A Comparison of Four Measures of Moral Reasoning.

Kohlberg's Moral Judgment Scale, Gilligan, et al.'s Sexual Moral Judgment Scale, Maitland and Goldman's Objective Moral Judgment Scale, and Hogan's Maturity of Moral Judgment Scale were examined for reliability and inter-scale relationships. All measures except the Objective Moral Judgment Scale had good reliabilities. The obtained relations between the Moral Judgment Scale and the Sexual Moral Judgment Scale replicated previous research. The Objective Moral Judgment Scale was not found to validly assess the Kohlberg stages. The maturity of Moral Judgment Scale scores were strongly related to the subjects' classification on the Kohlberg stages, and the scale appears to offer a reliable, quickly scored, and valid index of mature moral thought, although the scale's continuous scores do not permit clear stage classification. (Author)
A Comparison of Four Measures of Moral Reasoning

The development of a cognitive theory of moral development and of the Moral Judgment Scale (MJS) by Lawrence Kohlberg (1958 & 1969) generated interest in moral judgment research. A number of instruments which report to measure either moral judgment or a trait of moral judgment have since been developed. The creators of three such instruments have made strong claims which present their instruments as parallel techniques of the MJS. These three measures are the Sexual Moral Judgment Scale (SMJS; Gilligan, Kohlberg, Lerner, & Belenky, 1971), an objective form of the MJS developed by Maitland and Goldman (OMJS; 1974), and the measure of Maturity of Moral Judgment (MMJ; Hogan & Dickstein, 1972). The reported psychometric relationships between these instruments are insubstantial.

The Moral Judgment Scale is a structured, projective test consisting of a set of stories presenting moral dilemmas. Each dilemma is followed by a series of probing questions. The subject is instructed to both state his moral resolution of the dilemma and, more importantly, to state his reasons supporting this moral judgment. These responses are scored for the structure of reasoning used and for the consistency of the responses. Kurtines and Grief (1974) have extensively reviewed the psychometric properties of the MJS.

Gilligan, Kohlberg, Lerner, and Belenky (1971) developed the Sexual Moral Judgment Scale (SMJS) as an extension of the MJS. The SMJS has an identical format and scoring system, and it differs from the MJS only in the content area of human affairs (sexual relations) for which moral judgments and reasoning are probed.
Scores for an adolescent sample showed that the SMJS was significantly but moderately correlated ($r = .405$ for females and $r = .482$ for males) with the MJS. Approximately 80% of those subjects showing any difference in level of moral reasoning differed in the direction of lower moral reasoning for the sexual dilemmas.

Recently, Maitland and Goldman (1974) have developed an objective form of the MJS. Their scale (OMJS) attempted to eliminate the cumbersome administration and scoring procedures of Kohlberg’s MJS. The OMJS stimulus set consists of fifteen moral dilemmas. Each dilemma is followed by a question designed to elicit one particular issue of moral judgment. Six responses, representing each of Kohlberg’s stages, follow each question. Subjects are instructed to select the one response which most closely approximates their moral judgment. The order of presentation of the alternative moral judgments is randomized.

The reported OMJS test-retest reliability was $r = .83$ for a sample of 12 to 19-year-olds and $r = .60$ for 11th and 12th grade pupils. The split-half reliability coefficient was $r = .71$ and a Kuder-Richardson-20 yielded an $\alpha = .67$. A direct validity comparison with Kohlberg’s MJS was not conducted. OMJS scores were transformed, however, into Kohlberg’s moral maturity scores (MMS) by multiplying a subject’s total OMJS score by 100/15. These scores were compared with the MMS norms for a sample of the same age and academic level. This comparison yielded supportive validity data (MMS=364 and OMJS transformed scores=365).

Robert Hogan (1973 & 1975) constructed an alternative theory (character structure ontogenesis) of moral development to Kohlberg’s cognitive development approach. Hogan and Dickstein (1972) developed the Maturity Of Moral Judgment Scale (MMJ) to determine the relationship between the hypothesized character traits and moral maturity.
Hogan and Dickstein (1972) implicitly presented the MMJ as a "briefer and more readily scorable test which... would be useful... both as an alternative to the Kohlberg procedure and as a parallel technique..." (p. 210).

The MMJ is comprised of fifteen conversational statements which require a projective, conversational response. These responses are scored two points if any one of four predefined moral concerns is clearly expressed: 1) concern for the sanctity of the individual, 2) judgments based on the spirit rather than the letter of the law, 3) concern for the welfare of society as a whole, and 4) capacity to see both sides of an issue. A response is assigned one point if any one of the four concerns is easily implied. This method yields a score from 0-30 for the fifteen statements totaled. The Hoyt computation of test reliability was reported as r=.82. There have been no published reports of the relationships between the MMJ and Kohlberg's moral judgment scale.

