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AUTHOR Rest, James R.
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ABSTRACT

This paper describes the rationale for the Defining Issues Test (DIT), an objective test of moral judgment which attempts to improve upon three aspects of Kohlberg's research: data collection, categorization of moral judgments (the scoring system), and method of indexing a subject's progress in a developmental sequence. In each case, the way in which the DIT overcomes problems in the Kohlberg system is described and explained. In the DIT, the subject is given a moral dilemma and asked to classify his own thoughts. Results of the DIT show subjects to be more advanced and to display more principled thinking than would be expected from Kohlberg's data. This discrepancy is explained in terms of differences between the DIT task and Kohlberg's task. It is thought that the latter may seriously underestimate people's recognition and discrimination of principled thinking. In addition, it is argued that an accurate system for indexing an individual's development must go beyond stage typing (the categorization of the individual in terms of one developmental stage). A theory of decalage is called for, to describe the interplay of variables related to uneven acquisition of characteristics associated with a given stage. For the present, it is suggested that moral judgment data be preserved for later reanalysis, and that various indices be examined for best fit with the empirical properties expected of the construct moral judgment. Appended are two tables: (1) the DIT format, and (2) major validity questions and comparison of findings with Kohlberg's Test and DIT. (GO)

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New Options in Assessing Moral Judgment and
Criteria for Evaluating Validity

James R. Rest
University of Minnesota

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In the last three years I have been working with other colleagues on an objective test of moral judgment called the Defining Issues Test--or the DIT. A few months ago at another convention I heard Larry Kohlberg characterize this research as being in the Minnesota tradition of mindless dustbowl empiricism. He said it was another outbreak of the same malignancy that gave us the MMPI. The Defining Issues Test is, according to Kohlberg, the Minnesota Multiphasic Test of Morality which only a place with too much methodology and long, hard winters could have produced. Now I am not going to contest the point about Minnesota's winters, but I am going to argue that recent research in moral judgment, as well as cognitive developmental research in general, requires us to introduce complications into stage theory which Kohlberg has not yet done, and to consider options in the way moral judgment is assessed. Moreover, the Defining Issues Test research is not simply an attempt to devise a "quick and dirty" test which predicts to Kohlberg's test--for Kohlberg's test is "long and dirty." Rather, this research sets out to examine new options in moral judgment assessment with the benefit of hindsight and the experience of over 15 years of research. The Defining Issues Test is built on Kohlberg's general ideas about the cognitive developmental approach, and is heavily indebted to his characterizations of stages. Yet there are three issues on which I see problems in Kohlberg's research, and on which I think we ought to consider options. The Defining Issues research illustrates exploration of some of these options.

One issue concerns what to use as a data source. Kohlberg has used interviewing of subjects about a moral dilemma. I will argue that there are other options. A second issue concerns how to categorize moral judgments--

Kohlberg's new structural scoring is said to be a "relatively error free" way of characterizing moral judgments. I'll argue that there are problems with his new structural system and that there is room for other scoring systems. A third issue concerns how to index a subject's progress in a developmental sequence. The prevalent method has been to allocate a subject to a stage and thus stage-type a subject, as a stage 2 subject, or stage 4 subject, and so on. I will argue that there is no such thing as a pure stage subject and will suggest some options for indexing development.

The first issue is whether interviewing is the only way to collect moral judgment data. The interview method has some inherent problems; you don't know to what extent differences between subjects are due to verbal articulation, to test taking sets, to interviewer-interviewee interactions, etc. However the most serious problem I found with the interview method was in scoring it. I found in using Kohlberg's 1958 and 1969 scoring systems that many subjects didn't give decisive enough information by which to score them without great interpretive leaps. There are of course some subjects who state their views in a very striking and clear way, and the correspondence between what they say and the scoring system is compelling and convincing. These of course are the subjects you quote in talks and in the scoring guides. But there are other subjects whose answers are not so clearly scored. In looking at Kohlberg's new 1974 scoring system there have been improvements in the explicitness and clarity of the scoring guides--and anyone familiar with the earlier scoring systems will appreciate the improvements. But the scoring process is still very difficult and there still seem to be problems in deciphering protocols since the interjudge agreement among trained scorers is only 66% agreement on major stage.

