Mapping Perfect and Imperfect Duties Onto Hierarchically and Partially Restrictive Trait Dimensions

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Four experiments tested a proposal that hierarchically and partially restrictive trait dimensions pertaining to morality can be explained by Kant’s distinction between perfect and imperfect duties. Consistent with the proposal, Experiment 1 demonstrated that people change their positive expectancies about others at a faster rate in response to violations of perfect than imperfect duties. In addition, however, Experiment 2 showed that situational factors mitigate the negative trait attributions resulting from violations of imperfect duties more than those resulting from violations of perfect duties. Experiment 3 demonstrated that differences in trait attributions as a result of violations of perfect or imperfect duties are not due to implications of these violations for future behavior. Finally, Experiment 4 further supported the prediction that situational factors mitigate the negative trait attributions caused by violations of imperfect duties more than those caused by violations of perfect duties.

Reeder and Brewer (1979) proposed a distinction between two different kinds of trait dimensions that has proved to be useful to attribution researchers. Partially restrictive (PR) trait dimensions are symmetrical with regard to how easily different trait expectancies are disconfirmed by behavior. For example, if someone believes a target to be friendly, occasional unfriendly behaviors are still tolerated. Similarly, an unfriendly person may be expected to act friendly at times. In contrast, hierarchically restrictive (HR) trait dimensions are asymmetrical with regard to behavior. For example, although it is not surprising for a dishonest person to perform an occasional honest behavior, an honest person is not expected to perform any dishonest behaviors. One dishonest behavior negates the trait expectancy that the target person is honest. Of course, this is an exaggerated description. Recent research (e.g., Rothbart & Park, 1986; Skowronski & Carlston, 1987, 1989) suggests that the HR-PR distinction is a matter of degree rather than an absolute (e.g., it may take two or three dishonest behaviors to disconfirm that the target person is honest, depending on the nature of the behaviors).

Inferences can go not only from traits to behaviors but in the reverse direction as well. However, the most strongly correspondent inferences occur in the presence of behaviors that are inconsistent with traits at the restrictive pole of an HR dimension. For example, the performance of a dishonest behavior strongly indicates that the target person is dishonest (because an honest person would not have done it), but the performance of a friendly, unfriendly, or an honest behavior is less informative (because friendly and unfriendly behaviors can be performed by both friendly or unfriendly people, and honest behaviors can be performed by both honest or dishonest people). We are not arguing that these latter behaviors are totally uninformative, only that they are less likely to lead to a correspondent inference than are dishonest behaviors.

A large number of researchers have obtained findings that are consistent with the distinction. For example, Rothbart and Park (1986) found that participants rated traits such as honesty as being easily disconfirmed. Furthermore, Birnbaum (1973) found that one evaluatively negative deed could override several evaluatively positive deeds. More impressively, Reeder and Coovet (1986) showed that although the performance of a sin-

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gle honest behavior was insufficient to overcome a prior expectation that the target person was dishonest, a single dishonest behavior was sufficient to overcome a prior expectation that the target person was honest.

Trafimow and Schneider (1994) performed more recent research that directly compared HR and PR trait dimensions rather than comparing opposite poles of an HR dimension. Consistent with the distinction, they found that manipulating behavior had a much greater effect on trait attributions when the relevant trait was of the HR than of the PR variety. For example, the performance of an honest or dishonest behavior affected honesty judgments to a greater extent than the performance of a friendly or unfriendly behavior affected friendliness judgments. Furthermore, manipulations of situation information affected trait attributions to a lesser degree when the relevant trait dimension was of the HR than of the PR variety. Note that if PR behaviors are less diagnostic than are HR behaviors (e.g., dishonest behaviors), then this result is precisely that which should have been obtained.

Given that there are HR and PR trait dimensions, several researchers have asserted that trait dimensions pertaining to morality tend to be hierarchically restrictive (see Schneider, 1991, for a review). For example, Reeder and Spores (1988) and McGraw (1985) varied the situational demands for moral and immoral behaviors. They found, consistent with the Trafimow and Schneider (1994) findings, that such demands had more influence on attributions of morality for moral behaviors than for immoral ones. Skowronska and Carlton (1987) showed that negative behaviors are diagnostic for immorality because only immoral people would be expected to perform them. (Remember that moral behaviors are expected to be performed by both moral and immoral people.) Furthermore, two of the four HR trait dimensions used in the Trafimow and Schneider (1994) experiment pertained to morality (i.e., honest-dishonest and loyal-disloyal). More generally, it seems that "there is general implicit agreement that trait dimensions that have a strong morality...component will tend to be hierarchically restrictive" (Trafimow & Schneider, 1994, p. 366) and that "trait-behavior relations along morality dimensions tend to be asymmetric" (Reeder, Pryor, & Wojciszke, 1992, p. 49). Despite such general agreement and the empirical record in support of it, however, there are philosophical reasons for suspecting otherwise. These reasons are reviewed in the following section.

