A Comparison of Kohlberg’s and Hogan’s Theories of Moral Development*

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Kohlberg's theory of moral reasoning and Hogan’s theory of moral character were studied in relation to three dependent variables: (1) Rule Compliance; (2) Avoidance of Stealing; (3) Moral Judgment. In the three competitive analyses, Hogan's theory was superior in predicting Rule Compliance while Kohlberg's theory was superior in predicting the Avoidance of Stealing and Moral Judgment. In two of the three integrative analyses, the dependent variable was predicted more powerfully by the combined theories than by either theory alone. The results highlight the virtues of philosophical clarity and integrative thinking, and have implications for moral development theory.

This paper examines some relationships between moral judgment, moral character, and moral conduct. Our focus was on a comparison of the moral reasoning theory of Lawrence Kohlberg and the moral character theory of Robert Hogan. More specifically, we wanted to determine the relative ability of Kohlberg's and Hogan's theories to predict (a) a dependent measure of maturity of moral judgment devised by Hogan, (b) a measure of moral conduct compatible with Hogan's philosophical views, and (c) a measure of moral conduct compatible with Kohlberg's philosophical views. We also investigated the fruitfulness of integrating the two theories by comparing the predic-
tive strength of the combined theories with the predictive strength of each theory by itself.

Kohlberg’s (1969, 1971) cognitive-developmental theory focuses on how an individual reasons about moral dilemmas. He claims that the major forms of moral reasoning can be described by a set of stages and substages. A number of methods for assessing Kohlberg’s stages have been developed. Our investigation employs the Defining Issues Test (DIT), an objective instrument measuring the relative degree of use of seven Kohlbergian moral judgment stages (see Table 1).

Philosophically, Kohlberg (1971, 1973) claims that each stage constitutes a more adequate form of moral judgment than the previous state. Empirically, Kohlberg claims that moral judgment develops in an invariant sequence. Individuals always start at the lowest stage and proceed exactly one stage at a time through the higher stages until the highest (or some point of developmental arrest) is reached. The empirical evidence thus far does not support this strong claim, but it does support the weaker claim that movement is generally upward and generally one stage at a time (Holstein, 1976; Kramer, unpublished; Rest, 1975). Although he acknowledges that moral judgment is only one factor in the prediction of moral conduct, he believes it is the single most important factor (Kohlberg, 1975).

Recently, Hogan (1973, 1975) has developed an alternative theory based on five social psychological dimensions that have been important themes in major philosophical, sociological, and psychological writings on morality. He claims that these five dimensions (see Table 2) can describe the development of moral character and can predict moral conduct. Hogan’s claim is bolstered by recent empirical evidence. (Hogan, 1973, 1975; Nardi, forthcoming.)

Hogan (1975) makes some strong claims about the relative ability of his theory and Kohlberg’s to predict moral conduct. He distinguishes between “views in principle” (how we think we would act or how we think we ought to act) and “views in fact” (those often unconscious views upon which we actually act). Hogan believes that Kohlberg’s Moral Judgment Scale taps “views in principle,” and implies that his own dimensions of moral character capture a person’s “views in fact.” If this is true, the clear prediction is that Hogan’s five character dimensions should predict moral conduct more adequately than Kohlberg’s moral judgment stages.

Operationalizing moral conduct was somewhat complicated by the fact that Hogan and Kohlberg differ in their philosophical conceptions of morality. Kohlberg (1971, 1973) makes a strong distinction between social rules and moral principles. For him, many social rules and

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Table 1. Kohlberg’s Moral Judgment Stages Included in the Defining Issues Test (adapted from Rest, unpublished)*

