

# Social Justice and Moral Reasoning: An Empirical Integration of Two Paradigms in Psychological Research

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Distributive and procedural justice are of central importance to Kohlberg's (1984) theory of moral development, Rest et al.'s (1999a; 1999b) neo-Kohlbergian theory, and current social justice theorizing (e.g., Tyler & Smith, 1998). In order to explicate the relationships between social justice and moral development theories, participants completed Rest's (1979) Defining Issues Test (DIT) along with 15 measures of various justice criteria. Analyses showed that each schema of moral reasoning was significantly predicted by different concerns about social justice. Furthermore, individuals' judgments about justice were best represented by four factors, offering a broader definition of justice in relation to moral schema. The findings were consistent with Kohlbergian theory; moral reasoning appears to proceed from concerns about self-interest to distributive fairness to procedural justice.

At least two major traditions or paradigms of theoretical and empirical work regarding the construct of justice exist. The first, based on cognitive-developmental theory, has seen its fruition in the work of Lawrence Kohlberg (1984) and his students (cf. Rest, 1979). The second tradition, coming out of the social psychology literature, has involved equity theory (Adams, 1965; Walster, Walster, & Berscheid, 1978) and descriptions of procedural justice (Thibaut & Walker, 1975; Tyler & Lind, 1992; Tyler & Smith, 1998).

The extensive literatures on moral development and social justice have both maintained considerable focus on the notions of distributive and procedural justice. Distributive justice is concerned with the way assets or resources are distributed in an identified group (Tyler & Smith, 1998). Procedural justice, on the other hand, involves a focus on the decision-making processes involved in the distributive situation (Tyler & Smith, 1998); in some cases, procedural justice is defined in terms of formal concerns about lawful procedures (see Kohlberg, 1984). While these definitions differ slightly depending on the theory used by the researcher, the general concepts are comparable. Thus, the central tenet of our study is that concerns about distributive and procedural justice can be

systematically and empirically compared to moral reasoning theory, and one can examine the extent of correspondence between the two traditions or paradigms of justice research.

## A Comparison of the Two Paradigms

As Austin (1986) noted, "justice comprises the conceptual and empirical basis of the moral evaluation of social policy" (p. 159). Following Austin's logic, this study examines these conceptual and empirical relationships. Such a comparison is important conceptually, in light of Kohlberg's (1984) assertion that his stages of moral development are primarily stages of *justice reasoning*. Empirically, a comparison of the research paradigms is important because of similarities in the assessment methodologies used. Such comparisons offer an evaluation of the claim by ter Laak and Aleva (1991) that "social psychological and developmental perspectives do not coincide or cooperate" (p. 159).

## Are There Justice Concerns in Moral Judgments?

Perhaps the most encompassing theory of justice is Kohlberg's (1984) stage theory of moral development (Berg & Mussen, 1975; Furby, 1986). Kohlberg proposed that six stages, each representing a qualitatively more complex mode of thinking (structure), defined the way an individual thinks about moral issues. Moreover, each stage is hypothesized to revolve around certain "justice operations"—concerns about individual rights, fairness, and duty—transforming as the individual's thinking about what constitutes fairness in a given situation develops.<sup>1</sup>

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<sup>1</sup> See Kohlberg (1984) for a more thorough treatment of the theory and Lapsley (1996) for a general statement about the theory's impact on psychology.

As Damon (1977) and Demetriou and Charitides (1986) have noted, Kohlberg's (1984) theory of moral development is a global theory of justice, whereas distributive and procedural justice may be regarded as strands or elements within this global reasoning theory (Emler, 1991). Although other concerns may also be relevant to this global reasoning theory (cf. Miller & Bersoff, 1992; Rest et al., 1999a), our concern here is with the distributive and procedural justice aspects of the theory. Indeed, work that has examined development in distributive and procedural justice concerns supports the proposition that moral concerns are, at least in part, about justice.

Over the last 25 years, much empirical research on moral concerns has employed Rest's (1979) Defining Issues Test (DIT). As originally designed, the DIT included Kohlbergian moral dilemmas and provided response alternatives keyed to each of Kohlberg's stages. The DIT aims to measure the prescriptive nature or strength of individual convictions at each moral stage. Its measurement technique is prescriptive in that it determines a respondent's beliefs and mode of thinking by asking them to state what someone *should* do in a specific hypothetical situation.

Recent publications, however, have modified several aspects of the DIT, including scoring, interpretation, and even the theory underlying the test itself (cf. Rest et al., 1999a, 1999b). Rest et al.'s neo-Kohlbergian approach divorces itself from stage theory, re-aligning toward social cognition and schema theory. Rest et al. have argued that the DIT response domains are best characterized by three developmental schemas: Personal Interest (Stages 2 and 3), Maintaining Norms (Stage 4), and Postconventional (Stages 5 and 6). Although Rest et al. (1999a; 1999b) abandoned the use of Kohlberg's "justice operations" as defining characteristics of these moral schemas, they nonetheless state: "We still agree with Kohlberg that the aim of the developmental analysis of moral judgment is the rational reconstruction of the ontogenesis of *justice reasoning* [emphasis added]" (1999a, p. 56). Thus, neo-Kohlbergian theory, as presented by Rest et al. in general and the DIT in particular, is still in part about justice.

