

## **Differential Weighting in Choice versus Advice: I'll do this, you do that**

LAURA KRAY<sup>1</sup> and RICHARD GONZALEZ<sup>2\*</sup>

<sup>1</sup>*Northwestern University, USA*

<sup>2</sup>*University of Michigan, USA*

### ABSTRACT

We propose that when individuals make a decision for themselves they weight attributes more uniformly compared to when they give advice. In Study 1, 138 participants were given a hypothetical choice between two jobs varying on two dimensions and asked either to choose for themselves, offer advice to a best friend, or offer advice to an acquaintance. We hypothesized that respondents offering advice would favor the option with the higher value on the more important dimension. More participants in the acquaintance condition recommended the job with a higher value on the important dimension than participants making the choice for themselves. Study 2 ( $N = 62$ ) tested the hypothesis in a situation where the options consisted of three dimensions. One option was relatively high on two of the three dimensions and the other option was relatively high on the remaining 'socially important', or 'prominent', dimension. The uniform weighting hypothesis for self-choice predicts higher frequency of choice for the former option. Data were consistent with this prediction. Study 3 ( $N = 170$ ) tested the hypothesis in students' choice of major at the university. We made use of an actual event, a pending university budget cut, that would require some students to change majors. Participants either made the decision for themselves, made a recommendation to a student in their same department, or made a recommendation to a student in another department facing the analogous dilemma. Replicating the findings of the first two studies, participants offering advice to a student in another department suggested staying with their current major significantly more than participants making the choice for themselves. Copyright © 1999 John Wiley & Sons, Ltd.

KEY WORDS attribute weighting; advice giving

Does a stockbroker act according to the recommendations he gives to his clients? Does a physician keep the same healthy life style that she recommends to her patients? Do people follow the same advice they give to a friend? If we believe in the virtue of our recommendation, why would we fail to act in a manner consistent with it? In this paper we examine the difference between what people choose and what they recommend. We propose a mechanism, the distribution of weights attached to decision attributes, as one factor contributing to the difference between self-choice and advice.

---

\* Correspondence to: R. Gonzalez, Department of Psychology, University of Michigan, Ann Arbor, MI 48109, USA. E-mail: gonzoz@umich.edu

There are many reasons why a person would act one way but recommend a different action. Differential levels of effort, information (Fischhoff, 1992), familiarity (Prentice, 1990) and motivation may explain the difference. There may also be strategic concerns or cultural norms in not revealing one's true preference or actions to another person. In this paper, however, we isolate one feature that may contribute to the apparent hypocrisy. We hypothesize that a person making a decision considers more attributes, or dimensions, of the choice objects compared to a person offering advice, who considers fewer attributes. This difference in the number of attributes can be modelled through importance weights assigned to each attribute. The weighting of dimensions hypothesis states that the distribution of importance weights for an option is more uniform when making a choice for oneself than when giving advice, and that in advice-giving some attributes may receive a weight of zero. In the extreme, this produces self-choice behavior that appears to follow a trade-off strategy (i.e. several dimensions are considered) but advice-giving behavior that appears to follow a lexicographic strategy (i.e. one dimension is primary).

Two examples are given to illustrate the weighting of dimensions hypothesis. We assume throughout that decision makers weight the dimensions of each option, that the evaluation of each option can be represented as a weighted sum of the dimensions, and that decision makers choose/recommend the option that yields the highest weighted sum. We will use the terms attributes and dimensions interchangeably, and assume that dimensions are valued in the same way for both self-choice and advice-giving. The two examples below serve to illustrate the notion that when making a decision for oneself (self-choice), one gives nonzero importance weight to more attributes than when giving advice to another person.

When choosing between cars, the buyer may consider the following dimensions: price, gas mileage, leg room, reliability record, and style, to name a few. The individual purchasing the car will want to optimize across all (or most) of these dimensions. Some cars may offer a high value on one dimension but a low value on another dimension. Because the decision maker attaches importance to all of these dimensions, she will be forced to trade off dimensions when making the decision. In contrast, a friend offering advice to the car purchaser may focus primarily on one dimension, say reliability, as the most important dimension (e.g. 'Sure you want to save money but what is most important is reliability. I think car X is the most reliable . . .'). In this case, the advice giver is recommending that one dimension, reliability, be given more weight than the other dimensions.

