

Taking the First Step Toward a Moral Action: A Review of Moral Sensitivity Measurement Across Domains

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ABSTRACT. Moral sensitivity is the first component of the 4-component moral action process (J. R. Rest, 1986). The author reviews moral sensitivity operationalization and measurement across multiple samples and domains. She reviews 3 definitions of the construct (i.e., *recognition and affective response*, *recognition*, and *recognition and ascription of importance*) and measurement instruments based on these definitions and assesses these instruments according to their methodological rigor. The author also briefly discusses the measurement of constructs related to moral sensitivity in children (i.e., empathy, role-taking, and prosocial moral reasoning). Last, the author presents the conclusions that can be drawn from current measurement methodology and her recommendations for future measurement development.

Keywords: ethical sensitivity, ethics, moral awareness, moral cognition, moral development

IN THE MID-1970s, the American car manufacturer, Ford, made a decision that altered the lives of many American motorists. Ford manufactured the Pinto to compete with its European and Japanese rivals who were manufacturing compact cars that satisfied Americans' desires for greater fuel economy. In many ways, the Ford Pinto was exactly what motorists wanted. The vehicle was small, light, and inexpensive. However, it was not without significant faults. Specifically, when struck from the rear at speeds above 30 mph, the Pinto's gas tank ruptured, and the vehicle was immediately engulfed in flames. After the Pinto was released onto America's roadways, reports of Pinto fires started trickling into company headquarters. A recall coordinator at Ford reviewed the evidence, including detailed photos of an incinerated Pinto in which several people had died, and voted not to recall the vehicle (Gioia, 1992). The coordinator later wrote about the "muting of emotion" (Gioia, p. 382) that occurred in his position at Ford. He said that when he first began his job, he possessed an inherent concern for human well-being that would "[wake him] up at night" but that over the course of his time at Ford, that concern faded and "the consideration of people's lives became a fairly removed, dispassionate process" (Gioia, p. 382).

This anecdote from the corporate world illustrates the potential consequences of a person's not recognizing issues that affect others' well-being. In mundane contexts, this recognition can mean the difference between purchasing certain products over others or between donating one's time to worthy causes or not. In other, rarer situations, this recognition can mean sparing human life. Rest (1983, 1986, 1994) has called such recognition *moral sensitivity*, which he defined as the awareness of how one's actions affect others and the different responses that are available to the actor in an ethical situation. Moral sensitivity is the first of four components involved in making a moral decision and taking a moral action. Following moral sensitivity, Rest's other components include Component 2, moral judgment; Component 3, moral motivation; and Component 4, moral character.

Researchers have devoted the majority of empirical attention to Kohlberg's (1969) moral judgment (e.g., Krebs & Denton, 2005; Kurtines & Greif, 1974; Schlaefli, Rest, & Thoma, 1985), but this disproportionate amount of attention is unlikely due to the second component's greater importance for moral action (W. D. Hall, 1992). Can one convincingly argue that judging which action is most morally justified is more important than interpreting a situation as involving moral components and understanding how those components impact relevant individuals? Some scholars even assert that moral sensitivity is a necessary precursor of moral judgment (e.g., Clarkeburn, 2002; Sparks & Hunt, 1998), although the linear progression from Components 1 to 4 has not yet been demonstrated (Rest, 1983; Rest, Narvaez, Bebeau, & Thoma, 1999). Despite the logical progression from moral sensitivity to moral judgment, researchers have documented only a moderate relation between the two components (e.g., Bebeau, Rest, & Yamoore, 1985). As Rest et al. (1999) wrote, "Logically, Component 1 (sensitivity) precedes Component 2 (judgment), but the components do not follow each other in a set temporal order—as there are complex feed-forward and feed-backward loops, and complex interactions" (p. 102).

One reason why moral judgment may have historically received greater attention is that there are several reliable measures of the construct (e.g., the Defining Issues Test [DIT], Rest, 1979, and the Moral Judgment Interview [MJI], Colby & Kohlberg, 1987). Similarly, one reason for a recent increase in attention to moral sensitivity may be that like its more well-developed sibling, there are now several methods for measuring the construct.

Since Bebeau et al. (1985) initiated the first measurement of moral sensitivity, there has yet to be a comprehensive review of the literature. The measurements

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of Rest's (1986) Component 1 have not been examined as a collective body, and the lessons amassed from these measures have not been reviewed. Providing a comprehensive examination of the literature on moral sensitivity measurement was the primary goal of the present investigation. Specifically, I attempt to review how moral sensitivity has been defined and operationalized, review methods of measurement, examine relations between moral sensitivity and related constructs, and propose future directions for research in the field of moral sensitivity measurement and scholarship.

Several scholars have discussed the theoretical significance of engaging in empirical investigations of moral sensitivity (e.g., Jones, 1991; Turner, Barling, Epitropaki, Butcher, & Milner, 2002) and have proposed definitions of the construct (e.g., Hunt & Vitell, 1992). However, because I am concerned with moral sensitivity measurement, I include only literature involving measurement creation and administration. I also do not include unpublished doctoral dissertations on moral sensitivity (e.g., Harvan, 1989; Jordan, 2005; Volker, 1984) or qualitative investigations that do not provide information on the measures' validity and reliability (Lincoln & Guba, 1985; e.g., Drumwright & Murphy, 2004).

The Context and Importance of Measuring Moral Sensitivity

Like Rest (1986), Kohlberg (1969) would likely agree that there is more to the moral decision-making process than moral judgment. As I noted above, moral judgment is the most studied of the four components, but a focus only on Component 2 leaves a significant amount of moral behavior unexplained. Moral judgment explains only about 10–15% of the variance in moral-related behavior (Blasi, 1980; Thoma, Rest, & Davison, 1991). Individuals' inability to recognize the ethical issues in a professional interaction may potentially be more problematic than their recognition of the ethical issues in a conscious choice to act unethically (R. H. Hall, 1975). Without the ability to recognize moral issues in complex situations, it is unlikely that an individual will incorporate these issues into decision making (Gioia, 1992; Jones, 1991; Rest, 1986; Sparks & Hunt, 1998; Trevino & Brown, 2004). As Thoma (1994) wrote, "to adequately assess [the judgment–action link] subjects must first recognize the situation as falling within the moral domain and then activate their moral judgment structures" (p. 200).

Also, moral sensitivity is of interest to the ethics educator because the construct isolates a specific component of moral action and allows the educator to design a curriculum around it. According to Bebeau et al. (1985),

Data on students' often glaring inability to recognize the issues in professional situations have overcome many of the faculty's feelings of inadequacy about their competence to teach ethics. Further, such data have helped to formulate specific goals for courses; this helps overcome the often-expressed objections to including such courses in the curriculum. (p. 234)

There is also value in viewing moral action as a multistep process. If researchers focus solely on moral judgment, as has primarily been done (Thoma, 1994; Thoma et al., 1991), this myopic examination would exclude the entire spectrum of Rest's (1986, 1994) four-component process. This focus on moral judgment alone is undesirable for several reasons. First, if an individual exhibits ethics-related shortcomings in decision making or action, these can come from any step of the process; attention to only one component thwarts the possibility of remedying the larger problem. In addition, measurement tools for each of the components can pinpoint where in the process individuals' deficiencies reside and can provide them with encouragement that they are not necessarily unethical people but simply need to enrich their competencies in one component of the process.

Defining Moral Sensitivity

Moral sensitivity is a necessary component of moral behavior because many difficult decision-making situations are morally ambiguous, in that the embedded moral issues are not blatant and are integrated into the situation with competing concerns (Robin, Reidenbach, & Forrest, 1996). Definitions of moral sensitivity fall into three categories: (a) a combination of recognition and affective response, (b) solely the recognition of moral issues, and (c) a combination of recognition and the ascription of importance to moral issues. I use these three definitions as the rubric for this review. I begin with the seminal definition of moral sensitivity and then move to the two definitions that developed from it (Rest, 1986).

Recognition and Affective Response

Rest (1986) believed that affect and moral cognition were inseparable, stating, "I take the view that there are no moral cognitions completely devoid of affect" (p. 4). Identifying with Hoffman's (1976) developmental work on empathic responding, Rest defined *moral sensitivity* as a combination of one's recognition of moral issues and how one reacts and processes these issues from an affective perspective within a social context.