KANT'S DISTINCTION BETWEEN PERFECT AND IMPERFECT DUTIES

Immanuel Kant (1797/1991) developed the construct of the Supreme Moral Law, an ideal that he refers to as the Categorical Imperative. It comprises rules that provide moral guidance and are the product of human reason and free will. Rational people, as opposed to animals, are free to create these moral rules, to develop a consensus about them, and to live by them. The Categorical Imperative is thus universal in two ways: First, it is obligatory to all people at all times, in all communities, and in all situations. Second, it must be acceptable to all rational people to be included in an ideal moral world that Kant called The Kingdom of Ends.

The rules comprising the Categorical Imperative are absolutely never to be disobeyed because their violation reduces rational, moral persons to a status in which they are not free to live in accordance with those rules anymore. These rules that are never to be broken are called perfect duties. They are perfect in the sense that they allow for no exceptions, regardless of circumstances, times, moods, or any other considerations. An example of such a perfect duty is honesty. According to Kant (1797/1991), it is absolutely forbidden for people to lie, even if telling the truth will cause them to suffer or miss out on a chance to gain something. Lying reduces people to the status of a tool. In contrast, imperfect duties are not absolute.

Imperfect duties are, accordingly, only duties of virtue. Fulfillment of them is merit (meritum = +a), but failure to fulfill them is not in itself culpability (demeritum = -a) but rather mere deficiency in moral worth (= 0), unless the subject should make it his principle not to comply with such duties. (Kant, 1797/1991, p. 194)

This means that imperfect duties do not always have to be obeyed, as long as they are sometimes obeyed. We are allowed to make exceptions in favor of other imperfect duties, such as the pursuit of our own well-being. Let us consider the imperfect duty of charity. Suppose that a person passes a beggar who asks for some money. The person knows that being charitable in this instance may interfere with an activity that he or she intended to perform that requires money. According to Kant (1797/1991), it would be permissible not to help the beggar, whereas it would not be permissible to be dishonest regardless of the circumstances. More generally, imperfect duties are flexible and are heavily influenced by situational factors, whereas imperfect duties are not. Some other examples of imperfect duties are "friendliness" and "cooperativeness" (P. Groskery, personal communication, April 1994; Kant, 1797/1991).

PERFECT AND IMPERFECT DUTIES
AND HR AND PR TRAIT DIMENSIONS

Although some people might not accept Kant's (1797/1991) Categorical Imperative as an absolute principle of morality, Kant felt that most would agree that it is more important to perform some duties across a variety
of circumstances (e.g., being honest) than to consistently perform others (e.g., being charitable). In fact, Kant made the stronger assumption that every human being knows what is morally right and what is morally wrong. This assumption about what other people know or believe, which could be true regardless of the philosophical validity of Kant's distinction, brings us into the domain of psychology.

Kant's (1797/1991) distinction between perfect and imperfect duties, which we are now interpreting as a psychological rather than as a philosophical principle, seems to dovetail nicely with Reeder and Brewer's (1979) distinction between HR and PR trait dimensions. Certainly, there is much evidence that violations of perfect duties (e.g., the duty to be honest) lead to strong correspondent inferences (e.g., the person is dishonest). Unfortunately, because most previous research has pertained to perfect duties, it is less clear that violations of imperfect duties lead to relatively weaker correspondent inferences. Nevertheless, this prediction does follow from an interpretation of Kant's distinction as a psychological one, which suggests the following as a general principle: Trait dimensions pertaining to perfect duties are hierarchically restrictive and trait dimensions pertaining to imperfect duties are partially restrictive. Because the existence of HR morality trait dimensions has already been well documented, the three experiments presented here were designed to demonstrate the existence of PR morality trait dimensions as well, but in accordance with Kant's (1797/1991) distinction between perfect and imperfect duties. Later on, some implications of this demonstration for current theories of attribution will be discussed.

EXPERIMENT 1

Experiment 1 was performed as a preliminary test of the notion that although previously studied trait dimensions pertaining to morality have been demonstrated to fall under the HR type (e.g., an honest person can never be dishonest), there are also some that fall under the PR type (e.g., a charitable person does not always have to give money to charity). To demonstrate this, participants were asked to indicate the number of contrary behaviors necessary to change an original impression that a target person has particular traits of concern. The main prediction is that the proposed PR morality traits should be rated as more difficult to disconfirm than an HR morality trait used for control purposes.

Method

PARTICIPANTS

Twenty-six undergraduate psychology students volunteered to participate in the experiment.

SELECTION OF TRAITS

Several traits were selected for use in Experiments 1 through 4 on the basis of examples given in Kant's writings (also P. Croskery, personal communication, April 1994). Being honest was deemed to be a perfect duty, and being charitable, cooperative, or friendly were deemed to be imperfect duties. Consequently, on the basis of the reasoning explained earlier, we hypothesized that honest-dishonest would be an HR trait dimension, whereas charitable-uncharitable, cooperative-uncooperative, and friendly-unfriendly would be PR trait dimensions. Thus, honest was used as a control trait against which charitable, cooperative, and friendly were compared.