<table>
<thead>
<tr>
<th>Stage</th>
<th>Summary Characterization</th>
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<tbody>
<tr>
<td>2</td>
<td>Morality of instrumental egoism and simple exchange. (“Do your own thing.”)</td>
</tr>
<tr>
<td>3</td>
<td>Morality of personal concordance. (“Be considerate, nice and kind, and you’ll get along with people.”)</td>
</tr>
<tr>
<td>4</td>
<td>Morality of rules and duty to the social order. (“Everyone in society is obligated and protected by the law.”)</td>
</tr>
<tr>
<td>4½</td>
<td>Antiestablishment orientation. (Condemns tradition and the existing social order for its arbitrariness or its corruption by the rich for the exploitation of the poor.)</td>
</tr>
<tr>
<td>5A</td>
<td>Morality of social contract. (Emphasizes democratic procedures for generating and changing laws with the goal of maximizing the welfare of the society. Also emphasizes the importance of observing basic human rights.)</td>
</tr>
<tr>
<td>5B</td>
<td>Morality of intuitive humanism. (Emphasizes moral principles which are held and justified by appeal to one’s inner, private conscience.)</td>
</tr>
<tr>
<td>6</td>
<td>Morality of ideal social cooperation. (Emphasizes moral principles which theoretically would govern social cooperation that is completely noncoercive, and nonarbitrary principles which rational unbiased people would recognize as setting up social practices optimally beneficial to all concerned).</td>
</tr>
</tbody>
</table>

*Rest did not include stage 1 in the Defining Issues Test because stage 1 is virtually nonexistent in the population for which the test was intended (junior high school age and older).
Table 2. Hogan's Five Dimensions of Moral Character (adapted from Hogan, 1973, 1975)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Summary Characterization</th>
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<tbody>
<tr>
<td>Moral Knowledge</td>
<td>The extent of one's knowledge of moral values and rules; highly related to intelligence.</td>
</tr>
<tr>
<td>Socialization</td>
<td>The degree to which the rules, values, prohibitions of society are regarded as personally mandatory.</td>
</tr>
<tr>
<td>Empathy</td>
<td>The extent of one's capacity and disposition to regulate actions in accordance with the expectations of others—to put oneself in another's place.</td>
</tr>
<tr>
<td>Autonomy</td>
<td>The extent to which an individual's moral actions are governed by his own personal moral code and not by immediate social pressures or the dictates of authority.</td>
</tr>
<tr>
<td>Ethical Attitude</td>
<td>A bipolar dimension of moral judgment. At one end is the &quot;ethics of responsibility,&quot; stressing the instrumental view of laws as a means of promoting the general welfare of society. At the other end is the &quot;ethics of conscience,&quot; emphasizing belief in higher laws that are not always well-represented in human legislation.</td>
</tr>
</tbody>
</table>

laws are arbitrary conventions; social regulations fall into the moral domain only when they can be justified by universal moral principles. In contrast, Hogan (1973: 219) does not sharply distinguish social and moral rules. He assumes that all social behavior occurs in the framework of systems of social rules whose function is to evaluate and regulate that behavior. Since, for Hogan, the function of moral rules is also the evaluation and regulation of social behavior, he sees no point in strongly distinguishing the social and moral domains.

In order to be fair to both of these conceptions of morality, we operationally defined moral conduct in two ways. To tap Hogan's view, we employed a self-report measure of what we call Rule Compliance, which included questions about the frequency of the subjects' involvement in shoplifting, drunkenness, and illegal drug usage. To tap Kohlberg's view, we utilized a more circumscribed measure which assessed what we call Avoidance of Stealing. This measure focused on actions which are almost universally considered to involve distinctly moral issues in that all these actions (shoplifting, copying on an examination, and switching price tags) involve unfair loss to others.

Because Hogan (1973) devised his theory specifically to predict social conformance, we expect that Hogan's dimensions will better predict our Rule Compliance measure. However, since the Avoidance of Stealing measure is more compatible with Kohlberg's (1971) philosophical views, we expect that Kohlberg's stages will predict it at least as well as the Hogan variables.

Hogan (1973:226) and Kohlberg (1976:33) concur that since social and legal norms are never totally just, it is sometimes possible to comply with such norms and still be acting immorally, or not to comply yet be moral.¹ Moral judgment becomes crucial in such circumstances since it enables a person to distinguish those situations in which rule compliance is moral from those in which it is not. Obviously then, an adequate assessment of moral maturity must include a measure of moral judgment as well as measures of moral conduct. In our study, we employed a semiprojective test of moral values developed by Hogan and Dickstein (1972) as our dependent measure of "Moral Judgment."

