (Eds.), *Cross-cultural topics in psychology* (pp. 73-87). Westport, CT: Praeger.

Gilligan, C. (1982). *In a different voice.* Cambridge, MA: Harvard.

Hare, R. (1963). *Freedom and reason*. New York: Oxford University Press.

Hart, D., Yates, M., Fegley, S., & Wilson, G. (1995). Moral commitment in inner-city adolescents. In M. Killen & D. Hart (Eds.), *Morality in everyday life* (pp. 371-407). Cambridge, England: Cambridge University Press.

Higgins, E.T. (1999). Persons and situations: Unique explanatory principles or variability in general principles? In D. Cervone and Y. Shoda (Eds.), *The coherence of personality: Social-cognitive bases of consistency, variability and organization* (pp.61-93). New York: Guilford Press.

Jensen, L. A. (1996). *Different habits, different hearts: Orthodoxy and progressivism in the United States and India*. Unpublished doctoral dissertation, University of Chicago.

Kane, R. (1996). *The significance of free will.* Oxford: Oxford University Press.

Kane, R. (1999). Responsibility, luck, and chance: Reflection on free will and indeterminism. *Journal of Philosophy, 96,* 217-240.

Keil, F.C., & Wilson, R.A. (1999). *Explanation and cognition*. Cambridge, MA: MIT Press.

Kekes, (1990). ***

Kohlberg, L. (1958). *The development of modes of moral thinking and choice in the years 10-16.* Unpublished doctoral dissertation, University of Chicago.

Kohlberg, L. (1963). The development of children's orientations toward a moral order: Sequence in the development of moral thought. *Vita Humana, 6,* 11-33.

Kohlberg, L. (1968). The child as a moral philosopher. *Psychology Today, 7,* 25-30.

Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory* (pp. 347-480). Chicago: Rand McNally.

Kohlberg, L. (1971). From is to ought: How to commit the naturalistic fallacy and get away with it in the study of moral development. In T. Mischel (Ed.), *Cognitive development and epistemology* (pp. 151-236). New York: Academic Press.

Kohlberg, L. (1976). Moral stages and moralization: The cognitive developmental approach. In T. Lickona (Ed.), *Moral development and behavior*. New York: Holt, Rinehart & Wilson.

Kohlberg, L. (1984). *Essays on moral development: The nature and validity of moral stages, Vol. 2.* San Francisco: Harper & Row.

Kohlberg, L., Levine, C., & Hewer, A. (1983). *Moral stages: A current formulation and a response to critics*. (Vol. 10 of *Contributions to Human Development*, J. A. Meacham, Ed.). Basel, Switzerland: Karger.

Lapsley, D.K. (1996). *Moral Psychology*. New York: Westview Press.

Lapsley, D.K. & Lasky, B. (1999). Prototypic moral character. *Identity, 1(4)*, 345-363.

Lapsley, D., & Narvaez, D. (Eds.) (in press). *Morality, self and identity: Essays in honor of Augusto Blasi.* Mahwah, NJ: Erlbaum.

Lapsley, D. & Narvaez, D. (in press). A social-cognitive view of moral character. In D. Lapsley & D. Narvaez (Eds.), *Moral development: Self and identity.* Mahwah, NJ: Erlbaum. Manuscript in preparation.

Lapsley, D., & Narvaez, D. (in press). Moral psychology at the crossroads. In D. Lapsley & Power, C. (Eds.), *Character Psychology and Character Education*. University of Notre Dame Press. Manuscript in preparation.

Lourenço, O., & Machado, A. (1996). In defense of Piaget's theory: A reply to 10 common criticisms. *Psychological Review, 103*(1), 143-164.

McNeel, S. P. (1994). College teaching and student moral development. In J. Rest & D. Narvaez (Eds.), *Moral development in the professions: psychology and applied ethics* (pp. 27-50). Hillsdale, NJ: Lawrence Erlbaum.