To ensure that the selected trait dimensions actually pertain to morality, despite the above reasons and the fact that they have been shown to load on the same factor (Factor II) (Goldberg, 1990), a pilot study was performed. Specifically, participants were told about hypothetical persons who performed one or four honest, charitable, friendly, or cooperative behaviors and were then asked to judge that person's morality on a scale from 0 (not at all moral) to 7 (extremely moral). If the four traits used pertained to morality, then morality judgments should have been greater when four behaviors of a particular type (honest, charitable, friendly, cooperative) were performed than when one was performed. Consistent with expectations, morality ratings were greater when four behaviors were performed than when one behavior was performed (M = 5.09 and M = 4.19), F(1, 45) = 49.03, p < .001. Further comparisons within each trait were also significant (difference scores were .96, .92, .92, and .81 for honest, charitable, friendly, and cooperative, respectively), and the effect of the manipulation on morality judgments was the same (no significant differences) regardless of the trait of concern.

PROCEDURE

Participants were asked four sets of four questions, each set pertaining to a different combination of a positive morality trait and negative behavior(s). The first question was, "Suppose that you have reason to believe that Leslie is honest. How many dishonest behaviors would Leslie have to perform to change your impression?" Second, participants were asked, "Assuming that Leslie performs a dishonest behavior, to what extent do you believe that Leslie owes the victim some compensation?" Indicate how confident you are that Leslie owes the victim compensation by writing a number from 0 (confidence that Leslie does not owe the victim compensation) to 5 (confidence that Leslie does owe the victim compensation)." Third, participants were asked, "Assuming the case above, to what extent do you believe that Leslie owes society compensation?" Participants were instructed
to make a rating similar to that in the second question. Finally, participants were asked, "How severe is Leslie's act? Indicate the severity by writing a number from 0 (not at all severe) to 5 (extremely severe) on the blank." Participants were asked similar questions pertaining to the traits "charitable," "cooperative," and "friendly."

Results

A series of four planned contrasts was performed pitting the HR morality trait (honest) against the three PR traits (friendly, charitable, and cooperative) for each question. Table 1 contains the mean response to each question for each trait. In the text, the mean response to the HR morality trait is compared to the average for the other three. Our main prediction concerned the number of contrary behaviors necessary to disconfirm the trait. Consistent with the prediction, participants indicated that more contrary behaviors were necessary to disconfirm the three PR traits (M = 4.23) than to disconfirm the HR trait (M = 2.19), F (1, 75) = 38.72, p < .001.

We also predicted, on the basis of Kant's (1797/1991) theory, that a person who performed a behavior contrary to an HR trait would be seen as owing the victim and society more than a person who performed a behavior contrary to PR traits. These predictions were confirmed. A target person who performed contrary to PR traits was seen as owing the victim less (M = 2.58) than one who performed contrary to the HR trait (M = 3.69), F(1, 75) = 16.03, p < .001; similar findings were obtained when participants were asked about owing society (M = 1.49 and M = 3.12), F(1, 75) = 9.35, p < .01. Finally, participants also rated the behavior as being less severe when it was contrary to PR traits (M = 2.22) than when it was contrary to the HR trait (M = 2.77), F(1, 75) = 7.22, p < .01.

Discussion

The findings from Experiment 1 provide preliminary support that some morality trait dimensions are partially restrictive (e.g., charitable-uncharitable, cooperative-uncooperative, and friendly-unfriendly). However, several conditions must be fulfilled before such support can be considered strong. First, because participants in Experiment 1 were asked about the relationship between positive traits and negative contrary instances, it is necessary to test the other pole of the morality trait dimensions. Second, participants in Experiment 1 were not presented with specific behaviors in specific contexts. It is possible that our hypothesis is true in the abstract but not when specific cases are considered. Experiment 2 was performed to address these issues.

### Table 1: Mean Scores on Each Dependent Measure as a Function of the Trait of Concern

<table>
<thead>
<tr>
<th>Dependent Measure</th>
<th>Friendly</th>
<th>Charitable</th>
<th>Cooperative</th>
<th>Honest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contrary behaviors</td>
<td>4.35</td>
<td>4.39</td>
<td>3.96</td>
<td>2.19</td>
</tr>
<tr>
<td>Owe victim</td>
<td>3.23</td>
<td>2.12</td>
<td>2.39</td>
<td>3.69</td>
</tr>
<tr>
<td>Owe society</td>
<td>1.42</td>
<td>1.69</td>
<td>1.35</td>
<td>2.12</td>
</tr>
<tr>
<td>Severity</td>
<td>2.50</td>
<td>2.15</td>
<td>2.00</td>
<td>2.77</td>
</tr>
</tbody>
</table>

Our goal in Experiment 2 was to manipulate information about the person, the situation, and the behavior with regard to the four trait dimensions. If friendly-unfriendly, charitable-uncharitable, and cooperative-uncooperative are really partially restrictive trait dimensions, then the behavior manipulation should not affect trait ratings to as great an extent as if these were hierarchically restrictive trait dimensions (e.g., honest-dishonest, which was again used as a control).

Method

**PARTICIPANTS**

Ninety-six undergraduate psychology students volunteered to participate in this experiment.

