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Desirability or Feasibility: Self-Other Decision-Making Differences

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Abstract

Making decisions for the self and providing advice to others are common in daily life. The current research examines the differences in weight that people attach to desirability and feasibility when deciding for themselves versus others. Based on construal level theory, we propose that in a decision-making process, individuals who decide for others tend to focus more on desirability than on feasibility compared with those who decide for themselves. Across five experiments, the predicted self–other differences were observed in preference in the decision stage (Experiments Ia and Ib), information seeking in the predecision stage (Experiment 2), and information recall in the postdecision stage (Experiments 3a and 3b). These findings show that decision behaviors are determined by the decision target (i.e., for whom such decisions are made).

Keywords

self-other decision making, desirability, feasibility, construal level theory, decision process

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Last summer vacation, the first author of this article asked her friend whether she should travel to City A for vacation. A transcript of their conversation follows.

Friend: Does it have a great view?

- Author: Oh yes, the scenery is awesome, but the trip will be costly.
- Friend: Well, if it is for your vacation, then that is the place to go!
- Author: How come? Actually, I do not want to go there.
- Friend: Why not? You just told me it has a great view.
- Author: The budget issue remains my biggest concern.

Obviously, the two individuals held opposing views. In daily life, people encounter situations where they decide either for themselves or on another's behalf. For example, people may choose a product for themselves or as a gift to their friends. Similarly, individual investors may create their own stock portfolios or invest their free money in mutual funds, whereas consultants make such investment decisions on behalf of clients. Unfortunately, decisions made for the self and on behalf of others are often not the same. Hence, we examine specific ways in which decisions for the self differ from decisions for others, and the reasons for such differences.

In the story above, differences emerged in at least three respects: (a) preference (i.e., the friend recommended going, whereas the author intended not to go), (b) information seeking (i.e., the friend inquired about the scenery, whereas the author focused on costs), and (c) information recall (i.e., the friend recalled information about the view, whereas the author stuck to costs). We attempt to interpret these differences based on construal level theory (CLT; Liberman & Trope, 1998, 2008; Trope & Liberman, 2003, 2010).

Desirability Versus Feasibility: What Is the Focus in Decision Making?

When considering an action, people focus on either *desirability* or *feasibility*. The former refers to the value of an event's end state, that is, whether an action by itself is of great value; the latter refers to the means of achieving that end state, that is, whether conducting the action is easy (Liberman & Trope, 1998; Trope & Liberman, 2010). In the opening story, scenery contributes to the desirability of travel, whereas cost largely determines feasibility. Desirability and feasibility are orthogonal such that events with both high desirability and high feasibility [HDHF] are most desirable but not always available. Conflicting choices (those with high desirability but low feasibility [HDLF] or low desirability but high

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feasibility [LDHF]) are more commonly seen, thus requiring decision makers to strike a balance. The following questions then arise: In what situations do people give more weight to desirability? To feasibility?

Two assumptions of CLT are crucial in answering these questions. According to CLT, desirability is an abstract feature, reflecting high-level mental construal. By contrast, feasibility is concrete, reflecting low-level mental construal (Liberman & Trope, 1998; Trope & Liberman, 2010). In addition, the level of construal is determined by psychological distance. When conducting psychologically distant actions, high-level construals are activated and abstract information is emphasized. However, low-level construals are formed and concrete information is emphasized for those that are psychologically close (Trope & Liberman, 2003, 2010). Based on these assumptions, a plausible reasoning is that psychological distance is a crucial determinant of whether the focus is on desirability or feasibility. Specifically, as psychological distance increases, people rely more on desirabilityrelated factors and less on feasibility-related ones.

Many studies have confirmed such reasoning (Fujita, Eyal, Chaiken, Trope, & Liberman, 2008; Liviatan, Trope, & Liberman, 2008; Todorov, Goren, & Trope, 2007; Trope & Liberman, 2000). For example, in a groundbreaking CLT study by Liberman and Trope (1998), various decision scenarios (e.g., installing a word processor) were described with a time frame of either "tomorrow" (psychologically close) or "a year from now" (psychologically distant). Results showed that as psychological distance increased, the influence of desirability (e.g., quality of the processor) strengthened, whereas the influence of feasibility (e.g., time to begin using the word processor) weakened. As psychological distance serves as an antecedent of desirability/feasibility considerations, we are curious as to whether the differences in self–other decision making in the opening story can be attributed to such.

Psychological Distance: How Far Apart Between Self and Other?

