

Revitalizing Accounting Ethics Research in the Neo-Kohlbergian Framework: Putting the DIT into Perspective

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ABSTRACT: The authors briefly review neo-Kohlbergian theory and provide an updated, contemporary view of the DIT. With this background, they present a framework for research using the DIT, drawing on Rest's (1986) Four-Component Model. They note the existence of recent developments, including "intermediate concepts" that decision-makers normally invoke before falling back upon the "bedrock schema" that the DIT measures. Metrics available from the DIT, but generally neglected, are discussed, including the Utilizer score (reflecting reliance upon ethical factors versus competing factors) and Consolidation Transition Type (indicating whether an individual relies upon a clear schema or is torn between competing schemas). Using this framework, they review the status of some well-known controversies in the accounting and auditing literature and suggest a number of research areas and approaches for future work. As such, the work complements and extends existing review articles that have included DIT-based literature in accounting and auditing.

Keywords: ethical judgment; ethical behavior; Defining Issues Test; Kohlberg; Rest's Four-Component Model.

INTRODUCTION

The Defining Issues Test of moral judgment (DIT and the updated DIT-2) has played a major role in ethics-related research in accounting and auditing. In the broader community, about 500 researchers use the DIT every year and have done so at a steady pace for the last 15 years. Nonetheless, conversations at recent accounting research conferences, between the first author and other researchers in the area, indicate that some of the pioneers and influential thinkers in accounting ethics research feel that the DIT has outlived its usefulness or, worse yet, proven to be flawed as a measure of the ethical judgment of accounting professionals. These discussions have surrounded papers presented at American Accounting Association (AAA) research confer-

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ences and the annual Ethics Symposia held before the Annual Meeting of the AAA, and they indicate considerable disagreement over the status and future of research using the DIT instruments. The research has, indeed, been controversial—which we believe enhances its interest and partially justifies a review and reassessment. We hope that this article will help researchers to understand where the DIT research in accounting has succeeded, where it has fallen short, and how the DIT may fruitfully be used in the future.

We have benefited from past useful reviews of the literature and note that the incremental contribution of the current article is on the DIT and its future potential. Louwers et al. (1997) reviewed the research into the ethical behavior of accountants, from 1987 to 1996, covering models of the measurement of moral reasoning, summarizing the existing studies, and discussing the implications for future research. Jones et al. (2003) limited their review to studies of *auditors'* ethical reasoning, covering the period from 1987 to 2003. They provide a thorough, broad review not limited to the DIT or the cognitive-developmental perspective.

The remainder of the article proceeds as follows. First, we describe neo-Kohlbergian theory and its position as a theoretical framework. We acknowledge the alternative theories, placing in perspective the fact that we are exploring only the potential of neo-Kohlbergian theory, using the DIT. The validity of the DIT, and the literature addressing that validity, also are covered there. Second, we delineate the contemporary view of the DIT/DIT-2 and assess the potential contributions of research in accounting and auditing by using the instruments. Particular attention is given to the neglected metrics and newer indices available from the instruments. The literature from studies of other professions also provides perspective.

Third, we present a model, a “framework for research using the DIT,” as a way to organize and reinvigorate research under the neo-Kohlbergian paradigm. Fourth, we assess the status of major findings and controversies in the accounting literature, identifying their place within our framework. These include the following issues: the ethical reasoning levels of accounting students and professionals (and whether “principled” reasoning even is important in accountants and auditors); whether accountants are “different” from the “general population” with respect to their responses to the DIT and thus require a different instrument to measure their ethical development; selection-socialization of accountants on the basis of ethical judgment level; whether an “inverted-U” phenomenon exists in which postconventional reasoners act less ethically than conventional reasoners; the nature of the difference between genders as relates to P scores; and the political content of the DIT.

Finally, we offer suggestions for future research that can benefit from the broader perspective of Rest’s Four-Component Model, the newer metrics of the DIT, and the insights from other areas of the social sciences. Within the contemporary view of the DIT, we discuss some of the neglected metrics available to researchers. Ideas for research are drawn from a synthesis of recent work elsewhere (other professions especially) and ideas developed as a result of gaps and controversies in the accounting literature.

(NEO-) KOHLBERGIAN THEORY

Lawrence Kohlberg (1969) extended the work of Jean Piaget, concerning logical cognitive development, to the domain of moral judgment. According to his theory, moral judgment develops through a series of stages, beginning with self-interest (“pre-conventional”), proceeding through a respect for society’s conventions and laws (“conventional”), and ultimately, in some people, developing to the highest level of postconventional (“principled”) reasoning. The theory is justice-based and assumes a rational decision-maker in the tradition of Immanuel Kant. Kohlberg espoused a theory of “hard” stages, such that an individual’s judgments are based on their current, highest level of development, except for some overlap during transition between stages. Kohlberg and his colleagues developed and espoused the Moral Judgment Interview (MJI) to assess level of

development (Colby and Kohlberg 1987). Use of the MJI requires substantial training, and it is labor-intensive and time-consuming, being administered individually through open-ended interviews.

James Rest and his associates developed the Defining Issues Test as a self-administered, paper-and-pencil instrument to assess the same moral development construct. Much debate has ensued concerning this radically different approach to assessing moral judgment. The status of the DIT is extensively defended in *Postconventional Moral Thinking: A Neo-Kohlbergian Approach* (Rest et al. 1999). In particular, the approach represented by the DIT does not adhere to a hard-stage theory, but recognizes that a person's moral reasoning can reflect a range of "stages" at any point in their development. It is a "soft" stage theory, and Rest and colleagues refer primarily to *schemata* rather than stages.

Shifting to a schema approach signaled a significant shift in the definition of what the DIT measures. Following Kohlberg, DIT researchers accept the notion that an understanding of moral phenomena is developmental and not simply the accumulation of social norms over time.¹ Similarly, DIT researchers agree with Kohlberg that moral judgment development proceeds from a focus on the self and personal relationships through an understanding of social conventions to a recognition of postconventional concepts. However, unlike Kohlberg, the definition of postconventional reasoning is not tied to a particular philosophical perspective (see Rest et al. [1999] for a discussion). Further, development is described in terms of three developmentally ordered schemata (not stages), including personal interest, conventional, and postconventional. In the neo-Kohlbergian perspective, the use of the schema descriptor highlights the view that what develops in an individual is a joint product of context as well as the individual's organizing processes. In short, the neo-Kohlbergian perspective is no longer simply a variation on Kohlberg's theory, and the DIT is not simply a measure of Kohlberg's theory; for an extended discussion of the neo-Kohlbergian Approach, see Rest et al. (1999), *The Journal of Moral Education's* Special Issue on the Minnesota approach to moral psychological research (Vol. 3, 2002), and Thoma (2006).

Kohlberg's developmental theory has been the reigning paradigm of moral judgment for almost half a century. This does not mean that it has gone unchallenged, however, and Rest and colleagues were in the forefront (e.g., Rest et al. 1999, Ch. 2). Although few would now accept an orthodox Kohlbergian view, only recently have the criticisms risen to the level of rejecting foundational assumptions such as the rational basis of the moral judgment process (e.g., Haidt 2001).