**DESIGN**

The experiment was a 2 (person) × 2 (situation) × 2 (behavior) × 4 (four different target traits) mixed design. The between-participants factors were person information (stimulus person has a target trait or stimulus person has the opposite trait), situation information (situation demands behavior consistent with a target trait or situation demands behavior consistent with the opposite trait), and behavior (behavior is consistent with a target trait or consistent with the opposite trait).

The four traits used in Experiment 1 comprised the within-participants factor. Each participant received a booklet with four sheets, each representing one of the four traits. All four of the scenarios in each booklet fell within one combination of person-situation-behavior information. Furthermore, the four scenarios within each of these combinations were ordered in a Latin square arrangement.

An example of person information (second paragraph), situation information (third paragraph), and a behavior (fourth paragraph) for the target trait "friendly" would be as follows. (All of the scenarios included an introductory paragraph with the target's name and some inconsequential information about him or her.)

EXPERIMENT 2
Joe Harrison is 30 years old and he is married. He works in a company and has several people working under him. His boss is female. He likes to go to movies and plays sports in his spare time. His favorite sport is volleyball.

The people that know Joe describe him as a(n) (un)friendly person. They say that he generally acts (un)friendly to everyone and performs many (un)friendly behaviors.

Joe’s boss is always present and constantly inspects how well Joe handles his subordinates. If Joe performs well his boss may recommend him for a big promotion. Joe’s boss has made it very clear that she thinks that good leaders are (un)friendly to their subordinates and (do not) fraternize with them. Consequently, Joe knows that if he wants to impress his boss, he should behave in a(n) (un)friendly manner toward his subordinates.

Joe stopped yesterday to talk (didn’t respond yesterday) to his subordinates when they said hello to him in the hall.

Subsequently, participants rated, on a 7-point scale, how much they agreed or disagreed that “(Stimulus person) is a [trait] person.” (The trait is either honest, charitable, cooperative, or friendly, depending on condition.)

PROCEDURE

Participants were involved in groups ranging from 15 to 40. Participants were asked to work through the booklets that were randomly assigned to them. After completing the booklets, they were debriefed.

Results

Before analyzing the data, participants’ responses to the three PR trait dimensions were averaged. These means, and the responses to the HR trait dimension, were then subjected to a 2 (person) × 2 (situation) × 2 (behavior) × 2 (HR or PR) analysis of variance (ANOVA) with repeated measures on the last factor. For ease of exposition, we will use the term target trait to refer to the positive pole of particular trait dimensions (i.e., friendly, charitable, cooperative, and honest). Table 2 contains mean trait attributions for each between-participants cell of the design under each of the four trait dimensions.

Participants made stronger trait attributions when the behavior was consistent with the target trait (M = 4.87) than when the behavior was inconsistent with it (M = 4.05), F(1, 88) = 15.06, p < .001. However, and consistent with expectations, this main effect was qualified by an interaction with the HR-PR factor, F(1, 88) = 7.86, p < .01. For PR trait dimensions, trait attributions were greater when the behavior was consistent than when it was inconsistent with the target trait (M = 4.78 and M = 4.24), but consistent with our hypothesis, this difference was significantly enhanced for the HR trait dimension (M = 4.96 and M = 3.86).

Our proposal also implies an interaction between situation information and the HR-PR factor. Because imperfect duties are highly dependent on the situation, participants would be expected to adjust their trait attributions for PR trait dimensions accordingly. However, in the case of perfect duties, the situation is irrelevant. Thus, trait attributions for the HR trait dimension should not depend on the situation. Consistent with expectations, this interaction was significant, F(1, 88) = 6.92, p < .05. For PR trait dimensions, stronger trait attributions were made when the situation was inconsistent (M = 4.75) than consistent (M = 4.28) with the target trait. In contrast, the situation had no effect on trait attributions pertaining to the HR trait dimension (M = 4.40 and M = 4.42).

Discussion

Two sets of findings supported the hypothesis. First, behavior information had a stronger effect on trait attributions pertaining to HR than to PR trait dimensions. Second, situation information had no effect on trait attributions for the HR trait dimension but had a significant effect on trait attributions for PR trait dimensions.

Although the findings from Experiment 2 strengthen the case for the hypothesis, we were concerned that we may have unintentionally constructed the scenarios in such a way that the behavior manipulation was stronger for the HR trait dimension and the situation manipulation was stronger for the PR trait dimensions. The fact
that each trait dimension was associated with a different scenario leaves open the possibility that the interpretations of the traits, situations, or behaviors were affected by the different scenarios. In addition, one can alternatively explain some of the data by assuming that negative HR behaviors (e.g., dishonest) imply a greater frequency of future repeat performances of that type of behavior than do negative PR behaviors (e.g., uncharitable). Clearly, if a dishonest behavior implies that many more dishonest behaviors will follow, then there is little reason to attribute honesty to a person who performs such a behavior. Because we assume that the effect of negative HR behaviors on trait attributions is more a definitional matter than the result of an implication of such behaviors about frequency, it is desirable to obtain evidence disconfirming the alternative. Experiment 3 was conducted with this aim in mind.