Why does a decision made for the self differ from one made for others when an individual is presented with identical decision opportunities? The only variable here is the *deci*sion target (i.e., whether the decision is made for oneself or for others). We consider self-other as an important dimension of psychological distance. Theoretically, social psychologists pointed out that "the distinctions between self and other . . . may be considered as instances of social distance" (Liberman, Trope, & Stephan, 2007, p. 357). Social distance, in turn, is a reflection of psychological distance (Bar-Anan, Liberman, & Trope, 2006; Liviatan et al., 2008; Trope & Liberman, 2010; Trope, Liberman, & Wakslak, 2007). Empirically, prior studies indicated that psychological distance could be conceptualized by decision target. For instance, Polman and Emich (2011) found that decisions for others versus for the self were more creative and that such effect could be attributed to the psychological distance between others and the self. In addition, a more recent study by Polman (2012) evidenced a choice overload effect for self decision makers, whereas a reverse effect was found for those who made decisions for others. Again, psychological distance between the self and others was responsible for the self–other difference. Following this logic, when an individual perceives the self, psychological distance is zero. However, perceiving another person is a more distant event. Although others are not all equally distant from ourselves (e.g., a friend is closer than a stranger in most cases), they are always psychologically farther away from us than ourselves from an egocentric perspective.

Two relations have been clarified thus far: The first concerns psychological distance and desirability/feasibility considerations, and the second concerns self-other and psychological distance. Considering both, our general hypothesis is that in a decision-making process, *advisors* who give advice or make decisions for others tend to focus more on desirability and less on feasibility compared with self decision makers who decide for themselves. The research by Kray and Gonzalez (1999, Study 1) provided initial evidence for our hypothesis. Participants were asked to choose a job for themselves, for a best friend, or for an acquaintance. They were confronted with two alternatives: Job A offering a higher salary but a lower chance for self-fulfillment and Job B with a lower salary but a higher chance for self-fulfillment. For the majority of people seeking employment, monetary compensation represents feasibility, whereas personal satisfaction represents desirability. Consequently, consistent with our general hypothesis, a higher percentage of self decision makers chose Job A, one of high feasibility, compared with those who made a decision for a best friend or an acquaintance.

Decision Process: How Are Decisions Determined by Decision Target?

Most decision-making studies under CLT have focused only on preferences. However, both pre- and postdecision behaviors are of great significance in decision research (Svenson, 1996); hence, focus should be on the differences between choosing for self and for others in various stages—before, during, and after making a decision. Information seeking, preference, and information recall are typical behaviors in the predecision, decision, and postdecision stages, respectively. Thus, our research explores whether such behaviors typical in these three stages would be dependent on the decision target.

Decision making heavily depends on information processing (Bettman, Luce, & Payne, 1998). Bounded rationality causes people to neglect a huge amount of information and to focus on a small portion rather than all of it (Simon, 1955). Thus, we assume that such focus, in turn, would affect performance in a decision-making process. Drawing on our general hypothesis that advising others, compared with deciding for self, strengthens focus on desirability but inhibits focus on feasibility, we reason that in the decision stage, desirability dominates among advisors whereas feasibility dominates among self decision makers. With regard to information seeking, focus largely determines the types of information sought (Henderson, Hennessy, Barrett, Martin, & Fishbein, 2006; Liviatan et al., 2008). For instance, focusing on unpleasant aspects of an event leads to a high possibility of seeking information that supports these aspects (Shani, Igou, & Zeelenberg, 2009). Thus, in the predecision stage, advisors search for more desirability-related and less feasibility-related information compared with self decision makers. With regard to information recall, more attention and greater focus are factors known to enhance memory (Chun & Turk-Browne, 2007; Wyer, Perfect, & Pahl, 2010). As a typical example, in a study by Russell and D'Hollosy (1992), participants were required to remember objects in one of two colors. Next, an unexpected recall test asked them to reproduce objects of both colors. As a result, most objects correctly reproduced were the ones that the participants had focused on. Therefore, in the postdecision stage, advisors recall more desirability-related and less feasibilityrelated information compared with self decision makers.

Overview of Experiments

The present research aimed to investigate how people weighed desirability and feasibility differently when deciding for themselves or advising others in the decision (Experiments 1a and 1b), predecision (Experiment 2), and postdecision (Experiments 3a and 3b) stages. We designed our experiments to reflect real-world scenarios, with desirability and feasibility manipulated in various ways across experiments. In Experiments 1a and 1b, we investigated how self-other decision making differed in terms of preference. According to CLT, decision target should lead to different focuses on desirability and feasibility, which influenced participants' preferences. In Experiment 2, we examined whether decision target would affect information-seeking behaviors. The hypothesis was that compared with self decision makers, advisors would search for more desirabilityrelated and less feasibility-related information. Last, we designed Experiments 3a and 3b to test information recall. It was assumed that self decision makers and advisors would recall different types of information according to CLT. In short, we expected to find self-other differences in the three stages of the decision-making process.

Experiment la

Participants were required to choose a meal coupon either for themselves or for an average student. In this case, the quality of the restaurant and the food represented desirability, whereas the transporting and waiting times represented feasibility. Participants were offered two conflicting options: one with HDLF and another with opposite features (LDHF). We hypothesized that advisors, compared with self decision makers, would be attracted more by the HDLF option but less by the LDHF one.

Method

Participants and design. Fifty-three students (29 female, 24 male) at Peking University were randomly assigned to conditions in a 2 (decision target: self or other) \times 2 (choice: HDLF or LDHF) mixed design with decision target as a between-participants factor and with choice as a within-participants factor.