Thus we are at a crossroads. Do we create new and richer models by incorporating the traditional focus on the development of reasoning, perhaps taking the form of a model of "moral personality" in which moral judgments are located within the larger self-system (Walker 2004) or through multiprocess models such as Rest's Four-Component Model? Or conversely do we strike out in a new direction, completely dismissing as "old science" (Pinker 2008) Kohlberg's basic Kantian assumption that morality is a rational process? Jonathan Haidt (e.g., Haidt 2001; Greene and Haidt 2002) asserts an "intuitionist" view in which what individuals construe as judgments are strictly *ex post* rationalizations, with moral evaluations being made quickly, based on instinctive

¹ The assumption that individuals develop an understanding of moral phenomena is at odds with traditional socialization accounts of moral functioning, which assume that moral functioning is driven by social learning and cultural norms (Colby and Kohlberg 1987, 4). Similarly, this position is inconsistent with intuitionist positions, which suggest moral functioning is driven by emotional reactions to moral situations. Instead, the neo-Kohlbergian position supports the view that the individual engages social information and interprets personal intuitions in the service of developing a working moral perspective and understanding of specific situations.

understandings. Haidt 2001 does not (as far as we can find) acknowledge the extensive validation research supporting ethical judgment as a developmental phenomenon.²

Essentially, the tension is between automatic ethical judgment operating through intuition or heuristics, versus the standard Kohlbergian model of rational, effortful judgment. The distinction also is loosely portrayed as unconscious versus conscious, although the border separating the two is not that clear. We would recommend two articles—Lapsley and Hill (2008) and Bucciarelli et al. (2008)—that provide cogent assessments of the theoretical debate.

Lapsley and Hill (2008) focus on examining the unconscious/heuristic/tacit theories (termed “System 1,” after Stanovich and West [2000]), because the standard “System 2” theory is well known. The System 1 theories include Haidt’s “social intuitionist” model; moral heuristics theories, positing that we rely on implicit rules-of-thumb to negotiate the complex terrain of moral decisions (e.g., Sunstein 2005); and theories of accessibility and expertise, positing that morally experienced individuals take on expert-like behavior in the moral domain, accessing knowledge schemata that allow rapid decisions without the conscious, step-by-step effort typical of a novice in any area.

Bucciarelli et al. (2008, 123) propose a new theory that “presupposes an information-processing approach ... [and] draws fundamental distinctions among emotions, intuitions, and conscious reasoning.” They posit that independent systems exist to deal with ethical scenarios that initially elicit an emotional response, those that initially elicit a rational evaluation, and those that elicit both simultaneously. They report four experiments that support their theory, interestingly including one demonstrating, contrary to social intuitionist theory, “that individuals do sometimes reason consciously in order to make a moral evaluation as opposed to reasoning only afterwards” (Bucciarelli et al. 2008, 131).

With particular relevance to our current context, the dilemmas used to elicit intuitive responses (Haidt 2001; Greene et al. 2001) seem far removed from those that professional accountants encounter. They concern, for example, whether to shove a bystander into the path of a train in order to save five persons down the track, or whether consensual sex between a brother and sister (depicted as having been “safe” and produced a harmonious outcome) is OK. It is unsurprising that responses to these questions might be immediate and emotional/instinctive, for reasons of evolution, universal indoctrination, common heuristics, etc. However, as Turiel (2008, 286) observes, they are “hardly what ordinary people will regard as everyday moral decisions.” We do not find, among the dilemmas used in this line of research, any that seem relevant to professional life.³ Some decisions clearly demand logical, effortful analysis. Evolution has not prepared us to respond instinctively to questions of marginal financial reporting practices, for example, and whatever predispositions we may have in the form of instincts or heuristics may serve us poorly. Social-intuitionist researcher Joshua Greene (e.g., Greene et al. 2001) is quoted as saying “This

² Turiel (2008, 285) offers an interesting view of the pendulum’s swing between a rationalist (Kantian) and an emotional (Humean) basis to ethical judgment, noting that “it seems that we are seeing some reversions to old ways in the guise of new.” While Kohlberg sought to distance himself from the behavioral school of psychology and its dismissal of autonomy and free will, Haidt and others seem to argue (once again) that our ethical judgments are out of our control.

³ The dilemmas used by Greene et al. (2001) are available at <http://www.sciencemag.org/cgi/content/full/293/5537/2105/DC1>. The 25 dilemmas designated as “Moral-Personal”—and found to arouse areas of the brain associated primarily with emotion—concern only issues of murder (15 in our judgment), death (5), or severe bodily or psychological injury to another known individual (5).

basic primate morality doesn't understand things like tax evasion, but it does understand things like pushing your buddy off of a cliff" (Lehrer 2009, 178).⁴

From the existing literature, we surmise that both effortful and automatic judgment and decision making exist in the ethical domain. With respect to professional judgment, however, we believe that the role of the "standard" model predominates, pending a more complete model of "moral personality." Further, Rest's Four-Component Model seems a likely framework for the development of such a theory.

Criticisms of the DIT

Bay (2002) offers a dim assessment of the DIT. We agree with her that the conclusions drawn from some of the DIT-based research in accounting are incomplete and in need of further study.⁵ For example, as discussed below, the belief that professional auditors possess *very* low levels of ethical reasoning may have been prematurely accepted. Some other criticisms in her article, however, can be interpreted more positively as motivations for further study. The article does not acknowledge Rest et al. (1999); that book addresses the relationship between the DIT and Kohlberg's theory, which forms much of the basis of her criticism. On the other hand, Bay (2002) notes that DIT indices other than the P score have been largely ignored; we agree, and discuss the implications below.

Thornton (2000) argues in the accounting literature that postconventional (principled) reasoning may not be superior to conventional reasoning. He challenges the underlying assumptions of Kohlberg's theory and the DIT, concluding that "Kohlberg's Justice Principle may not be a unique solution" (Thornton (2000), 235), giving utilitarianism and Gilligan's (1982) "care" orientation as competing examples. Note, however, that Rest et al. (1999) discuss the issue of why postconventional reasoning is "better" than conventional reasoning using both philosophical and psychological criteria. They further argue that the notion of postconventional reasoning assessed by the DIT subsumes care and other nonjustice perspectives.

Of the several challenges to the DIT's validity, its correlation with political ideology is the most contentious and perhaps the most threatening. Emler et al. (1983, 1999) show that politically conservative participants score higher on the DIT when asked to "fake" by responding like a liberal. They conclude that, although conservative persons understand the reasoning associated with Kohlberg's higher stages of moral development, their DIT responses understate their true ability because of a desire to present themselves as conservative. Emler et al. (2007) provide further evidence in a non-faking study that relates reputation effects to DIT scores, finding the main correlations to be with political position.

DIT proponents have challenged the internal validity of faking experiments, and have pointed to the ongoing history of construct validation. In particular, Thoma et al. (1999) argue against these "faking" experiments and for a variance-based test of validity (see Kerlinger and Lee 2000): "[T]he test of discriminant validity becomes 'does the DIT contain significant information above and beyond the variance accounted for by some other variable (e.g., political attitude or verbal ability)?' ... Since the beginning of DIT research, the question of discriminant validity has been monitored [in this way]" (Thoma et al. 1999, 109). Crowson et al. (2007) showed that DIT scores

⁴ Lehrer (2009, Ch. 6), whose popular book dramatizes many interesting findings about the role of emotion in decision making, accepts the social-intuitionist model as gospel, seemingly dismissing the role of rational decision making in ethics. The social-intuitionists have been quite successful in promoting their theory in the popular press as well as academic literature. See Joshua Greene's website, <http://www.wjh.harvard.edu/~jgreene/>, Jonathan Haidt's website, <http://people.virginia.edu/~jdh6n/>, and www.yourmorals.org/links.php.