### *The Prescriptive Nature of Justice Judgments*

As noted in a recent review by Tyler and Smith (1998), subjective justice judgments have been linked to various attitudes, behaviors, and cognitions. The importance of justice judgments has been shown to span many social psychological contexts, including workplace settings (e.g., Alexander & Ruderman, 1987; Konovsky & Folger, 1991), educational settings (Tyler & Caine, 1981), and the political arena (Tyler, Rasinski, & McGraw, 1985). Indeed, "one of the most striking findings of social justice research is that people are seldom at a loss when asked whether or not an allocation, a procedure, or a punishment is fair" (Tyler & Smith, 1998, p. 602).

Yet, such research is conceptually limited because it may not represent the way in which individuals think about justice in all cases. As noted by Tyler and Smith (1998), "social psychologists do not typically attempt to identify objective criteria for evaluating conduct" (p. 595). Rather, social psychological research has tended to focus on individual reactions to existing situations of personal relevance or involvement (i.e., "Was I treated fairly?"). In contrast, philosophers (e.g., Perelman, 1967; Rawls, 1971) have focused on determining objective standards of justice; that is, what criteria *ought* to be used in defining outcomes or procedures that are fair and just.

It is argued here, however, that individuals have justice criteria that define what they believe ought to happen (see also Barrett-Howard & Tyler, 1986). Like moral judgments, justice judgments have been identified by some as being prescriptive or ideological in nature (Rasinski, 1987; Tetlock, 1986). That is, judgments about what is fair are often based on personal values regarding the way things ought to be (Rasinski, 1987; see also, Feather, 1999). For this reason, we refer to preferences for particular criteria of justice in the context of moral dilemmas as *prescriptive justice judgments*. Because their assessment closely parallels DIT methodology, direct comparisons of prescriptive justice judgments and DIT schemas can be made.

### Defining Justice: The Social Psychology Perspective

Before investigating these prescriptive preferences, it is useful to examine the principles of social justice identified by other investigators. The very word justice, of course, conveys many meanings and is often used to represent a wide range of highly related concepts, including fairness, deserving, and entitlement (Feather, 1999). Nonetheless, these concepts too may be so broad that they fail to capture the focus of people's concerns; that is, to speak of justice, fairness, and deserving, we must identify the object to be judged as just or unjust, fair or unfair, and deserved or undeserved. For example, people have been characterized as being concerned about the nature of the final decision and the nature of the decision-making process itself and that these fairly global concerns must be addressed in order for the needs for justice, fairness, and deserving to be met (Tyler & Smith, 1998).

Similarly, people may also be generally concerned about maximizing their self-interest. In the lay mind, fairness may be equated with self-interest, such that whichever outcomes are favorable are considered fair. It has been argued that people are concerned about justice, not only out of self-interest and personal gain, but because fair treatment also confers information about one's value within the group (Tyler, 1994; Tyler & Lind, 1992) and, therefore, one's self-esteem (Koper, Van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993). Suffice it to say that

concerns about the favorability of the outcome are not identical to justice concerns, but are necessarily related to them.

In addition to these general beliefs that distributions and procedures ought to be fair and favorable, social psychological research has demonstrated that people have specific criteria (i.e., justice criteria) that allow them to determine those things considered just and unjust (Tyler & Smith, 1998). In this research, these justice criteria serve to provide individuals with simple heuristics for determining why or why not a particular distribution or rule was just. In the context of prescriptive justice judgments, these criteria function as preferences for allocation methods and procedures, as statements of what specifically ought to be done in order to make something just.

#### *Distributive Justice Criteria*

Perhaps the oldest distributive justice criterion that has been studied empirically is equity. Indeed, equity has been considered the primary distributive justice criterion—one that is relevant to most forms of social interaction (Walster, Walster, & Berscheid, 1978). In general, the equity principle asserts that a fair outcome is one that is proportional to the amount of input given by the recipient, in comparison to the input/output ratio of a referent.

Other authors (e.g., Deutsch, 1975, 1985; Sampson, 1969) have argued that individuals use justice criteria other than equity. Under certain situations, individuals allocate resources on the basis of need; individuals may see as fair only those outcomes that favor individuals with the greater need (Linkey & Alexander, 1998). It is also recognized that individuals may prefer equal allocation of resources, especially in group contexts (Deutsch, 1985). Equality and need represent distributive justice criteria in addition to the equity criterion.

#### *Procedural Justice Criteria*

The original work by Thibaut and Walker (1975) specified two procedural justice criteria: decision control and process control. Decision control addresses whether an individual has a say in the final outcome or decision. Process control, on the other hand, addresses whether an individual has a say—or voice (Folger, 1977)—in the decision-making process.

However, as was the case with distributive justice criteria, later researchers viewed these two criteria as being too restrictive (Tyler & Smith, 1998). Leventhal (1980) identified six additional procedural justice criteria: consistency, bias suppression, accuracy, correctability, representativeness, and ethicality. The consistency criterion asserts that fair procedures are those that are stable across persons and time. The bias suppression criterion highlights the importance of a decision-maker remaining neutral. The accuracy criterion requires that decisions be made on the basis of informed opinion and

with "minimal processing error" (Leventhal, 1980, p. 40). The correctability criterion recognizes the importance of grievance and appeals procedures for correcting past wrongs. The representativeness criterion involves the issues of participatory decision-making and representation in the decision-making process. Finally, the ethicality criterion asserts that fair procedures are those that do not violate an individual's personal standards.