Procedure and materials. On the cover of the materials, participants were told that the research was designed to examine their daily decision-making habits. Afterward, they read the scenario description and completed all measures. Finally, participants were thanked and debriefed.

The description of the decision scenario is presented below. The order of choices was counterbalanced across participants.

Imagine you (S, an average student) own(s) 24 points that can be used to exchange for free-meal coupons from various restaurants. After browsing through all available options, you have (S has) narrowed your (his/her) choices to Coupon A and Coupon B.

Coupon A. You have (S has) known the restaurant for a long time and like(s) it very much. The food there is rather delicious, but the restaurant is far from your (S's) place that getting there takes two hours. As the restaurant is highly popular, being seated and placing an order usually takes more than an hour.

Coupon B. You have (S has) never heard of the restaurant before and are (is) not sure whether you (he/she) would like it or not. The food seems okay. The restaurant is quite close to your (S's) place, within a walking distance of five minutes. Additionally, the restaurant is not very popular; thus, being seated and placing an order does not take long.

Measures

Willingness to pay (WTP). Participants were told that they (S) could allocate 24 points between Coupon A and Coupon B. They indicated how many points they would (S should) pay for Coupons A and B, respectively.

Decision. Participants were encouraged to choose one coupon that they would like to (S should) exchange for, assuming both coupons were worth equal points.

Importance. Participants rated the importance of (a) the quality of food and the restaurant and (b) the transportation and waiting times on a 9-point scale (1 = very unimportant, 9 = very important) in making the decision.



Figure 1. WTP (left panel) and importance (right panel) as a function of decision target and choice in Experiment 1a Note: WTP = willingness to pay; HDLF = high desirability but low feasibility; LDHF = low desirability but high feasibility.

Control variables. Participants indicated their perceived difficulties of the tasks, efforts exerted in performing the tasks, perceived responsibility of decision outcomes, confidence in decisions made, monthly consumption, and demographic information (i.e., gender and age).

Manipulation checks. Regarding desirability, participants rated how much they (S) liked each restaurant and the food in each restaurant, respectively, on a 9-point scale (1 = do not like at all, 9 = like very much). Regarding feasibility, participants rated how long they (S) would have to travel to get to each restaurant and how long they (S) would have to wait to be seated, respectively, on a 9-point scale (1 = not long at all, 9 = very long).

Results

Manipulation checks and control variables. Participants rated the HDLF coupon as more favorable than the LDHF coupon in terms of desirability: in rating the restaurant, $M_{\text{HDLF}} = 7.36$, $SD_{\text{HDLF}} = 1.61$, $M_{\text{LDHF}} = 4.91$, $SD_{\text{LDHF}} = 1.20$, F(1, 104) = 79.44, p < .001; in rating the food, $M_{\text{HDLF}} = 7.40$, $SD_{\text{HDLF}} = 1.60$, $M_{\text{LDHF}} = 4.53$, $SD_{\text{LDHF}} = 1.51$, F(1, 104) = 89.99, p < .001. In addition, they rated the LDHF coupon more favorably than the HDLF coupon in terms of feasibility: for transportation, $M_{\text{HDLF}} = 8.02$, $SD_{\text{HDLF}} = 1.47$, $M_{\text{LDHF}} = 1.94$, $SD_{\text{LDHF}} = 1.42$, F(1, 104) = 467.05, p < .001; for waiting time, $M_{\text{HDLF}} = 7.53$, $SD_{\text{HDLF}} = 1.49$, $M_{\text{LDHF}} = 1.92$, $SD_{\text{LDHF}} = 1.25$, F(1, 104) = 439.52, p < .001. These results revealed the successful manipulation of desirability and feasibility. Furthermore, participants in the *self* and *other* conditions did not differ in all control variables (ps > .15); thus, they can be reasonably excluded from subsequent analysis.

WTP. The WTP data were submitted to a 2 × 2 × 2 mixeddesign ANOVA, with decision target, choice, and order as independent variables. Results revealed no order effects, *ps* > .05. Therefore, order was removed from the analysis. A 2 × 2 mixed-design ANOVA yielded a significant interaction between decision target and choice, F(1, 51) = 10.87, *p* < .01, $\eta^2 = .18$ (see the left panel of Figure 1), indicating that psychological distance increased the attractiveness of the HDLF option but reduced that of the LDHF. Specifically, compared with self decision makers, advisors tended to pay more for the HDLF option, $M_{\text{self}} = 7.12$, $SD_{\text{self}} = 4.99$, $M_{\text{other}} = 10.85$, $SD_{\text{other}} = 6.12$, F(1, 51) = 5.91, p < .05, but less for the LDHF one, $M_{\text{self}} = 13.00$, $SD_{\text{self}} = 6.11$, $M_{\text{other}} = 8.37$, $SD_{\text{other}} = 4.63$, F(1, 51) = 9.72, p < .01. All other effects were insignificant, ps > .15.