⁵ This is a process seen too little in accounting research. See Bamber et al. (2000) concerning our tendency to prematurely accept early findings and not to allow replications.

and political identification separately explain significant variance in attitudes toward world events and President George W. Bush—and that the two measures were not correlated significantly in their sample of 276 university students.⁶

While challenges to the DIT instruments continue, the instruments are far from invalidated. Such claims, in our view, are preliminary and, rather, highlight the need for further research. For example, as we argue below, the so-called “inverted-U” phenomenon, in which persons scoring highest on the DIT appear to revert to unethical behavior, is sufficiently counterintuitive and weakly supported as to demand further research.

A CONTEMPORARY VIEW OF THE DIT/DIT-2

The preceding sections describe some of the controversies associated with the DIT and (neo-) Kohlbergian theory. Before shifting our focus to address areas where accounting research might benefit from DIT data, we first highlight current views about the specific information provided by the DIT. Clarity in defining *what* the DIT measures is particularly important when some of the criticisms of the DIT stem from a misunderstanding of its intended purposes. After building this foundation, we suggest a framework for further accounting ethics research in the neo-Kohlbergian paradigm, utilizing the DIT instruments.

As Rest and his colleagues make clear, there is much more to morality than moral judgment development. Indeed, Rest’s Four-Component Model (Rest 1986) makes this point explicit by defining moral functioning as composed of four processes:

Component I: moral sensitivity—processes that involve the recognition of the moral dimension within context;

Component II: moral judgment—processes in which the individual identifies the morally ideal outcome;

Component III: moral motivation—processes by which the individual prioritizes the moral action above other competing claims; and

Component IV: moral character—processes that support the implementation of a particular action within a concrete situation.

That is, for a moral action to occur, the individual must identify the moral dimension within a situation, develop an ideal outcome, be motivated to act on the ideal action, and determine how to carry out the action. Conversely, the failure to act may be due to slippages within one or more components—failing to see the moral dimension, failing to identify a morally ideal choice, prioritizing other considerations ahead of the moral, and not being able to either identify how to act or maintain focus on the moral behavior. The Four-Component Model has been particularly helpful in defining and suggesting assessments for professional ethics education (see Bebeau and Thoma 1999; Bebeau 2002; Rule and Bebeau 2005). These researchers suggest that ethical interventions should include direct instruction in each of the four components and that different measures should be developed to assess them. In addition to these programmatic and assessment claims, the Four-Component Model has further clarified what the DIT assesses. As defined within the Model, the DIT measures an aspect of Component II, moral judgment. More precisely, the

⁶ From a radically different theoretical viewpoint, Graham et al. (2009) provide interesting insights into the ethical divide between liberals and conservatives. They posit the existence of five sets of “moral intuitions” that have evolved within all human cultures: Harm/care, Fairness/reciprocity, In-group/loyalty, Authority/respect, and Purity/sanctity. They show that liberals place greater emphasis upon the first two sets, whereas conservatives give more equal weight to all five. Their “moral foundations” theory is empirically based, and thus descriptive and value-free. It certainly helps to understand how liberals and conservatives can differ so greatly (e.g., in the “culture wars”), while both claiming moral high ground. The theory is silent, however, about the relative values of these differing emphases—in stark contrast to neo-Kohlbergian developmental theory.

measure is said to assess the individual's default schema. These schemata are purportedly the basic system used to interpret moral claims within concrete situations when other more context-specific systems fail or provide ambiguous interpretations. The Four-Component Model identifies these more context-specific systems as Intermediate Concepts and Codes.

Intermediate Concepts, Ethical Codes, and Default Schemata

Codes are the most specific and prescriptive of the moral systems and require little interpretation. For example, an accountant who is in a particular situation covered by a code has very little leeway in constructing an action, because the required action is explicit in the code (e.g., when "x" occurs, you must do "y"). Thus the most difficult aspect of this form of Component II reasoning is to recognize that the situation is covered by a code. At that point, the processing demands that lead to the Component-II (ethical judgment) outcome are relatively straightforward.

Between the DIT-assessed default schemata and ethical codes are intermediate concepts. Intermediate concepts represent ethical concepts that are often tied to a particular profession or setting. They are abstract and require interpretation and the self-constructed means for implementation and evaluation. For instance, the concepts of informed consent, beneficence, and professional authority are standard topics within many health and social science professional ethics education programs. These topics are usually described within particular contexts and rely on sets of precedents for interpretation and resolution. Many represent day-to-day morality and are often interpersonal in nature (see also [Bebeau and Thoma 1999](#)).

It is important to note that defining the construct measured by the DIT as default and serving a backup function does not imply that the practical relationship between DIT scores and external criteria is minimal. It is clear both theoretically ([Rest and Narváez 1994](#); [Thoma 2006](#)) and empirically ([Thoma et al. 2008](#)) that reasoning about intermediate concepts is in part a reflection of these default schemata. Particularly important is the shift from personal interest to a focus on group norms. Individuals who prioritize the self or their friends in making moral judgments often fail to take into consideration the full implications of situations and, as such, often fail to make decisions that are generally viewed as ideal ([Thoma et al. 2008](#)). Thus, DIT scores represent both the direct default schema and, indirectly, the influence of the default schema on systems at the more contextual levels in the Component II hierarchy. The above suggests that the DIT is not an omnibus measure of moral thinking, and that users of the DIT should be mindful of what the DIT measures when constructing their studies and interpreting results.

Utilization Scores and Developmental Phases

As interest in the Four-Component Model increased in the 1990s, a number of variables were created using DIT responses to estimate how moral schemata contribute to the overall functioning of Component II (see [Bebeau and Thoma 2003](#)). One such measure is the U score, measuring the degree to which the individual uses moral judgment information in making decisions about moral situations. Underlying this measure is the assumption that individuals have a number of available interpretive systems for formulating decisions about what one ought to do. In addition to moral schemata, they may rely on social norms, religious prescription, and pro-social considerations, among others. As U scores increase, moral judgment information is increasingly associated with the individual's action choice. Conversely, when U scores are lower, it is assumed that the individual is favoring other systems not directly assessed by the DIT. U scores have been particularly helpful in identifying those individuals for whom DIT summary scores are most strongly related to moral actions (cf. [Thoma et al. 1991](#)).

In addition to U scores, the DIT also provides developmental phase information described in terms of consolidation or transitional phases (cf. [Thoma and Rest 1999](#)). This Consolidation Transition Type indicator score ([Bebeau and Thoma 2003](#), 20) has been especially helpful in

linking behavioral and attitudinal outcomes with DIT scores. Specifically, students identified as consolidated in their reasoning provide stronger relationships between DIT scores and outcomes than do students identified as transitional in their reasoning. The consolidation status is assumed to be associated with stronger links to moral action and moral beliefs because it is associated with a focus on a particular moral schema. By contrast, transitional status is associated with a reliance on multiple perspectives. A reliance on a single schema may provide the individual increased clarity in reasoning about moral phenomena in comparison to the transitional status, where one has to confront potentially conflicting interpretations derived from multiple schemata.

In short, U and Developmental Phase scores provide additional insight into the ethical reasoning of students and professionals that is not directly assessed through the overall DIT summary scores. It may be that programs of study or professional experience have an independent effect on U and Developmental Phase scores and should be assessed by researchers in order to present a full picture of the intervention or experience.

Intermediate Concept Measures

In addition to studies designed to assess moral schema changes, the DIT is also an often-used measure to support the development of new, more context-specific measures of moral thinking designed to assess Intermediate Concepts. As mentioned previously, the DIT is claimed to measure a broad-based normative developmental construct. By contrast, Intermediate Concept measures (ICMs) address moral reasoning within more narrow contexts and assess concepts that are defined within a setting of interest (medicine, dentistry, military, etc.). Across these contexts, ICM assessments have been shown to be helpful in describing professional ethical decision making. Unlike the DIT and its focus on developmental schemata, ICMs attend to more narrow ethical concepts as they are discussed within the profession. Further, the participant is asked to consider these concepts within cases drawn directly from the profession, and performance on these measures is defined in reference to expert interpretations of the concept and case. These experts typically are professionals with significant experience and training in professional ethics. Thus, the measure compares student or novice decision making to the more senior experts in the field.