A more dramatic example is the case of a battered wife. From her perspective, she considers many factors in her choice between staying in the relationship and leaving the relationship. She may have economical, emotional, and familial considerations, in addition to her concerns about personal safety. Because these factors are important to her, she will weigh most of these factors in her decision. In contrast, an observer making a recommendation may favor the dimension of personal safety more than any other concern. Even when an observer is made aware of the complexity of the decision, safety remains the most important consideration influencing the advice. Indeed, most people who are not in an abusive relationship do not understand why an abused person would continue to remain in that relationship. The abused individual, however, may waver between staying in the relationship and leaving (see Walker, 1979, for a more detailed analysis). Furby, Fischhoff, and Morgan (1991) observed an analogous perspective difference in perceptions of strategies designed to reduce the risk of sexual assault. Whereas advice givers (men and sexual assault experts) emphasized the importance of personal safety and reduced risk, women also gave weight to the costs of taking preventative action.

#### EMPIRICAL DEMONSTRATIONS OF THE WEIGHTING OF DIMENSIONS HYPOTHESIS

The first order of business is to present data showing that advice and choice differ. Study 1 presented a hypothetical choice between two jobs that varied on salary and job satisfaction. The decision problem

was to choose between a job that had high salary but offered low job satisfaction and a job that had low salary but offered relatively high job satisfaction. In this hypothetical scenario, the difference in salary was roughly matched with the difference in satisfaction. A decision maker who gives equal weight to both attributes will appear indifferent (or exhibit high conflict) between the two jobs because the difference in salary is offset by the difference in satisfaction. However, under the assumptions of the weighted sum model made above, a decision maker who assigns greater weight to one dimension over the other will prefer the job with the higher value on that dimension. Thus, the prediction is that, in the advice-giving condition, participants will favor one job over another, but in the self-choice condition, participants will be closer to a choice proportion of 0.50. Stated another way, we predict that participants giving advice will see a clear winner between the two jobs but participants making a choice for themselves will find merits in both options.

### Study 1: Two-attribute job choice scenario

The respondents were undergraduate Psychology students (University of Washington) who participated in return for course credit. They were asked to read a scenario describing a career choice and to select a job. The study incorporated three conditions: self-choice, recommendation to a best friend, and recommendation to an acquaintance. We included two advice-giving conditions, best friend and acquaintance, because there may be psychologically distinct processes that are invoked in having people think about a concrete person as opposed to a person in the abstract. This reasoning is consistent with Fischhoff's (1992) distinction between personalized advice and general advice. If the relationship between the advice giver and recipient matters, then we would expect the result in the best-friend condition to shed light on the underlying process. For instance, if the self-choice and advice to a best-friend conditions yield a similar pattern to each other that differs from the result in the acquaintance condition, then an alternative explanation involving differences in motivation and effort could be invoked (e.g. 'thinks harder' about the problem for self and best friend than when giving advice to an acquaintance).

Participants in the self-choice condition saw the following scenario ( $N = 47$ ):

Imagine that you have recently graduated from college. You must decide which of two career paths to pursue. The main problem is that you have taken courses throughout college in preparation for Job A, but that this course of study was mainly determined by pressure from parents and friends. Job B's appeal comes from a long-held interest in this non-traditional profession.

The main difference between Job A and Job B is that A practically guarantees wealth and prestige, while B offers a greater chance for self-fulfillment. Although the initial struggle to attain success will be gruelling, the monetary payoff will be substantial in the long run. In contrast, your expected earnings in Job B are on the more modest scale. Job B is one in which you foresee a profound freedom to discover yourself, and to benefit humanity. While many people in Job A also claim a sense of self-fulfillment, it is not as appealing to your lifestyle.

If you were asked to decide between pursuing Job A and Job B which job would be preferable?