Decision. A chi-square test demonstrated a significant effect of decision target on choice, $\chi^2(1, N = 53) = 14.91, p < .001$. Among the participants who chose the HDLF coupon, 3 (15.0%) were self decision makers and 17 (85.0%) were advisors. By contrast, among those who chose the LDHF coupon, 23 (69.7%) were self decision makers and 10 (30.3%) were advisors. Thus, advising others increased the likelihood of choosing the HDLF option, $\chi^2(1, N = 20) = 9.80, p < .01$, but reduced the likelihood of choosing the LDHF option, $\chi^2(1, N = 20) = 9.80, p < .01$, but reduced the likelihood of choosing the LDHF option, $\chi^2(1, N = 33) = 5.12, p < .05$.

Importance. Similarly, the data on importance were submitted to a 2 × 2 × 2 mixed-design ANOVA, with decision target, choice, and order as independent variables. Order was excluded as no order effects were detected, ps > .10. To our interest, a 2 × 2 mixed-design ANOVA yielded a significant interaction between decision target and choice, F(1, 51) = 6.91, p < .05, $\eta^2 = .12$ (see the right panel in Figure 1). Compared with self decision makers, advisors placed more emphasis on quality, $M_{self} = 5.85$, $SD_{self} = 1.59$, $M_{other} = 6.63$, $SD_{other} = 1.67$, F(1, 51) = 3.06, p = .086, and less weight on time, $M_{self} = 7.46$, $SD_{self} = 1.88$, $M_{other} = 6.04$, $SD_{other} = 2.26$, F(1, 51) = 6.19, p < .05.

Discussion

The findings suggested that unlike self decision makers, advisors preferred choices that were high on desirability versus feasibility. Such self-other differences were attributable to psychological distance (Liviatan et al., 2008; Trope & Liberman, 2003, 2010). This psychological distance helped explain the author's concerns regarding traveling costs and her friend's emphasis on scenery in the story presented earlier.

Although the results of Experiment 1a confirmed our hypothesis, two major limitations remained. First, a comparison of decisions for oneself (a specific person) with those for an average student (an abstract other) made it difficult to distinguish whether the obtained differences were caused by decision target or by target specificity. A relevant concern was that hypotheticality per se is a dimension of psychological distance (Sagristano, Trope, & Liberman, 2002; Wakslak, Trope, Liberman, & Alony, 2006). Thus, a hypothetical other might be more distant from oneself than an identified other, causing self-other differences to be likely restricted in the artificial scenarios. Moreover, as the study was based on an artificially designed scenario, it may lack external validity despite our efforts to simulate real-world situations. In fact, the difference between real-world and simulated decisions may be quite large. To eliminate the above possibilities, Experiment 1b was conducted to ask participants to make actual decisions that would have real consequences, either for themselves or for the specific others-their friends. Current findings were expected to apply equally to Experiment 1b.

Experiment Ib

Experiment 1b was designed to replicate the results in Experiment 1a and to increase external validity by asking participants to make real decisions for themselves or their friends rather than for the unknown average others. In an educational institution, various studies in the field of psychology, economy, or business frequently invite voluntary participants. A number of students at Peking University have experienced attending or inviting friends to join such studies. In most cases, they decide which study to join based on desirability and feasibility. Thus, in Experiment 1b, students who had completed such a study were invited to register for another study in the coming weekend. They were offered two conflicting choices as in Experiment 1a, an HDLF option and an LDHF option. They were then asked to decide which study to attend either for themselves or for their friends. In this case, the attractiveness of the study represented desirability, whereas the time involved in reaching the laboratory represented feasibility.

Method

Participants and design. Participants consisted of 44 students (31 female, 13 male) at Peking University. They were randomly assigned to conditions in a 2 (decision target: self or other) \times 2 (choice: HDLF or LDHF) mixed design with decision target as a between-participants factor and with choice as a within-participants factor.

Procedure and materials. Upon entering the laboratory, participants were greeted and instructed to finish some unrelated tasks for 30 min. Then, the experimenter announced that the study was over and paid them 10 RMB (renminbi) for their participation. Immediately after, the experimenter added in a very natural way,

In cooperating with the Institute of Psychology, Chinese Academy of Sciences, we are going to hold two more studies in the upcoming weekend. We need a lot of participants. So we encourage you to participate in one of them if you are interested.

Meanwhile, the experimenter showed the participants a poster with descriptions of the two studies. After reading the poster carefully, interested participants in the *self* condition were encouraged to write down their names in an application form and decide which one to attend. In the other condition, participants were instructed: "Would you please invite one of your friends to participate and decide for him/her which study to attend." To ensure that they made decisions for a specific other, they were asked to write down their friend's name and then choose on behalf of their friend which study to attend. After the decisions were made, we disclosed that the activity was still part of the research that day and that we were aiming to investigate how they chose for themselves or for friends. One participant was excluded from our analysis due to a self-reported expectation of the latter activity being part of the research, which influenced her decision. The rest of the participants fully believed that they or their friend should join their chosen study.

The poster is presented below. The order of choices was counterbalanced. Moreover, time duration and payoff were held constant in the two studies.