The benefits of ICMs are that they may be more sensitive to specific aspects of the professional ethics curriculum and may be more reflective of specific judgments in similar situations. However, it is important to highlight that ICMs are not replacements for the DIT. Instead the two are complementary in providing non-overlapping information that serves different uses. The DIT provides a bridge to other settings and a point of comparison. Further, the DIT measures moral judgment constructs that have been shown to facilitate ICM reasoning (e.g., [Thoma et al. 2008](#)). By contrast, ICMs may be a particularly sensitive index of the ability of a student or practitioner to address the central concepts of a profession.

Summary: Status of the DIT

The DIT has been the measure of choice for the assessment of moral judgment development in professional school populations ([Bebeau 2002](#)). Although the DIT is often used as an assessment tool, in many cases the measure has been underutilized as researchers focus almost entirely on the summary scores while neglecting the full range of information it provides. In addition, the theory surrounding the measure has evolved—particularly over the last decade—and often these revisions are not incorporated in the description of the measure or interpretation of the findings. Future research on the ethical reasoning capabilities of students and professionals in accounting should continue to benefit from DIT data, particularly in its more current theoretical and operational formulation.

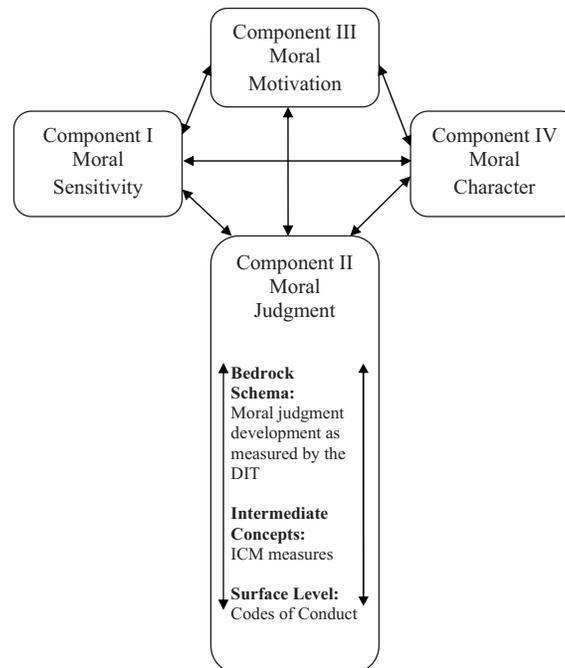
Because the DIT is the measure of choice in higher-education assessments of moral judgment development, there is a large body of data that can be used to help locate accounting students'

moral judgment development within a broad range of professional school students. In addition, and related to Rest's Four-Component Model, some newer indices not only better measure level of moral judgment development, but also assess how reasoning about fairness and social cooperation are prioritized in Component II (judgment formation, the primary focus of the DIT). Of particular interest are new developments using U scores and Consolidation/Transition information. For instance, in intervention research, researchers may now ask whether the intervention increased the focus on moral considerations (U scores) as well as on the more traditional summary measures (e.g., N2 and P scores). Similarly, researchers can assess whether an intervention effect was moderated by developmental phase information (consolidation/transition). Recent evidence suggests that participants' DIT scores change at different rates based on current developmental phase status (e.g., [Thoma and Rest 1999](#); [Maeda et al. 2009b](#)). Beyond intervention studies, researchers could assess whether a relationship between DIT scores and various outcomes might be altered by developmental phases. Again, participants identified as consolidated in their moral judgments provide DIT scores that are more strongly related to outcomes in comparison to participants labeled as transitions ([Thoma 2007](#)). In short, these new scores allow for a more complete assessment of the relationships between participants' reasoning about moral issues and outcome measures.

FRAMEWORK FOR RESEARCH USING THE DIT/DIT-2

Figure 1 depicts the relationships within Rest's Four-Component Model, consistent with the discussion above ([Thoma 2006](#)). The components of ethical behavior do not develop indepen-

FIGURE 1
Relationships within Rest's Four-Component Model ([Thoma 2006](#))



even in the short term, a completely linear process in achieving a solution is unlikely. For example, when struggling to form a judgment, one may cognitively restructure the issue as being less of a moral question than originally thought. Even after the final action, the individual may restructure their cognitive representation of the issue itself.⁷

This causal model may be helpful in modeling individuals' reactions to ethical issues of interest to accountants. In the following sections, we review the status of six prominent research streams or controversies in accounting literature that involve the DIT, and then proceed with recommendations for future research.

STATUS OF MAJOR FINDINGS AND CONTROVERSIES IN ACCOUNTING LITERATURE

The DIT, with its ease of administration, rapidly gained popularity among accounting researchers. Obvious applications came first: the assessment of the judgment ability of accounting students and practicing auditors. Ponemon's (1988, 1992a) work concerning the selection and socialization of auditors garnered much attention and spawned numerous studies during the 1990s. Subsequently, however, the research has floundered, perhaps because of the lack of a guiding framework. Also, the fact that the DIT/DIT-2 scoring provides many variables, while our focus has been almost entirely on P scores, is one clue to the neglected potential.

In this section, we review the status of six issues that have particularly attracted the attention of accounting ethics researchers. They are (1) the ethical reasoning levels of accounting students and professionals compared to other adults, and whether "principled" reasoning is even important to accountants; (2) whether the DIT mismeasures accountants' ethical judgment (because they are different from the "general population") and the development of alternative instruments; (3) selection-socialization of accountants into or out of the profession as a result of their ethical development levels; (4) the existence of an "inverted-U" phenomenon wherein individuals scoring high on the DIT revert to less-ethical behaviors typical of those at low levels; (5) differences between the DIT scores of male and female accountants; and (6) the political content of the DIT. As denoted in Figure 2, these issues cluster around Component I (moral sensitivity) and Component II (moral judgment), except for (4), which concerns the link between judgment and the determination to act.

Ethical Reasoning Levels of Accounting Students and Professionals

Table 1 indicates 23 articles or working papers that report DIT P scores of accounting students, including 16 studies beyond those discussed by Louwers et al. (1997). The studies are listed in order of ascending P scores, which range from 30.88 to 44.00. Some studies, such as St. Pierre et al. (1990), Shaub (1994), Jeffrey (1993), and Ponemon and Glazer (1990) have reported respectably high scores that compare well with the population of college students, but the remaining studies report scores lower than college students in general, and also lower than the average for adults in general. The median score of the studies is 38, and only five of the 23 studies report an average higher than the score of 40 that Rest (1990) gives for adults in general. Some limited comparisons using students in other countries indicate that those in Canada and Ireland also fall below the average for adults. No clear trend appears for academic level, but a majority of the studies used upper-division or graduate students. The preponderance of evidence, including the

⁷ The model in Figure 2 is a distant relative of the model in Trevino's (1986) interactionist model of ethical decision making in organizations, which highlights the point that the situation is as important as the individual actor in determining the ultimate resolution of a dilemma. In her model, situational moderators occupy a single category, while in ours they appear as determinants of moral judgment (intermediate concepts and codes of conduct) and as competing and conflicting factors that impinge on the linkage between determination and action.