Therefore an option worth considering, it has seemed to me, is to have a subject do his own classifying of his thoughts rather than having a scorer

attempt to figure out what's in a subject's head. The format used in the Defining Issues Test is given on the first page of the handout. After a subject has read a moral dilemma (in this case the all too familiar story of Heinz and his dying wife) the subject is presented with a list of ways of defining the important issues in the case. The subject's task is to decide how important each one of these issues is in making a decision about what to do in the story. At the bottom of the page the subject lists the most important issues. This task seemed to have some "ecological validity" in that in real life, people are often asked to make judgments about what the crucial issues of dilemmas are. The issue statements are designed to represent stage distinctive ways of defining the issues of a moral dilemma, so that the way a subject rates or ranks the statements can be used to derive stage scores. We use 6 stories so that scores are based on 72 items. To be sure, there are abstract theoretical arguments about why a task like this can't work and there are abstract theoretical counter-arguments about why it should work. But the best answer to this question I think is to look at the summary of findings on the next pages of the handout. But we can't go into them now.

One thing noticeable about data from the Defining Issues Test is that it seems to depict people as being more advanced than what one would expect from Kohlberg's data. According to Kohlberg, stage 5 and 6 thinking just doesn't appear until adulthood, and even then it is a rarity. On the Defining Issues Test principled thinking seems much more plentiful: about 3% of junior high school students are predominantly using principled thinking on the DIT, about 8% of senior high school students, about 45% of college students, 60% of seminarians and 93% of doctoral students in moral philosophy and political science. Some people have said that the Defining Issues Test can't really be measuring stages of moral judgment because it attributes too

much principled thinking to people. This discrepancy may be due to task differences, however. The Defining Issues Test only requires subjects to recognize and discriminate principled thinking whereas Kohlberg's task requires people to spontaneously produce it verbally. In current research in developmental psychology we are becoming more and more aware of the role that task differences play in determining what kind of thought organization a subject uses in dealing with a problem. For instance John Flavell and others have pointed out that perceptual role taking which Piaget states is acquired somewhere between 6 and 10 years of age can be seen in infants barely a year old when simplified tasks are used; and on the other extreme, sufficiently complicated tests of perceptual role taking would make any of us look egocentric. In moral judgment research, Breznitz and Kugelmass (1967, 1968) have shown that the Piagetian concept of intentionality (which is supposedly acquired by age 9) can be shown to be lacking in adults if the task involves justification rather than simply recognition. Therefore it may be that Kohlberg's task seriously underestimates people's recognition and discrimination of principled thinking, just as the Defining Issues Test would overestimate their ability to produce it.

Now to the second issue which concerns what scoring system to use. The conceptions of developmental characteristics used in the Defining Issues Test most closely approximates Kohlberg's 1969 scoring system. In terms of Kohlberg's 1974 system, I think he would say the Defining Issues Test confounds structure with content. And the implication is that if you are only tapping content, then you aren't studying anything of developmental significance. Let us consider how Kohlberg defines structure in his latest descriptions: the key notions are those of different levels of social-perspective--the isolated-individual social perspective, the member of society perspective, the outside society perspective, and so on. I think that these are extremely

interesting ideas, but I find what Kohlberg is calling moral structure is indistinguishable from what Robert Selman calls the structure of interpersonal reasoning which is an aspect of role-taking rather than moral judgment. Selman argues that conceptions of interpersonal relations are at a broader and more general level than distinctively moral reasoning. In fact Selman doesn't find it particularly helpful to use moral dilemmas to obtain material for scoring levels of interpersonal concepts. And so I would raise this question: is Kohlberg now identifying moral structure in terms of Selman's levels of interpersonal concepts, and thus abstracting that which is distinctively and discriminately moral? Just using moral dilemmas does not guarantee that the measure is distinctively moral. At the last SRCD convention Selman reported a correlation of .96 between his measure of interpersonal concepts and Kohlberg's moral stages. That doesn't suggest much difference between the two.