Study A. You will be asked to finish some decisionmaking tasks and fill out a personality questionnaire. The study, which will be held in Peking University, will last an hour. You will receive a compensation of 30 RMB.

Study B. You will be asked to finish some decisionmaking tasks about romantic relationships and fill out a personality questionnaire. After completing the survey, results on how you actually behave in a romantic relationship will be presented, along with personalized tips on how to act more attractively. The study, which will be held at the Institute of Psychology, Chinese Academy of Sciences, will last an hour. Traveling by bus from Peking University takes 20 minutes. You will receive a compensation of 30 RMB.

Results

A participant in the *other* condition refused to invite her friend. Therefore, she was excluded from the statistical analysis.

Gender and order had no effects on decisions, ps > .10. Importantly, consistent with our hypothesis, decisions were determined by the decision target, $\chi^2(1, N = 42) = 10.33$, p < 1000 .01. Among the participants who chose the HDLF option, 2 were self decision makers and 11 were advisors. However, among those who chose the LDHF option, 20 were self decision makers and 9 were advisors. The results of the chi-square tests demonstrated that advising others increased the likelihood of choosing the HDLF option, $\chi^2(1, N = 13) = 6.23$, p < .05, but reduced the likelihood of choosing the LDHF option, $\chi^2(1, N = 29) = 4.17$, p < .05.

Discussion

Experiment 1b provided more convincing evidence that decisions for the self systematically differed from decisions for others and that psychological distance between self and other accounted for such differences. On the one hand, after controlling for target specificity, with both the self and the friend as specific targets, our predicted self–other differences were consistently observed. Hence, the "target specificity possibility" was eliminated. On the other hand, self–other differences were found in a more realistic setting in which participants believed that their decisions would have real consequences. Therefore, we demonstrated a solid effect of the decision target on the weight of desirability/feasibility considerations.

Despite a relatively higher external validity, some confounding variables existed in such a setting. For example, decisions might be influenced by how familiar decision makers were with their friends or whether their friends were currently in a romantic relationship. To ensure strict control, we adopted laboratory settings in the following experiments, in which participants imagined making a decision either for themselves or for an average student.

So far, the present research has shown that decision target would influence preference in the decision stage. However, its effect on behavior in the predecision stage has yet to be determined. Experiment 2 was designed to investigate whether information seeking, a typical behavior in the predecision stage, would be affected by decision target as well.

Experiment 2

In this experiment, we aimed to examine whether decision target would influence information seeking in the predecision stage. Participants were asked to imagine a scenario in which they had to select a course for themselves or for an average student at their university. Both desirability-related and feasibility-related information were provided. We predicted that advisors would seek more desirability-related but less feasibility-related information relative to self decision makers.

Method

Participants and design. Fifty-six undergraduates (29 female, 26 male, and 1 unreported) who were enrolled in Organizational Psychology at Peking University participated in the experiment as a part of a course requirement. They were randomly assigned to conditions in a 2 (decision target: self or other) \times 2 (information type: desirability or feasibility) mixed design with decision target as a between-participants factor and with information type as a within-participants factor.

Procedure and materials. After reading the scenario description, participants answered the questions on interest (on the first page), information seeking (on the second page), and control variable measures. Finally, they finished the manipulation checks on a separate page.

A description of the decision scenario is presented below.

Imagine that today is the start of a new semester, and you are (S, an average undergraduate at Peking University, is) enlisting in an elective course. Several options are available, and you are unsure which course to choose (S is not sure which course to choose and asks for your advice). To help you fully understand these options, we are providing you information based on ten criteria.

The participants were presented with the criteria, five of which were desirability related (i.e., compatibility with your interests, clarity of lectures, how interesting the course is, depth of course materials, and practical usefulness) and the remaining five were feasibility related (i.e., passing rate, task difficulties, test difficulties, time convenience, and location convenience)¹ according to previous research (Liviatan et al., 2008). Brief definitions of the 10 criteria were also provided (e.g., "Practical usefulness refers to whether the materials covered in the course can be applied to future studies, career, or to the daily lives of students."). All criteria were presented in two random orders.

Measures

Interest. Participants indicated their (S's) interest in receiving information about each criteria on a 9-point scale (1 = not interested at all, 9 = very interested).

Information seeking. Participants chose 5 of the 10 given criteria that they would (S should) most like to receive further information about.

Control variables. Participants indicated their familiarity with the decision scenario, difficulties in imagining the scenario, difficulties in choosing, and demographic information (i.e., gender, age, and grade).

Manipulation checks. After completing all measures, participants wrote down the prospective enrollees to an elective course on a separate page.

Results

Manipulation checks. Two participants were excluded from the following analysis because they failed in the manipulation checks.



Figure 2. Interest as a function of decision target and information type in Experiment 2

Control variables. Participants in *self* and *other* conditions did not differ in terms of control variables (ps > .05) besides familiarity, F(1, 52) = 4.45, p < .05. In addition, no order effects were observed, ps > .20. Therefore, only familiarity was considered as a covariate in the subsequent analysis.