**EXPERIMENT 3**

In Experiment 3, participants were given hypothetical situations involving the four trait dimensions used in Experiments 1 and 2. But unlike Experiment 2, the manipulations were identical for each trait dimension. (To ensure identical manipulations, the stimulus materials were phrased in an abstract manner. Thus, possible confounds from Experiment 2 were eliminated in Experiment 3.) Participants were asked to make dichotomous trait attributions (the participant would either use or not use the trait of concern to describe the target person) and to make estimates of the frequency with which they expected the target person to perform future behaviors consistent with the trait target. In addition, they were asked to write down the reasons for their trait attributions. We felt that we could go a long way toward eliminating the alternative explanation if trait attributions for the HR trait dimension differed from those for the PR dimensions, but there were no differences in frequency estimates. We also hoped that the open-ended questions would shed some light on the cognitions underlying the use of the HR-PR distinction.

**Method**

**Participants**

Twenty-eight undergraduate psychology students volunteered to participate in this experiment.

**Procedure**

Participants read four scenarios pertaining to the four trait dimensions and answered a set of questions after reading each scenario. For example, in the honest-dishonest condition, participants read the following: “Suppose you met a person who was described as honest by his or her coworkers. In fact, the coworkers tell you that they have never seen this person perform a dishonest behavior. However, suppose you saw this person perform a dishonest behavior. If you were to describe this person to someone else, would you use the term honest as part of your description? Write yes or no to answer this question.” Subsequently, participants were asked: “Now that you have answered this question, state the reason for your answer below” and “What would you estimate is the percentage of honest behaviors this person normally performs. That is, if the person performs 100 behaviors that are relevant to an honest-dishonest dimension, how many of them would you guess are honest?” Then participants went on to the next scenario. All of the scenarios were identical with the example presented above, except that the trait dimension of concern was varied. The scenarios were presented in a Latin square order.

**Results**

**Close-Ended Questions**

According to the proposal, we would expect the single behavior to have a greater effect for the HR trait dimension than for the PR trait dimensions. A Fisher’s Exact Test confirmed this prediction. Although .89 of the participants were willing to describe a person who had performed a contrary PR behavior (unfriendly, uncharitable, or uncooperative) as still having the positive trait, only .92 were willing to describe a person who had performed a dishonest behavior as honest (p < .001). However, there was no discernable difference in mean frequency judgments across the two types of trait dimensions (HR = .73 and PR = .73), p > .1.

**Open-Ended Questions**

A blind coder placed the answers to open-ended questions into categories based on research by Trafimow and Schneider (1994). There were four categories of reasons why participants might not have used the trait term (honest, friendly, charitable, or cooperative) as a description of the target person given that a single contrary behavior was performed: (a) By definition, a person who performs a dishonest/unfriendly/uncharitable/uncooperative behavior cannot be described as having the positive trait; (b) the information I get for myself (i.e., the behavior) counts more than what I am told by the person’s coworkers; (c) a dishonest/unfriendly/uncharitable/uncooperative behavior gives me a negative emotional reaction; and (d) because the behavior contradicts what the coworkers think, I have no idea what the person is like, so I would not use the trait term to describe the person.

If it is true that honest people, by definition, cannot perform dishonest behaviors but that friendly, charitable, and cooperative people can, by definition, perform
contrary behaviors, then naysayers should be more likely
to list the first reason for honesty and the second, third,
and fourth reasons for the PR traits. Consistent with
this hypothesis, .55 of the naysayers for honesty listed the first
reason compared with only .15 for the PR traits ($p < .01$).

We also intended to analyze the yessayers open-
ended responses. However, there were too few partici-
pants ($n = 6$) who were yessayers in response to the sce-
nario pertaining to honesty to make analysis worthwhile.

**Discussion**

Two sets of findings contradict a possible hypothesis
that the difference between honesty and the PR morality
traits is simply that behaviors contrary to honest ones
imply a greater frequency of future contrary behaviors
than do behaviors contrary to the PR traits. First,
although HR and PR trait attributions were differentially
affected by a contrary behavior, a contrary behavior did
not result in different frequency estimates. Second,
when only participants whose trait attributions were in
line with the contrary behavior were considered (naysay-
ers), different reasons were listed across the two types of
trait dimensions. In contrast to the PR traits, a large pro-
portion of those who said no in response to a dishonest
behavior indicated that their response was “by
definition.”

**EXPERIMENT 4**

The findings obtained from Experiment 2 indicate
that situational constraints are less important in making
trait attributions from behaviors pertaining to hier-
archically than partially restrictive trait dimensions.
However, it is possible that we inadvertently made the
situational manipulation weaker for the HR trait
dimension than for the PR trait dimension. Conse-
quently, the main goal of Experiment 4 was to test
whether participants would make more correspondent
trait inferences from an HR behavior (e.g., dishonest)
than from PR behaviors (e.g., unfriendly), even when
the situation is one that favors the performance of the
behavior (and is equivalent for both types of behav-
iors). We also were curious to see if the prediction
would hold up under a paradigm in which participants
directly compared the HR and PR trait dimensions.