TABLE 1
Studies Reporting P Scores of Accounting Students

Article	Academic Level	Number in Sample	3- or 6-Item DIT	Geographic Region	Mean P Score
Eynon et al. (1996)	Lower Div	95	3	Midwest	30.88
Eynon et al. (1996)	Lower Div	51	3	Ireland	31.34
Massey and Thorne (2006)	Senior	45	3	NA	33.20
Lampe (1996)	Senior	328	3	NA	33.89
Lampe (1996)	Junior	144	3	NA	34.27
Lampe and Finn (1992)	Senior	129	3	NA	34.49
Thorne (1999)	Undergrads	70	NA	Canada	35.50
Bernardi et al. (2002)	Junior (Intermediate)	150	3	NA	36.80
Kite and Radtke (1997)	Junior/Senior	31	6	NA	36.94
Thorne (1999)	Graduates	144	NA	Canada	37.20
Fisher and Ott (1996)	Senior	195	6	Midwest	37.50
Jeffrey (1993)	Lower Div	57	6	Midwest	37.60
Douglas and Schwartz (1998)	Sophomores	162	?	Southeast	37.70
Abdolmohammadi and Ariail (2007)	Graduates/Seniors	168	6	Northeast	37.86
Icerman et al. (1991)	Various	236	NA	Southeast	38.09
Fisher and Sweeney (1998)	Junior/Senior	132	3	NA	38.16
Ponemon (1993)	Senior	73	6	Northeast	38.41
Ponemon (1993)	Graduates	53	6	Northeast	39.02
Ponemon and Glazer (1990)	Senior	54	NA	Eastern	40.84
Shaub (1994)	Senior	91	3	Midwest	41.30
Jeffrey (1993)	Senior	76	6	Midwest	42.80
St. Pierre et al. (1990)	Senior	69	NA	Eastern	43.42
Bernardi (1995)	Senior	113	3	Eastern	44.00

Studies are listed in ascending order of P scores.

more recent studies, does seem to support the notion that accounting graduates enter the workforce without having reached the moral reasoning level of their peers in other disciplines.

We have identified 29 studies, listed in Table 2, that provide the P score for auditors after they entered the workforce. The majority of the studies were of U.S. auditors, but we also included studies from Australia, Ireland, and Canada. The P scores ranged from 33.05 to 44.18 with a median of 39, and 13 (45 percent) of the studies show a mean P score above 40, the average for adults in general. Borkowski and Ugras (1998, 1124), in a meta-analysis not directly related to the DIT, find that “[a]ttitudes/behavior seem to become more ethical with age,” so this improvement may be the result of maturation.

In conclusion, the ethical reasoning levels of accounting students and professionals do appear low compared to other adults. Rest and Narváez (1994, 14) report average P scores for law students as 52.2; for medical students as 50.2; for graduate business students as 42.8; and for Navy enlisted men as 41.6. The practical importance of this finding still eludes accounting researchers, because ethical judgment is only a part of the larger picture of ethical behavior. However, evidence from other professions suggests that low DIT scores are associated with less optimal decision

TABLE 2
Studies Reporting P Scores of Auditors

Article	Number in Sample	3- or 6-Item DIT	Geographic Region	Mean P Score
Abdolmohammadi and Ariail (2007)	157	6	Southeastern U.S.	33.05
Tsui and Windsor (2001)	48	3	Australia	34.20
Hill et al. (1998)	110	6	Ireland	34.80
Windsor and Ashkanasy (1995)	168	3	Australia	35.19
Hill et al. (1998)	131	3	U.S.	36.60
Scotfield et al. (2004)	258	3	U.S.	36.73
Eynon et al. (1997)	121	3	U.S. Random	36.90
Armstrong (1987)	55	6	U.S. Random	37.10
Ponemon (1992a)	180	6	U.S.	38.06
Thorne (2000)	286	6	Canada	38.25
Armstrong (1987)	119	3	U.S. Random	38.50
Arnold and Ponemon (1991)	106	NA	U.S.	38.53
Thorne and Magnan (2000)	182	3	Canada	38.57
Windsor and Ashkanasy (1995, 1996)	131	3	Australia	38.57
Ponemon (1992b)	88	6	?	38.74
Ponemon (1995)	106	6	U.S.	39.25
Ponemon and Gabhart (1993)	133	6	Northeastern U.S.	40.03
Kite et al. (1996)	78	6	U.S.	40.90
Lampe and Finn (1992)	229	3	NA	40.95
Scotfield et al. (2004)	615	6	U.S.	40.95
Bernardi and Arnold (1997)	494	3	New England, Mid-Atlantic, East Central	41.10
Shaub (1994)	207	3	Southwestern U.S.	41.11
Jeffrey and Weatherholt (1996)	102	6	Midwest	42.20
Sweeney (1995)	314	6	Midwest	42.80
Etherington and Schulting (1995)	76	3	Canada	43.50
Ponemon and Glazer (1990)	43	NA	Eastern	43.58
Bernardi and Arnold (2004)	67	3	U.S.	43.80
Ponemon and Gabhart (1993)	102	6	Ontario Canada	44.16
Abdolmohammadi et al. (2003)	90	NA	Northeast	44.18

Studies are listed in ascending order of P scores.

making in profession-specific measure of moral thinking (Thoma et al. 2008). Thus, the finding of low scores should be taken seriously and not simply attributed to weaknesses in the construct or measure.

Is “Principled” Reasoning Important for Accountants and Auditors?

Several researchers have raised questions about the relevance and importance of principled reasoning in accountants and auditors. For example, Jeffrey and Weatherholt (1996, 27) believe that “‘higher’ ethical development as measured by the DIT may not necessarily be ‘better’ ... [Auditors] at the postconventional level may deviate from professional standards if the standards are not congruent with their internal principles.” Similarly, Louwers et al. (1997, 210) speculate

that “the public may expect lower levels of moral reasoning (specifically stage four) for accountants as members of a rule-based profession.” Lampe and Finn (1992, 56) make a similar argument. All of these comments seem to reflect a distrust of postconventional moral thinkers out of a fear that they will not attend to explicit professional rules and standards before making their own rules.⁸ This concern that auditors thinking at a principled level may let their own “high” standards override official guidelines such as GAAP is reduced, however, when we recognize that one invokes surface-level codes (e.g., GAAP) and intermediate concepts before falling back on the bedrock concepts captured by DIT scores.

Despite these speculations about the importance of postconventional reasoning, accounting professionals and researchers also have recognized that professional judgment must extend beyond the interpretation and application of rules (e.g., Gaa 1994). Currently, the impending adoption of principles-based standards consistent with those of the International Auditing Standards Board (IASB) seems to place a renewed interest on principled thinking. Accounting has been a rules-based profession with accountants following generally accepted accounting principles (GAAP) as they make reporting decisions. GAAP, as with any rules-based system, cannot cover all eventualities. With a move toward principles-based standards, accountants will use more judgment when they handle a transaction, so that financial statements reflect the economic substance of the transaction. Possibly the profession will be more attractive to students who want to operate in a thinking environment rather than in a rules-based profession. In our opinion, therefore, principled moral reasoning *is* important to professional accountants. If one accepts the neo-Kohlbergian tradition, there is no clear justification for being satisfied that auditors or accountants reach the conventional level of reasoning; accounting educators and organizations should be concerned with the development of principled thinkers.

Does the DIT Mismeasure Accountants’ Ethical Judgment?