**Problem Statement**

The instruments described above index the same construct (moral reasoning) and have been used to investigate similar research interests. This research is not, however, comparable or generalizable because the relationships between the MJS, SMJS, OMJS, and MMJ have not been systematically determined. The goal of the present study is to determine these inter-instrument relationships.

The SMJS and OMJS have been administered only to pre-college age subjects. The MMJ results are based on undergraduate age subjects. Increased intellectual and social sophistication may change the resulting psychometric properties of these instruments. The sample age needs to be extended to post-college age (adult) subjects and comparisons based on a common sample age. These conditions are controlled in this
study. The previously reported psychometric statistics will be compared to those found for this adult sample.

**Method**

**Subjects**

The subjects for this study were adults enrolled in three extension graduate courses for educators. Over 80% were actually elementary and/or secondary teachers, counselors, and/or administrators. The age range was 21-51 with the mean age being 30.45 years. Fifty-seven percent were female and 43% were male. Of the original 81 subjects, 5 were dropped because of incomplete data.

**Instruments**

**MJS.** The Heinz Dilemma and the Karl and Bob Stealing vs. Lying Dilemma and their respective probing questions were chosen from Kohlberg's (1974) Form A.

**SMJS.** Dilemmas 'B' and 'C' with their respective probing questions were selected (Gilligan, Kohlberg, Lerner, & Belenky, 1971). Story B examines sex in the context of a marital relationship. It poses the dilemma of a husband whose wife refuses to have sexual intercourse with him. Story C deals with a single woman's pregnancy. It questions the nature of the man's and woman's responsibility to one another and to the unborn child.

**OMJS and MMV.** These instruments were used as constructed and described above.

**Procedure**

All instruments were administered in a group, written form. Each group of subjects was told that data was being collected for a study investigating the relationship between various personality variables and the subjects' views on selected social issues. The MJS, SMJS, MMV, and OMJS were presented in a mimeographed booklet which attempted to disguise their nature by being titled the "Social Attitudes Questionnaire."
The OMJS was presented last because an order effect was assumed. If presented first, the subject would be exposed to examples of all six stages of moral reasoning.

Results

Instrument Reliabilities

The authors' interrater reliabilities on the MJS and SMJS protocols were examined using the procedure followed by Hann, Smith, and Block (1968). The authors had agreement rates of 68% and 56% for the two Kohlberg stories used to assess general moral judgment (MJS stories) and agreement rates of 69% and 59% for the two stories used to measure sexual moral judgment (SMJS stories). Since the subjects' scores on the two sets of stories were highly similar, as is discussed later, the four stories were combined for a single global rating of moral judgment. The rate of interrated agreement in assigning global scores was 74%. Protocols on which the authors disagreed or had major-minor stages reversals (for example, one rater gave a subject a major stage rating of 4 and a minor stage rating of 3 while the other rater reversed these major-minor ratings) were scored by a third rater.

Since there were few clear representatives of principled thought in our sample (i.e. stages 5 or 6), all subjects scored as major stage five by one rater and either a major or minor stage five by the other rater were classified as stage five for the following analyses. For the same reason, a similar procedure was used for assigning subjects to stage 2. Thus the subjects assigned to stages 2 and 5 are not necessarily pure types, but are subjects judged by both scorers as having large components of these stages in their moral thought. There were no stage 1 or stage 6 subjects in our sample. In the final resolution, the subjects were classified in particular stages when two of the three potential judges agreed. The distribution of the subjects is presented in Table I.
Maitland and Goldman's (1974) objective measure of the Kohlberg stages (OMJS) had a low alpha coefficient of .48 for the present sample. The item-total correlations ranged from .09 to .52 with a median of .30. The alpha reliability was improved slightly to .51 by eliminating the least related item (item 6). Additional deletion of items did not increase the scale's reliability.

Coefficients of reliability for Hogan and Dickstein's (1972) Mature Moral Judgment Scale (MMJ) were computed for each rater and for the rater's pooled scores on each item. The alpha reliabilities were .69 and .68 for the separate raters and .72 for the pooled scores. The alpha coefficient was not improved for either rater or for the combined ratings by deleting peripherally related items. The total scale scores assigned by the two raters were correlated, r = .66. The average total score assigned by the two raters for each subject was used as the best available index of the MMJ for comparison with the other measures.

Relations between the four instruments.

Similar to the findings of Gilligan, et al. (1971) there was a tendency for the present subjects to think at lower stages on sexual moral dilemmas (SMJS stories) than on the other moral judgment stories (MJS stories). Eight of 70 classifiable subjects were judged by both authors as consistently lower on the SMJS stories than on the MJS stories, while three subjects were judged as higher on the SMJS stories by both judges. An additional 16 subjects were scored consistently lower on the SMJS stories by one of the judges while five additional subjects were judged higher on the SMJS stories by one judge. In all cases, the differences between the mean scores assigned to the two sets of stories were one stage or less. In spite of the tendency for subjects to score lower on the SMJS than on the MJS, the two instruments were correlated, r = .66.