The four criteria employed by Hogan and Dickstein in scoring this measure seem philosophically compatible with, although not identical to, the criteria Kohlberg (1969) employs in defining his higher stages of moral reasoning. Therefore, one could expect that the DIT will relate with this measure quite well. Because Hogan's theory was developed primarily to predict moral conduct, we expect his character dimensions to do less

¹ Hogan's view that the social and moral domains need not be sharply distinguished may seem inconsistent with his claim that social and legal norms are never totally just. This apparent inconsistency may be resolved by noting that Hogan (1973:226) seems to believe that unjust social and legal norms are relatively rare. From this perspective, the distinction between the social and moral domains would only rarely need to be drawn.
well than the DIT in predicting Moral Judgment.

Although Kohlberg’s and Hogan’s theories clearly have different emphases, they are not in most respects incompatible. There is nothing in Kohlberg’s theory that contradicts Hogan’s assertion that his moral character dimensions can be used to understand and predict moral conduct and judgment. In fact, Kohlberg explicitly acknowledges in his work on ego-strength variables that stage of reasoning is not the only predictor of moral conduct (Kohlberg, 1964; Krebs and Kohlberg, unpublished; Grim et al., 1968). We believe that Hogan’s dimensions specify aspects of personality important to understanding moral conduct and judgment, and that there are good intuitive and theoretical reasons to consider Kohlberg’s and Hogan’s theories as compatible parts of a larger and more psychologically adequate whole (Hogan, 1970). Thus, in addition to the “competitive” predictions made above, i.e., the Hogan versus Kohlberg comparisons, we make some “integrative” predictions. Specifically, we believe that some combination of Kohlberg stages and Hogan dimensions will predict our three dependent variables (Rule Compliance, Avoidance of Stealing, and Moral Judgment) more powerfully than either the Kohlberg stages or the Hogan dimensions by themselves.

METHODOLOGY

Sample

A 75-minute self-report questionnaire was completed by 172 undergraduate and graduate students. The researchers distributed the questionnaires in sociology, psychology, philosophy, history, and education classes in a junior college (36.6% of the sample), a four-year state university (58.1%), and a private graduate school (5.2%), using standardized instructions. Subjects were assured that participation was anonymous, not a class assignment, and voluntary. The respondents represented a cross-section of students in a variety of majors (31.8% in social sciences, 9.2% in science, engineering, math; 15% in humanities; 11.6% in business; and 32.4% in other fields or undecided), and include 48.3% males, 51.7% females; 87.4% white, 1.1% black, 2.9% Asian, 8% Chicano, and 0.6% other.

Independent Variables

Kohlberg’s moral judgment stages were measured using the Defining Issues Test (DIT), a measure developed by Rest (unpublished; 1975). The DIT is an objective measure which utilizes six moral dilemma stories. For each dilemma, a subject chooses four statements from an array of twelve statements (each reflecting one of Kohlberg’s stages; see Table 1), and ranks the four statements in order of preference. The subject’s total set of rankings is converted into seven separate scores, each reflecting the degree to which the subject used a particular Kohlbergian stage. Test–retest reliability of the DIT is .81. The validity of the DIT is supported by a variety of results (Rest, 1975). For example:

(a) It discriminates more expert groups (i.e., moral philosophy and political science PhD students) from less expert groups (i.e. college, high school, and junior high school students).
(b) It correlates highly with social–moral concept comprehension and Kohlberg’s interview method of assessing moral judgment, and has relatively low correlations with IQ, socioeconomic class, and sex.
(c) It indicates more upward change in an ethics discussion class than in a logic class.
(d) It shows high correlations with morally-relevant behavior (Burgess and Tsujimoto, unpublished).

Although Kohlberg (1976) does not believe that the DIT is adequate for assigning a subject to a single, predominant stage, he does endorse the DIT for use in correlational studies such as the present one.