Recent work by Tyler (1994) has highlighted the importance of three issues in determining the fairness of a procedure or set of procedures. Tyler has emphasized the role of neutrality (i.e., bias suppression) in determining procedural fairness. Also, trust in the benevolence of the decision-maker is important; people are more likely to accept the procedures as fair if they view the decision-maker as acting in a trustworthy manner. Finally, status recognition (i.e., being treated with respect) is an important determinant of fairness.

### Changes in Justice Importance: The Developmental Psychology Perspective

Whereas the social psychological literature is important for defining the nature of justice judgments, the developmental psychology literature is important for its theory and predictions about individual differences in justice criteria usage and preferences.

#### *Distributive Justice Development*

Kohlberg's theory (1984) outlined the typical stage organization of distributive justice conceptions. In the first stage—labeled Heteronomous/Naive Realism—individuals adhere to strict equal distributions, with no special considerations taken into account. At the second stage—Individualistic/Instrumental—individuals attempt to maximize their own outcomes. Here distributive justice begins to account for various viewpoints and begins to allow for differences in distribution because of differences in need. In Stage 3 (Interpersonally Normative), notions of merit and equity join need to become central to the individual's judgments. At Stage 4 (Social System), distributive justice is based on considerations of social merit and contributions to the society. Distributive justice at Stage 5—titled Human Rights/Social Welfare—is based on notions of social cooperation and agreement. Finally, need is seen as the only legitimate basis of distributive differences at the highest stage Stage 6.

Many scholars have proposed that cognitive development influences the mode of distribution chosen by individuals (Berg & Mussen, 1975; Furby, 1986; Lerner, 1987; Simmons, 1981). Research using a reward allocation paradigm with children has shown a general developmental shift in the use of justice criteria for distribution (Gunzburger, Wegner, & Anooshian, 1977; Hook & Cook, 1979; Hook, 1983; Karniol & Miller, 1981; Keil & McClintock, 1983). Equal distribution of some

resource predominates among young children, while increasingly complex forms of equity arise as individuals grow older (Damon, 1975, 1977; Selman & Damon, 1975).

### *Procedural Justice Development*

For Kohlberg (1984), procedural justice was defined in terms of the formal definition of legal procedures stemming from the processes involved in jurisprudence. He noted that

Procedural justice, which involves a special set of considerations at lower stages, becomes a solution to substantive justice problems of distribution and correction at Stage 6. (p. 622)

Thus, according to Kohlberg's theory, procedural justice is most relevant or defined at the higher stages. For example, stage 4 thinking limits deviation from rules and stresses the importance of impartiality and consistency before the law. Stages 5 and 6—the Postconventional stages—assert that fair procedures maximally protect individual rights.

Less research exists on procedural justice development than on distributive justice development. Nonetheless, procedural justice concerns in legal matters have been shown to show an age-related trend that has much in common with Kohlberg's (1984) theory of justice reasoning (Demetriou & Charitides, 1986). Gold, Darley, Hilton, and Zanna (1984) found that while procedural justice concerns were complex and important even among the youngest children (i.e., 6-year olds), differences in procedural justice criteria existed between age groups demonstrating again the influence of cognitive ability on justice judgments.

### *Differential Preferences for Justice Criteria*

The above general theoretical statements are offered as support for the contention that the social justice and moral judgment paradigms are capable of reinforcing each other by virtue of their common ground. As Arnoff and Wilson (1985) noted:

In addition to its structural nature, a stage of moral reasoning also includes certain concrete values. . . . This aspect of Kohlberg's theory permits the incorporation of other work that is based less on a developmental perspective. (p. 257)

Together, current conceptualizations of the social justice (e.g., Tyler & Smith, 1998) and moral judgment (i.e., Rest et al., 1999a, 1999b) research help to provide insight into the workings of each other.

This study, then, uses a neo-Kohlbergian theory of moral judgment (Rest et al., 1999a, 1999b) to formulate predictions about the strength of peoples' preferences for general justice concerns and specific justice criteria. Consistent with neo-Kohlbergian theory, moral schemas

are considered broad, relatively abstract cognitive frameworks that guide specific decisions and choices (Rest et al., 1999a, 1999b). Thus, it is asserted here that all of the different stages (or more appropriately, schemas) of moral judgment stress all of the justice-related concerns—distributive justice, procedural justice, and outcome favorability—but that individuals utilizing different schemas of moral judgment should show shifts in the importance of distributive and procedural justice criteria.

For example, the lowest stages assessed by the DIT (Stages 2 and 3) are considered part of the Personal Interest schema. Thus, one would expect this schema to be the primary determinant of a preference for a favorable outcome. Similarly, given the observed trends of the role of self-interest in the development of concepts of justice (cf. Damon, 1981; Gunzburger, Wegner, & Anoshian, 1977; Keil & McClintock, 1983), it is expected that the import attributed to outcome favorability will decline for the higher-level schemas.

Stage 4 concerns constitute the Maintaining Norms schema, and it would be expected that this schema would be most predictive of individual concerns about traditional criteria of distributive justice (e.g., equity or equality). This appeal to consistent treatment would not be expected for individuals operating under the other schemas because of over-riding concerns for self-interest or individual rights.