Participants in the 'best-friend' condition read the same scenario, except that they were asked to 'Imagine that your best friend has recently graduated from college ( $N = 46$ )'. The scenario was framed in terms of the respondent's best friend. The respondent was asked to recommend one job to the best friend. The third group of respondents received a version of the scenario where the decision was framed in terms of a recent acquaintance — 'Imagine that you have just met someone who has recently graduated from college' ( $N = 45$ ). In this condition, the respondent was asked to recommend one job to the acquaintance.

Participants were also asked to rate how important salary and personal satisfaction were in their choices/recommendations. These importance ratings were presented as nine-point scales ranging from not at all important (1) to extremely important (9).

For this decision task, the weighting of dimensions hypothesis predicts that respondents in the two advice conditions will have a clear preference for one job over another, whereas respondents in the self-choice condition will have a choice proportion closer to 50%. The weighting of dimensions hypothesis does not predict which job will be chosen more frequently in the advice conditions. However, to the degree there is a social norm suggesting that one dimension is more important, we suggest that the advice giver will recommend the job having the higher value on the socially important dimension (see Tversky, Sattath and Slovic, 1988, for a similar argument in the context of the prominence hypothesis). We suspected a norm among college students to attach greater importance to job satisfaction. Data examining this conjecture are presented below.

### *Results*

In the self-choice condition 66% of the respondents chose Job B, the option higher on the personal satisfaction dimension. In the best-friend condition 82.6% of the respondents recommended Job B, and in the acquaintance condition 88.9% of the respondents recommended Job B. Contrasting self-choice respondents with respondents in the acquaintance condition, self-respondents chose Job B significantly less than acquaintance respondents recommended Job B ( $Z = -2.75, p < 0.05$ ), using the separate variance test for proportions. Respondents in the best-friend condition did not differ from the two other groups using the (1, -2, 1) contrast,  $Z = -0.74$ , n.s. (see Abelson, 1996, for the rationale behind these contrast weights). The proportion in the best friend condition fell between the proportions of the two other groups.

The pattern for the importance ratings suggests that the satisfaction dimension was judged as more important ( $M = 8.0$ ) than the salary dimension ( $M = 6.3$ ),  $F(1, 132) = 7.65, p < 0.006$ . This finding supports our intuition that job satisfaction would be viewed as the more important dimension by the majority of respondents. Of course, this main effect interacted with the job the participant selected. Participants who selected job B (the modal choice) assigned greater importance to satisfaction ( $M = 8.3$ ) than to salary ( $M = 7.0$ ), and participants who selected job A assigned greater importance to salary ( $M = 8.0$ ) than to satisfaction ( $M = 5.9$ ),  $F(1, 132) = 71.01, p < 0.0001$ . This result serves as a check that self-choice and recommendation were consistent with the job having the higher value on the dimension judged more important. These inferential tests were performed using a mixed ANOVA with importance rating (salary and satisfaction) as a within-subjects factor, and perspective (self, best friend, and acquaintance) and job (A or B) as between-subjects factors.

The weighting of dimensions hypothesis predicts that the difference between the two importance ratings will be greater in advice than in self-choice. This prediction is based on the notion that in the self-choice condition both dimensions will receive nonzero weight. However, for advice one dimension will receive greater weight. The prediction can be examined through the three-way interaction between the job factor, the within-subject importance rating, and the (2, -1, -1) contrast to the perspective factor (self, best friend, and acquaintance conditions, respectively). The dimension with the higher value in the direction of the chosen/recommended job is referred to as the compatible dimension (i.e. salary is the compatible dimension for respondents who chose/recommended Job A and satisfaction is the compatible dimension for respondents who chose/recommended Job B). The other dimension is referred to as the incompatible dimension (e.g. salary is the incompatible dimension for respondents who chose/recommended Job B). The mean difference between compatible and incompatible dimensions for participants in the self-choice condition was  $M = 1.3$ , and  $M = 2.0$  for participants in the two recommendation conditions,  $F(1, 132) = 5.40, p = 0.07$ , marginally significant. Our

interpretation is that the discrepancy between the two importance ratings (adjusted for which job was chosen by the participant) tended to be smaller in the self-choice condition than in the two recommendation conditions. Examination of the cell means suggests the reason the difference score is smaller in the self-choice condition is that respondents assigned a higher importance rating to the incompatible dimension compared to those making recommendations to friends and acquaintances ( $M$ 's 6.8, 6.1 and 6.1, respectively). All three conditions had identical importance ratings for the compatible dimension ( $M = 8.1$ ). No other main effects or interactions (not even with the orthogonal 0, 1,  $-1$  contrast on perspective) were observed in the three-way ANOVA.