Rest and others have elaborated on this original definition. The current definition now includes dimensions such as interpreting others' reactions and feelings (Brabeck et al., 2000; Rest et al., 1999; Sadler, 2004), having empathy and role-taking ability (Sadler), understanding how one's actions can affect the welfare and expectations of both oneself and others (Butterfield, Trevino, & Weaver, 2000; Rest et al., 1999), and making inferences from others' behavior and responding appropriately to their reactions (Brabeck et al.; Rest et al., 1999). This multidimensional definition is now the most well-represented definition in the literature (e.g., Bebeau et al., 1985; Brabeck et al.; Butterfield et al.; Erwin, 2000; Lind, Swenson-Lepper, & Rarick, 1998; Myyry & Helkama, 2002; Sadler).

In support of Rest and others' expanded definition of moral sensitivity, evidence suggests that empathy and perspective taking are related to moral cognition and prosocial behavior (e.g., Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005; Eisenberg-Berg & Hand, 1979). For example, Skoe, Eisenberg, and Cumberland (2002) found that feelings of sympathy were positively related to individuals' ratings of importance of real-life and hypothetical moral dilemmas. In the following sections, I review the measures that apply the expanded definition of moral sensitivity.

Dental Ethical Sensitivity Test. The Dental Ethical Sensitivity Test (DEST; Bebeau & Rest, 1982; Bebeau et al., 1985) is one of the oldest and most methodologically rigorous measures of moral sensitivity. It assesses an individual's ability to interpret factors in the dental care industry that relate to obligations within the profession's code of ethics (Bebeau, 1994; Bebeau et al.). The DEST requires dental students to observe a professional interaction, assume the role of the dental professional in the interaction, and respond to several questions that elicit the students' recommendations for the patient, the patient's concerns in the situation, and justification for the generated plans of action. These responses are evaluated on the extent to which the student recognizes issues related to professional ethics, including the patient's competence as a decision maker, awareness of the patient's financial resources relative to the effectiveness of the recommended treatment, and the patient's comprehension of his or her health status.

Field experts tested the vignettes in the DEST for their realism, technical accuracy, relevance, and engagement. The measure's content validity was also supported by having individuals assess the ethical issues in the vignettes for their consistency with the theoretical definition of moral sensitivity. The interrater reliability for items that experts selected as the relevant ethical issues was high ($r = .87$), and the interitem reliabilities among the case responses were $\alpha = .61$ for freshmen and $\alpha = .78$ for junior dental students. There was an average correlation of $r = .69$ (Spearman-Brown adjusted $r = .90$) between the two administrations, which were separated by approximately 2 weeks.

Scores on the DIT and DEST were significantly correlated for freshmen, ($r = .51, p < .05$), but not for juniors ($r = .24, ns$). There was also a benefit of dental education on moral sensitivity. Juniors scored significantly higher than did freshmen, suggesting that moral sensitivity is affected by domain expertise. Members of the dental faculty were able to distinguish moral sensitivity from respondents' technical and social competence.

Ethical sensitivity in television viewing. Lind et al.'s (1998) measure of ethical sensitivity assesses television viewers' ability to detect the ethical issues embedded in media content and reporting. The authors analyzed viewers' chains of reasoning in relation to the viewers' awareness of several moral-related concepts. After viewing a story about a hit-and-run accident, viewers participated in an open-ended

interview during which they were asked several questions intended to elicit their reactions to features of the story without leading them to be morally sensitive. Researchers then coded these reactions for inclusion in four categories: relevant story characteristics, ethical issues involved in reporting the story, consequences of the ethical issues, and stakeholders affected by those consequences.

Two trained coders analyzed the interviews, looking for characteristics related to the aforementioned four categories. Coders' ratings were 98.2% in agreement for the ethical issues, 98.3% in agreement for the consequences, and 98.9% in agreement for the stakeholders. In addition, nine media experts viewed each scenario and reported the ethical issues that they identified. Lind et al. (1998) used these reports to confirm the presence of multiple ethical issues but did not explicitly use them in generating the coding scheme (R. A. Lind, personal communication, May 19, 2006).

Individuals identified approximately 5 of the 10 general characteristics of the story but identified significantly fewer ethical issues ($M = 3.63$ of 11, $SD = 1.44$), consequences of these issues ($M = 1.93$ of 11, $SD = 1.00$), and stakeholders involved ($M = 1.74$ of 6, $SD = 0.95$). Lind, Rarick, and Ibrahim (1996) found that media ethics education increases moral sensitivity.

Racial Ethical Sensitivity Test. The Racial Ethical Sensitivity Test (REST; Brabeck et al., 2000) assesses individuals' ability to identify ethical issues related to racial intolerance, as contained in multiple professional ethics codes and media reports (Brabeck et al.; Sirin, Brabeck, Satiani, & Rogers-Serin, 2003). Respondents view five video-taped vignettes and then answer a series of questions (adapted from the DEST; Bebeau & Rest, 1982) designed to elicit their identification of the violated ethical issues. Each scenario contains between five and nine preidentified ethical issues.

Brabeck et al. (2000) assessed participant interviews for the moral issues identified and the complexity with which participants analyzed the issues. Interrater reliability ranged from $\alpha = .80$ to 1.00. Raters discussed items on which they did not agree until they agreed on a single score.

In addition to an initial administration of the REST, participants were readministered the REST 2 weeks after their first completion and also completed a measure of knowledge and awareness about issues impacting ethical minorities, the Multicultural Awareness-Knowledge-Skills Survey (MAKSS; D'Andrea, Daniels, & Heck, 1991). Interrater agreement ranged from $\alpha = .64$ to .82 across the scenarios at the second administration, and test-retest reliability was satisfactory ($r = .65$, $p < .001$). The REST was not significantly related to the MAKSS; however, a later administration of the REST via computer (REST-CD) found that it correlated moderately ($r = .59$, $p < .001$) with a measure of gender bias (Quick Determination Index [QDI]; Ponterotto, Baluch, Grieg, & Rivera, 1998; Sirin et al., 2003). This result indicated that one's sensitivity toward ethical issues was related to one's attitude toward racial and gender equality. In addition, those who

had taken a multicultural issues and ethics course were more likely to be racially sensitive. There was a 76.6% interrater agreement for the REST-CD. Interitem reliability was $\alpha = .82$.

*Moral awareness in competitive intelligence.*¹ Butterfield et al.'s (2000) measure for competitive intelligence professionals presents respondents with one of two scenarios (hiring and mystery shopper) and asks them to assume the role of the protagonist in the situation. Respondents are instructed to list the issues that they think the protagonist would view as important to the scenario. The scenarios manipulate two variables: (a) magnitude of consequences and (b) the framing of the issue with moral and amoral language. The authors consider the words *integrity*, *propriety*, and *misrepresentation* to invoke the situation's moral framing.

Using a dichotomous scoring method, two independent coders coded responses for their inclusion of ethical or legal issues (interrater reliabilities were $P = .89$ and $.93$, respectively). Butterfield et al. (2000) did not explain why they considered both legal and ethical issues to be moral issues. Moral sensitivity scores were not correlated with impression management (Paulhus, 1991), a form of social desirability. The scenarios both had a significant effect on moral sensitivity, although the authors did not report which scenario elicited greater awareness. Results demonstrated that the magnitude of the consequences ($\beta = .26$), perceived social consensus ($\beta = .28$), and competitive context ($\beta = .17$) affected individuals' moral sensitivity. Jones (1991) theorized and Reynolds (2006b) found that potential harm evokes moral cognition. Thus, the relation between magnitude of the consequences and moral sensitivity can be seen as supporting the measure's criterion-related validity. But the effect of competitive context was in the direction opposite to what the authors predicted: Greater competition led to greater moral sensitivity. One could interpret this finding as an adaptive mechanism: More competitive contexts require individuals to be attentive to the potentially dangerous components in their environment. The use of moral framing did not significantly affect moral sensitivity across scenarios, which perhaps was an artifact of how moral framing was operationalized. The inclusion of moral-related words (e.g., *integrity*, *propriety*, and *misrepresentation*) may not have been powerful enough to invoke a moral frame.

Moral sensitivity in counseling supervision. Erwin's (2000) measure of moral sensitivity in counseling supervision, the Moral Sensitivity Scale for Supervisors (MSSS), is based on a previously developed assessment for the general counseling domain (Volker, 1984). Erwin's instrument consists of two cases, each containing an ambiguous (breach of confidentiality) and unambiguous (dual relationship) moral issue generated from the American Counseling Association's code of ethics (W. Erwin, personal communication, May 15, 2006). Respondents put themselves in the role of the target counselor's supervisor and are instructed to "indicate the important supervisory and counseling

aspects or issues related to the case, to provide additional information they would like to know in order to provide supervision, and to suggest actions to be taken" (Erwin, p. 120). Responses were rated on a 5-point Likert-type scale ranging from 1 (*no mention of the moral issues*) to 5 (*recommendation that action be taken based on the moral issues*; Volker). Erwin compared participants' responses to those generated by expert judges (i.e., doctors of psychology or counseling with expertise in ethics).