Finally, the Postconventional schema is concerned with the most advanced reasoning. Recall that Kohlberg (1984) asserted that procedural justice becomes absolutely central to justice solutions at the most advanced stages; thus, procedural justice concerns should be strongly related to postconventional thinking. Conversely, strong appeals to procedural issues would not be expected for the Personal Interest schema.

## Method

### *Participants*

Two hundred and one participants were recruited from the college population at a large Midwestern, metropolitan university. All students were given extra credit at their instructors' discretion for their participation. Eleven students were eliminated from the sample on the basis of (1) a relatively high number of inconsistent responses in the DIT and (2) a propensity to rate meaningless items highly (see Rest, Thoma, & Edwards, 1997). The final sample ( $N = 190$ ) was 70.5% female. Ages ranged from 18 to 52 ( $M = 22.5$ ,  $SD = 6.81$ , Median = 20.00). Ethnically, 47.4% identified themselves as Caucasian-American, 29.5% as African-American, 6.8% as Arab-American, 5.3% as Asian-American, and 3.2% as Hispanic-American; the remaining 7.9% either belonged to other groups or did not provide ethnic information.

### *Measurement of Constructs and Variables*

*Measure of Moral Judgment.* The Defining Issues Test (DIT; Rest, 1979) served as the assessment instrument for justice reasoning preferences. The short form of the DIT is a paper and pencil measure that consists of 3 dilemmas (Rest, Thoma, Narvaez, & Bebeau, 1997). For each, individuals are asked to respond to 12 items in terms of their importance in judging an issue. Following this, participants are asked to rank the top four most important of the 12 items.

While the item content of the DIT is based on Kohlbergian theory, scoring differs in several ways from Kohlberg's interview scoring procedure. Recent DIT work has identified several useful DIT indices for a variety of research goals and purposes (Rest et al., 1999b). The primary developmental index (N2; Rest et al., 1997) has two components—"a measure of prioritizing the high stages and a measure of discrimination and rejection of the lower stages" (p. 500)—that are combined to define this overall measure of development. Similarly, the importance ratings for each of three general schema were available; these ratings have shown some utility in past investigations (see Rest et al., 1999a) and are appropriate for indexing the relative strength of each schema rather than overall development. Thus, for each individual four essential DIT scores are given: a measure of the relative strength or importance of the three underlying moral schemas, and an overall measure of development.

*Social Psychological Measures of Procedural and Distributive Justice.* For each of the 3 DIT dilemmas, participants were asked to answer questions of procedural and distributive justice criteria that were based on previous research (for a review and cataloging of items, see Tyler & Lind, 1992). All justice criteria items were presented with a 5-point unipolar importance scale, a format that is identical to that of the DIT (and similar to Barrett-Howard & Tyler, 1986). In other words, participants rated the items in terms of "great," "much," "some," "little," or "no" importance to the moral dilemma.

These items were presented in three main sections: 1) procedural justice criteria, 2) distributive justice criteria, and 3) global justice judgments. Procedural justice prescriptive judgments (10 items) were tested with items that were based on Leventhal's (1980) criteria—consistency, bias suppression/neutrality, accuracy, correctability, representativeness, and ethicality—and are similar to those used by Konovsky and Folger (1991). Additionally, measures of voice/process control and decision control (Thibaut & Walker, 1975) were used, as well as measures of standing and trust (based on items by Tyler, 1994). The five distributive justice items asked whether the notions of equity, equality, need, status, and ability are important in making a fair decision. The final section consisted of global measures of procedural justice, distributive justice, and outcome favorability. Importantly,

these global measures need not be, in the minds of individuals, identical to the various criteria that researchers have asserted as being representative of justice and furthermore represent a conceptually more abstract level of evaluation; for these reasons, the global measures are treated as distinct from the justice criteria. The Appendix contains all additional justice items as written for the Heinz dilemma.

A preference score for each of the 15 individual justice criteria (10 procedural justice and five distributive justice items) was obtained by taking the mean importance rating of the responses to the three different moral dilemmas for that criterion. The same scoring procedure was used for the global justice items. Since responses were given regarding each procedural and distributive justice items once for each of the three dilemmas, these scores reflect the mean importance given to each particular criterion averaged across the three social situations described in the dilemmas.

### *Procedure*

Students filled out the short form of the DIT. This consisted of reading three separate social dilemmas: the Heinz, the Prisoner, and the Newspaper. The Heinz dilemma tells the tale of a man who considers stealing a drug in order to cure his wife's disease. The Prisoner dilemma concerns a woman who is faced with the quandary of whether to turn in her neighbor, a man who is an escaped prisoner. Finally, the Newspaper dilemma involves a school principal who must decide whether to halt the publication of a student newspaper following a student demonstration and subsequent parental complaints. For each dilemma, respondents answered the 12 items included in the original DIT. In accordance with traditional DIT procedures, the participants also ranked what they felt were the four most important items of these 12.

Following this, individuals were presented with an outcome to the DIT scenario. For example, for the well known Heinz dilemma participants read: "Now suppose that Heinz decides to steal the drug. However, he is arrested upon entering the store and the druggist decides to press charges against Heinz. How important are the following issues in determining how Heinz should be treated by the judge handling the case?" Participants were then asked about the importance of procedural and distributive justice variables regarding this outcome. This was assessed by using each of the 3 sections of justice items described above (distributive, procedural, global). Items within each section were presented in a random order for each dilemma, but the same random order was maintained for all participants. This general format was maintained for all 3 dilemmas.