Several researchers have argued that the DIT may not serve well as a measure of accountants’ or auditors’ ethical development, because the generic scenarios in the instrument do not tap into the substantive, accounting-related issues generating the most concern about their judgment and action. Massey (2002, 196; emphasis in original) says that “because prior accounting-ethics researchers give very little attention to auditors’ *context-specific judgments and behaviors*, it is unclear whether utilizing higher levels of [moral reasoning] is a worthy goal for auditors.” Further, she notes that because of the “low internal consistency of the DIT for [her participants and those of other studies], it is possible that auditors share some systematic characteristics that call into question the appropriateness of using the DIT to assess [the moral reasoning of accountants]” Massey (2002, 213). Shaub (1997, 46) believes that “[i]t is important that ethics researchers continue to develop measures that are not necessarily easy, but are sufficiently rich to learn something from them” and that they “should develop scenarios that contain an explicit accounting context—auditing, tax, consulting, corporate or governmental.” Consistent with the concern that the standard DITs may miss the mark as a relevant measure of auditors’ or accountants’ ethical judgment levels, at least five alternative instruments have been developed (Welton et al. 1994; Fisher 1997; Thorne 2000; Massey 2002; Doyle et al. 2009). It is interesting to note, however, that context-specific measures of ethical reasoning do relate to DIT scores in a variety of professional settings (e.g., Thoma 2006; Thoma et al. 2008). Thus, in many respects the question of DIT score relevancy is more one of perception than an empirical reality.

⁸ If accounting academicians have adopted a distrust of principled reasoning, it may be due to an acceptance (prematurely, in our opinion) of the “inverted U” phenomenon discussed below, which implies that too much consideration of principles may produce bad behavior.

We believe that the development of alternative, context-specific DIT instruments is not a promising course of action. The role of the DIT is to assess an individual's bedrock schema. Note that, as discussed above, an individual in a professional role will first access surface-level guidelines (such as laws, rules, and codes of conduct), then intermediate concepts (which, as discussed below, need to be identified in accounting, but which might include independence for an auditor). When the answer to "what is right" in a current context still is unclear, the individual will rely upon their bedrock schema. Measuring the latter via an alternative DIT-type instrument is unlikely to provide a better indication of one's level of thinking than the established DIT instruments with their extensive history of validation. It is true, as Fisher (1999) points out as justification for his alternative instrument, that Rest (1985, 20) called the DIT "extremely coarse-grained ... [so that we] would like to have finer-grained characterizations of people's thinking that [are] especially relevant to the most pertinent issues of a particular profession." Subsequent theoretical development, however, has led to the recognition of intermediate concepts rather than replacement of the DIT. Thus, the question of whether the DIT mismeasures accountants because they are different from the "general population," or whether they apply different levels of thinking in different settings, is not consistent with the ongoing research in areas outside accounting.

Selection-Socialization of Accountants Into or Out of the Profession

A frequently cited belief is that CPAs at higher ranks of auditing firms have *lower* ethical judgment ability, as expressed by P scores, than do their subordinates. This conjecture is attributable mainly to Ponemon (1992a), who hypothesized and interpreted his findings as evidence for a selection-socialization process, whereby a power structure of less ethical partners drive out candidates with higher ethical thinking, perpetuating their own culture to the detriment of the profession. This result was well received by the academic community (whose experiences in practice may have lent it credibility), such that Ponemon (1992a) became the most cited work in accounting ethics research.⁹ Subsequent research appeared to confirm the finding of a selection-socialization process driven by auditors' ethical judgment levels, but in hindsight the articles appear to reflect a confirmatory bias in the literature. Ponemon and Gabhart (1993, 59) reported a similar pattern of means for a sample of CPAs in the United States although the differences apparently were evident only in nonparametric median tests. Similarly, Shaub (1994), 1, 14, 22) states in the abstract of the article that "Moral reasoning scores increased through the third-year staff level, and decreased from the senior through the partner levels," although these findings were not statistically significant. Bernardi and Arnold (1997, 653, 660-662) indicate in the abstract that "The data suggest that a greater percentage of high-moral-development males and low-moral-development females are leaving public accounting than their respective opposites. These results indicate that the profession has retained, through advancement, males who are potentially less sensitive to the ethical implications of various issues," even though the detailed evidence shows that male scores do not decline significantly by rank and female scores increase. However, two publications in 2004 cast strong doubt on this form of selection-socialization.¹⁰ Scofield et al. (2004) collected data from two large national samples of CPAs, taken in years 1995 and 2001, and showed with considerable confidence (low β risk) that the phenomenon did not exist. Additionally, they strongly question the nature of Ponemon's (1992a) sample with respect to its representativeness as well as its atypical distributional characteristics. About the same time, Bernardi and Arnold (2004) published results of a longitudinal study that did not show a phenomenon of lower pro-

⁹ Scofield et al. (2004) reported that the work had been cited in 26 publications as of September 2002 according to the *Social Sciences Citation Index*. As of March 2009 the count was 49, and as of January 2010 it was 52.

¹⁰ There is little doubt that a selection-socialization process occurs in professional organizations such as CPA firms. The question here is whether ethical orientation or judgment ability is an important driver of the process.

motion rates for managers with higher P scores but rather indicated the opposite effect. [Conroy et al. \(2010\)](#), using 30 ethically charged vignettes instead of DIT scores, also failed to find an inverse relationship between CPAs' rank and their ethical judgment, based on the perceived acceptability of behaviors.

Thus, the phenomenon of selection-socialization of auditors in accounting firms based *largely* on their ethical development levels has been seriously questioned. It seems likely that many personality variables, especially the "Big Five" personality factors ([Costa 1996](#); [Costa and McCrae 1992](#); [Matthews et al. 2003](#)), must come into play, along with a plethora of social and cultural issues. Ethical judgment—or more importantly ethical behavior in light of the Four-Component Model, may still play a part that would be of interest and importance in a particular setting; but to study the influence of ethical judgment ability alone now seems naïve.

The "Inverted-U" Phenomenon: Do "Principled" Reasoners Backslide?

Theory suggests that the level of moral reasoning, as measured by the P score, would be positively related to ethical behavior; as the P (or N2) score increases, the level of ethical behavior should also increase monotonically. Using a sample of 126 students, [Ponemon \(1993\)](#) did not find this relationship, but found that students with both lower *and* higher P scores acted "unethically" compared to students with scores in the middle range. The measure of unethical behavior, however, was failure to pay voluntarily for photocopies of class notes—and the students had "agreed to participate in an economic-choice experiment that tested their willingness to pay ... based on a Prisoner's Dilemma" game ([Ponemon 1993](#), 193). We are not convinced that the students saw this as an ethical dilemma, given that it was framed as a game.¹¹ Students may have reasoned that they did not *need* the class notes, and seen the payment as optional; or the students with higher P scores may have viewed the payment as a contribution and preferred to direct their contributions to more favored "charities," which arguably is ethical.

Two studies have replicated key aspects of the [Ponemon \(1993\)](#) study with mixed results. [Bay and Greenberg \(2001\)](#), using 45 students, found a similar inverted-U quadratic relationship and, in addition, found that gender was significant, with the behavior of males driving the results. Surprisingly and anomalously, the ethical behavior of females ($n = 19$) *decreased* as their P score increased. Their study used "ordinary playing cards" that the participants could trade and pass off to buyers as "high quality" products when they actually were "low quality," thus reaping higher profits in the game. Certainly the use of cards is game-like and likely to induce a suspension of normal ethical considerations, even though the authors held a "sales meeting prior to the beginning of the first round...emphasizing the importance of behaving as if this were a business and of working to achieve satisfied customers" ([Bay and Greenberg 2001](#), 371).