**Method**

**Participants**

Forty-eight undergraduate psychology students vol-
unteered to participate in this experiment.

**Procedure**


<table>
<thead>
<tr>
<th>Trait</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dishonest</td>
<td>29</td>
<td>4</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Unfriendly</td>
<td>7</td>
<td>16</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>Uncharitable</td>
<td>6</td>
<td>14</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Uncooperative</td>
<td>6</td>
<td>14</td>
<td>17</td>
<td>11</td>
</tr>
</tbody>
</table>

Participants were instructed as follows: Rank each of
the four statements below on how much you agree with
them by writing *first, second, third, or fourth* in each of the
blanks. Use the following scale: first: This is the most true
of the four statements, second: This is the second most
true of the four statements, third: This is the third most
true of the four statements, and fourth: This is the least
true of the four statements.

Then participants were presented with four state-
ments. For example, “Someone who performs $a(n)$ (dis-
honest, unfriendly, uncharitable, uncooperative) behavior
is $a(n)$ (dishonest, unfriendly, uncharitable,
uncooperative) person, even if the situation pressured
the person into performing the behavior.” Each state-
ment pertained to one trait, and the statements were
counterbalanced in a Latin square order.

**Results**

We first analyzed the data with an ANOVA, treating
each response as a repeated measure (the scores were
assigned as follows, first = 1, second = 2, third = 3, and
fourth = 4). Consistent with expectations, participants
were more willing to make a correspondent inference
for the HR trait than for the PR traits ($M = 1.88$ for dis-
honest vs. $M = 2.73$ for friendly, $M = 2.71$ for unchar-
itable, and $M = 2.69$ for uncooperative), $F(3, 141) = 5.48, p <
.001$. Individual $t$ tests indicate that responses to the HR
item were ranked higher than those toward any of the PR
items ($p < .01$ in all cases), and there were no differences
between the PR items ($p > .1$ in all cases).

One problem with the previous analysis is that
responses to items depended, in part, on responses to
other items. Consequently, we also analyzed the data
using nonparametric methods. Table 3 gives the fre-
quency with which each trait received each of the possi-
bile rankings. A chi-square analysis on the $4 \times 4$
ranking table indicates that actual frequencies dif-
fered significantly from what would have been expected
due to chance, $x^2(9) = 49.83, p < .001$. We also per-
formed a more specific test of the hypothesis that the HR item
(dishonest) should receive more first rankings than
would be expected due to chance. Although the HR item
should have received 25% of the first rankings due to chance, it actually received more than 60% (binomial test, p < .001). In sum, regardless of how the data are analyzed, the findings are consistent with the proposed conceptualization.

GENERAL DISCUSSION

Several findings from the four experiments support the proposed conception. First, participants rated the traits “friendly,” “charitable,” and “cooperative” (PR traits) as being significantly more difficult to disconfirm by a contrary behavior than was the trait “honest” (an HR trait). Furthermore, persons who performed behaviors contrary to the positive PR traits were thought to owe the victim and society less, and their behaviors were judged as less severe. Second, when specific, rather than abstract, behaviors and situations were presented in Experiment 2, manipulating behavior had a stronger effect, and manipulating the situation had a weaker effect, on HR than on PR trait attributions. Third, Experiment 3 demonstrated, using closed-ended and open-ended questions, that these results are due to how the trait dimensions are defined rather than to an implication that the contrary behaviors have for the frequency with which they will be performed again in the future. Finally, Experiment 4 indicates that correspondent inferences are made more strongly in response to HR behaviors (e.g., dishonest) than PR behaviors (e.g., unfriendly), even when participants are reminded of situational explanations. More generally, it is now clear that there are PR trait dimensions pertaining to morality and that Kant's (1797/1991) notion of perfect versus imperfect duties provides a useful theoretical framework for understanding the HR-PR distinction.

TESTS OF PERFECT AND IMPERFECT DUTIES

Given that data from four experiments strongly supported our conception that trait dimensions pertaining to perfect duties are hierarchically restrictive and those pertaining to imperfect duties are partially restrictive, it is now possible, on an a priori basis, to specify whether any particular morality trait dimension is of the HR or PR type; all that is necessary is to know whether it corresponds to a perfect or imperfect duty. But how can we know whether a duty is perfect or imperfect? To this end, Kant proposed the Contradiction in Conception Test and the Contradiction in Will Test. Although there is not enough space here for a complete description of these tests, the “flavor” can be obtained from the description below.

A behavior fails the Contradiction in Conception Test if, when it is universalized, there is a contradiction between the behavior and the purpose it was designed to serve (see Korsgaard, 1985, for additional interpretations). For example, suppose someone lies to gain money. Universalizing this implies that everyone lies to gain money. However, if everyone lied to gain money, then nobody would be believed, and lying would fail to achieve its purpose (i.e., gaining money). Thus, universalization results in a contradiction, and the test is failed.