### Discussion

The choice results of Study 1 are consistent with the weighting of dimensions hypothesis. We found support for the prediction that respondents asked to recommend a job favor one option relative to self-choice respondents. Note that the proportions represent the proportion of participants in an experimental condition and not the within-subject choice proportion.

An alternative explanation is that all respondents chose the option that had the highest value on the most important dimension. However, the experimental manipulation simply changed the focus of which dimension was treated as the most important. Perhaps in the recommendation conditions, respondents selected the socially important dimension (which we take to be job satisfaction), but in the self-choice condition they selected the dimension they personally valued.

The three-way interaction contrast reported above provides evidence against this alternative explanation. We observed that the discrepancy between the two importance ratings was smaller in the self-choice condition, and that those respondents gave more weight to the incompatible dimension than respondents in the two recommendation conditions. We interpret the pattern of importance ratings to be consistent with the suggested model that one dimension becomes primary in advice giving (note that it is the lower-valued dimension that changes weight across perspective levels). Wills and Moore (1996) found similar evidence for the differential weighting of attributes in the context of medical decision making.

We acknowledge that the use of importance ratings in the decision making literature has been controversial. Goldstein and Beattie (1991) review the literature and discuss situations where importance ratings may be useful.

### Study 2: Testing the weighting hypothesis with three dimensions

As noted by Goldstein and Busemeyer (1992) it is necessary to have more than two dimensions to distinguish alternative weighting models. This section presents another test of the weighting hypothesis. This second test creates a situation where near uniform weighting would lead to a clear 'winning' option whereas weighting the prominent dimension would lead to choice probabilities near 0.5, thus reversing the pattern observed in the previous study.

This reversal was accomplished by moving to a decision task having three dimensions with a particular pattern.<sup>1</sup> We extended the job scenario used in the first study to include a 'job location' dimension. The following sentence was added to the end of the job scenario: 'Another difference between the jobs is that Job A is in an agreeable location, whereas Job B is not located in one of your [your friend's] favorite places.' This created a decision between Job A (relatively high on salary, relatively low on satisfaction, and relatively high on the location dimension) and Job B (relatively low on salary, relatively high on satisfaction, and relatively low on location). Thus, participants giving

<sup>1</sup> We thank an anonymous reviewer for this suggestion.

weight to all dimensions would tend to select Job A because it has relatively high values on two of the three dimensions, whereas participants giving primary weight to the anticipated job satisfaction dimension would pick A less often because B is superior on the satisfaction dimension (but is low on the other two dimensions).

All other procedural details were identical to Study 1 except that only two perspective conditions were tested — self-choice and friend–advice. The opening paragraph for the friend–advice condition was

Imagine that you have been approached by a friend who is about to graduate from Kellogg. This friend has just recently interviewed for two jobs, and both organizations made your friend an offer. You have been asked to give your friend advice regarding the choice between them.

The analogous phrasing was used in the self-choice condition. Participants were MBA students at the Kellogg Graduate School of Management and received course credit for their participation in this study.

Twenty-two out of 28 participants (79%) in the self-choice condition selected Job A, the job higher on salary, whereas eighteen out of 34 participants (53%) in the friend–advice condition selected Job A,  $Z = 2.22$ ,  $p = 0.026$ . This pattern is consistent with the weighting of dimensions hypothesis and helps rule out an alternative explanation for the previous study that claims people making self choices are more uncertain (hence group proportions near 0.50) than advice givers. Here, we created a situation where the advice condition is near 0.50.