A hypothetical example may make my point clearer: suppose that someone were able to identify Piagetian formal operations not by using the usual materials of physics and chemistry, but could identify formal operations by using moral dilemma responses in some way. That person might claim that he was tapping the real structure of morality and any characterizations which were less abstract would be relegated to mere "content". The loss in doing this is that the more abstract one becomes, the greater the chance of losing what is distinctive about that particular domain. My conclusion is this: just because one measure is more abstract than another, that does not establish it as a better characterization of the developmental structure of that particular domain.

Kohlberg's new scoring system does characterize moral stage structure more abstractly than the stage characterizations in the Defining Issues Test. But perhaps Kohlberg's move toward greater abstraction has made his

moral stages indistinguishable from Selman's levels of interpersonal reasoning. Certainly, Kohlberg has not yet established the discriminative validity of his new scoring system. In any case, there are a number of levels of abstraction at which researchers can study moral thinking. At this point in time it doesn't seem profitable to say that any one level of abstraction has proprietary rights on the term "structure"--each characterization of stage structure has to demonstrate its validity and usefulness.

The third issue concerns how to index development--that is, what numbers do we use to locate a subject in a developmental sequence? It has been widely assumed that if one postulates a sequence of qualitatively different stages, then the proper question to ask is, "what stage is a person in?" This works out satisfactorily if a subject is nearly 100% one stage and if his answers consistently reflect one organizational pattern of thinking no matter what dilemma he is asked, and no matter what the data-gathering procedure and response mode are used. However all these factors do make a difference. Furthermore even with one kind of task and one kind of story, subjects often do not display a single track mind--subjects usually start out with a flood of ideas, often on different tracks, often fuzzy and logically inconsistent with each other. Therefore the attempt to characterize a subject's thinking as one of six systematic, coherent, unified orientations is an oversimplification. If we ever find a person who is 100% one stage, we should cast him in bronze--or at least bring him to the next SRCD convention. We shall probably see this person's picture on the cover jacket of the forthcoming book edited by Kohlberg and Turiel, Recent research in moral development--a Phantom Press publication. My point is that it is misleading to refer to subjects as a stage 4 subject, or a stage 2 subject unless we understand this is a very abbreviated way of talking about people.

There have been a variety of scoring algorithms that have been used to stage type subjects: one method has used the subject's predominant stage of production--you look to see which stage a subject used most and call that the subject's own stage. More recently Larry Kohlberg has used a different scoring algorithm: look for the highest stage that a subject gives two remarks that are clearly at that stage. For instance, if a subject gives two remarks that are clearly stage 4, then all his stage 3, stage 3 and stage 1 remarks are discarded--which makes the subject a pure stage 4. Larry Kohlberg's new scoring system adopts other scoring rules which discard information--for instance, there cannot be non-adjacent stage mixtures; if there is less than 25% of a stage in a total protocol, throw it out. It is true that throwing away discrepant information is one way to deal with the problems of stage mixture. There are several drawbacks: one of these drawbacks is that it hinders our discovering the circumstances and conditions which occasion stage discrepancy. Eventually I think we want a theory that describes the interplay of structural or stage factors, and of task factors, and of individual subject performance factors. We lose all chance of explicating this problem by boiling down all our information about a subject to a single stage number. A second drawback to stage typing is that it obscures the gradual shift from one organization of thinking to another. Studies of change do not show that subjects move abruptly from one type to another but rather they show more gradual increases in higher stage thinking and decreases in lower stage thinking. Furthermore a whole step shift (that is, from stage 2 to stage 3, or stage 3 to stage 4 takes on the average 5.62 years and thus whole stage shifts are too gross a measure of change for most educational or research uses. (If we consider only stage shifts from stage 1 through stage 4, the average number of years is 5.4.) Therefore instead of asking the question, "What stage is a subject in?" we should ask the question, "To

what extent and under what conditions does a subject exhibit various organizational structures of thinking?" In addition to a theory of stage, we need a theory of decalage.