We analyzed the DIT data in a manner suggested by Rest (personal communication), but different from Rest’s ordinary procedure, which is to add the scores for stages 5A, 5B, and 6 to yield a “principled judgment” score (Rest, unpublished). Specifically, we considered each of the seven stage scores as a separate independent variable in multiple regression analyses. Since it is an empirical fact that
an individual subject usually uses a number of Kohlbergian stages in responding to the DIT, it seems both advantageous and theoretically justifiable to employ a multiple regression analysis which uses information from all seven stages.

Several paper-and-pencil measures were given to the respondents to assess Hogan’s five dimensions. Due to the extraordinary length of Hogan’s original scales when given together, shorter versions were constructed using item-scale correlations and factor analysis. Those items loading .4 and above on the varimax rotated factors and correlating at a significance level of $p < .001$ were retained for the reduced scales (Nardi, forthcoming). According to Hogan (1973), these five dimensions are conceptually independent. Low intercorrelations among the Hogan variables in this study and in a previous investigation (Nardi, forthcoming) support this contention.

Socialization. Hogan uses the 54-item Socialization scale of the California Psychological Inventory (CPI) developed by Gough (1956). As the most studied and used scale of the CPI, this scale appears to be a highly valid and reliable index of how well one has internalized the values, rules, and conventions of one’s society and sees them as personally binding. Typical questions include: “I keep out of trouble at all costs,” “I have never been in trouble with the law,” and “As a youngster in school I used to give the teachers a lot of trouble.” Our questionnaire used 31 of these items in the shortened form which correlated with the original scale at .92.

Empathy. A 64-item scale was created by Hogan (1969) based on items chosen from Gough’s CPI, the MMPI, and an item pool from the Institute of Personality Assessment and Research (IPAR). Empathy is defined as the ability to put oneself in another’s place, thereby increasing one’s sensitivity to the expectations of others, resulting in social compliance (Greif and Hogan, 1973). Early research with the scale established a reliability coefficient (test–retest among college undergraduates) of .84 and an average validity coefficient (concurrent with rated social acuity) of .58. The reduced version of 21 items used in our study correlated with the original at .87. Typical items are: “I like to talk before groups of people,” “I always try to consider the other fellow’s feelings before I do something,” and “As a rule I have little difficulty in putting myself into other people’s shoes.”

Autonomy. Hogan uses a 48-item scale developed by Kurtines (unpublished) from the CPI, the MMPI, and IPAR tests. Kurtines claims to measure the extent to which an individual’s moral actions are governed by his own personal moral code and the implications of that code for others, and not by peer group pressure or the dictates of authority. Since the scale is still in an experimental stage, early reliability and validity data are moderate. An internal consistency reliability study using 128 undergraduates yielded a .60 coefficient (KR-21 computation) and a test–retest coefficient of .59. Validity correlations between scale scores and ratings for autonomy were .53. Nine items were retained for the shorter form, correlating .81 with the original. The items include: “I think I am usually a leader in my group” (true), “It is pretty easy for people to win arguments with me” (false), and “Planning one’s activities in advance is very likely to take most of the fun out of life” (false).

Ethical attitudes. A 35-item Survey of Ethical Attitudes (SEA) has been constructed by Hogan (1970) to measure the ethics of conscience and the ethics of responsibility (see Table 2). A low score reflects a “personal conscience” or “moral intuition” orientation while a high score represents a “social responsibility” or “moral positivist” orientation (Hogan, 1973, 1975). Two versions were constructed with a parallel form reliability of .97 for a sample of 149 people and .88 for a sample of 94 college men. Validity has been supported in several studies. In one (Hogan, 1970), policemen scored significantly higher than political activists, and in another (Hogan and Dickstein, 1972), scores significantly discriminated among a radical, a moderate, and a reactionary fraternity. In our questionnaire, seven of the fifteen weighted continuum attitude items (such as, “A soldier’s only moral obligation is to obey orders”), five of the fourteen forced-choice questions (“An un-
just law: should be obeyed/should be disobeyed”), and one of the two dilemmas (T.E. Lawrence anecdote in which a choice is made between maintaining discipline and respecting cultural traditions), all from Form A, were used, correlating with the full scale at .83.