While it may be desirable to counterbalance the order of presentation of dilemmas, such a practice is not typical in assessments using the DIT. Therefore, participants first

answered all items—both traditional DIT items and the justice items—for the Heinz dilemma. This was followed by the items for the Prisoner dilemma and then the Newspaper dilemma.

### *Analysis Strategy*

The general purpose of this study was to examine the empirical relationships between moral reasoning and social justice. This can be accomplished using several complimentary strategies, each of which conceptualizes moral judgments development and prescriptive justice judgments slightly differently. For questions about general developmental trends, relationships between the DIT's primary developmental index (N2; Rest et al., 1997) and the individual justice criteria (or the global justice evaluations) can be assessed by simple bivariate correlations. However, because the considerable research on justice development briefly reviewed above makes predictions about specific moral schemas, the general research question becomes: to what extent do the three moral schemas relate to prescriptive justice judgments? This question can be answered using several complementary strategies.

At its most general level, this question is concerned with the ability of the DIT schema scores to predict the

expressed global evaluations of procedural justice, distributive justice, and outcome favorability. In neo-Kohlbergian theory, each individual is characterized best by the pattern (or "shifting distributions", Rest et al., 1999a, p. 55) among his or her preferences for the three schemas. Thus, a set of multiple regressions with DIT stage scores as predictors of each global justice evaluation was used. First and foremost, this strategy has the advantage of providing an overall correlation between the set of DIT schema scores and the justice evaluation (Multiple R). Additionally, tests of the partial regression weights are tests of each predictor's unique strength to account for the outcome, controlling for the effects of all other predictors (Pedhazur, 1982); thus, in this study, the standardized regression weights index the relative strength (i.e., the magnitude of the weight) and unique ability (i.e., the statistical significance) of each moral schema to directly influence a justice preference. By considering the relationship between moral schemas and justice judgments in this way, it is possible to determine whether and when each concern is most relevant along the stage/schema continuum.

Table 1  
*Correlations between Individual Justice Criteria and DIT Scores*

Justice Criterion	DIT Schema or Developmental Score			
	Personal Interest	Maintaining Norms	Post-Conventional	N2 Index
Ability	.339 **	.079	.239 **	.159 *
Accuracy	-.014	.204 **	.345 **	.128
Consistency	.049	.237 **	.128	-.066
Correctability	.288 **	.214 **	.259 **	.097
Decision Control	.462 **	.006	.181 *	-.050
Equality	-.057	.161 *	.066	-.011
Equity	-.063	.316 **	.131	-.082
Ethicality	.031	.237 **	.353 **	.173 *
Need	.519 **	.117	.199 **	-.024
Neutrality	.032	.256 **	.185 *	.021
Respect	.137	.102	.342 **	.171 *
Represent	.278 **	.158 *	.255 **	.013
Status	.363 **	.016	.081	-.083
Trust	.143	.202 **	.260 **	.023
Voice	.213 **	.291 **	.247 **	.037

\*  $p < .05$

\*\*  $p < .01$

Table 2  
*Pattern Matrix for Principal Components Analysis with Promax Rotation of Justice Criteria*

Justice Criterion	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	Communalities
Accuracy (PJ)	<b>.823</b>	-.026	-.106	.044	.715
Ethicality (PJ)	<b>.812</b>	.144	-.226	.070	.600
Trust (PJ)	<b>.787</b>	-.084	.052	-.144	.611
Neutrality (PJ)	<b>.608</b>	-.016	.041	.255	.538
Respect (PJ)	.388	-.028	.244	.212	.349
Status (DJ)	.047	<b>.851</b>	-.012	.043	.715
Ability (DJ)	.023	<b>.822</b>	.120	.120	.738
Need (DJ)	-.048	<b>.676</b>	.217	-.146	.637
Correctability (PJ)	-.154	-.034	<b>.879</b>	.041	.668
Decision Control (PJ)	-.209	.291	<b>.699</b>	.042	.605
Representative (PJ)	.107	.151	<b>.528</b>	.183	.453
Voice (PJ)	.324	.209	<b>.463</b>	-.203	.570
Equality (DJ)	-.105	.185	-.411	<b>.820</b>	.749
Equity (DJ)	.045	.034	.136	<b>.618</b>	.427
Consistency (PJ)	.067	-.355	.416	<b>.534</b>	.622

*Note.* PJ indicates that a criterion is traditionally associated with procedural justice; DJ indicates that a criterion is traditionally associated with distributive justice. The highest loading over .40 for each justice rule is given in bold.

An alternative way of examining the central research question more directly is by using the justice criteria. Whereas overall assessments of distributive and procedural justice are rather general, the 15 justice criteria are both conceptually broader and empirically more specific in their assessments of justice concerns. Importantly, the individual distributive and procedural criteria may conceptually overlap and, empirically, a procedural criterion could show higher a correlation with a distributive criterion than with other procedural criteria. It is possible that the justice criteria could represent more than the two a priori dimensions. If so, the empirically-derived dimensions would not be isomorphic with procedural and distributive justice. Thus, the question becomes: How do the moral schemas relate to the empirical dimensions underlying the justice criteria? Note that this question is similar to, but different from, the use of global judgments as outcomes. The use of global judgments is different in that it treats procedural and distributive justice as the a priori conceptual divisions; the alternative strategy focuses on a broader definition of justice (via the 15 criteria) and utilizes empirical relationships to define the dimensions of prescriptive justice judgments.