Two independent raters analyzed 15% of the responses, and Erwin (2000) analyzed the remaining 85%. Interrater reliability between the coders was $\alpha = .95$ (breach-of-confidentiality scenario) and $\alpha = .98$ (dual-relationship scenario). Participants also completed the Supervisor Emphasis Rating Form-Revised (SERF-R; Lanning & Freeman, 1994), an instrument that measures one's emphasis in supervision style. Moral sensitivity and SERF-R scores were unrelated. Individuals demonstrated significantly greater moral sensitivity in the unambiguous scenarios.

Moral sensitivity in social work. This instrument assesses psychology students' awareness of the ethical issues in a professional dilemma about placing a child in foster care (Myrsky & Helkama, 2002).² After reading a vignette, respondents identify the issues necessary to resolve the dilemma. These responses are then scored on the extent to which they address the vignette characters' special characteristics, rights, and responsibilities.

Myrsky and another scorer generated these categories by examining the content of participant responses (Myrsky & Helkama, 2002). The authors considered these categories to be in agreement with Bebeau et al.'s (1985) DEST scoring criteria, although overlap was not identical. Myrsky scored all protocols, with a second individual scoring a randomly selected group of 10 protocols (interrater agreement = 83%). Myrsky and Helkama administered the measure to (a) the experimental sample before and after participation in an ethics education course, a period that ranged from 3 to 5 months (K. Helkama, personal communication, April 3, 2007), and (b) a group of students who did not participate in the course. Test-retest reliability for this measure was high for individuals who participated in the ethics education, $t(49) = 1.85$, $p = .07$, and scores did not change between testing; however, control participants' scores significantly dropped between testing, $t(5) = 4.78$, $p < .01$. In addition, 22% of the experimental group regressed in moral sensitivity after instruction.

Individuals who had a college degree, were younger, and were female demonstrated greater moral sensitivity at the retest period following participation in an ethics education course than did those who did not have a degree, were older, and were male (Myrsky & Helkama, 2002). Moral sensitivity was inversely related with Schwartz's (1992) value types of power, hedonism, and stimulation and directly related to universalism. These relations supported the measure's criterion-related validity, but it is uncertain why moral sensitivity did not positively

correlate with the value of benevolence, in contrast to the authors' prediction. In fact, participants with a high value for benevolence decreased in moral sensitivity between pretesting and posttesting.

Moral sensitivity in response to socioscientific issues. Sadler's (2004) measure of moral sensitivity assesses students' abilities to identify the ethical issues embedded in "societal dilemmas with conceptual, procedural, or technological associations with science" (p. 342). Respondents read two dilemmas on the topics of gene therapy and reproductive cloning. During a first interview, the experimenter prompts respondents to nominate the concerns that they would integrate when making a decision, and during a second interview, respondents describe their reactions and resolutions to the dilemmas. Experimenters identify both moral and amoral considerations in the responses and assess the responses on the extent to which moral issues contribute to the respondents' final resolution and the frequency of these contributions.

Sadler (2004) examined responses for what the participants considered moral. To qualify as expressing a moral concern, the statement had to involve "interpreting reactions and feelings of others, understanding cause-consequence chains of events and how these may affect involved parties, empathy, role taking skills or recognizing applicable moral principles, rules or guidelines" (p. 345). The investigation was qualitative. Therefore, Sadler used trustworthiness criteria to evaluate the validity and reliability of the data (Lincoln & Guba, 1985; Morse, Barrett, Mayan, Olson, & Spiers, 2002; Yin, 1994). In accordance with seminal recommendations (Lincoln & Guba), Sadler used the criteria of credibility (i.e., participants assessed Sadler's interpretations of their statements), confirmation (i.e., two interviews were used so that participant responses could be compared between sessions), and dependability (i.e., an independent coder examined all interview data). Following data collection, Sadler and an independent coder assessed participant responses for emergent themes. The raters agreed on approximately 90% of the responses. There was no difference in the number of moral issues identified by students with expertise in biology and those with expertise in psychology.

Table 1 contains descriptions of the moral sensitivity measures that use the recognition and affective response definition of the construct.

Recognition

Some researchers remove the affective component and define *moral sensitivity* solely as the ability to recognize the moral issues embedded in a situation—or in some cases, the magnitude of recognition that one ascribes to the moral issues (i.e., Owosso, 2002; Reynolds, 2006b). The instruments in this category have respondents either list the moral issues they perceive (Clarkeburn, 2002; Hebert, Meslin, Dunn, Byrne, & Reid, 1990) or assign a number that represents

TABLE 1. Descriptions of Recognition and Affect-Based Moral Sensitivity Measures

Author and year	Construct label	Measure title/domain	Definition	Awareness of moral content
Bebeau, Rest, and Yamoore, 1985	Ethical Sensitivity	Dental Ethical Sensitivity Test (DEST)	“An awareness that something one might do or is doing can affect the welfare of someone else” (p. 226).	Yes. Respondents were aware that the DEST was a measure of professionally related ethical sensitivity.
Lind, Swenson-Lepper, and Rarick, 1998	Ethical Sensitivity	Television viewing	Uses definition of Bebeau et al. (1985): “an ability that involves an awareness that something one might do or is doing can affect the welfare of someone else or may affect others’ welfare by violating a general practice or commonly held social standard” (p. 508).	No. Respondents completed measure under the guise of an interview of “opinions about TV news” (p. 510).
Brabeck et al., 2000	Ethical Sensitivity	Racial Ethical Sensitivity Test (REST)	“Recognizing different possible lines of action and the ways each line of action will affect the parties concerned” (p. 120). This ability includes (a) making inferences from others’ behavior, (b) identifying what others want and need, (c) anticipating others’ reactions, and (d) responding with appropriate affect.	Yes. Respondents were told that the REST was a measure assessing “attentiveness and sensitivity to issues that can arise in school settings” (M. Brabeck, personal communication, June 5, 2006).

Butterfield, Trevino, and Weaver, 2000	Moral Awareness	Competitive Intelligence	<p>“A person’s recognition that his/her potential decision or action could affect the interests, welfare, or expectations of the self or others in a fashion that may conflict with one or more ethical standards” (p. 982).</p> <p>“The realization that one’s behavior may negatively affect others or violate a moral principle” (p. 116). Recognition was part of measurement.</p> <p>“An awareness of how our actions affect other people.” And being aware of who are the parties concerned, possible lines of action, and possible consequences” (p. 36).</p>	<p>No. Respondents were told that the assessment involved, “decision making in competitive contexts” (p. 995).</p> <p>No. Respondents were told to indicate issues relevant to professional counseling and supervisor responsibilities, as well as to suggest responses to these issues.</p> <p>Yes. “Respondents were told that the purpose of the study was to investigate whether students’ considerations of the ethical problems change during professional ethics education” (p. 39).</p> <p>No. Sadler stated the importance of not providing this information in order to truly target the “recognition” factor (p. 342).</p>
Erwin, 2000	Moral Sensitivity	Counseling Supervisors		
Myyry and Helkama, 2002	Moral Sensitivity	Social Work		
Sadler, 2004	Moral Sensitivity	Socioscientific Issues	<p>Involves “interpreting reactions and feelings of others, understanding cause-consequences chains of events and how these may affect involved parties, empathy and role-taking skills” (p. 341).</p>	

the degree to which the magnitude of the moral issues affects their perceptions of the situation (Owhoso; Reynolds, 2006b). An exception is Shaub, Finn, and Munter (1993), who, using Hunt and Vitell's (1986) theory of ethics in marketing, measured the magnitude of importance that respondents placed on moral issues but did not include ascription of importance in their definition of the construct or factor these ratings into the scoring scheme. In this section, I review the measurement methods and empirical findings of the instruments that apply this definition of the construct.

Ethical sensitivity in medicine. The instrument presents respondents with five vignettes, each highlighting a different ethical issue in medicine (Hebert et al., 1990). The vignettes include issues such as fertility counseling for a mentally retarded couple and a depressed patient who discovers he has cancer. Each vignette contains seven to nine ethical issues. The experimenter randomly assigns one of the five vignettes to respondents, who are asked to "list all the ethical issues related to the case they received" (p. 141).