Meilaender, G. (1984). *The theory and practice of virtue*. Notre Dame, IN: University of Notre Dame Press.

Mischel, W. (1990). Personality dispositions revisited and revised: A view after three decades. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 111-134). New York: Guilford.

Mischel, W. (1999). Personality coherence and dispositions in a cognitive-affective personality system (CAPS) approach. In D. Cervone & Y. Shoda (Eds.), *The coherence of personality: Social cognitive bases of consistency, variability and organization* (pp. 37-60). New York: Guilford Press.

Narvaez, D. (book in preparation). *Educating moral intuition.*

Narvaez, D. (1998). The effects of moral schemas on the reconstruction of moral narratives in 8th grade and college students. *Journal of Educational Psychology, 90*(1), 13-24.

Narvaez, D., with Endicott, L., Bock, T., & Lies, J. (in press). *Foundations of Character in the middle school: Developing and nurturing the ethical student.* Chapel Hill, NC: Character Development Publishing.

Narvaez, D. (1999). Using discourse processing methods to study moral thinking. *Educational Psychology Review, 11* (4), 377-394.

Narvaez, D. (2001). Moral text comprehension: Implications for education and research. *Journal of Moral Education, 30* (1), 43-54.

Narvaez, D. (2002). Does Reading Moral Stories Build Character? *Educational Psychology Review 14*(2), 155-171.

Narvaez, D., Bentley, J., Gleason, T., Samuels, J. (1998). Moral theme comprehension in third grade, fifth grade and college students. *Reading Psychology, 19*(2), 217-241.

Narvaez, D. & Bock, T. (2002). Moral schemas and tacit judgement or how the Defining Issues Test is supported by cognitive science. *Journal of Moral Education, 31*(3), 297-314.

Narvaez, D., Getz, I., Rest, J. R., & Thoma, S. (1999). Individual moral judgment and cultural ideologies. *Developmental Psychology, 35,* 478-488.

Narvaez, D., Gleason, T., Mitchell, C. & Bentley, J. (1999). Moral Theme Comprehension in Children. *Journal of Educational Psychology, 91*(3), 477-487.

Narvaez, D., & Lapsley, D. (in press). The psychological foundations of moral expertise. In D. Lapsley & Power, C. (Eds.), *Character Psychology and Character Education .* University of Notre Dame Press. Manuscript in preparation.

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

Narvaez, D. & Rest, J. (1995). The four components of acting morally. In W. Kurtines & J. Gewirtz (Eds.), *Moral behavior and moral development: An introduction* (pp. 385-400). New York: McGraw-Hill.

Neisser, U. (1976). *Cognitive Psychology* (New York, Appleton-Century-Crofts).

Nelson, K. (1986). Event knowledge and cognitive development. In K. Nelson (Ed.), *Event knowledge: Structure and function in development*. Hillsdale, NJ: Erlbaum.

Nunner-Winkler, G. (1983). Two moralities? A critical discussion of an ethic of care and responsibility versus an ethic of rights and justice. In W. Kurtines & J. Gewirtz (Eds.), *Morality, moral behavior and moral development: Basic issues in theory and research.* New York: Wiley.

Pascarella, E. T. & Terenzini, P. (1991). *How college affects students: Findings and insights from twenty years of research.* San Francisco: Jossey-Bass.

Piaget, J. & Inhelder, B. (1969). *The psychology of the child* (trans., H. Weaver). New York: Basic Books.

Quart, A. (2003). *Branded: The buying and selling of teenagers.* Cambridge, MA: Perseus.

Rawls, J. (1971). *A theory of justice.* Cambridge, MA: Harvard Press.

Rest, J. (1973). The hierarchical nature of stages of moral judgment. *Journal of Personality, 41,* 86-109.

Rest, J. (1979). *Development in judging moral issues.* Minneapolis: University of Minnesota Press.