Interest. We calculated the average interest ratings of desirability and feasibility for each participant. A 2 (decision target: self or other) \times 2 (information type: desirability or feasibility) mixed-design ANCOVA with familiarity as a covariate yielded a main effect for information type, F(1, 51) = 4.20, p < .05, $\eta^2 = .08$, indicating that students were generally more interested in desirability-related (M = 7.11, SD = 0.97) than in feasibility-related information (M = 5.64, SD = 1.32) when selecting a course. Furthermore, as illustrated in Figure 2, a significant interaction between decision target and information type confirmed our hypothesis, F(1, 51) = 6.27, p < .05, $\eta^2 = .11$. Compared with self decision makers (M = 6.07, SD = 1.39), advisors (M = 5.31, SD = 1.19) were less interested in feasibilityrelated information, F(1, 52) = 4.69, p < .05, demonstrating that deciding for others (vs. the self) led to less emphasis on feasibility. No other effects were significant, ps > .20.

Information seeking. We calculated the number of desirability and feasibility criteria chosen by each participant. Five participants chose more or less than the designated five; thus, they were excluded from the following analysis. Consequently, the percentage of feasibility-related information chosen was higher for self decision makers (M = 45%, SD = 22%) than for advisors (M = 31%, SD = 18%), F(1, 47) = 5.53, p < .05. Opposite outcomes were found for desirability-related information.

Discussion

The findings of Experiment 2 indicated that informationseeking behaviors in the predecision stage were also influenced by decision target. As a result of different psychological distances, advisors focused more on desirability and less on feasibility compared with self decision makers. Hence, the former were inclined to search for more desirability-related and less feasibility-related information. Based on these results, the reason that the author's friend inquired information about scenery whereas the author emphasized traveling costs in the story presented earlier was straightforward.

We have shown that decision target influenced information seeking in the predecision stage. The next question then follows: Would postdecision behavior also be affected by decision target? Experiments 3a and 3b were conducted to determine the answer.

Experiment 3a

Experiment 3a was designed to test whether decision target would influence information recall in the postdecision stage. For this experiment, we used the traveling scenario presented in the beginning of this article. Participants imagined deciding on whether to travel abroad to an attractive destination, that is, City A, either for themselves or for an average student. Both desirability-related and feasibility-related information were provided. After making decisions, participants were asked to recall the information they had just browsed through. The hypothesis was that advisors would recall more desirability-related but less feasibility-related information compared with self decision makers.

Method

Participants and design. Forty-one participants (28 female, 13 male) at Peking University took part in the experiment. Participants who received 5 RMB were randomly assigned to conditions in a 2 (decision target: self or other) \times 2 (information type: desirability or feasibility) mixed design with decision target as a between-participants factor and with information type as a within-participants factor.

Procedure and materials. Upon arriving at the laboratory, participants were greeted and seated in front of computers. The initial screen informed participants that they were to consider a traveling destination for themselves or for S, an average student at their university, and that they would be given some information about City A. Their tasks were to read all the information thoroughly and then decide whether they would choose City A as their holiday destination. Next, participants read 10 pieces of information and made choices. After doing a 3-min irrelevant filler task, which was designed to prevent covert rehearsal and potential ceiling effect, participants completed an unexpected recall task, in which they were encouraged to write down as much information they had read as possible.

The description of the decision scenario is presented below.

Imagine that a seven-day-vacation is approaching. You want (S wants) to travel abroad and obtain(s) information about City A.



Figure 3. Pieces of recalled information as a function of decision target and information type in Experiments 3a (left panel) and 3b (right panel)

Among the 10 pieces of information, 5 were desirability related (i.e., scenery, exotic culture, leisure, horizon, and cuisine) and the remaining 5 were feasibility related (i.e., costs, safety, climate, transportation, and time).² Eight pieces of information (4 desirability related and 4 feasibility related) were positive (e.g., "There are 41 museums in City A, which can broaden your horizon and advance knowledge") and the other 2 were neutral (e.g., "Ten days are preferred for a thorough travel, but only seven days are available"). Descriptions for both desirability-related and feasibility-related information were approximately 110 words in length. Ten pieces of information were presented in two random orders.

Measures

Willingness. Participants decided whether they were (S should be) willing to go to City A.

Information recall. Participants were encouraged to recall as much information they had read as possible. The recall session lasted 5 min.

Results

Willingness. All participants decided to travel to City A, $\chi^2(1, N = 41) = 41.00, p < .001$, indicating that City A in this experiment was considered attractive.

Information recall. All recalled information was coded by two independent and trained judges who were unaware of the experimental hypothesis. They classified each piece of information into one of the following three categories: desirability-related, feasibility-related, and incorrect information. Interjudge consistency was .95 (252 of 266 pieces of information were placed in the same categories by both judges). Discrepancies were resolved by a third judge.