Field experts (i.e., an educational psychologist, a specialist in bioethics, and three physicians) developed the vignettes and identified the ethical issues involved in each. The vignettes were administered to students in their first 3 years of medical school. Students listed all the ethical issues related to the case, and a single investigator scored each response for the total number of issues identified, issues that were considered to be representative of bioethical principles (e.g., autonomy, beneficence, and justice; Beauchamp & Childress, 2001), and technical medical issues. Interrater reliabilities ranged from $r = .89$ to $.94$. The number of ethical issues identified was largest for the 2nd-year students, with no difference between those in their 1st and 3rd years. In contrast, the number of technical medical issues identified increased across the 1st, 2nd, and 3rd years.

Ethical sensitivity in accounting. Shaub et al.'s (1993) measure for certified public accountants (CPAs) gauges the extent to which audit CPAs identify moral issues in professionally related contexts. In addition to three ethical issues, the measure contains multiple personal and professional issues that are of concern to accounting professionals. Respondents are presented with a single scenario and asked to indicate what issues they consider to be important in the scenario and the importance of each issue relative to the others. The three ethics-related issues include a failure to charge clients a sufficient number of hours, the use of work time for personal tasks, and the undermining of another auditor's judgment of generally accepted professional principles.

Shaub et al. (1993) developed the measure in two phases. First, auditing experts evaluated the scenario, and then two CPA firm offices pretested the instrument. On the basis of techniques used by Bebeau et al. (1985), the researchers embedded three ethical issues in the experimental scenario. Interrater reliability ranged from $\alpha = .91$ to $.99$ across the three issues. In addition to moral sensitivity,

the investigators measured participants' professional commitment, organizational commitment, idealism, and relativism. Idealism and relativism are types of ethical orientations. Idealists believe in absolute moral standards, whereas relativists believe that moral standards are malleable depending on the context (Forsyth, 1980). Shaub et al. hypothesized that formalists would be more sensitive to the moral issues operating in the situation. They found that moral sensitivity was positively related to professional ($r = .15, p < .05$) and organizational ($r = .14, p < .05$) commitment and negatively related to relativism ($r = -.16, p < .05$). There was no significant relation between moral sensitivity and idealism ($r = -.07, p = .27$). Path analyses using these independent variables showed a significant association only between moral sensitivity and relativism ($p < .05$) and a marginally significant association between moral sensitivity and idealism ($p = .05$).

Test for Ethical Sensitivity in Science. The Test for Ethical Sensitivity in Science (TESS; Clarkeburn, 2002) assesses nonprofessionals' awareness of moral issues in "contemporary scientific progress" (p. 440). The instrument presents respondents with a vignette about genetically modifying animals for medical research purposes. Respondents list three issues or questions that they believe should be discussed before a decision is made. Responses are grouped into four themes: risks, costs and benefits, basic values, and public opinion. Responses are also categorized into those that are ethical and those that are nonethical, the latter being responses that could be answered using scientific, financial, and technical data alone.

Clarkeburn (2002) argued that moral sensitivity needs to "measure the spontaneous recognition of moral issues [and] the interpretation of a situation in moral terms" (p. 443). Keeping with this philosophy, the TESS used three unstructured scenarios, all adapted from actual research proposals (Bruce & Bruce, 1998). Clarkeburn presented these to pilot participants (i.e., 1st- and 3rd-year undergraduate students in a science course), who indicated the questions needing to be asked before a decision could be made. The scenario that generated the largest number of issues and was least complex to analyze was retained for use in the final administration.

Clarkeburn (2002) applied a three-tier scoring structure, with the lowest tier representing no recognition of an ethical issue and the highest tier representing extensive understanding of the problems and stakeholders involved. Four outside academics in the areas of philosophy, education, and science then evaluated the resulting scoring guide. Interrater reliability was not provided.

In the main study, Clarkeburn (2002) again administered the TESS to undergraduate science students. Results demonstrated that there was no difference between 1st- and 3rd-year students' moral sensitivities. Clarkeburn also administered the measure to a group of 3rd-year students, half of whom participated in ethics education. The number of issues that students nominated improved between pretest and posttest (a minimum of 3 weeks after students' finishing the ethics

course), but those in the ethics education course demonstrated no advantage in the average number of recalled items. Experimental participants showed an increase in their posttest moral sensitivity in comparison to control participants; however, in the control group, there was a substantial number of individuals who progressed and a substantial number of individuals who regressed between testings. Clarkeburn acknowledged that the “TESS is sensitive to other elements than just development of ethical sensitivity” (p. 450). There were no significant gender differences in either pretest or posttest scores. Men were more likely than women to both progress and regress between testings.

Ethical sensitivity in accounting auditing. Using a banking and healthcare case, this measure assesses auditors’ sensitivity to clients’ ethical issues and risk for fraud during an audit (Owhoso, 2002). Auditors receive a packet containing information on a company’s accounts or loans receivables, audit plans, and 2 years of balance sheets and income statements. In the experimental condition, this packet includes ethical information on the client that describes characteristics that are ethically complimentary, thereby reducing the likelihood of risk. The packet also includes industry specific accounting errors. Auditors are asked to assess how likely it is that the errors they identify are due to fraudulent accounting practices. Responses range from 0% to 100%. Lower ratings of risk are indicative of greater moral sensitivity.

Experts at a Big 5 accounting firm created and tested the scenarios. These experts reviewed the cases for their relevance, appropriateness, and realism. Results demonstrated that more senior auditors assigned a lower level of risk to the target, and positive information reduced the assignment of fraud. There was also an interaction between seniority and presence of positive information, wherein the presence or absence of information affected inexperienced auditors, but experienced auditors showed no such sensitivity. Male and female auditors did not differ in their sensitivity to ethical risk.

Moral awareness in business situations. This instrument assesses moral sensitivity in the general business domain (Reynolds, 2006b). Respondents read a vignette involving a customer and a medical products order. Two situational variables are manipulated within the vignette: harm (also manipulated in Butterfield et al., 2000) and the violation of a behavioral norm.

Reynolds (2006b) created the vignette during rounds of pretesting with graduate business students, who assessed it for its realism, content of harm, and a behavioral norm violation. Participants in the main study answered several questions using a 7-point Likert-type scale. Two of these questions directly addressed the moral-related content of the vignette (e.g., “There are very important ethical aspects to this situation”), and the third was more ambiguous (e.g., “I would definitely report this situation to the [Ethics Resource Committee]”). Like Shaub et al. (1993), Reynolds (2006b) measured respondents’ ethical orientations.

Results demonstrated that both harm and the violation of a behavioral norm increased moral sensitivity. Individuals who possessed formalistic ethical viewpoints (Brady & Wheeler, 1996) were not more morally sensitive than those with utilitarian viewpoints. However, there was a significant interaction between harm, violation, and formalism. In addition, even when a violation was absent, the interaction between harm and formalism remained significant.

Table 2 contains descriptions of the moral sensitivity measures that use the recognition-based definition of the construct.

Recognition and Ascription of Importance

Some researchers combine the recognition of moral issues with the ascription of importance to these issues. Moral issues compete for attention and priority in complex decision-making situations (Robin et al., 1996). Researchers who integrate the ascription of importance into their definition argue that unless one considers moral issues important, these issues will likely be filtered out of the decision-making process (Hunt & Vitell, 1992). In this section, I review the measurement methods and empirical findings of the instruments that apply this definition of the construct.

Ethical awareness in accounting auditors. Karcher's (1996) measure assesses accounting auditors' ability to recognize the ethical issues in morally ambiguous accounting dilemmas. Respondents read three cases and list the problems they identify. There are three versions of each case: two that manipulate the severity of the ethical issues and one that eliminates the ethical issue from the situation. The ethical problems include auditors' conflicts of interest and tax evasion by a client. Respondents receive one version of each dilemma: a severe ethical problem, a low-level ethical problem, and no ethical problem. After reading each case, participants list the perceived problems and rate their importance on a 5-point Likert-type scale.

Independent judges coded the issues for their inclusion of the prespecified ethical issue. Interrater reliability for the identification of the nonethical issues was $\alpha = .88$. Karcher (1996) based the cases in the study on established accounting cases. Two of the ethical issues embedded in the cases were from the American Institute of Certified Public Accountants' (AICPA) Code of Professional Conduct, and one was independent of the code and tested for moral sensitivity above the profession's minimal expectations for ethical competence. There was support from other professional sources (e.g., Sack, 1992) that the third issue, a possible plant closing, was considered an important ethical issue in the field.