Participants rated the importance of each of the three dimensions (satisfaction, salary, and job location) on seven-point scales. The ratings were analyzed with a mixed ANOVA with choice (Job A or Job B) and condition (self-choice or friend–advice) as between-subjects conditions, and importance rating as a within-subjects factor. The two main effects and interaction between the between-subjects factors did not reach statistical significance ( $F < 1$ ). For the within-subjects part of the design we examined three pairwise contrasts (i.e. 1, -1, 0; 0, 1, -1; and 1, 0, -1) and tested for significance as well as interactions with the between-subjects factors. The only tests to reach statistical significance were the (1, -1, 0) contrast ( $F(1, 58) = 14.02$ ,  $p < 0.001$ ) and its interaction with the between-subjects choice factor ( $F(1, 58) = 18.55$ ,  $p < 0.001$ ). The mean importance rating for job satisfaction among participants who picked Job A was 5.37 but the mean was 6.53 for participants who picked Job B. Similarly, the importance rating for salary among participants who picked Job A was 5.48 but the mean was 4.83 for participants who picked Job B. This parallels the observation in Study 1. No other effects reached statistical levels of significance.

### **Study 3: Selecting a major**

In the third study we used a decision situation more meaningful than the hypothetical scenario of the previous two studies. We capitalized on an issue of concern to undergraduates at the University of Washington campus. Faced with the task of cutting the university's operating budget, the administration considered the elimination of several academic departments. This budget proposal, along with a list of departments on the chopping block, was widely publicized and hotly debated on campus. Undergraduates interested in majoring in a department slated to be cut were concerned that the elimination would negatively impact their college career. The goal of Study 3 was to replicate the findings of Study 1 in a more meaningful context.

*Method*

Two hundred and seventy-two participants were selected on the basis of their enrollment in lower division courses in the targeted departments at the University of Washington. This population was chosen because the students had not yet declared a major, and therefore faced a unique dilemma: their university careers were essentially 'frozen' because they could not declare a major until the dispute was resolved. The university report outlining proposed department eliminations was tentative, so students considering a major within these departments were faced with the choice between pursuing the entry courses for the current major or switching to another major.

We sampled respondents from three departments slated to be eliminated: Communications, Speech Communication, and Slavic Languages. Among the participants, we looked for individuals who indicated that they were considering a major within the department. This was necessary because we wanted to study only those students who would be significantly affected by a department's elimination. We were left with 170 participants considering a major in one of the departments slated for elimination.

Participants were instructed that their task was to determine the best course of action with respect to declaring a major. They were also given a list of arguments that were obtained by interviewing academic advisors within the targeted departments. An informal questioning of these academic advisors led to the six dimensions used in this study. In addition to choosing between two options, participants rated the difficulty of their decision and their strength of preference on 7-point Likert-type scales.

Participants in the self-choice condition ( $N = 55$ ) read the following description:

We are interested in assessing how you, as a student enrolled in an introductory class in the Slavic Language Department [Communications/Speech Communication], think about the proposed budget cuts. If it is determined that the department will be eliminated, you may have to make a decision. Your task is to choose which course of action you foresee yourself taking. Below are listed several reasons to continue pursuing a Slavic Languages [Communications/Speech Communication] degree versus reasons to change to a different major.

## REASONS TO CHANGE MAJOR

HASSLE: Less hassle by not dealing with troubled department

SATISFACTION: It's possible to be just as happy in another major

IMPORTANCE: Majors are not very important in determining jobs for many people

EDUCATION: Courses will suffer with angered professors and graduate students

PROTEST: Any attempts to protest to the university would be unsuccessful

QUALITY OF DEGREE: A degree from a nonexistent school within the university is diminished

OTHER: (write in)

## REASONS TO KEEP MAJOR

HASSLE: Undergraduates not really affected by decisions

SATISFACTION: Should stay with most satisfying major to one's education

IMPORTANCE: A major within one's field is beneficial to getting a job

EDUCATION: Professors and graduate students will work harder to uphold School

PROTEST: Students need to protest these actions of the university by persisting

QUALITY OF DEGREE: Prestige of university is more important than the department's status

OTHER: (write in)

Based on the preceding reasons, and any others you may think of yourself, what do you foresee yourself doing?