Moral knowledge. The most difficult of the dimensions to measure, moral knowledge has been assessed using both SAT scores (Hogan, 1973) and IQ test scores (Hogan and Dickstein, 1972). Since SAT and IQ scores were not available for most of our sample, the best approximation of moral knowledge is grade point average. Self-report GPA correlates with SAT about .55, according to the College Entrance Examination Board (1971).

The questionnaire also included a variety of sociodemographic variables and a twelve item version of the social desirability scale developed by Crowne and Marlowe (1964).

Dependent Variables

Three dependent variables were analyzed in this study.

Rule Compliance: Respondents were asked to indicate, along a seven-point scale (where 0 equals never and 7 represents daily or more), frequency of involvement within the past twelve months in ten rule-breaking behaviors. Principal-component factor analysis was performed to obtain those items loading .4 and above on the first unrotated factor. Seven items (frequency of marijuana use, shoplifting, LSD use, getting drunk, use of pills without a prescription, driving while drunk, and use of cocaine) make up the Rule-Compliance measure. Since a high score represents frequency of rule-breaking, we reversed the sign of each subject’s total score in order to obtain our measure of Rule Compliance.

Avoidance of Stealing: Varimax rotated factors were obtained for the ten rule-breaking behaviors, resulting in three items loading highly on what we call the Avoidance of Stealing factor: frequency of shoplifting, copying from another’s examination, and switching price tags on store items. Despite an overlap of one item with Rule Compliance, Avoidance of Stealing correlated .298 with Rule Compliance, indicating minimal common variance. As in the case of Rule Compliance, the sign of the subject’s total score was reversed to obtain Avoidance of Stealing.

Moral Judgment: Twelve items from a fifteen-item projective measure developed by Hogan and Dickstein (1972) were used to assess Moral Judgment. Items are short statements concerning contemporary social and moral issues (such as gun control, abortion, medicare, homosexuality, and housing laws) to which the respondent must answer as if in a conversation. Scoring is based on the clear or inferred presence in the responses of one of the following moral criteria: concern for the sanctity of the individual, judgments based on the spirit rather than the letter of the law, concern for the welfare of a society as a whole, and capacity to see both sides of an issue (Hogan and Dickstein, 1972). The Moral Judgment protocols were all scored by a single judge (A). Two other judges (B and C) each scored a random sample of 25 protocols to assess reliability. The average percentage agreement between A and B and between A and C on individual items was 80%, and the average correlation coefficient between total scores was .82.

RESULTS

Two major classes of analyses were completed: “competitive” analyses and “integrative” analyses. In the competitive analyses, stepwise multiple regression analyses were used to determine, for each dependent variable, whether the Hogan dimensions or the Kohlberg stages were better predictors. In the integrative analyses, a stepwise multiple regression technique was used, combining both Kohlberg’s stages and Hogan’s measures in predicting the three dependent variables. The criterion for inclusion of an independent variable in a stepwise analysis was that the R² change for the variable was at least one percent.

Competitive Analyses

Two measures of moral conduct were analyzed: Rule Compliance and
Avoidance of Stealing. As expected, Hogan’s variables were better predictors of Rule Compliance than were Kohlberg’s stages. Table 3 shows that 11.9% of the variance in Rule Compliance was explained by Hogan while Kohlberg accounted for only 1.9% of the variation. In Hogan’s terms, the rule-compliant person appears to be a high scorer on the socialization scale, achieves high grades, and holds an ethic of responsibility.

We expected the DIT measures, representing the Kohlberg stages, to predict Avoidance of Stealing at least as well as the Hogan measures. In fact, the DIT stages accounted for more of the variance than did Hogan’s dimensions (see Table 4). The pattern of simple correlations for the DIT regression suggests that individuals who have relatively high stages 6 and 4 usage, and relatively low stages 4½ and 2 usage are more likely to avoid stealing.