## Results

### *Preliminary Analyses*

In order to determine the nature of the relationships between the distributive and procedural justice criteria and moral schemas, we first examined the simple bivariate

correlations (Table 1). Table 1 also includes the correlations between N2 and the individual justice criteria. Interestingly, all significant correlations were positive; in no case were high moral schema or developmental scores associated with denials of the importance of any justice criterion.

However, due to the preponderance of significant correlations, a principal components analysis of the justice criteria scores was employed to determine the general dimensions underlying the justice criteria. Thus, the 15 individual justice criteria (the average importance attached to each of the 10 procedural and 5 distributive justice criteria) were included in the analysis. Four components were obtained, accounting for 59.3% of the total variance. In order to facilitate interpretation, the initial solution was rotated using a Promax rotation and Kaiser Normalization. The matrix of loadings (i.e. the pattern matrix) is presented in Table 2; each criterion's predominate loading is given in bold, except for Respect which failed to show even a weak loading (i.e., .40) on any of the four components.<sup>2</sup>

<sup>2</sup> To insure that the factor solution was representative of the ratings within each dilemma, additional factor analyses were conducted. Despite the weaknesses of conducting factor analyses at the item level (Nunnally & Bernstein, 1994), a reasonably similar factor structure was obtained across dilemmas. Recall that the goal of the study was to assess general concerns about the importance of the justice criteria rather than assess context-dependent judgments.

Table 3  
*Correlations Among the Measures and Factors of Justice Concerns*

Justice Rule	1	2	3	4	5	6	7
1. Decision-Maker Procedural Fairness	[.75]						
2. Specialized Distributive Concerns	.094	[.78]					
3. Participation/Appeals Procedures	.324 **	.523 **	[.71]				
4. Equitable/Consistency Concerns	.305 **	-.123	.058	[.61]			
5. Global Procedural Justice	.441 **	-.148 *	.033	.318 **	[.63]		
6. Global Distributive Justice	.202 **	.374 **	.446 **	.135	.255 **	[.69]	
7. Global Outcome Favorability	-.090	.619 **	.476 **	-.109	-.168 *	.365 *	[.79]

*Note.* Numbers on diagonals are internal consistency estimates (Cronbach's alphas) for the scale scores.

\*  $p < .05$ \*\*  $p < .01$

Scores for each of the four components were derived by taking the mean of all the items loading predominately on that component. Thus, component 1 was defined by four procedural justice criteria: Accuracy, Trust, Ethicality, and Neutrality. This component was tentatively titled Decision-Maker Procedural Fairness. Component 2 was clearly defined by three distributive justice criteria—Ability, Status, and Need—and was tentatively titled Specialized Distributive Concerns. The third component—titled Participation and Appeals Procedures—included the variables Correctability, Decision Control, Voice, and Representativeness. The final component consisted of Equity, Equality, and Consistency, creating a factor titled Equity/Consistency Concerns.

Correlations among the component's scores are presented in Table 3 (as is Cronbach's alpha for each scale). Table 3 also contains the correlations between these components and the global justice judgments. Note that the dimensions underlying the justice criteria, as summarized by the principal components analysis, are not isomorphic with the simpler questions about the general importance of fair distributions and fair procedures.

#### *Relationships Between DIT Scores and Prescriptive Justice Judgments*

Given the relative distinctiveness of the global judgments from the justice components derived above, it seems necessary to address the main research question using both sets of justice judgments. In terms of general developmental trends, N2 showed significant correlations with the global evaluations of Procedural Justice and Outcome Favorability (see Table 4). Higher N2 scores were associated with less prescribed importance for Outcome Favorability and more importance attached to Procedural Justice. However, N2 showed no significant correlations with the components of justice criteria (i.e., Decision-Maker Procedural Fairness, Specialized Distributive Justice, Participation and Appeals Procedures,

and Equitable/Consistency Concerns).

The three moral schemas, however, showed stronger relationships with both the global justice evaluations and the components of justice concerns than did the N2 index (see Table 4).<sup>3</sup> Again, because we were perhaps more interested in the relative and unique contributions of each moral schema to predict prescriptive justice judgments, we conducted a series of multiple regressions following the strategy outlined earlier. All summary statistics and standardized regression coefficients from these regressions are given in Table 5.

First, when combined, the three moral schemas correlated significantly with each of the global judgments: Distributive Justice ( $R = .332$ ),  $F(3, 161) = 6.645$ ,  $p < .001$ ; Procedural Justice ( $R = .385$ ),  $F(3, 161) = 9.357$ ,  $p < .001$ ; and Outcome Favorability ( $R = .512$ ),  $F(3, 161) = 19.116$ ,  $p < .001$ . Tests of the regression coefficients showed that, after controlling for the other moral schemas, each of the moral schemas was uniquely related to different justice concerns. Distributive Justice and Outcome Favorability were primarily predicted by the Personal Interest Schema; in both cases individuals who scored high on the Personal Interest Schema tended to rate the importance of fair and favorable outcomes more highly. Procedural Justice importance was uniquely predicted by all three moral schemas; higher scores on the Maintaining Norms and Postconventional Schemas tended

<sup>3</sup> At this point, the reader may be concerned about the possible biasing effects of age and gender, especially given recent concerns in the moral judgment literature (cf. Rest et al., 1999a). Accordingly, we conducted a series of moderated multiple regressions to determine if age or gender either significantly predicted the justice judgments or significantly moderated the relationship between each moral schema and the justice judgments. In no cases did either age or gender offer any additional information; thus, they were not used in subsequent analyses.