For correctly recalled information, a 2 (decision target: self or other) × 2 (information type: desirability or feasibility) mixed-design ANOVA yielded a main effect for information type, F(1, 39) = 10.56, p < .01, $\eta^2 = .21$, indicating that in general, people tended to recall more feasibilityrelated information (M = 3.24, SD = 0.94) than desirabilityrelated information (M = 2.49, SD = 1.17). Of our great interest, a significant interaction was observed (see the left panel in Figure 3), F(1, 39) = 5.64, p < .05, $\eta^2 = .13$. Compared with self decision makers, advisors recalled more desirability-related information, $M_{self} = 2.19$, SD = 0.98, $M_{other} = 2.80$, $SD_{other} = 1.28$, F(1, 39) = 2.94, p = .09, and less feasibility-related information, $M_{self} = 3.48$, $SD_{self} = 0.87$, $M_{other} = 3.00$, $SD_{other} = 0.97$, F(1, 39) = 2.73, p = .10. This result confirmed our hypothesis, demonstrating that when playing an advisory role, decision makers gave more weight to desirability-related information and less to feasibility-related information. No order effects emerged, ps > .10.

Discussion

The findings demonstrated that postdecision behaviors were also influenced by decision target. More specifically, relative to self decision makers, advisors recalled more desirability-related but less feasibility-related information in the postdecision stage. Psychological distance accounted for these effects. In the current experiment, compared with making decisions for a psychologically close person (e.g., self), choosing for a psychologically distant person (e.g., other) led to greater focus on desirability rather than on feasibility, which further contributed to differences in the recall process.

However, the destination in Experiment 3a was highly attractive. That a less attractive destination would yield similar results is uncertain. Experiment 3b was conducted to answer this question.

Experiment 3b

Experiment 3b was carried out to replicate the findings of Experiment 3a. The decision scenario involved deciding whether to travel to a less attractive destination.

Method

Participants and design. Forty-two participants (22 female, 20 male) at Peking University took part in the experiment. The data of one participant were lost because of computer problems. The design was similar to that in Experiment 3a.

Procedure and materials. Procedure and materials were identical to those of Experiment 3a but with two minor exceptions. First, eight pieces of information were negative (e.g., "According to weather forecast, there will be plenty of precipitation in City A, and the average temperature will be 35°F"), and the other two were neutral (e.g., "Traveling to City A will not cost you a lot. In fact, it may only be 91.6% of your initial budget"). Second, information was presented in only one random order because no order effects were observed in Experiment 3a.

Measures

Willingness. Identical to those in Experiment 3a. Information recall. Identical to those in Experiment 3a.

Results

Willingness. All but two participants decided not to travel to City A, $\chi^2(1, N=41) = 33.39$, p < .001, indicating that City A was unattractive.

Information recall. All information recalled was coded as in Experiment 3a. Interjudge consistency was .95 (276 of 292 pieces of information were placed in the same categories by both judges). For information recalled correctly, a 2 (decision target: self or other) \times 2 (information type: desirability or feasibility) mixed-design ANOVA yielded a marginal main effect for information type, F(1, 39) = 3.49, p = .069, $\eta^2 = .08$, indicating that people tended to recall more feasibility-related (M = 3.32, SD = 0.82) than desirability-related information (M = 3.02, SD = 1.17). In addition, we observed a significant interaction between decision target and information type (see the right panel in Figure 3), $F(1, 39) = 8.96, p < .01, \eta^2 = .19$. Specifically, advisors (M = 3.47, SD = 0.91) recalled more desirability-related information than self decision makers did (M = 2.64, SD = 1.26), F(1, 39) = 5.83, p < .05, showing that the advisory role led to greater focus on desirability. No other effects were significant, ps > .1.

Discussion

This experiment replicated the findings of Experiment 3a. Postdecision information recall was determined by decision target, regardless of how attractive an option was. Thus, in the opening story, the author's main concerns regarding costs and her friend's interest in information about the scenery were not surprising.

General Discussion

Self-other difference is one of the most heatedly discussed topics in social psychology. Previous studies have confirmed such differences in attribution (Jones & Nisbett, 1972), prediction (Hsee & Weber, 1997), perception (Pronin, 2008), and so on. Research in self-other decision making has been developing recently. For example, psychologists discussed whether a decision made for others was riskier (Beisswanger, Stone, Hupp, & Allgaier, 2003; Fernandez-Duque & Wifall, 2007; Pollai & Kirchler, 2012; Stone & Allgaier, 2008; Stone, Yates, & Caruthers, 2002; Wray & Stone, 2005), more creative (Polman & Emich, 2011), and more overloaded (Polman, 2012) than that for oneself. However, most studies focused primarily on behaviors in the decision stage. We illustrated self-other differences in weighing desirability and feasibility, and interpreted such differences based on CLT across the decision-making process. Therefore, these findings are a useful supplement to the topic of self-other differences and a beneficial attempt in studying self-other decision-making processes.