The results presented in Table 5 support our expectation that Kohlberg’s stages would predict Moral Judgment better than would Hogan’s dimensions. Hogan’s model accounted for 8.9% of the variance whereas Kohlberg explained 12.3%. Those respondents making the most moral judgments can be described in DIT terms as having relatively high stages 5B and 5A usage, and low use of stage 3.

Table 3. Stepwise Regressions: Rule Compliance

<table>
<thead>
<tr>
<th>Variables Entered</th>
<th>Simple Correlations</th>
<th>Standardized Coefficients</th>
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<tr>
<td>Competitive Analysis (Hogan vs. Kohlberg)</td>
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</tbody>
</table>

Hogan:

| Socialization | .292 | .271 |
| Moral Knowledge | .125 | .152 |
| Ethical Attitude | .175 | .117 |
| \( R^2 = .119 \) | \( R = .345 \) | \( F = 7.58, p < .001 \) |

Kohlberg:

| Stage 4 | .136 | .002 |
| \( R^2 = .019 \) | \( R = .136 \) | \( F = 3.23, \text{NS} \) |

Integrative Analysis

Hogan+

Kohlberg:

| Socialization | .292 | .260 |
| Moral Knowledge | .125 | .162 |
| Ethical Attitude | .175 | .093 |
| \( R^2 = .119 \) | \( R = .345 \) | \( F = 7.58, p < .001 \) |

Table 4. Stepwise Regressions: Avoidance of Stealing

<table>
<thead>
<tr>
<th>Variables Entered</th>
<th>Simple Correlations</th>
<th>Standardized Coefficients (Beta)</th>
</tr>
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<tbody>
<tr>
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<td></td>
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<tr>
<td>Competitive Analysis (Hogan vs. Kohlberg)</td>
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</table>

Hogan:

| Socialization | .185 | .167 |
| Autonomy | .145 | .185 |
| \( R^2 = .051 \) | \( R = .226 \) | \( F = 4.56, p < .05 \) |

Kohlberg:

| Stage 6 | .154 | .010 |
| Stage 4 | .124 | -.105 |
| Stage 4½ | -.149 | -.227 |
| Stage 2 | -.136 | -.211 |
| \( R^2 = .071 \) | \( R = .266 \) | \( F = 3.18, p < .05 \) |

Integrative Analysis

Hogan+

Kohlberg:

| Socialization | .185 | .132 |
| Stage 6 | .154 | -.047 |
| Stage 4½ | -.149 | -.274 |
| Stage 2 | -.136 | -.254 |
| Autonomy | .145 | .174 |
| Moral Knowledge (GPA) | -.067 | -.117 |
| \( R^2 = .110 \) | \( R = .331 \) | \( F = 3.39, p < .01 \) |

Thus, in terms of the competitive analyses, Hogan’s variables better predicted the dependent measure that incorporated his rather broad conception of moral conduct (Rule Compliance). Kohlberg’s theory related better to Moral Judgment and the dependent variable which incorporated his more circumscribed conception of moral conduct (Avoidance of Stealing).

Integrative Analyses

In order to test the proposition that both Hogan’s and Kohlberg’s approaches may usefully be viewed as parts of a larger conception of moral development, we

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2 Two “Overall Moral Maturity” scores were computed for each subject. The first involved adding the standardized Moral Judgment score to the standardized Rule Compliance score, and the second involved adding the standardized Moral Judgment score to the standardized Avoidance of Stealing score. Hogan’s theory better predicted the first measure, Kohlberg’s the second. In both the integrative analyses the combined theories predicted better than the individual theories.
Table 5. Stepwise Regressions: Moral Judgment

<table>
<thead>
<tr>
<th>Variables Entered</th>
<th>Simple Correlations</th>
<th>Standardized Coefficients (Beta)</th>
</tr>
</thead>
</table>

**Competitive Analysis (Hogan vs. Kohlberg)**

**Hogan:**
- Ethical Attitude: -0.228
- Socialization: 0.098
- Empathy: 0.164

\[ R^2 = 0.089 \]  \[ R = 0.299 \]  \[ R = 0.751, p < .001 \]