When interacting with the issue under consideration, severity of the ethical issue affected respondents' moral sensitivity; however, across the three cases, severity alone had no effect. The respondent's position in the corporate hierarchy, exposure to ethical issues outside the study, education level, expertise with

TABLE 2. Descriptions of Recognition-Based Moral Sensitivity Measures

Author and year	Measure title/domain	Definition	Awareness of moral content
Hebert, Meslin, Dunn, Byrne, and Reid, 1990	Medicine	Ability to recognize ethical issues.	Yes. "Students were asked to list all the ethical issues related to the case they received" (p. 141).
Shaub, Finn, and Munter, 1993	Accounting	"The ability to recognize the ethical nature of a situation in a professional context" (p. 146).	No. Respondents were told to indicate "what would be important" to them in the situation (p. 158).
Clarkeburn, 2002	Test for Ethical Sensitivity in Science (TESS)	Combination of moral imagination ("ability to see moral side of story and . . . foresee moral consequences") and recognition of ethical issues ("to analyze what has been seen [and] recognize the value of moral aspects;" p. 440).	No. Respondents were instructed to submit "issues or questions they believed should be considered before a decision on the topic could be made" (p. 444).
Owhoso, 2002	Accounting	Sensitivity to clients' ethical issues and fraud risk when performing an audit.	No. Respondents were only told to make a judgment of the likelihood of fraud risk.
Reynolds, 2006a	Management	"A person's determination that a situation contains moral content and legitimately can be considered from a moral point of view" (233).	Yes. Respondents completed the measure under the guise of helping the "Ethics Resource Committee to understand the ethical issues that employees face." They were then asked questions that explicitly suggested a potential ethical content within the dilemma (p. 236).

the problem being analyzed, and gender also had no significant effect on moral sensitivity. Only age had a significant effect, with older individuals demonstrating greater sensitivity.

Ethical sensitivity in marketing. Sparks and Hunt (1998) modeled their instrument after Shaub's (1989; Shaub et al., 1993) measure of auditor ethical sensitivity. The instrument instructs respondents to read a vignette and to "briefly describe the issues that, in your opinion, are raised in the case" (Sparks & Hunt, p. 98). Respondents then rate each of these issues for their importance, resulting in a measure with both unweighted (i.e., general recognition of moral-related issues) and weighted (i.e., recognition of moral-related issues plus their absolute importance) scores.

To create moral ambiguity, Sparks and Hunt (1998) incorporated both moral and amoral issues. Other criteria for the measure included a focus on realism, brevity, the exclusion of extraneous moral-related issues, variation of severity, and subtlety of the moral issues. The moral issues included in the measure were those nominated in a previous study that identified ethical problems inherent to the marketing domain (Hunt, Chonko, & Wilcox, 1984). Of the 13 issues nominated, Sparks and Hunt selected the 3 that covered a spectrum of importance: research integrity, confidentiality, and the fair treatment of suppliers. They then subjected the measure to four separate pretests to assure that it met the defined criteria. The first pretest examined the scenarios for the inclusion of unintended ethical issues. The second pretest had six marketing faculty rate the seriousness of the three ethical issues, to establish that there was variance in the egregiousness of the issues. The third pretest also had experts (nine marketing research ethicists) rate the issues for their egregiousness. The final pretest had 11 market research practitioners evaluate the scenarios and the issues. One of the authors and an independent judge evaluated the open-ended responses with 96.6% interrater agreement.

Practitioners' moral sensitivity was significantly higher than students' moral sensitivity; however, junior and senior students showed no differences in moral sensitivity. Within the practitioner sample (age range = 22–72 years) there was no correlation between moral sensitivity and age. Sparks and Hunt (1998) stated, "The pattern of correlations tends to support defining (and measuring) ethical sensitivity as involving both recognizing moral issues and ascribing importance to them" (p. 102). Thus, I report effects using the weighted score. Regression analyses showed a significant direct relation between organizational commitment and moral sensitivity but not between professional commitment and moral sensitivity. There also was no significant relation between the cognitive and behavior dimensions of empathy (Hoffman, 1982) and moral sensitivity. Relativistic ethical orientation (also found by Shaub et al., 1993) and formal ethical education were negatively related to moral sensitivity.

Table 3 contains descriptions of the moral sensitivity measures that use the definition of the construct pertaining to recognition and ascription of importance.

TABLE 3. Descriptions of Recognition and Ascription of Importance-based Moral Sensitivity Measures

Author and year	Construct label	Measure title/domain	Definition	Awareness of moral content
Karcher, 1996	Ethical Sensitivity	Accounting Auditing	Alertness to ethical problems and the importance that these problems are perceived to have.	No. Respondents were asked to "list any problems they identified" (p. 1038).
Sparks and Hunt, 1998	Ethical Sensitivity	Marketing Research	The ability to recognize a situation as having ethical content combined with the ascription of importance to the ethical composition of that content.	No. Respondents were instructed to "briefly describe the issues that . . . are raised in the case" (p. 98).

Evaluating Moral Sensitivity Measurement

The evaluation of measures' methodological rigor is a central part of how researchers conclude what lessons can be drawn from these investigations. According to the American Psychological Association's (APA; 1999) prescriptions for psychological testing, measures should demonstrate content validity, criterion-related validity, construct validity, and internal reliability. *Content validity* is the extent to which a measure's items adequately assess the construct domain that they were intended to assess. *Criterion-related validity* is the extent to which a measure relates to other constructs that it should predict (i.e., *predictive validity*) or be related to (i.e., *concurrent validity*). *Construct validity* is the extent to which an instrument measures the theoretical construct that it was intended to measure. Last, *internal reliability* is the consistency of items within an instrument in measuring the intended characteristic or trait and the instrument's consistency across measurement points. I review some of the methods used to assess validity and reliability in the aforementioned moral sensitivity measures.

Content Validity

Content validity was supported in the aforementioned measures using multiple approaches. The goal behind content validity is to establish that the items comprising the measure assess the intended construct. In accordance with APA (1999) recommendations, many scholars have used experts to evaluate measures' stimulus materials and items. For example, Bebeau et al. (1985) asked field experts to assess the vignettes for realism, accuracy, relevance, and engagement. Other researchers used a similar methodology (e.g., Owhoso, 2002; Reynolds, 2006b; Shaub et al., 1993; Sparks & Hunt, 1998). Others asked experts to either confirm the presence of preidentified ethical issues (e.g., Sparks & Hunt) or generate the relevant ethical issues or stimulus vignettes (e.g., Lind et al., 1998; Owhoso, 2002; Sparks & Hunt) prior to testing. The final use of experts for supporting content validity involved the explicit comparison of experts' responses with participants' responses to the stimulus vignettes (e.g., Erwin, 2000).

Other researchers have used preestablished codes of conduct, professional codes, or ethical principles to generate the ethical issues or stimulus vignettes (e.g., Brabeck et al., 2000; Hebert et al., 1990; Karcher, 1996; Sirin et al., 2003).

Criterion-Related Validity

Criterion-related validity is established by demonstrating that a measure either relates to a construct that it is hypothesized to relate to (i.e., concurrent validity) or that it relates to a construct that it should predict (i.e., predictive validity). Along with construct validity, criterion-related validity is collectively perhaps the weakest domain of validity in moral sensitivity measurement. Many

of the variables or constructs that conceptually should have been related to moral sensitivity were not. For example, several researchers found that greater domain-specific education (e.g., Bebeau et al., 1985; Sirin et al., 2003; Sparks & Hunt, 1998) or ethics education (Clarkeburn, 2002; Lind et al., 1996) were positively related to moral sensitivity, whereas others found no relation (Hebert et al., 1990; Karcher, 1996; Sadler, 2004) or an inverse relation (Sparks & Hunt) among these variables. The results were also mixed for age, with some measures being positively correlated with age (Myry & Helkama, 2002; Owoso, 2002) and others having nonsignificant correlations (Sparks & Hunt).

Situational or issue-related factors were the most likely to show consistent relations with moral sensitivity across studies. For example, greater magnitude of consequences, evoked harm (e.g., Butterfield et al., 2000; Reynolds, 2006b), and environmental competition (Butterfield et al.) increased moral sensitivity. The use of a moral frame did not (Butterfield et al.).