Table 4  
*Correlations between Justice Concerns and DIT Scores*

Justice Concern	DIT Schema or Developmental Score			
	Personal Interest	Maintaining Norms	Post-Conventional	N2 Index
Global Justice Evaluations				
Distributive Justice	.289**	.265**	.204**	.069
Procedural Justice	-.128	.215**	.254**	.197**
Outcome Favorability	.523**	.111	.012	-.202**
Factors of Justice Criteria				
Decision-Maker Procedural Fairness	.069	.285**	.348**	.087
Specialized Distributive Concerns	.477**	.079	.199**	.017
Participation/Appeals Procedures	.433**	.230**	.302**	-.004
Equitable/Consistency Concerns	-.026	.334**	.149*	-.073

\*  $p < .05$       \*\*  $p < .01$

Table 5  
*Multiple Regression Statistics for DIT Scores as Predictors of Justice Factors*

Justice Concern	Summary Statistics		Standardized Regression Coefficients for Schema Scores		
	R	R <sup>2</sup>	Personal Interest	Maintaining Norms	Postconventional
Global Justice Evaluations					
Distributive Justice	.332**	.110	.218**	.122	.120
Procedural Justice	.385**	.148	-.223**	.219**	.255**
Outcome Favorability	.512**	.263	.525**	-.006	-.135
Factors of Justice Criteria					
Decision-Maker Procedural Fairness	.429**	.184	-.030	.220**	.319**
Specialized Distributive Concerns	.487**	.237	.476**	-.099	.100
Participation/Appeals Procedures	.482**	.232	.383**	.036	.202**
Equitable/Consistency Concerns	.381**	.145	-.100	.360**	.083

\*  $p < .05$       \*\*  $p < .01$

to lead to more preference for fair procedures, but higher scores on the Personal Interest Schema tended to show less concern for fair procedures.

Next, the component scores derived from the principal component analysis were used to more succinctly represent the justice criteria and their relationships with the moral schemas. When combined, the three moral schemas also correlated significantly with each of the four justice components: Decision-Maker Procedural Justice ( $R = .429$ ),  $F(3, 161) = 12.122$ ,  $p < .001$ ; Specialized Distributive Concerns ( $R = .487$ ),  $F(3, 165) = 17.105$ ,  $p < .001$ ; Participation and Appeals Procedures ( $R = .482$ ),  $F(3, 151) = 15.222$ ,  $p < .001$ ; and Equitable/Consistency Concerns ( $R = .381$ ),  $F(3, 163) = 9.208$ ,  $p < .001$ . Decision-Maker Procedural Justice was significantly predicted by both the Maintaining Norms and the Postconventional Schemas. Specialized Distributive Concerns were most clearly related to the Personal Interest Schema. Interestingly, the importance of Participation and Appeals Procedures was significantly predicted by both the Personal Interest and Postconventional Schemas. Finally, Equitable/Consistency Concerns were most uniquely predicted by the Maintaining Norms Schema. In all cases, higher moral schema scores were associated with higher justice importance ratings.

## Discussion

### *The Relationship Between Social Justice and Moral Reasoning*

This study explored the relationships between definitions of justice derived from current social psychological literature (e.g., Tyler & Smith, 1998) and characterizations of moral schemas from current developmental literature (e.g., Rest et al., 1999a, 1999b). Such a comparison is timely, as well as important both conceptually and empirically. This is especially true given the primacy given to justice concerns in both Kohlberg's (1984) and Rest et al.'s (1999a) model of the development of moral reasoning. On the basis of the results presented here, the notion that moral schemas are at least partially associated with justice concerns does appear to be empirically valid. More impressively, the patterns of these relationships are consistent with the conceptualizations afforded to the various constructs.

The first moral schema (and the underlying Kohlbergian stages) is characterized primarily by personal interest concerns (Rest et al., 1999a, 1999b). As Kohlberg noted, "since each person's primary aim is to pursue his or her own interests, the perspective of Stage 2 is pragmatic—to maximize satisfaction of one's needs and desires while minimizing negative consequences to the self" (1984, p. 626). The finding that the first schema is uniquely associated with concerns over favorable outcomes, distributive justice criteria designed to account

for individual preferences, and procedures that allow personal input provides strong testimony to this characterization.

The Maintaining Norms Schema, and its underlying Stage 4, is clearly defined by concerns over consistent procedures and distributions. Of all the statements made by Kohlberg regarding the relationships between stages and notions of justice, the following may be the most prophetic: "This perspective is based on a conception of the social system as a consistent set of codes and procedures that apply impartially to all members" (1984, p. 631). In terms of the current study, concerns for impartial codes and procedures are predicted by both Equitable/Consistency Concerns and Decision-Maker Procedural Fairness. As this schema is very much focused on following rules, it should not be surprising that those dimensions that were related to the Personal Interest Schema are not relevant here; both of those dimensions involved special considerations, and such considerations are not deemed important by Stage 4 individuals.