**Kohlberg:**
- Stage 5B: 0.262
- Stage 5A: 0.227
- Stage 3: -0.183

\[ R^2 = 0.123 \]  \[ R = 0.351 \]  \[ R = 0.786, p < .001 \]

**Integrative Analysis**

**Hogan + Kohlberg:**
- Stage 5B: 0.262
- Stage 5A: 0.227
- Socialization: 0.098
- Ethical Attitude: -0.228
- Stage 3: -0.183

\[ R^2 = 0.160 \]  \[ R = 0.401 \]  \[ F = 6.35, p < .001 \]

combined the DIT stage scores and the Hogan variables in the stepwise regression analyses.

Table 3 presents the results for Rule Compliance. In this case, the combined analysis did not account for any more variance than the Hogan variables alone. Knowing at what stage a person reasons did not contribute to understanding rule-compliant behavior.

However, as can be seen in Table 4, the combined Kohlberg–Hogan analysis increased the variance explained to 11% in the Avoidance of Stealing measure. In terms of both theories together, respondents who scored high on Avoidance of Stealing can be described as scoring high on the socialization scale, having relatively high stage 6 usage and low use of stages 4½ and 2, scoring high on autonomy, and having lower GPA’s.

Variance explained on the Moral Judgment measure also increased (to 16%) when the Hogan and Kohlberg variables were combined (see Table 5). Those respondents making the most moral judgments can be described as having relatively high usage on stages 5B and 5A, having high socialization scores, holding an ethic of personal conscience, and having low stage 3 usage.

Since our dependent measures of moral conduct were based on self-report, we were concerned that some of our multiple correlations might be significantly inflated or attenuated by the effects of social desirability. To investigate this possibility, we re-ran all nine regression analyses entering social desirability scores as the first variable in each of the regressions. Part multiple correlations were then calculated in which the effects of social desirability were subtracted out. The pattern of results was identical to the original set of results. The largest increase in explained variance was only 0.6% and the largest decrease was only 0.5%.

For two of our three dependent variables, the percentage of variance explained by the combined Hogan–Kohlberg measures approximates the sum of the variances explained by each model separately. This suggests that the amount of overlap between the two approaches is minimal and that the Hogan and Kohlberg variables comprise additive components of a larger whole.

In each of the nine regression analyses, the signs of the simple correlations for the variables entered were in the direction expected by Kohlberg’s and Hogan’s theories. For each dependent variable, Kohlberg’s stages 4, 5A, 5B, and 6 always correlated positively, and stages 2, 3, and 4½ correlated negatively. Moral knowledge, socialization, empathy, and autonomy always correlated positively (except for one near-zero moral knowledge correlation) with our dependent measures. As would be expected by Hogan’s theory,

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3 We investigated the possibility that the correlation of GPA with our dependent variables was inflated or attenuated because our total sample (N = 172) was composed of data from three subsamples (a junior college, N = 63; a state university, N = 100; and a private graduate school, N = 9). The correlation of GPA with Rule Compliance in the total sample was not significantly different from the correlation in any of the three subsamples. Analogous results were found for the correlation of GPA with Avoidance of Stealing and for the correlation of GPA with Moral Judgment. Thus, there is no reason to believe that the GPA correlations were affected by our pooling of the subsamples.
the “ethics of responsibility” end of the SEA related to Rule Compliance, while the “ethics of conscience” end related to Moral Judgment. The theory-consistent character of our results, and the facts that (1) our subjects filled out their questionnaires anonymously; (2) controlling for social desirability did not affect our results; and (3) Nardi (unpublished) found that college students self-report drug, alcohol, and shoplifting behaviors accurately, all suggest that our reliance on self-report measures probably did not impair the interpretability of our results.