Construct Validity

Researchers most commonly assessed construct validity, the establishment of the measure's predicted relation with similar constructs, by administering a measure of moral sensitivity and measures of ethical or value orientation. For example, Reynolds (2006b) found that when harm was present, individuals with a formalistic ethical orientation were more likely than those without it to have greater moral sensitivity, whereas a relativistic ethical orientation was negatively related to moral sensitivity (Shaub et al., 1993; Sparks & Hunt, 1998). Similarly, Myry and Helkama (2002) found relations between moral sensitivity and value types, although not entirely as predicted. For example, universalism was related to an increase in moral sensitivity, whereas benevolence was related to a regression in moral sensitivity.

In other instruments, particularly those examining areas of moral sensitivity to human diversity, researchers used measures of cultural awareness to assess construct validity. Brabeck et al. (2000) found no relation with the MAKSS (D'Andrea et al., 1991), whereas another Sirin et al. (2003) found a moderately high correlation with the QDI (Ponterotto et al., 1998).

Reliability

Interrater and interitem reliability. Researchers in multiple investigations have assessed and demonstrated interrater or interitem reliability. Most measures had sufficient interrater agreement, as measured by Cronbach's alpha, the *P* statistic, correlation between ratings, or percentage agreement. One weakness in three of the measures was the use of one or more authors as coders (Erwin, 2000; Hebert et al., 1990; Myry & Helkama, 2002). Regardless of the extent to which a test developer is kept blind to the participant's experimental condition, his or

her intimate connection with the investigation and hypotheses may compromise necessary objectivity.

Test–retest reliability. In contrast to interrater and interitem reliability, few measures assessed test–retest reliability. Of the four that did (Bebeau et al., 1985; Brabeck et al., 2000; Clarkeburn, 2002; Myyry & Helkama, 2002), the results were not promising. Only two of the measures demonstrated adequate test–retest reliability (Bebeau et al., $r = .69$; Brabeck et al., $r = .65$). Two of the investigations demonstrated that individuals without ethics training between administrations decreased in performance over time (Clarkeburn; Myyry & Helkama).

Trustworthiness

In only one of the moral sensitivity investigations did a researcher apply a qualitative approach to analyzing participant responses (Sadler, 2004). In line with Lincoln and Guba's (1985) recommendations, Sadler followed a series of trustworthiness criteria intended as substitutes for traditional dimensions of assessing quantitative rigor. These included credibility, dependability, and confirmability. It is unknown whether Sadler used these criteria constructively or in a post hoc evaluation of the methods. The latter approach is more consistent with Lincoln and Guba's original recommendations. However, Morse et al. (2002) suggested that compared with post hoc techniques, constructive evaluation is better able to ensure the quality of decisions about data collection, analysis, and integrity.

Conclusions

As used by several moral sensitivity investigators, the domain-specific nature of moral sensitivity measurement makes it a fertile ground for the use of experts to assess content validity. The lack of consensus on criterion-related validity and construct validity in moral sensitivity measurement supports the call for greater and more rigorous assessments. To understand Rest's (1983, 1986) first step toward taking a moral action, researchers must administer instruments that assess the construct to a greater number of samples to form some consensus on the constructs that relate to moral sensitivity. In addition, to understand the effects of moral sensitivity on behavior and cognition, researchers must be clear about how they define and apply this nascent construct in research. Table 4 contains descriptions of the methodology and empirical results of these moral sensitivity measures.

Moral Sensitivity in Children

A substantial body of work exists on developmental measures of empathy, perspective-taking, and prosocial moral reasoning for children. However, I excluded this body of work from the previous sections. Although these constructs

TABLE 4. Descriptions of Moral Sensitivity (MS) Measures

Author and year	Sample	Response medium	Production or recognition task
Bebeau, Rest, and Yamoor, 1985	145 first-year and 130 second-year dental students	Oral	Production
Lind, Swenson-Lepper, and Rarick, 1998	111 television viewers	Oral	Production
Brabeck et al., 2000	42 graduate and undergraduate students (REST); 58 students (REST-CD)	Oral	Production
Butterfield, Trevino, and Weaver, 2000	291 competitive intelligence practitioners	Written	Production
Erwin, 2000	147 counseling professionals	Written	Production
Myry and Helkama, 2002	81 social psychology students	Written	Production
Sadler, 2004	30 biology and psychology students	Oral	Production
Hebert, Meslin, Dunn, Byrne, and Reid, 1990	281 medical students	Written	Production
Shaub, Finn, and Munter, 1993	188 marketing research practitioners, 142 introductory marketing students, and 178 senior marketing students	Written	Production

Number of vignettes	Interrater/interitem reliability	Empirical results
4	$r = .87, .61$ (freshmen); .78 (juniors)	(1) Moderate correlations with moral judgment. (2) Junior dental students scored higher on MS than freshmen.
1	98.3% ethical issues, 96.8% for consequences, and 98.9% for stakeholders	(1) Media-specific ethics education increased MS.
5	$\alpha = .64-.82$ posttest	(1) MS was positively correlated with attitudes toward racial and gender equality and (2) ethics education.
2	$p = .93$ for mystery shopper and .89 for the hiring	(1) Positive relation between MS and magnitude of consequences, (2) perceived social consensus, and (3) competitive environment.
2	$\alpha = .95$ and .98	(1) MS was greater in less morally ambiguous situations.
1	83.5% between first author and independent coder (only on 10 of 56 protocols)	(1) Individuals with a college degree and (2) women progressed faster on MA scores. (3) Age was negatively related to MS, as were (4) the values of power, hedonism, and stimulation. (5) Universalism was positively related to MS.
2	90% agreement	N/A
5	$r = .89-.94$	(1) Second-year students demonstrated greatest MS.
1	$\alpha = .91-.99$	(1) A relativistic ethical orientation was negatively related to MS and (2) a formalistic ethical orientation was positively related to MS.

(table continues)

TABLE 4. Continued

Author and year	Sample	Response medium	Production or recognition task
Clarkeburn, 2002	520 undergraduate students	Written	Production
Owhoso, 2002	160 accounting auditors	Written	Recognition
Reynolds, 2006a	120 business executives (Study 1) and 33 MBA students (Study 2)	Written	Recognition
Karcher, 1996	103 accounting auditors	Written	Production
Sparks and Hunt, 1998	207 accounting auditors	Written	Production

are clearly related to moral sensitivity and have been shown to affect moral judgment and prosocial behavior, these measures assess components of moral sensitivity and not moral sensitivity itself. That said, these measures add substantial knowledge to measurement methodology and instrument development related to moral sensitivity. In the following section, I provide a brief overview of this body of research. I intend this brief review to encourage scholars to further investigate this body of relevant work, and I do not consider it to be a representative description of all measurement methods of moral-related cognition in children.

Empathy

Researchers assess empathy in children through a variety of methods. *Empathy* is defined as an individual's shared emotional response to another person's affective state (Eisenberg, Shea, Carlo, & Knight, 1991). One method of measuring empathy in children is through self-reports. For example, Bryant's (1982) Empathy Scale asks children

Number of vignettes	Interrater/interitem reliability	Empirical results
1	unknown	(1) Ethics education increased improvement in MS.
2	unknown	(1) Ethically complimentary information on client and (2) professional experience increased MS.
1	$\alpha = .70$ (Study 1) and $.78$ (Study 2)	(1) Presence of harm and (2) a violation of a behavioral norm increased MS. (3) Interaction between the presence of harm and a formalistic ethical orientation.
3	$\alpha = .88$ on nonethical issues	(1) Age was positively related to MS.
1	96.6% agreement	MS was (1) positively related to professional experience and (2) organizational commitment. (3) Formal ethics education and (4) a relativistic ethical orientation were negatively related to MS.

to indicate the extent to which they agree with statements such as, "It makes me sad to see a boy who can't find anyone to play with." Other self-report instruments (e.g., Eisenberg & Fabes, 1990; Strayer & Schroeder, 1989) present children with videotaped vignettes and ask them to indicate the type and intensity of evoked emotions.

Outside the self-report domain are other-report, expression, and physiological measures of empathy. Other-report measures, including teacher and family assessments, provide three advantages: They can be used with children too young to provide self-reports, they reduce the effects of social desirability (e.g., Eisenberg, Fabes, et al., 1991; Eisenberg-Berg & Lennon, 1980), and they provide more global ratings of empathy (Losoya & Eisenberg, 2001). In addition to using questionnaires similar to those used in self-report measures (e.g., Eisenberg, Carlo, Murphy, & Van Court, 1995), researchers have assessed empathy by asking mothers to provide detailed descriptions of their children's reactions to others' distress. These responses are then coded on a variety of different attributes, including empathic concern, self-distress, and positive affect (Zahn-Waxler, Radke-Yarrow,

Wagner, & Chapman, 1992). Lastly, researchers have used physiological indexes, such as heart rate, to assess empathetic responding. For example, a decelerating heart rate results when one focuses on another's emotional state (Cacioppo & Sandman, 1978) and has been found to relate to empathy and prosocial behavior in young children (Zahn-Waxler, Cole, Welsh, & Fox, 1995).