In our present situation we don't have a theory of decalage--we don't know the relative contributions of structural variables, task variables, and individual-performance variables by which to make accurate predictions about how a subject will react to a specific moral problem. In the meantime I suggest a two-point strategy: the first point is to preserve as much information as possible when we are collecting moral judgment data so that someone can come back to our data and attempt to retrieve the contributions of various task and situational factors. DIT items are discrete units which lend themselves to this sort of analysis. The second point is that we should experiment with various indices so as to discover which one best displays the empirical properties expected of the construct moral judgment. In Tom Lickona's book I discuss seven alternative ways of indexing development and also I discuss the research by which we systematically compared each alternative index of the DIT to see which one showed the best age-trends, the best convergent-divergent set of correlations, the best test-retest stability, and so on. Then we replicated the analysis on other samples to control for possible sample biases. I can't go into the details of that research now--but what we found was that stage typing was definitely not the best way to index DIT data. The index that has shown itself to be most useful so far is the P index--that is, the relative importance that subjects give to principled moral considerations when making a moral decision. (P stands for principled moral thinking, stages 5 and 6). I should also mention that Mark Davison at Minnesota is working on a new kind of index based on his extension of Coombs' unfolding model for scaling preference data--Davison's index may well replace the P index and clean up the reliability of the DIT, hopefully. The main

point here is that there are many options for indexing or scaling moral judgment data, and that in our present sketchy knowledge of moral judgment, we should explore these options empirically and require that the claimed superiority of any particular method be demonstrated in terms of how much better it exhibits the properties theoretically implied in the construct, moral judgment.

The criteria by which we have explored the validity of the Defining Issues Test are given in Table 2 of the handout, along with some comparisons with Kohlberg's test. In another paper I have discussed the rationale for these criteria, and at this time can only offer a general impression of this research by suggesting you look at Table 2. Many references are listed so you may follow up the studies. I draw two generalizations from this summary:

- (1) the cognitive developmental approach to morality--of which Larry Kohlberg has been the most outstanding spokesman--is alive and well, and is continuing to generate new lines of research which produce significant findings.
- (2) The Defining Issues Test has obtained findings that compare very favorably with Kohlberg's test in terms of power of results, reliability, replicated studies, and sample sizes. The Defining Issues Test can be group administered and scored by computer, thus opening up moral judgment research to many more researchers as well as helping to establish a much larger data base, and providing studies which can be compared with each other.

Table 1
Defining Issues Test Format

REST
SRCO... 1975

GREAT Importance
MUCH Importance
SOME Importance
LITTLE Importance
NO Importance

HEINZ AND THE DRUG DILEMMA

On the left hand side of the page check one of the spaces by each question to indicate its importance.