In contrast, suppose someone is uncharitable in order to have more money. Universalizing this implies that everyone is uncharitable to have more money. Note that even if everyone did this, one could still fulfill the purpose of having more money by being uncharitable. Thus, universalization does not result in a contradiction, and the test is passed.

Let us now consider the Contradiction in Will Test. A behavior fails this test if, when it is universalized, other purposes (but not the original one) cannot be achieved. For example, in a world in which everyone was uncharitable, one would not be able to fulfill the purpose of getting help when poor and starving. Thus, being uncharitable fails this test.

We are now ready to state how, on an a priori basis, one can know whether a duty is perfect or imperfect. If a behavior that violates a duty fails the Contradiction in Conception Test, then the duty is a perfect one. If, however, this test is passed, but the Contradiction in Will Test is failed, then the duty is an imperfect one. Of course, whether people's morality attributions actually conform to these rules is a matter for future research to decide.

OTHER PERSPECTIVES

ON TRAIT-BEHAVIOR RELATIONS

There are two other perspectives on trait-behavior relations that have received some attention in the literature; these are scope (Gidron, Koehler, & Tversky, 1993) and cue-diagnosticity (Skowronski & Carlston, 1987, 1989). The scope perspective starts out with the assumption that some types of behaviors are performed more often than others. For example, honest behaviors are performed more often than are dishonest behaviors. Thus, it would be uninformative to define an honest person as one who often performs honest behaviors (after all, this is the norm). Therefore, to attribute honesty to a person, he or she must almost always perform honest behaviors. Similarly, because most people tend not to perform dishonest behaviors (at least not without a reason), it would be silly to require that a person perform many dishonest behaviors to qualify as dishonest (otherwise nobody would be called dishonest). More generally, some traits are exemplified in behavior with a relatively high frequency and others with a relatively low frequency. The attribution of traits to people on the basis of the behaviors they perform takes this into account.

Frequency is also an important concept for the cue-diagnosticity perspective. In brief, Skowronski and Carl-
ston (1987, 1989) argued that some behaviors are more diagnostic for trait attributions than are others, depending on the expected probability of a person performing the behavior, given that a person has or does not have the trait. For example, if a behavior is very unexpected, given that a person has a trait, and it is performed anyway (especially if it is an extreme behavior, see Skowronski & Carlton, 1992), then it is less likely that the person will be thought to possess the trait.

Can our Kant-based conception be replaced by scope or cue-diagnosticity? Although we recognize that scope and cue-diagnosticity are both important perspectives that have contributed substantially to the literature, we believe that the present conception is unique in that it cannot be subsumed under either of these perspectives. To see this, consider our findings that people make different trait attributions upon the presentation of a negative behavior depending on whether it pertains to HR or PR morality dimensions. To explain this, both the scope perspective and the cue-diagnosticity perspective imply that the expected probability of the behavior is different depending on whether it pertains to HR or PR morality dimensions. However, the data from Experiment 3 showed that subjective expected probabilities for behaviors were approximately equal across HR and PR morality dimensions. Furthermore, to be absolutely sure, we asked an independent group of 27 participants to rate the frequency of all eight types of behaviors (e.g., honest, dishonest, charitable, uncharitable, and so on), and there were no significant differences (and what differences there were were in the wrong direction for these theories). In sum, both the scope and cue-diagnosticity perspectives would have to be stretched to provide a satisfactory account of our data.

The failure in Experiment 2 of the situation manipulation to affect HR morality dimensions suggests an additional difficulty for the scope and cue-diagnosticity perspectives. Specifically, the situational manipulation should have affected expected frequencies of honest or dishonest behaviors. (Actually, we made sure by asking a group of participants to rate the expected frequency of dishonest behaviors in each situation used with the honest-dishonest scenario from Experiment 2. Consistent with the above reasoning, participants did expect a much higher frequency of dishonest behaviors in the situation that favored their performance than in the other one, p < .001.) So, if trait attributions depend on expected frequencies of behaviors, and the situation manipulation affected these expected frequencies, then honest-dishonest attributions should also have been affected; but this did not happen.

A third limitation of these perspectives is that they fail to explain why some morality dimensions are considered to be more important than others. Consider that we asked a group of participants how much they would want to know if a person they were about to meet was dishonest, uncharitable, unfriendly, or uncooperative. Neither the scope nor cue-diagnosticity perspective makes a prediction about which trait people would find most important to know about. In contrast, our Kant-based conception clearly predicts that it would be more important to know about a person who fails to perform perfect duties (e.g., a dishonest person) than about a person who fails to perform imperfect duties. In fact, when we questioned a group of 54 participants, 91% thought it was most important to know about a person having the trait “dishonest.”