CHANGE MAJOR

PURSUE MAJOR

A second condition ( $N = 50$ ) asked the participant to make a recommendation to another student considering the same major as the participant. We call this condition the same major condition. A third condition, the different major condition, ( $N = 65$ ) asked the participant to make a recommendation to a student considering a major in another department also slated for elimination. For instance, a participant considering a major in Communications was asked to make a recommendation to a student considering a major in Slavic Languages.

### *Results and discussion*

The primary dependent measure was choice. In the self-choice condition, 76.4% of the 55 subjects chose to continue pursuing their major within the targeted department. When offering advice to another person within one's class, 82.0% of the 50 subjects indicated continuing to pursue one's major was the preferable alternative. When offering advice to a more remote student in another department targeted for elimination, 95.4% of the 65 subjects believed continuing to pursue one's original major plans was preferable to switching majors. The comparison between the self and different department conditions was statistically significant,  $Z = 3.02$ ,  $p = 0.003$ . This replicated the pattern between self-choice and advice in Study 1. The same department condition did not differ from the other two conditions,  $Z = 0.62$  as tested with the 1, -2, 1 contrast.

The difficulty ratings suggests that decisions were perceived as more difficult when taking a self-choice perspective than an advice perspective. The reported difficulty in the self-choice condition ( $M = 3.2$ ) differed from the different department condition ( $M = 2.4$ ),  $t(157) = 2.05$ ,  $p = 0.029$ , tested with the (1, 0, -1) contrast. As with the choice proportions, the mean for the same department condition ( $M = 2.7$ ) did not differ significantly from the other two conditions,  $t(157) = 0.39$ . There were no statistically significant differences in strength of preferences across the three conditions ( $M$ 's of 4.9, 4.9, and 5.2 for the self, same department and different department conditions, respectively), omnibus  $F < 1$ .

## GENERAL DISCUSSION

The intuition that motivated this research was that perspective influences choice and advice, as in the battered wife scenario mentioned in the introduction. To the advice-giver, the decision typically seems easy and one dimension appears to be judged as important, but the decision situation itself may not be easy (and several dimensions appear important, or worthy of attention) to the person charged with making the decision. These studies support this hypothesis.

We suggested a framework for thinking about such perspective differences — a change in the weighting of dimensions. The notion is that in advice-giving one dimension receives relatively more weight, but in self-choice weights are distributed relatively uniformly. Study 2 tested a consequence of this framework where two out of three dimensions were relatively high for one option but one out of three dimensions was relatively high for the other option. The data supported the reversal relative to Study 1 predicted by the weighting of dimensions hypothesis.

One possible mechanism for the differential weighting could be the salience of the dimensions. More dimensions are salient for the self than for an observer. This explanation, which is consistent with the weighting of dimensions hypothesis, appears in other domains where actor-observer differences have been found (Fiske and Taylor, 1991). Actor-observer differences are now receiving more attention in the judgment and decision-making literature. For example, Harvey, Koehler and Ayton (1997) found that actors differed from observers in their degree of overconfidence. Hsee and Weber (1997) examined how well the risk preferences of a decision maker can be predicted by another person. While not



directly relevant to the concerns of the present studies (it is difficult for overconfidence to explain the pattern across our three studies and the present studies involve multiattribute choice rather than decision making under risk, respectively), the growing interest in actor–observer effects suggests that attempts toward a more general theoretical framework, one that borrows from other areas such as social psychology, may be fruitful.

In addition, self-choice and advice also differed in perceived difficulty, as observed in Study 3. The decision of someone else is perceived as easier than one's own decision. We suggest that the perceived difficulty result follows, in part, from the greater complexity of assigning weight to more dimensions in the case of self-choice.

Our focus on dimension weights is consistent with existing models of preference reversals and strength of preference (e.g. Tversky, Sattath and Slovic, 1988; Yamagishi and Miyamoto, 1996; see Wills and Moore, 1996, for a related review). Recent work on liking judgments by Levine, Halberstadt and Goldstone (1996) suggests that attribute weights become more variable (i.e. some attributes receive different weights than others) when reasoning processes are invoked. Respondents assigned to a condition where they explained the liking judgment exhibited greater variability in weights relative to respondents who merely provided a liking judgment without an explanation. This finding is consistent with the present findings if one interprets the process of giving advice as providing an explanation. However, Levine *et al.* also observed that participants who were not asked to offer reasons showed a tendency to weight one dimension as more important, a finding that is inconsistent with those presented here, again under the assumption that giving advice is analogous to giving reasons.