[Abdolmohammadi and Baker \(2007\)](#), in the second replication study, using a sample of 136 students, did not find this quadratic, inverted-U result. Their findings confirm the expected results that unethical behavior (based on unobtrusively observed plagiarism rates in the course) decreases monotonically as the P score increases and, like [Ponemon \(1993\)](#), they find no gender effect. The participants in this study took the DIT and may have been aware of an experiment, but they were not aware that assignments they submitted in class, which were used to assess plagiarism, were part of the experiment.

Although the evidence seems mixed, we believe that a high burden of proof is necessary to sustain the belief in an inverted-U phenomenon, wherein persons scoring high on postconventional reasoning, would tend to revert to the kind of self-serving behaviors of reasoners operating at the

¹¹ See [Rankin et al. \(2008\)](#), who address a similar framing issue, in which a budgeting scenario is viewed alternatively as an ethical dilemma or as a negotiation with one's self-interest in mind.

lowest (self-interest) level. Because it is central to the question of whether principled reasoning is useful to accountants, it deserves further research. A successful study should make clear that the observed behavior is perceived as an ethical issue by the individual (i.e., recognized in Component I as ethical). Then, the links between the judgment (Component II) and the determination to act (III) and final action, if observed (IV), must be carefully delineated. For example, if the issue is one that individuals higher on the DIT P-score scale tend to view as having low moral intensity (Jones 1991), then they might not apply ethical judgment but use a utilitarian model instead.

Difference between Genders

On the DIT, females have a history of scoring higher than males—although the difference is very small (Thoma 1986). Accounting researchers have found this gender difference and, based on earlier reports in the psychology literature, have speculated that the difference might be greater for members of their profession than for the general population (e.g., Shaub 1994, 14). Borkowski and Ugras (1998, 1124), in a meta-analysis, found that “[w]omen seem to demonstrate more ethical attitudes/behavior than men.” Of the ten studies considering the effect of gender on moral reasoning that we identified, seven show that female accountants score significantly higher than male accountants (Hill et al. 1998; Bernardi and Arnold 1997; Eynon et al. 1997; Shaub 1994; St. Pierre et al. 1990; Thorne 1999; Douglas and Schwartz 1998). The P scores for females were higher than males, but not significantly so, in the studies of Ponemon and Gabhart (1993), Abdolmohammadi et al. (2003), and Abdolmohammadi and Ariail (2007). Hill et al. (1998) found a significant difference in their United States sample, but their Irish sample included only three women.

Nonetheless, the male-female difference is not specific to accounting, as it has been growing in more recent cohorts studied by the Center for the Study of Ethical Development.¹² In a recent meta-analysis, Maeda et al. (2009a) found females a constant four points higher than males across setting and age/education levels. Thus, the small differences between the DIT scores of male and female accountants are consistent with findings in the broader literature, and are not a phenomenon specific to accountants. If indeed there is little unique about this gender difference in the accounting profession, and the difference is small, then the potential for further examination among accountants seems quite limited. The policy implications for the profession are limited, as hiring or job assignments cannot be based on gender. The role of this variable may be that of a potential internal-validity threat to be avoided in research studies, i.e., that an effect ascribed to ethical judgment might really be due to gender. The small size of the effect, however, minimizes that threat as well.

Political Content of the DIT

Following Emler et al. (1983, 1999), several accounting researchers in the discipline have taken up the cause of proving that the DIT primarily measures political belief (e.g., Fisher and Sweeney 1998, 2002; Sweeney and Fisher 1998, 1999). Fisher and Sweeney (2002, 143-145, emphasis added) say their research indicates “that relationships between DIT P scores and other variables previously attributed to differences in subjects’ moral reasoning abilities may, in reality, have been largely the result of variance in political ideologies.... The results of this study, in conjunction with those of prior research ..., provide strong evidence that the DIT P score, generated under the standard test instructions, confounds political ideology with moral reasoning development.” Fisher, Sweeney, and colleagues have replicated Emler and colleagues’ studies using some clever refinements, and have reported statistically significant effects of respondents’ political beliefs.

¹² A working paper is available from sthoma@bamaed.ua.edu.

Following the explained-variance model of [Thoma et al. \(1999\)](#), [Bailey et al. \(2005, 23\)](#), using a sample of 741 CPAs in public accounting practice who took the original DIT and 261 who took the DIT-2, found that political orientation “explains less than ten percent of the variance in DIT and DIT-2 P scores [of these accounting professionals] as well as the new N2 scores; these effect sizes are small, so that the scores may not be seriously threatened by confounding.” Nonetheless, they recommend that political orientation not be ignored, because including it as a covariate can increase statistical power and avoid confounding.

The question of political content continues to interest accounting researchers (e.g., [Ariail et al. 2008](#); [Bailey 2008](#)). It seems, however, that such research belongs primarily in the social- or developmental-psychology literature rather than in the accounting literature. It is clear that liberal individuals score somewhat higher on the DIT, and this variance can be partialled out if the researcher wishes ([Bailey et al. 2005](#)).

SUGGESTIONS FOR FUTURE RESEARCH

We believe that ethics research in the accounting literature has focused too narrowly on Component II of Rest’s Four-Component Model. There has been confusion over the purpose of the DIT instruments, a neglect of metrics other than P scores, and a weakness in making a connection with the broader research on ethical development within the professions. As a result, the accounting research began to falter after an enthusiastic early start. We suggest that, if the ultimate goal of ethics research in accounting is to improve the ethical performance of accountants, then research must consider all four components. Accordingly, we offer suggestions under the four headings.

Component I: Moral Sensitivity

A few studies have addressed this component in accounting (e.g., [Shaub et al. 1993](#); [Karcher 1996](#); [Yetmar and Eastman 2000](#)). [Jordan \(2007\)](#) has recently undertaken a review of moral sensitivity across domains, including measurement instruments representing three definitions of the construct (*recognition and affective response*, *recognition*, and *recognition and ascription of importance*). She explores reasons why the other components of Rest’s model have received less attention than Component II, and concludes that it may be due to the availability of reliable measures of Component II. Her review provides a starting point for the development of an accounting-related instrument.

[Shaub et al. \(1993\)](#) draw upon both Rest’s Four-Component Model and the work of [Hunt and Vitell \(1986\)](#) to develop a model of the decision-making process. They note that “factors that Hunt and Vitell predict will affect a person’s ability to perceive an ethical problem include cultural environment, industry environment, organizational environment, and personal experiences ... Specifically, CPAs’ cultural environment or upbringing, personal experiences, industry environment, and organizational environment are hypothesized to influence their ability to recognize situations having ethical content” ([Shaub et al. 1993](#), 151–152). Thus, they use measures of ethical idealism and relativism, presumably shaped by one’s upbringing or environment; measures of professional commitment to reflect the influence of the accounting profession (industry); and items from an organizational commitment scale to reflect the influence of organizational membership.

Of continuing interest is whether accounting curricula and typical professional acculturation and training result in moral sensitivity comparable to other professions. Moral intensity ([Jones 1991](#)) seems likely to interact with an individual’s predisposition to recognize issues as having a moral component, and in fact [Jones \(1991, 366\)](#) argues that moral intensity “influences every component of moral decision making and behavior.”

Accordingly, accounting researchers need a valid and accepted measure of moral sensitivity and of the factors in educational and professional life that influence this key, initial component in the chain leading to moral behavior. The Dental Ethical Sensitivity Test (DEST) is the most

established instrument designed to evaluate students' ability to recognize ethical issues in real-life professional situations, and other researchers have modified the DEST to apply to different professions. The test consists of audio recordings, to which the student records an "on-the-spot" verbal response. Criteria have been developed to judge the student's sensitivity to special characteristics of the patient and awareness of the needs and interests of others. For discussion of research with this instrument and others especially designed for dentistry, see [Bebeau \(1994\)](#).