CONCLUSIONS AND DISCUSSION

The results of our competitive analyses underscore the importance of philosophical clarity in research on moral behavior. Hogan’s theory more strongly predicted moral conduct when it was defined as Rule Compliance and Kohlberg’s theory made stronger predictions when it was defined as Avoidance of Stealing. Thus, Hogan’s theory predicted better when we employed Hogan’s broad conception of moral conduct in which the social and moral domains are largely indistinguishable. Kohlberg’s theory predicted better when we employed Kohlberg’s more circumscribed conception of moral conduct in which the moral domain includes only social behavior governed by universal moral principles. This is not the place to debate the relative philosophical merits of these two conceptions; the reader is free to make his or her own judgments. We do wish, however, to emphasize the importance of explicit and clear accounts of philosophical assumptions in research on moral behavior. The philosophical issues in the field are just as important and just as much subject to controversy as the empirical ones and, as our results indicate, divergent philosophical conceptions can yield quite different empirical results.

The integrative analyses, in which Hogan’s character dimensions and Kohlberg’s moral reasoning stages are combined in predicting the dependent measures, are consistent with our belief that the two theories are logically and empirically compatible. The theories seem logically compatible since no basic empirical claim by Hogan contradicts any of Kohlberg’s basic empirical claims. The differences between the theories are largely matters of emphasis. Our results indicate that the theories are also empirically compatible. For two out of three dependent measures, the combined theories accounted for a larger percentage of the variance than the better single theory from the competitive analyses. These results suggest that future research on the two theories should continue to employ both competitive and integrative perspectives (see also Nardi and Tsujimoto, unpublished). Of particular interest would be investigations of the ways in which Hogan’s character dimensions might facilitate changes in Kohlbergian moral reasoning stages and vice versa. The combined theories may contain the seeds of a new and more powerful account of the processes involved in moral development.

Some serendipitous findings from our research are relevant in this vein. We looked at the matrix of correlations between Hogan’s three most important character dimensions (socialization, empathy, and autonomy) and the seven Kohlbergian moral judgment stages measured by the DIT. The highest correlation for socialization was with stage 4 (r = .25, p < .005), the highest for empathy was with stage 5B (r = .27, p < .005), and the highest for autonomy was with stage 6 (r = .18, p < .025). These results become particularly interesting in light of some developmental claims made by Hogan and Kohlberg. Hogan claims that socialization, empathy, and autonomy are major transition points in moral development and that they become important developmentally in just that order. Kohlberg claims that moral judgment starts at the lowest stage and develops upward through his sequence, one stage at a time. Note, then, that he would expect stage 4 thought to precede stage 5B thought, which in turn should precede stage 6 thought. Thus, the pattern of correlations we discovered is consistent with the developmental claims of both Hogan and Kohlberg. More particularly, the correlations suggest that there may be important developmental relationships between socialization and
stage 4 thought, empathy and stage 5B thought, and autonomy and stage 6 thought. The specific nature of these relationships will have to be clarified by future integrative research on the two theories.

One final issue must be considered. None of our main regression analyses accounted for more than a moderate amount of variance. We believe two main considerations account for the limited size of those correlations. First, there were significant shortcomings in the way our independent variables were operationalized (see also Nardi, forthcoming). The autonomy scale is currently undergoing revisions by Kurtines (personal communication) as a result of its moderate reliability. Similarly, Hogan (personal communication) is revising the Survey of Ethical Attitudes. The moral knowledge dimension is limited to measures of intelligence and should be expanded to include other components of moral knowledge. The strong relationships demonstrated by the socialization scale attest to its high reliability and validity and suggest the improved performance of the remaining dimensions when more reliable and valid measures are developed to measure them. Alternative methods for scoring the DIT are also currently being evaluated (Davison and Robbins, unpublished). In brief, more adequate measurement of our independent variables might lead to more powerful predictions.

Second, we believe that the magnitude of our multiple correlations was limited by the fact that we did not include situational variables in our research design. Since Hartshorne and May’s (1928) monumental study of moral behavior, social psychologists have recognized the importance of the situational determinants of moral conduct (Mischel, 1968, 1976). This suggests that a comprehensive understanding of moral development will include not only statements about moral reasoning and moral character, but also statements about how these factors interact with situational variables to produce the intricacies of moral behavior. We believe that a complete understanding of morality will require a very complex and multifaceted theory.

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