OTHER PHILOSOPHICAL AND PSYCHOLOGICAL CONSIDERATIONS

It is interesting to speculate on the implications of extreme cases for Kant’s (1797/1991) distinction between perfect and imperfect duties and, by parallel reasoning, for the proposed mapping of perfect and imperfect duties onto HR and PR trait dimensions, respectively. For example, suppose that Susan has accidentally taken poison and Peter just happens to have the antidote in his pocket (it is part of a chemical he needs to put together a model airplane). The charitable thing for Peter to do is give Susan the antidote. Would anyone (even Kant) say that Peter is totally free of blame if he refuses to do so and Susan dies? In other words, is being charitable, in this extreme instance, truly an imperfect duty? Similarly, extending this to trait attributions, wouldn’t an observer refuse to describe Peter as charitable? Clearly there are at least two issues here. First, there is the philosophical issue concerning how extreme a case has to be before an imperfect duty becomes a perfect one. Second, however, there is the psychological issue of how extreme a contrary behavior has to be for an observer to be willing to make a correspondent inference when the relevant trait dimension is partially restrictive. The former issue cannot be settled by experiment, but the latter can.

The implications of extremely mild behaviors for HR trait dimensions also are interesting. For example, suppose Jeff tells a white lie to Sarah at a party that the food particle on her face is not really very disgusting. Does Jeff have a perfect duty to tell the truth in this case and make Sarah feel mortified? Taking this to trait attributions, would Jeff’s white lie really cause an observer to say that Jeff is dishonest? As was true for the other example, the first question is philosophical but the second can be solved by experiment.

Possibly the most interesting characteristic of the HR-PR distinction is that despite the many demonstrations that people generally agree on which trait dimensions fall under each type (e.g., Traimov & Schneider,
1994), it is not clear what the underlying principle is that leads to such convergent intuitions. With regard to trait dimensions pertaining to morality, treating Kant's (1797/1991) Categorical Imperative as an attributional principle seems to work pretty well, but not all trait dimensions pertain to morality. Consider some work by Skowronski and Carlson (1987), who showed that trait dimensions pertaining to ability tend to fall under the HR type. Obviously, Kant's (1797/1991) Categorical Imperative will not be much help here. Intuitively, the reason for the Skowronski and Carlson (1987) findings seems obvious. People with ability can perform well or badly, but people without ability can only perform badly. For example, if someone slam-dunks a basketball, it is clear that he or she had the ability—even if only one slam-dunk was performed. In contrast, neither of the present authors will ever successfully slam-dunk a basketball (unless we use a ladder)—we simply do not have the ability.

But even in the case of abilities, it is not clear that all trait dimensions fall under the HR type (Trafnimow, 1998). Consider free-throw shooting ability. Anyone who can throw a basketball 15 feet will be able to make a free-throw given enough attempts. In addition, even the best free-throw shooter in the National Basketball Association misses occasionally. Consequently, one free-throw, whether it results in a basket or a miss, does not provide much of a clue as to the person's free-throw shooting ability. Thus, whereas slam-dunking ability seems to be an HR trait dimension, free-throw shooting ability seems to be a PR trait dimension.

Given the above discussion, it seems unlikely that attribution researchers will be able to find one general principle that explains why all trait dimensions fall under a particular category (HR or PR). It seems more likely that there are idiosyncratic reasons depending on the domain of concern (e.g., morality or ability). Furthermore, even when the domain of concern is restricted (e.g., to morality), it remains unclear that the same principles that account well for normal cases also account well for extreme cases. Nevertheless, it must be more than a coincidence that variables with implications for Kant's (1797/1991) distinction between perfect and imperfect duties seem to have parallel implications for the attributions people make about HR and PR trait dimensions pertaining to morality.

5. Participants also were asked to make internal and external attributions in an effort to replicate findings obtained by Trafnimow and Schneider (1994) that the attributional question affects the type of information that people consider. Consistent with their findings, we also found that participants tend to use trait information when asked to make internal attributions and situational information when asked to make external attributions. A copy of the stimulus materials can be obtained from the authors.

4. Individual tests indicate that honest behaviors are expected to be performed less frequently than are friendly behaviors (p<.005), or cooperative behaviors (p<.005), but more frequently than charitable behaviors (p<.02). There are no differences between the expected frequencies between dishonest and either unfriendly, uncooperative, or unethical behaviors (p>.1 in all cases).

3. Note that the present perspective deals with this issue quite handily. According to Kant (1797/1991), perfect duties must be performed regardless of situational variables, but the performance of imperfect duties is expected to depend on the situation. Thus, the mapping of perfect duties to hierarchically-restrictive (HR) traits and imperfect duties to partially-restrictive (PR) traits predicts the obtained findings—namely, that manipulating the situation affects PR trait attributions but not HR trait attributions.

6. Another way of conceptualizing this example, however, is to argue that saving a life is a perfect duty because failure to do so results in a loss of the moral potential of that person. If this argument is made, then being charitable (in this example) becomes a perfect duty.

REFERENCES


NOTES

1. We thank Patrick Crooksey for suggesting these traits.

2. To test for the discriminant validity of these four traits, we used a similar paradigm to test them against four traits that we felt were less relevant to morality (intelligent, energetic, practical, and artistic). Consistent with the previous findings, the manipulation had a much greater effect on morality judgments for the hypothesized morality traits than for the other four traits, interaction F(1, 14) = 15.54, p<.01.


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