Component II: Moral Judgment

Although accounting research has focused heavily on Component II, using the DIT, the research has, as indicated above, been too narrow in scope to address the full range of professional concerns. Because of the importance of intermediate concepts, a prime question is, "What are the intermediate concepts relevant to accounting ethics?" This will vary across specializations and certifications; e.g., "independence" is an intermediate concept relevant to independent auditors and, perhaps, in a modified form to internal auditors, but not to management accountants. We refer the reader to [Reiter and Williams \(2004\)](#) for an analysis of independence concepts and useful citations to relevant literature.

In recent years there has been a growing consensus on the process needed to develop a measure of intermediate ethical concepts. As outlined by [Bebeau and Thoma \(1999\)](#) this process should include professionals with ethics training who provide guidance on the appropriate situations that should be captured by the measure, and who help develop items that sample the range of action choices and justifications associated with each situation. Finally, these expert panels are involved in developing the scoring key, which provides an index of how well the student/professional reasons about the ethical issues embedded within each situation. [Bebeau and Thoma \(1999\)](#) discuss these steps in detail, and their Dental Ethical Reasoning and Judgment Test consists of five dental dilemmas that assess profession-specific intermediate concepts. A respondent rates action choices and justifications and then selects the two best and two worst action choices and the three best and two worst justifications. Scores are determined by calculating the proportion of times that a respondent selects actions and justifications *consistent with expert judgment*.

Attention to intermediate concepts in professional accountancy should supplement DIT findings and provide a more complete assessment of the judgment process in context. Further, we suggest that using an intermediate concepts approach is a more profitable direction than a common alternative strategy in which DIT dilemmas are replaced with setting-specific situations. The motivation of these alternative strategies is the view that taking setting into account will provide a better estimate of moral schema. However we would note that the DIT does a good job measuring bedrock moral schema and there is no evidence that changing stories improves these estimates ([Rest 1979, 1986](#)). Thus, in our view, the effort it takes to develop a setting-specific DIT would be better spent in providing complementary information using an intermediate-concepts strategy and in so doing extend our understanding of how accounting professionals reason about moral situations within the accountancy context.

The Linkage between Judgment Ability and Action

The link between judgment ability and ethical behavior is known to be consistent but weak, resulting in some skepticism about the value of the DIT as a sufficient measure of ethical functioning. As noted above, however, several factors moderate this linkage, and deserve exploration. First, the linkage is stronger for individuals with better-consolidated judgments. That is, those whose thinking is predominantly in terms of the Conventional or the Postconventional schema will be more likely to act according to their predominant schema than will one who is in a transitional

stage between schemata. Second, surface-level factors such as codes of conduct, or intermediate concepts such as independence, often are consulted before applying the bedrock schema that the DIT instruments assess.

Component III: Moral Motivation

Two works by [Libby and Thorne \(2004, 2007\)](#) address both moral motivation and moral character relevant to Components III and IV. [Libby and Thorne \(2004\)](#) undertake to identify and categorize auditors' virtues, and [Libby and Thorne \(2007\)](#) develop an instrument to measure these virtues.

The virtues categorized as “instrumental” capture an individual’s “intention to act in a virtuous manner. Non-instrumental virtues are associated with formulation of professional judgment while the instrumental virtues are associated with auditors’ exercise of professional judgment” ([Libby and Thorne 2007](#), 90). The instrumental virtues included in their instrument are being Alert, Careful, Diligent, Cooperative, Courageous, and Resourceful. This is but one approach to the study of moral motivation and accounting researchers may find examples from other professions instructive (see for example [Rule and Bebeau 2005](#)). In general these research traditions suggest that moral motivation within the professions is sensitive to educational interventions and training, but not to simple experience in the field ([Rule and Bebeau 2005](#)).

Component IV: Moral Character

This component operates in a concrete setting. It “involves figuring out the sequence of concrete actions, working around impediments and unexpected difficulties, overcoming fatigue and frustration, resisting distractions and allurements, and keeping sight of the eventual goal. Perseverance, resoluteness, competence, and character are attributes that lead to success” in this component ([Rest 1986](#), 15).

[Rest \(1979, 177\)](#) offers an illuminating discussion of this final component of his model. One factor is ego strength, which differs between individuals. It involves differences in the ability to delay gratification and work toward a greater goal. “Low ego strength makes a person more vulnerable to situational pressures and distractions, and less able to carry out one’s highest ideals” ([Rest 1979, 177](#)). He notes that ego strength, *per se*, is an amoral characteristic that affects one’s ability to carry through either moral or immoral actions. Additionally, he points out that moral values compete with other values to determine final outcomes. “Moral judgment tests tell us something about a person’s concepts of fairness. Moral judgment tests, however, do not measure the relative strength of moral values compared with other values a person may have. Sometimes moral values can be compromised by other values ... and sometimes moral values are completely set aside” ([Rest 1979, 178](#)).

It may be possible to identify the most important factors—institutional, personal, or environmental—that mediate this final link in the moral performance of accountants and auditors. When do “good” people go “bad”? A balanced view of the interaction between environmental influences (relevant to the “situationist” view of behavior) and inner characteristics (relevant to the Aristotelian “virtue” perspective) appears in [Arjoon \(2008\)](#). See also [Trevino \(1986\)](#), whose interactionist model highlights the “individual moderators” of ego strength, field dependence, and locus of control, versus the “situational moderators” of immediate job context, organizational culture, and characteristics of the work.

Holistic Studies

A possible route to better understanding the ethical judgment and decision-making process in a particular environment would be to study the set of relations depicted in [Figure 2](#) as a whole. Several alternative methodologies might be appropriate. In a designed experiment, issues could be

introduced (either in an individual or group setting); the formulation of a judgment observed; a determination to act recorded; moderating factors manipulated or observed; and the final action observed.

Field studies also offer the potential to observe the process from recognition of the issue through ultimate action, although gaining access to deliberations about a meaningful issue—much less the test scores of the principals—would be problematic. Case studies could provide valuable insights into the overall process and help build theory.

An alternative approach to provide a holistic picture of moral functioning is to focus on moral exemplars in the accounting profession. There are now a number of examples both in the professions (e.g., Rule and Bebeau 2005) and in the more general population (Walker and Frimer 2007) that demonstrate how a focus on a subset of individuals who have distinguished themselves as people who prioritize ethical considerations in their daily lives can illuminate how ethical behavior is constructed. These studies have in common the use of objective criteria to identify the moral exemplars and in-depth interviews and a focus on life histories to then categorize participants. Given the current interest in moral exemplarity within the broader field of moral psychology a similar approach used within accountancy seems particularly promising.

SUMMARY AND CONCLUSIONS

Although the DIT has figured prominently in the body of accounting and auditing research on ethics and professionalism, the literature has been rather *ad hoc*. To a large extent, it has been driven by the ease of utilizing the DIT, and some of the most popular topics may have been over-mined at the expense of more interesting and fruitful questions, leading to disenchantment among some accounting researchers. As a framework for further research, we explicate a model of the resolution of immediate ethical issues, based on Rest's Four-Component Model, and discuss the status of six research questions that have occupied accounting researchers, noting that the focus has been almost entirely on components I and II. Finally, suggestions are offered under each of the four components as to how research might best continue, drawing from progress made in other professional settings. We hope that a fresh look at the richer theory and the broader array of metrics available from the DIT and DIT-2 may open new opportunities to investigate the important issues that clearly exist for researchers.

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