Since the subjects' scores on the MJS and SMJS stories were similar, the combined global score compiled across all of the stories served as
the stage classification for comparison with other measures. One-way analyses of variance were used to compute the relation between the subjects' scores on the moral dilemma stories and on the remaining scales. The subjects' classification on the moral stories served as the independent variable in each analysis. The six subjects who could not be classified were eliminated from these analyses.

Contrary to theoretical expectations, the subjects' scores on the objective measure of Kohlberg's stages (OMJS) were not significantly related to their scores on the moral stories (F=1.82, df=4/64, p<.15). An Omega-squared analysis revealed that only 4.4% of the variance in the OMJS scores was ascribable to the subjects' classification on the morally ambiguous stories. According to Scheffe's Post-hoc comparison procedure, none of the moral stage groups had means which were significantly different from one another. A separate analysis of variance run with only the purer groups (3-4 mixtures eliminated) did not increase either the F ratio or the W2.

Table II presents the subjects' mean scores on the Mature Moral Judgment scale as a function stage classification on the morally ambiguous stories (F= 4.48, df = 4/69, p < .005). Stage classification accounted for 16.7% of the variance in MMJ scores. When the analysis excluded the 3-4 mixed subjects both the F ratio and the W2 were increased substantially (F = 6.76, df = 5.51, p < .001, W2 = 23.2%). Post-hoc analyses using Scheffe's test found that only the stage 2 and stage 5 subjects differed significantly (p < .01). Finally, the OMJS and the MMJ are not significantly correlated (r = .17).

Discussion

The patterns of relations between the Moral Judgement Scale and the Sexual Moral Judgment Scale in the present study were very similar to the patterns found by Gilligan, et al. (1971). Gilligan, et al. found that 80% of the subjects who scored at different stages on the
two instruments were lower on the SMJS. The comparable figure for our study was 73%. The two instruments were more strongly correlated in the present study, however. (r = .66 versus r = .40 and r = .48)

Our experience confirms that the Kohlberg morally ambiguous stories can be scored with sufficient reliability for research purposes, but the time and effort required confirm even more strongly the advantages of seeking good, objective measures of mature moral thought. Unfortunately, our data offer little support for the objective instrument which we examined.

The internal reliabilities for the OMJS were substantially lower for our sample than in Maitland and Goldman's original study. An alpha of .48 is infeasibly low. We cannot account for the differences in reliability found in the two studies, but our obtained reliability raises serious doubt concerning the usefulness of the OMJS. The non-significant relationship between the OMJS and the Kohlberg protocols is largely attributable to the former's low reliability, but this absence of relationship still shows that the OMJS does not validly assess the Kohlberg stage.

Our findings for Hogan and Dickstein's Mature Moral Judgement Scale suggest that this instrument has greater potential. Its relationship to the Kohlberg protocols is strong, particularly so since the reliabilities of the two instruments are only moderate. The reliability of the MMJ can be improved with only limited costs. For example, the present 15-item version can be reliably scored in less than five minutes. Doubling the length of the scale using similar items would increase its reliability to .83, and the scale could still be scored with a fraction of the effort required for scoring the Kohlberg protocols. Our data suggest, however, that the MMJ in its present form can be used as a quick, reliable, and valid index of mature moral thought.
Since the MMJ scores are continuous, however, the scale does not delinate stage boundaries and it is not possible to establish stage classification from the MMJ. Researchers committed to the investigation of stages cannot use the MMJ as the primary assessment instrument. Researchers who do not wish to investigate stage development but rather the continuous concept of moral maturity should find Hogan's MMJ convenient for their purposes.
Reference Notes


Footnote

1The authors are aware that running two analyses of variance on the same data is not appropriate according to strict statistical criteria. The second analysis was conducted because the mixed stage subjects were not clearly classifiable and exhibited the greatest variance of all the groups on both of the dependent variables (OMJS and MJS), suggesting that significant relationships might exist between these variables and the Kohlberg stages when only purer stage representatives were examined.
Table 1

Stage Classification of Subjects Assessed by Kohlberg's Moral Judgement Scale

<table>
<thead>
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<tr>
<td>3</td>
<td>12</td>
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<tr>
<td>3-4 mix</td>
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<tr>
<td>5</td>
<td>11</td>
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<tr>
<td>Unclassifiable</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
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Table 2

Mature Moral Judgment Scores As A Function Of Stage Classification On The Morally Ambiguous Stories

<table>
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<th>Stage</th>
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<td>5</td>
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