Rest, J. (1983). Morality. In P. H. Mussen (Series Ed.) & J. Flavell & E. Markman (Vol. Ed.), *Handbook of child psychology: Vol. 3, Cognitive Development* (4th ed., pp. 556-629). New York: Wiley.

Rest, J. (1986). *Moral development: Advances in research and theory.* New York: Prager.

Rest, J. & Deemer, D. (1986). Life experiences and developmental pathways. In J. Rest (Ed.), *Moral development: Advances in research and theory.* (pp. 28-58). New York: Praeger.

Rest, J. & Narvaez, D. (1991). The college experience and moral development. In W. Kurtines

and J. Gewirtz (Eds.), *Handbook of Moral Behavior and Development* (pp. 229-245).

Hillsdale, NJ: Lawrence Erlbaum Press.

Rest, J. R. & Narvaez, D. (Eds.) (1994). *Moral development in the professions: Psychology and

applied ethics.* Hillsdale, NJ: Lawrence Erlbaum.

Rest, J. & Narvaez, D. (1994). Summary: What's possible? In J. R. Rest and D. F. Narvaez

(Eds.), *Moral development in the professions: Psychology and applied ethics* (pp.

213-224). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Rest, J. & Narvaez, D. (Eds.) (1994). *Moral development in the professions: Psychology and

applied ethics.* Hillsdale, NJ: Lawrence Erlbaum.

Rest, J., Narvaez, D., Bebeau, M., & Thoma, S. (1999). A neo-Kohlbergian approach to moral

judgment: An overview of Defining Issues Test research. *Educational Psychology

Review, 11*(4), 291-324.

Rest, J. R., Narvaez, D., Bebeau, M., & Thoma, S. (1999). *Postconventional moral thinking: A

neo-Kohlbergian approach.* Mahwah, NJ: Erlbaum.

Rest, J. R., Narvaez, D., Bebeau, M., & Thoma, S. (2000). A neo-Kohlbergian approach.

Journal of Moral Education, 29 (4), 381-395.

Rest, J., Narvaez, D., Thoma, S. J., Bebeau, M. J. (1999). DIT2: Devising and testing a new

instrument of moral judgment. *Journal of Educational Psychology, 91*(4), 644-659.

Rest, J., Thoma, S. J., & Edwards, L. (1997). Devising and validating a measure of moral

judgment: Stage preference and stage consistency approaches. *Journal of Educational

Psychology, 89*(1), 5-28.

Rest, J., Thoma, S. J., Moon, Y. L., & Getz, I. (1986). Different cultures, sexes, and religions. In. J. Rest (Ed.), *Moral development: Advances in research and theory* (pp. 89-132). New York: Praeger.

Rest, J., Thoma, S. J., Narvaez, D., & Bebeau, M. J. (1997). Alchemy and beyond: Indexing the Defining Issues Test. *Journal of Educational Psychology, 89* (3), 1-10.

Rest, J., Turiel, E., & Kohlberg, L. (1969). Level of moral development as a determinant of preference and comprehension of moral judgments made by others. *Journal of Personality, 37,* 225-252.

Schank, R.C. (1999). *Dynamic memory revisited*. Cambridge, England: Cambridge University Press.

Schank, R.C. & Abelson, R. (1977). *Scripts, plans, and goals.* Hillsdale, NJ: LEA.

Schiller, R. (1999). The relationship of developmental tasks to life satisfaction, moral reasoning, and occupational attainment at age 28. *Journal of Adult Development*****

Schlaefli, A., Rest, J., & Thoma, S. (1985). Does moral education improve moral judgment? A meta-analysis of intervention studies using the Defining Issues Test. *Review of Educational Research, 55*(3), 319-352.

Shweder, R. A. (1982). Review of Lawrence Kohlberg's Essays on moral development, Volume I: The philosophy of moral development. *Contemporary Psychology, June,* 421-424.