A competing model to the weighting of dimensions idea is the notion of a change in value. In the car purchasing example mentioned in the introduction, maybe the meaning, or value, assigned to reliability changes when one is in an advice-giving mode as compared to the case when making a choice for oneself. A self perspective may evoke one meaning of reliability (e.g. a breakdown in the first year of ownership) whereas an advice perspective may evoke a different meaning (e.g. general, long-term maintenance, easy to start on cold mornings, etc.). In other words, reliability may mean one thing when a respondent is thinking about her own purchase and another thing when she gives advice. This effect could occur independently from the weighting of dimensions. Reliability takes on a more general meaning in the latter case, and advice may be more influenced by such a dimension. Note that perspective differences in the interpretation of a dimension are intradimensional differences whereas the weighting of dimensions explanation is interdimensional.

The ratings of importance observed in the present studies suggest that dimension weights are implicated, so alternative explanations also need to account for the observed pattern of these ratings. Note that the present studies cannot distinguish whether the weights implied by the importance ratings produced the decision/recommendation or were used to justify the decision/recommendation.

The present results may be cast in a more general framework by relating them to the notion of 'mind set' (Gollwitzer and Kinney, 1989). Gollwitzer and colleagues have suggested that prior to making a decision people adopt a 'deliberative' mind set to seek and evaluate information, but people adopt an 'implemental' mind set after making a decision. The notion of mind set may provide a useful way to interpret the present findings. Perhaps the act of giving advice places one in an implemental mind set (e.g. 'This is what you should do because X is the most important dimension'), whereas self-choice places one in a deliberative mind set (e.g. 'This is all the information I should consider in order to make a decision'). That is, the process of making a choice is deliberative by nature, so many dimensions will be considered and evaluated (for a related issue see Bazerman, Tenbrunsel and Wade-Benzoni, 1998). In contrast, advice-giving may be closer to an implemental strategy because it is a suggestion about what *should* be done. This account, which is compatible with the weighting of dimensions hypothesis, may offer an explanation for the shift in importance weights and suggests possible manipulations that can be undertaken in subsequent research.

Two applications of the present work are proposed. Recent research suggests that there may be an individual difference in the degree to which people exhibit concern for others in organizational contexts (Korsgaard, Meglino and Lester, 1996). The studies presented here may suggest ways of extending the individual difference approach to include a model about change in weights. Perhaps there is an individual difference in the ability to 'place oneself in another's shoes', i.e. by giving more weight to the 'incompatible' dimension. As the work of Korsgaard *et al.* suggests, such individual differences may have important implications for organizations.

A second application of the present findings is in the domain of negotiation. Negotiation sometimes involves a third party acting on behalf of a constituent, and this party may invoke an advice-giving perspective when negotiating for another person. Previous research has demonstrated that observers to a negotiation exhibit different preferences than actual negotiators (Thompson, 1995). We speculate that advice may facilitate the attainment of integrative agreements through a prioritization of issues. It is important to consider the extent to which a representative accurately conveys her constituent's true preferences, rather than the preferences she perceives through her outsider perspective (see Wills and Moore, 1996). When acting as an adviser to another person about a negotiation, an individual may be inclined to place the majority of emphasis on one dimension. However, the person making the decision may care about more dimensions and may fail to appreciate the advice. Indeed, this may be the general lesson from the present findings. One reason for misunderstood advice may be that both the giver and recipient fail to account for perspective differences.

#### ACKNOWLEDGEMENTS

This research was partially supported by a grant from the National Science Foundation (Gonzalez). We thank John Darley, Dale Griffin, Rick Larrick, Bertram Malle, Terry Mitchell, John Miyamoto, Kimi Yamagishi, and Mark Zanna for their thoughts, helpful suggestions, and advice.