- | | | | | | |
|-------|-------|-------|-------|-------|---|
| _____ | _____ | _____ | _____ | _____ | 1. Whether a community's laws are going to be upheld. (Stage 4)* |
| _____ | _____ | _____ | _____ | _____ | 2. Isn't it only natural for a loving husband to care so much for his wife that he'd steal? (Stage 3) |
| _____ | _____ | _____ | _____ | _____ | 3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help? (Stage 2) |
| _____ | _____ | _____ | _____ | _____ | 4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers. (Non-stage item - serves as a check on random responding) |
| _____ | _____ | _____ | _____ | _____ | 5. Whether Heinz is stealing for himself or doing this solely to help someone else. (Stage 3) |
| _____ | _____ | _____ | _____ | _____ | 6. Whether the druggist's rights to his invention have to be respected. (Stage 4) |
| _____ | _____ | _____ | _____ | _____ | 7. Whether the essence of living is more encompassing than the termination of dying, socially and individually. (meaningless item used as a check on tendency to endorse complex items blindly--correlates .00 with Stages 5 & 6) |
| _____ | _____ | _____ | _____ | _____ | 8. What values are going to be the basis for governing how people act towards each other? (Stage 6) |
| _____ | _____ | _____ | _____ | _____ | 9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow. (Stage 4-1/2) |
| _____ | _____ | _____ | _____ | _____ | 10. Whether the law in this case is getting in the way of the most basic claim of any member of society (Stage 5A) |
| _____ | _____ | _____ | _____ | _____ | 11. Whether the druggist deserves to be robbed for being so greedy and cruel. (Stage 3) |
| _____ | _____ | _____ | _____ | _____ | 12. Would stealing in such a case bring about more total good for the whole society or not. (Stage 5A) |

From the list of questions above, select the four most important:

Most important _____
Second most important _____
Third most important _____
Fourth most important _____

Table 2c

Major Validity Questions and Comparison of
Findings with Kohlberg's Test and DIT

1. Do subjects show developmental change in a longitudinal study?

A. Kohlberg's Test

1. Kramer, 1968, using Kohlberg test ('58 version) found that over a three year period, 8 Ss out of 43 Ss showed one-step upward change (18.6%). 14 Ss (32.6%) showed general upward change. "There is no clear increase in Stage 5 thinking from high school to age 25 and the slight increase in Stage 6 thinking is non-significant." (Kohlberg & Kramer, 1969, p.105). No significant shifts in other stages are reported.

2. The Kohlberg, 1973, article does not present new data but rather a reinterpretation of the Kramer data.

3. Holstein's 1973 study used Kohlberg's test, '69 version, and found 17 Ss out of 52 (32.7%) moving up one stage over 3 years, and 33 (or 63.5%) moving up generally. She concludes however, that there is no evidence for step by step movement.

4. Kohlberg, 1974c, using the new structural scoring system reports 15 longitudinal cases tested at 3 year intervals over 13 years which show perfect invariant upward movement. However the data are ambiguous as a demonstration of the scoring system because the scoring system was derived from these very same cases. Furthermore the scorer analyzed all the tests of a subject together (rather than separately and blind-ed). This therefore provides no real test of the scoring system, but rather a preliminary phase in its development.

B. Defining Issues Test

1. Rest, 1975, reports significant increases on P score ($t = 5.50$, $p .0001$) for 88 Ss tested two years apart. (Junior highs, $n = 50$, show significant increases on P but also show shifts from pre-conventional to conventional morality. Senior highs ($n = 38$) show conventional to principled shifts, with college bound students showing twice as much change as non-college students.) Corroborating upward shifts in comprehension and value changes were found.

2. Is moral judgment related to comprehension of social-moral concepts? Do subjects with advanced moral judgment scores have greater understanding of moral concepts?

A. Kohlberg's Test

1. Rest, Turiel, & Kohlberg, 1969, related Kohlberg's test (1958 version) to a measure of comprehension (sample of 45 students in 5th and 8th grade) but several shortcomings in the study prevent an estimate of the power of the relationship.

2. Rest (1969, 1973) related Kohlberg's test ('58 version) to a measure of comprehension (47 senior high Ss), finding an average correlation of .60.

B. Defining Issues Test

1. Rest, Cooper, Coder, Masanz & Anderson (1974) find a correlation with comprehension of .62 for 160 students,
 2. find a correlation of .67 with another student sample of 65 Ss;
 3. find a correlation of .52 with an adult sample of 85 Ss.
 4. Furthermore, the correlation of DIT with comprehension is still in the .50's even controlling for age and statistically partialling out the mutual correlations with I.Q. and sex.
3. Is moral judgment just intellectual sophistication or does it also relate to one's values?