Shweder, R. A. (1991). *Thinking through cultures.* Cambridge, MA: Harvard University Press.

Shweder, R. A., Mahapatra, M., & Miller, J. G. (1987). Culture and moral development. In J. Kagan & S. Lamb (Eds.), *The emergence of morality in young children* (pp. 1-83). Chicago: University of Chicago Press.

Siegler, R. S. (1997). Concepts and methods for studying cognitive change. In E. Amsel & K. A. Renninger (Eds.), *Change and development: Issues of theory, method, and application* (pp. 77-98). Mahwah, NJ: Lawrence Erlbaum.

Simon, H. (1973). The structure of ill-structured problems. *Artificial Intelligence, 4,* 181-201.

Snarey, J. (1985). The cross-cultural universality of social-moral development. *Psychological Bulletin, 97*(2), 202-232.

Staub, E. (1978). *Positive social behavior and morality, Vol. 1: Social and personal influences.* New York: Academic Press.

Strike, K. A. (1982). *Educational policy and the just society.* Chicago: University of Illinois Press.

Taylor, S.E. & Crocker, J. (1981) Schematic bases of social information processing, in: E.T. Higgins, C.P. Herman, & M.P. Zanna (Eds.) *Social Cognition: the Ontario symposium*, vol. 1, pp. 89-134 (Hillsdale, NJ, Erlbaum).

Thoma, S. J., Barnett, R., Rest, J., & Narvaez, D. (1999). Political identity and moral judgment development using the Defining Issues Test. *British Journal of Social Psychology, 38,* 103-111.

Thoma, S. J., MaloneBeach, E., & Ladewig, B. (1997). *Moral judgment and adjustment in late adolescence.* Unpublished manuscript, University of Alabama.

Thoma, S. J., Narvaez, D., Rest, J. R., & Derryberry, P. (1999). Does moral judgment reduce to political attitude or verbal ability? *Educational Psychology Review, 11*(4), 324-342.

Tisak, M., & Turiel, E. (1988). Variation in seriousness of transgressions and children's moral and conventional concepts. *Developmental Psychology, 24,* 352-257.

Toulmin, S. (1981). The tyranny of principles. *Hastings Center Report, 11,* 31-39.

Turiel, E. (1975). The development of social concepts: Mores, customs, and conventions. In D. J. DePalma & J. M. Foley (Eds.), *Moral development: Current theory and research* (pp. 7-38). Hillsdale, NJ: Erlbaum.

Turiel, E. (1983). *The development of social knowledge: Morality and convention.* Cambridge, England: Cambridge University Press.

Turiel, E. (1997). The development of morality. In W. Damon (Ed.), *Handbook of child psychology (Fifth Edition), Vol. 3.* In N. Eisenberg (Ed.), *Social, emotional, and personality development*, Chapter 13. New York: Wiley.

Turiel, E., & Davidson, P. (1986). Heterogeneity, inconsistency, and asynchrony in the development of cognitive structures. In I. Levin (Ed.), *Stage and structure: Reopening the debate* (pp. 106-143). Norwood, NJ: Ablex.

Turiel, E., Killen, M., & Helwig, C.C. (1987). Morality: Its structure, functions, and vagaries. In J. Kagan & S. Lamb, (Eds.), *The emergence of morality in young children* (pp. 155-244). Chicago: University of Chicago.

Uleman, J. S. & Bargh, J. A. (1989). *Unintended thought.* New York: Guilford Press.

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

Vygotsky, L.S. (1987). *Thinking and speech*. In R. W. Rieber & A.S. Carton (Eds.), *The collected works of L.S. Vygotsky* (N. Minick, Tras.) (pp.37-285). New York: Plenum Press.

Youniss, J. & Yates, M. (1997). *Community service and social responsibility in youth.* Chicago: University of Chicago Press.

Zajonc, R.B. (1980). Feeling and thinking: Preferences need no inferences. *American*

Psychologist, 35, 151-175.