Role-Taking

Flavell (1968) defined *conceptual role-taking* as the ability to understand interactions between the self and the other as seen through the other's eyes. Demonstrating role-taking abilities marks the movement away from a child's egocentric focus (Piaget & Inhelder, 1948). This ability requires understanding of others' capabilities and the ability to predict their behavior on the basis of the available evidence (Selman, 1971a, 1971b). Researchers measure role-taking using several paradigms. One paradigm asks the participant to predict the thoughts and behaviors of another, hypothetical child and to then take actions to deceive the other child on the basis of his or her predicted thoughts and behavior. The child is then asked to explain why he or she thinks the other child would act as predicted. A second, less complex task has the participant describe how another hypothetical child might interpret events or stimuli if provided with fewer pieces of information than the child him- or herself was given. These measures assess three role-taking skills: (a) a child's ability to accurately take another's perspective, (b) a child's ability to take actions based on another's predicted behavior, and (c) a child's ability to articulate another's perspective (Selman, 1971a). A greater ability to role-take is related to higher levels of moral judgment, as indicated by Kohlberg's MJI (1963; Colby & Kohlberg, 1987). Children at the highest levels of role-taking ability demonstrate moral development at conventional levels, as opposed to preconventional levels. Role-taking is also significantly related to verbal intelligence (Selman, 1971a).

Prosocial Moral Reasoning

Eisenberg and colleagues have conducted a substantial body of research on prosocial moral reasoning. In contrast to Kohlberg's (1969) moral reasoning, which is based on theories of justice and societal authority, *prosocial moral reasoning* is reasoning related to altruistic motives and behaviors (Eisenberg et al., 1987). It is assessed via a measure that presents respondents with five moral reasoning stories (Eisenberg et al., 1987; Eisenberg, Miller, Shell, McNalley, & Shea, 1991) and asks them what the story protagonist should do and why he or she should do it. Responses are assessed on dimensions such as self-reflective empathic orientation—which includes components such as sympathetic concern, role- or perspective-taking, and acknowledgement of positive and negative affect as a result of helping others—and internalized reasoning, which includes components such as reciprocity and concern for the condition of society. On the

basis of their responses, individuals are categorized into levels of prosocial moral reasoning ranging from Level 1 (hedonistic, self-focused) to Level 5 (strongly internalized orientation). Researchers use this measure with children as young as 4 years old. It has been found to predict costly helping behavior such as donating money to charity (Eisenberg et al., 1987) and helping a researcher by completing extra questionnaires (Eisenberg, Miller, et al., 1991) later in childhood and adolescence, respectively.

Discussion

What is a Moral Issue?

Because of the centrality of the question “What is a moral issue?” within the construct of moral sensitivity, the absence of dialogue on the issue within the moral cognition community is surprising. Few explicit definitions of a moral issue exist. Velasquez and Rostankowski (1985) defined a *moral issue* as one in which a person’s volitional actions have the potential to harm or benefit others. However, for the purposes of measurement construction and development, this definition seems unduly broad in scope. Beauchamp and Childress (2001) defined *morality* as shared norms about right and wrong human conduct. Extrapolating from this definition, one could consider moral issues to be those involved with the adherence to or violation of such norms. This second definition is compatible with how many researchers in the moral sensitivity domain construct their measures and define moral issues. For example, the use of domain-based experts or codes of ethics are methods of defining the relevant norms in the domain and identifying adherence to or violation of those norms.

Measures using explicit codes of ethics to define the moral issues have been those in the accounting (Karcher, 1996; Owhoso, 2002; Shaub et al., 1993), counseling (Erwin, 2000), and racial sensitivity (Brabeck et al., 2000) domains. For example, Erwin used the American Counseling Association’s Code of Ethics to select the issues of breaking confidentiality and avoiding dual relationships (W. J. Erwin, personal communication, May 15, 2006). Similarly, Karcher used the AICPA Code of Professional Conduct (1988) to select two of the three ethical issues in her vignettes: tax alteration and conflict of interest. Brabeck et al. diverged from using a single profession-based code of ethics and instead integrated several codes theorized to be relevant to racial sensitivity on the basis of principles of moral norms (Beauchamp & Childress, 2001).

Using a code of ethics to define moral issues may provide content validity. However, this method is not ideal for predicting how individuals would identify moral issues that arise in professional interactions because a profession’s explicit ethics (or legal) code may not contain all important moral issues. For example, in the case I described at the opening of this article, the recall coordinator noted that his decision to keep the Pinto on America’s roadways was exempt from blame according to both ethical (i.e., in accordance with professional standards) and

legal (i.e., within the framework of the law) criteria. He later questioned whether his behavior could have been considered moral—here using the term to refer to “adhering to some higher standards of inner conscience and conviction about the ‘right’ action to take” (Gioia, 1992, p. 384). If using only professional ethics standards as one’s criterion for demonstrating moral sensitivity, researchers would not consider this less clearly defined dimension of moral sensitivity.

Additional Measure Criteria

Realism. Realism and technical accuracy enhance the content validity of stimulus vignettes (Bebeau et al., 1985; Shaub et al., 1993; Sparks & Hunt, 1998). When assessing moral sensitivity, particularly within an experienced sample, it is problematic for researchers to use a vignette that domain-specific experts do not consider realistic. For example, the scripts in the DEST vignettes were checked for realism and technical accuracy by general dentists, specialists, and a psychiatrist (Bebeau et al.).

The importance of the issue. Researchers should consider the content of the actual ethical issues being presented within the vignettes. Both theory (Jones, 1991) and empirical research (Brabeck et al., 2000; Butterfield et al., 2000; Clarkeburn, 2002; Hebert et al., 1990; Karcher, 1996; Sadler, 2004; Sirin et al., 2003) proposed or found evidence that the specific issue being presented affects moral sensitivity. For example, Jones proposed that the moral intensity—which includes the amount of harm that can result from a situation, the level of social agreement that an action is evil, the probability that an act will take place and cause harm, the length of time between the act and the realization of the consequences of that act, the concentration of the effect, and the nearness between the actor and the victim—affects moral sensitivity. These dimensions refer solely to the issue being examined and are separate from individual and situational factors. Because the issue affects moral sensitivity, it is not surprising that, for example, medical students are better able to identify moral issues in a scenario involving an HIV-positive man than in those involving infertility counseling and delirium (Hebert et al.): It can be reasonably argued that the HIV virus has greater consequences for the patient than do infertility and delirium.

Disclosed Measurement Context and Response Prompting

The procedures that a researcher uses to solicit responses from participants are central to assessing a measure’s validity. One unresolved issue involves the awareness of the measure’s moral dimension. Should respondents be aware that moral issues are contained in the vignette, or should the ethical nature of the vignette remain ambiguous? Researchers have approached this debate from multiple angles. For example, in the DEST (Bebeau & Rest, 1982), respondents know that moral issues are embedded in the vignette and are told that their role is to

identify and differentiate them from the competing interests (Bebeau et al., 1985). In contrast, other measures provide no indication that there is a moral-related nature to the measure or that respondents should identify moral issues (e.g., Butterfield et al., 2000; Clarkeburn, 2002; Erwin, 2000; Karcher, 1996; Lind et al., 1998; Owhoso, 2002; Sadler, 2004; Shaub et al., 1993; Sparks & Hunt, 1998).

Disclosing versus keeping respondents unaware of the moral-related dimension of the instrument is primarily based on the researchers' objectives for the investigation. If researchers work in a domain that contains explicit ethical codes (e.g., dentistry, accounting) and the measure's objective is to assess professionals' familiarity with these codes, then making respondents aware that there are ethical issues in the situation would be reasonable (e.g., Bebeau et al., 1985). Similarly, if a group of students has recently completed ethics training and the researcher wishes to assess the students' competency at comprehending the concepts communicated in the classroom, then administering a moral sensitivity measure with a stated ethics-identification purpose would also be reasonable (e.g., Myyry & Helkama, 2002). However, if researchers are administering a measure in a domain that lacks explicit codes of ethics or in which moral issues are not inherent in every professional exchange, then keeping the moral-related objective of the measure blind to respondents may be preferable (Clarkeburn, 2002). In such situations, the primary purpose of a moral sensitivity measure is to determine individuals' ability to identify moral issues in complex and ambiguous situations because these are the situations that individuals are likely to encounter in real-world professional interactions (e.g., Finkelstein & Hambrick, 1996). If an individual is unable to identify these situations and nominate them as important in decision making within a laboratory setting, it is questionable whether he or she would do so in an actual interaction in which far greater factors are competing for his or her attention.