Kohlberg noted that the highest stages of reasoning are "oriented to the process by which agreements or contracts are reached as well as to ensuring the fairness of the procedures which underlie such an agreement" (1984, p. 638). As the Postconventional Schema represents an individual's growing concern with human rights and social welfare, it is not surprising that an emphasis should exist on decision-makers who show qualities such as ethicality, accuracy, neutrality, and trustworthiness. Note that, like individuals operating with a Personal Interest Schema, those individuals utilizing a Postconventional Schema also show strong concerns about the presence of procedures that allow for individual participation in both the original decision-making process and in any necessary appeals. Whereas the motive behind this concern is self-interest in the earliest schema, its purpose here is perhaps different: participation and appeals procedures offer a protective barrier for individual human rights.

Finally, the relationship of justice with general development can be considered. Recall that this measure (N2; Rest et al., 1997) represents a weighting of Postconventional Schema preference and Personal Interest Schema rejection. This manifests itself by our finding that higher N2 scores are associated with stronger belief in (1) the importance of procedural matters and (2) the unimportance of favorable outcomes. However, N2 fails to show specific content-based preferences for any of the justice components, which may represent a weakness of the developmental index.

### *Limitations and Future Directions*

Following Rest et al.'s (1999a, 1999b) formulation of neo-Kohlbergian theory, we have treated the moral schemas as the predictors of justice judgments. However, we believe it important to note that other theoretical accounts may be possible. For example, it is possible that

justice judgments are elemental and summative, and therefore produce the moral schemas. It is also possible that justice judgments and moral schemas lie at similar conceptual levels and are therefore correlated because they tap similar (though not identical) constructs. Clearly, future research would do well to explicate the nature (and direction) of the relationship.

Though it offers compelling evidence for the presence of justice concerns within the DIT moral schemas, the study presented here is, nonetheless, cross-sectional. While some aspects of development may be captured in the N2 index of the DIT, longitudinal work is certainly warranted. The research of Damon (1975; 1981), Fry and Corfield (1983), and Gold et al. (1984) could serve as models for such extensions. Similarly, Thoma and Rest (1999) have explored stage consolidation (the extent to which an individual's preferences fall predominately within one schema), and this too may prove to be a significant influence on social justice judgments just as Damon (1975) hypothesized it may be in positive justice reasoning.

Our study also suggests that the a priori conceptual dichotomy of procedural and distributive justice may need to be further elaborated. The data offered here suggest that each type of justice (procedural and distributive) may have a normative and an instrumental component. For example, procedural justice criteria defined a normative component (i.e., Decision-Maker Procedural Justice) and an instrumental component (i.e., Participation and Appeals Procedures). Similarly, distributive justice criteria also defined both a normative component (i.e., Equitable/Consistency Concerns) and an instrumental component (i.e., Specialized Distributive Concerns). Furthermore, consideration of distinct justice criteria and the dimensions that underlie them appears to offer a broader conceptual description. This is certainly true of the type of individual prescriptive justice judgments proposed here, and is analogous to the findings of recent investigations into organizational justice (e.g., Colquitt, 2001).

However, as broad as the above justice dimensions are, they are certainly not the only constructs relevant to moral schemas. For example, the definition of justice in the moral judgment literature "is broader than that used in much social psychological research" (Miller & Bersoff, 1992, p. 541). Thus, concepts such as retributive and corrective justice (see Kohlberg, 1984) and social convention (see Turiel, 1983) may also be relevant. It also has been argued that frameworks that include notions of interpersonal care (Gilligan, 1982) and "interdependent cultural views of the self" (Miller & Bersoff, 1992, p. 552) may be necessary to fully explain the moral realm (but see also, Rest et al., 1999a; Narvaez, Getz, Rest, & Thoma, 1999). Thus, future endeavors should include such conceptualizations in addition to the important subcomponents justice identified here.

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## Appendix: Distributive and Procedural Justice Items

*Consistency:* Whether the judge treats all defendants in the same way.

*Bias Suppression/Neutrality:* Whether the judge is unbiased and impartial in making decisions.

*Accuracy:* Whether the judge uses the most accurate information he can get when deciding Heinz's case.

*Correctability:* Whether Heinz has the opportunity to appeal to the judge to change the decision if he feels he is being treated unfairly.

*Representativeness:* Is the judge's behavior suitable to all of the different people or groups who are affected by the decision?

*Ethicality:* Does the judge act in an ethical way when he makes his decision about Heinz?

*Voice/Process Control:* Whether Heinz is allowed to fully explain to the judge his reasons for stealing the drug.

*Standing:* Does the judge show respect for Heinz as a person?

*Trust:* Is the judge trustworthy in the way he makes decisions?

*Decision Control:* Whether Heinz has a direct influence over the final decision made by the judge?

*Equity:* Should the judge's decision match the severity of Heinz's crime?

*Equality:* Would the judge make the same decision for anyone else who might steal the drug?

*Need:* Should the judge's decision be influenced by the fact that Heinz's wife really needs the drug?

*Status:* Should Heinz's position in the community be considered by the judge?

*Ability:* Should the judge's decision be influenced by Heinz's ability to contribute to society?

*Procedural Justice:* Are the rules and procedures used by the judge fair overall?

*Distributive Justice:* Is the judge's final decision fair to Heinz?

*Outcome Favorability:* Is the final decision of the judge favorable to Heinz?