#### REFERENCES

- Abelson, R. P. 'Vulnerability of contrast tests to simpler interpretations: An addendum to Rosnow and Rosenthal', *Psychological Science*, **7** (1996), 242–246.
- Bazerman, M. H., Tenbrunsel, A. E. and Wade-Benzoni, K. 'Negotiating with yourself and losing: Making decisions with competing internal preferences', *Academy of Management Review*, **23** (1998), 225–241.
- Fischhoff, B. 'Giving advice: Decision theory perspectives on sexual assault', *American Psychologist*, **47** (1992), 577–588.
- Fiske, S. T. and Taylor, S. E. *Social Cognition*, 2nd edn, New York: McGraw-Hill, 1991.
- Furby, L., Fischhoff, B. and Morgan, M. 'Rape prevention and self-defense: At what price?', *Women's Studies International Forum*, **14** (1991), 49–62.
- Goldstein, W. M. and Beattie, J. 'Judgments of relative importance in decision making: The importance of interpretation and the interpretation of importance', in Brown, D. R. and Smith, J. E. K. (eds), *Frontiers of Mathematical Psychology: Essays in Honor of Clyde Coombs* (116–138), New York: Springer-Verlag, 1991.
- Goldstein, W. M. and Busemeyer, J. 'The effect of "irrelevant" variables on decision making: Criterion shifts in preference choice?', *Organizational Behavior and Human Decision Processes*, **52** (1992), 425–545.
- Gollwitzer, P. M. and Kinney, R. F. 'Effects of deliberative and implemental mind-sets on illusion of control', *Journal of Personality and Social Psychology*, **56** (1989), 531–542.
- Harvey, N., Koehler, D. and Ayton, P. 'Judgment of decision effectiveness: Actor–observer differences in overconfidence', *Organizational Behavior and Human Decision Processes*, **70** (1997), 267–282.
- Hsee, C. K. and Weber, E. U. 'A fundamental prediction error: Self–other discrepancies in risk preferences', *Journal of Experimental Psychology: General*, **126** (1997), 45–53.

- Korsgaard, M. A., Meglino, B. M. and Lester, S. W. 'The effect of other-oriented values on decision making: A test of propositions of a theory of concern for others in organizations', *Organizational Behavior and Human Decision Processes*, **68** (1996), 234–245.
- Levine, G. M., Halberstadt, J. B. and Goldstone, R. L. 'Reasoning and the weighting of attributes in attitude judgments', *Journal of Personality and Social Psychology*, **70** (1996), 230–240.
- Prentice, D. A. 'Familiarity and differences in self- and other-representations', *Journal of Personality and Social Psychology*, **59** (1990), 369–383.
- Thompson, L. L. 'They saw a negotiation: Partisanship and involvement', *Journal of Personality and Social Psychology*, **68** (1995), 839–853.
- Tversky, A., Sattath, S. and Slovic, P. 'Contingent weighting in judgment and choice', *Psychological Review*, **95** (1988), 371–384.
- Walker, L. *The Battered Wife*, New York: Harper & Row, 1979.
- Wills, C. E. and Moore, C. F. 'Perspective-taking judgments of medication acceptance: Inferences from relative importance about the impact and combination of information', *Organizational Behavior and Human Decision Processes*, **66** (1996), 251–267.
- Yamagishi, K. and Miyamoto, J. 'Asymmetries in strength of preference: A focus shift model of valence effects in difference judgments', *Journal of Experimental Psychology: Learning, Memory & Cognition*, **22** (1996), 493–509.

*Authors' biographies:*

**Laura Kray** received her PhD from the University of Washington and is currently at Northwestern University in a postdoctoral position. She specializes in self–other differences in decision making, negotiation, and procedural fairness.

**Richard Gonzalez** received his PhD from Stanford University and is currently at the University of Michigan. He specializes in decision making, social psychology, and mathematical modelling.

*Authors' addresses:*

**Laura Kray**, Kellogg Graduate School of Management, Northwestern University, Evanston, IL 60208, USA.

**Richard Gonzalez**, Department of Psychology, University of Michigan, Ann Arbor, MI 48109, USA.