Measures that disclose versus conceal their moral-related objective plausibly assess difference components of moral sensitivity (Narvaez, 1993, 1996). Narvaez conceived of two constructs of moral sensitivity: moral perception and moral interpretation. Whereas *moral interpretation* involves the processing of events after an individual establishes that a moral situation is present and a moral decision is necessary, *moral perception* is the stage of realization that a moral situation is present. Although none of the measures that I review target the nonconscious or preconscious components of moral perception (e.g., configuration integration), those that disclose the moral-related purpose remove the initial steps of labeling the situation as being moral-related and the activation of a moral schema. Researchers have acknowledged the activation of moral schema as a potentially crucial part of demonstrating moral sensitivity (Butterfield et al., 2000; Gioia, 1992; Reynolds, 2006c).

Domain-General or Domain-Specific?

One question that these investigations raise is whether moral sensitivity can be measured in a domain-general context, as moral judgment is with the

DIT (Rest, 1979) or MJI (Colby & Kohlberg, 1987; Kohlberg, 1963). Outside of Kohlberg's (1969) cognitive moral development approach, researchers are examining ways to measure individuals' general awareness of moral issues. For example, Reynolds (2006a) developed and investigated a construct called *moral attentiveness*: "the extent to which an individual chronically perceives and considers morality and moral elements in his or her experiences" (p. 8). It includes both a perceptual dimension (*perceptual*) and an intentional integrative dimension (*reflective*). Reynolds (2006a) found that moral attentiveness is related to traits such as nurturance (Ahmed & Jackson, 1979) and symbolic moral identity (Aquino & Reed, 2002) as well as one's self- and other-reported ethical behavior. Although Reynolds (2006a) did find a direct relation between moral attentiveness and awareness, the two constructs are independent, with moral attentiveness representing "a more general sensitivity to [moral issues], so that rather than focusing on the specific issue characteristics or elements of morality . . . the morally attentive person is attentive to more general themes of morals and morality that exist in any situation" (p. 11). Moral sensitivity is perceived as a cognitive ability capable of being improved with instruction and exposure to ethical problems (Clarkeburn, 2002), whereas moral attentiveness is more stable and trait-like.

Similarly, researchers have developed instruments to measure the construct of *moral imagination* (Johnson, 1993). Moral imagination is "the ability to understand [a] set of activities from a number of different perspectives, the actualizing of new possibilities . . . [and] the process of evaluating those possibilities from a moral point of view" (Werhane, 1999, p. 5) or to see the possible "help and harm that are likely to result from a given action" (Johnson, 1993, p. 202). Like moral sensitivity, moral imagination has been theorized to affect moral judgment (Werhane, 1998). The primary difference between the perception aspect of moral sensitivity and moral imagination is that the latter construct goes beyond recognition of the moral issue and begins to enter the judgment and intent components of the moral action process (Rest, 1986). A recent measure of moral imagination asks individuals to provide self-reports of their ability to be aware of contextual factors, reframe a problem from multiple perspectives, and envision and actualize morally justifiable solutions (Yurtsever, 2006). Performance on this scale is related to an individual's moral imagination in response to a hypothetical dilemma, peer ratings of moral imagination, and empathy.

In addition, researchers have made significant progress in measuring the individual components that comprise moral sensitivity. For example, Eisenberg and colleagues have conducted a significant body of work on empathy (e.g., Eisenberg & Miller, 1987; Eisenberg, Murphy, & Shepard, 1997), and Salovey and colleagues (e.g., Mayer & Salovey, 1997; Salovey & Grewel, 2005) have measured the ability to accurately interpret others' emotions.

The current use of most measures to assess sensitivity to ethical issues either in a specific domain or after a profession-specific ethics education course makes the possibility of developing a domain-general measure less meaningful. One

strength of using a domain-specific measure is that it is able to demonstrate the distinction between moral sensitivity and domain expertise. With one exception (Harvan, 1989), experience was not found to be related to domain-specific moral sensitivity (Karcher, 1996; Sadler, 2004). This disconnection between professional knowledge and moral cognition is not new to the psychological literature. Several decades ago, researchers found that seminarians who were on their way to hear a lecture on the parable of The Good Samaritan were unlikely to stop and help a distressed individual if pressed for time (Darley & Batson, 1973).

It is unknown whether scholars use domain-specific measures because valid and reliable domain-general measures do not currently exist. As Clarkeburn (2002) wrote, "the research literature does not entertain considerations of . . . whether moral sensitivity can develop in relative isolation in different areas of life" (p. 442). However, a domain-general measure holds promise for helping to explain the almost 90% unexplained variance between moral judgment scores and moral behavior.

Recommendations for Future Instrument Development

This review of the moral sensitivity literature highlighted the need for greater methodological rigor. Although most instruments have demonstrated satisfactory content validity, few have consistently demonstrated criterion-related or construct validity. Does moral sensitivity increase with age? Can it be improved through focused educational intervention? What are the implications for moral behavior and practice? In regard to measuring moral judgment, Thoma (1994) wrote,

If it were shown that moral judgments offered little information on how and under what conditions people act in moral situations, then there would be much less motivation to continue investing in moral education and little interest in future exploring the developmental features of these judgments. (p. 199)

The same likely holds for moral sensitivity. Rest's (1986) four-component model is comprehensive and parsimonious, but if the field is unable to show relations between Component 1 and Component 4, that inability raises doubt about moral sensitivity's explanatory power. Preliminary evidence suggests that moral sensitivity and behavior are linked. For example, Tenbrunsel and Messick (1999) found that individuals who perceived a dilemma about environmental pollution as an ethical decision were more likely to cooperate and express intentions to act in an environmentally sustainable way than were those who perceived it as a business, personal, environmental, or legal decision.

The paucity of instruments measuring moral sensitivity in children indicates that such measurement is also an area for future research. Although measures that address individual components of the construct exist and have been used for several decades (e.g., Bryant, 1982; Eisenberg et al., 1987; Selman, 1971a, 1971b), no measures directly assess children's ability to recognize moral issues. One pertinent

question is whether children are capable of comprehending what is and is not a moral issue. Research has been directive in showing that children (and even infants) demonstrate moral-related emotions (Hay, Nash, & Pedersen, 1981; Hoffman, 2000; Robinson, Zahn-Waxler, & Emde, 1994) and can identify moral transgressions (Slomkowski & Killen, 1992; Smetana, 1989). Measures of moral sensitivity in children could take a form similar to those used for adults. For example, children could be presented with morally ambiguous, age-relevant scenarios and asked to nominate the issues important to making a decision, in a methodology that would be similar to the methodology used in some assessments of children's moral theme comprehension (e.g., Narvaez, 1998). Such measures could help researchers understand what characteristics (individual-difference and situational) affect children's awareness of moral issues and how moral sensitivity develops across the lifespan.

Conclusion

The purpose of this review was to summarize moral sensitivity assessment and to provide researchers with a launching pad for developing and validating instruments. The paucity of such tools and the lack of consensus in the field have placed limitations on the extent to which moral sensitivity can be empirically investigated. Without valid measures of the construct, researchers cannot embark on investigations to uncover situational and individual differences that affect moral sensitivity or to determine the relation between moral sensitivity and related constructs. Because of the centrality of the individual's ability to recognize moral issues within the moral action process (Jones, 1991; Rest, 1986; Sparks & Hunt, 1998; Trevino & Brown, 2004), moral sensitivity is worthy of greater investigation and inquiry by researchers interested in both the theoretical and the practical side of moral behavior.

NOTES

1. *Competitive intelligence* is a domain of intelligence gathering involving collecting data about a business' competitors.

2. Myrsky and Helkama (2002) conducted this investigation at the University of Helsinki. The discipline of social psychology is defined similarly in Finland and in the United States. However, Myrsky and Helkama conducted the investigation during a period of economic recession in Finland and to help students find work, the University conducted courses devoted to the professional role of social psychologists. These courses included training related to "handling social work problems, even though social psychology graduates [could] not be employed as social workers without extensive additional training" (K. Helkama, personal communication, April 3, 2007).

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