A. Kohlberg's test

1. A correlation of $-.52$ with the California F scale is cited in Kohlberg, '64, but no reference is given.
2. Various "moral" behavior measures have been correlated with Kohlberg's test (some cited in Kohlberg, 1969; p. 394-395) usually no higher than the .40's.
3. Lockwood (1970) found correlations in the .40's with political dilemmas.
4. Gilligan, Kohlberg, Lerner & Belinky (1973) found correlations in the .40's with sexual dilemmas.

B. Defining Issues Test

1. Rest, et al, 1974, found correlations of $-.60$ with Law and Order attitude test on sample of 160 students, but $r = -.23$ on 9th graders;
 2. found $r = -.48$ on Law and Order attitude test on sample of 65 students,
 3. found $r = -.46$ on Law and Order attitude test on sample of 85 adults; and
 4. found $r = .63$ on Libertarian attitude test on sample of 160 students, but $r = .37$ on 9th graders.
4. Do moral judgment scores differentiate groups which are expected on a common sense basis to differ in advancement?
1. Age differences--stage usage shifts in 10 year olds, 13's and 16's have been presented in figures in many articles. No analysis of variance reported.
 2. Differentiation of moral philosophy grad students: Kohlberg (1974b) seems to indicate that the new structural scoring system fails to differentiate moral philosophy students from the general population: "Moral philosophy students...can be at a wide range of stages...according to some available data using structural scoring (Erdynast, 1974)."

B. Defining Issues Test

1. Rest, et al, 1974 found one-way analysis $F = 48.5$ differentiating 40 junior highs, 40 senior highs, 40 college students and 40 grads. Moral philosophy and political science were "expert" group on DIT and comprehension tests.
2. Similar trend for another student sample, $n = 65$.
3. With non-student adults, aged 23 to 49, correlation with age was $-.10$.

5. Is the test reliable?

A. Kohlberg Test

1. Interjudge reliability: studies with 1958 and 1069 scoring systems vary, with correlations up to the .90's for fully probed interviews scored by specially trained scorers. For the new structural scoring, Kohlberg reports (1974b): "Interjudge agreement on this data was only 66% for major stage agreement and 94% for agreement within one-third of a stage. Moral maturity score correlations between raters was .82" (p.14) For the new standard scoring, percentage interjudge agreement (major stage) was .98 (p. 17). No details about these studies are given in the reference cited on age range or number of subjects, procedures for controlling biases, etc.
2. Test-retest: "Data on test-retest reliability in structural scoring yields a test-retest percentage agreement of 88% and of agreement within one-third stage (where scores are mixed) of 94%." (Kohlberg, 1974b) No details given on number or age range of subjects, controls for biases, length of time between testings, etc.

B. Defining Issues Test

1. Interjudge reliability: objective scoring -100% agreement.
2. Test-retest: 28 9th graders tested 2 weeks apart yielded correlation of .81 (Rest, et al, 1974). 47 first year undergraduates tested 18 days apart produced a correlation of .65 on a restricted range of scores. (McGeorge, 1975).

6. Is the test susceptible to faking and other test-taking sets?

A. Kohlberg's test

1. Considerable drops in post test scores of control groups in several studies (e.g. Turiel, 1966; Blatt, 1970) suggest that test taking attitude and test sets have appreciable effects on Kohlberg's test.
2. No experimental faking studies reported.

B. Defining Issues Test

1. McGeorge (1975) asked college subjects to take the DIT twice: groups which were asked to fake low did show significant differences ($t = 5.28$ and 11.64 , $p < .001$) from the standard condition, but groups asked to fake upward did not show significant differences from the standard condition.
2. Internal Consistency Check can be used to detect random checking (see Manual, 1974).

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