In line with CLT, we proposed that compared with people deciding for themselves, those who decided on another person's behalf would give more weight to desirability than to feasibility, thus leading to different performances in three stages of the decision process. Five experiments consistently supported our hypothesis. Experiments 1a and 1b demonstrated that in the decision stage, advisors (vs. self decision makers) preferred high desirability alternatives to high feasibility ones. Experiment 2 showed that such self–other differences existed in the predecision stage as well. Finally, Experiments 3a and 3b revealed that in the postdecision stage, the advisory role drove decision makers to recall more desirability-related rather than feasibility-related information. Generally speaking, the predicted self–other differences existed in the predecision, and postdecision stages.

Self–Other Decision-Making Differences

Several streams of research in self-other decision-making differences are related to our findings. First, research in multiattribute decision making demonstrated that when deciding for another, people tended to focus only on prominent attributes. However, in making choices for the self, people used a uniform weighing schema, focusing on both important and less important attributes (Kray, 2000; Kray & Gonzalez, 1999). From the CLT perspective, we treat prominent attributes as desirability considerations. That is, compared with self decision makers, advisors give more weight to desirability attributes but less to other attributes such as feasibility.

Moreover, a majority of studies on risky decision making found that advisors were more risk seeking than self decision makers (Beisswanger et al., 2003; Pollai & Kirchler, 2012; Stone & Allgaier, 2008; Wray & Stone, 2005; for opposite views, see Fernandez-Duque & Wifall, 2007; Stone et al., 2002). Our research provides reasonable explanations for such results. Risks are composed of (subjective) utility and probability. (Subjective) Utility can be treated as desirability because it determines the end state of a risky event. By contrast, probability can be viewed as feasibility, which determines the ease of attaining the end state (Sagristano et al., 2002). Therefore, deciding for others (vs. self) leads to more emphasis on utility than on probability, resulting in riskier decisions.

Nevertheless, some may argue that information differences are responsible for differences in self-other decision making because people rely more on introspections when perceiving themselves versus others (Pronin, 2008). However, we should not overlook the fact that in most cases, people have a more profound understanding of both what they themselves desire (desirability) and care about (feasibility) versus those of others. Therefore, emphasizing either desirability or feasibility is not directly a result of information differences.

A Comprehensive Understanding of Decision Making

In the early 1980s, Zeleny (1982) summarized two approaches in studying decision making: the outcome-oriented approach and the process-oriented approach. The former approach refers to the view that decision making can be understood by its outcome, and the latter approach, by the process. Although a few cases advocated and practiced the "before-during-after" approach (Johnson, 1993; Svenson, 1996; Zeleny, 1982), most studies adopted the former one, similar to studies in self-other decision making. Fortunately, a few scholars have started paying attention to the stages before and after the decision. For instance, Jonas and her colleagues illustrated self-other decision-making differences regarding biased information search in the predecision stage (Jonas & Frey, 2003; Jonas, Schulz-Hardt, & Frey, 2005). Similarly, Polman (2010) found that deciding for the self and others caused different information distortion in both pre- and postdecision stages.

From our point of view, a combination of the two approaches is more preferable in achieving a comprehensive understanding of decision making. Hence, we designed our research from the perspective of the decision-making process, studying both pre- and postdecision behaviors in addition to preferences. Given different contextual factors and resource capacity, decision makers can only attend to some information in the course of making a decision (Payne, Bettman, Coupey, & Johnson, 1992), leading to certain preferences and behaviors. In the present research, compared with self decision makers, advisors were more likely to focus on desirability-related information and less on feasibilityrelated information. Such variations in focus furthered the differences in information seeking, preference, and information recall in the three stages of decision making.

Effective Interaction Between Advisors and Decision Makers

In studies on advice taking, a robust finding is the advice discounting effect, which refers to the tendency of decision makers not to follow the advice of others (Yaniv, 2004; Yaniv & Kleinberger, 2000). However, a few strategies can be used to reduce such effect based on our findings. On the one hand, advisors should consider how to give advice. To do so requires better understanding of differences in mental construal and preference between advisors and self decision makers. Based on the current research, decision makers usually welcome advice having a relatively heavy emphasis on feasibility. For instance, in traveling decisions, advisors should consider both costs and scenery. On the other hand, decision makers should also minimize the discounting effect. First, they can seek advice from psychologically close people, because the views of the latter are similar to those of decision makers (Liviatan et al., 2008; Xu & Xie, 2011). Moreover, opinions from advisors with low dispositional construal level (Vallacher & Wegner, 1989) may be closer to those of the decision makers.

Therefore, similar views between advisors and decision makers can help reduce the advice discounting effect (Gino, Shang, & Croson, 2009). However, another question arises. What is considered as good advice? People seek advice to gain more information (Dalal & Bonaccio, 2010) or improve decision quality (Yaniv, 2004). In this sense, the differences in focus on desirability and feasibility between advisors and decision makers can contribute to making sound decisions.

Limitations and Future Directions

Limitations of the current work should also be acknowledged. First, desirability and feasibility, two separate dimensions, were not orthogonally manipulated in our experiments. Thus, distinguishing their respective influences was difficult. For example, in Experiments 1a and 1b, only HDLF and LDHF choices were given, and not HDHF and low desirability and low feasibility [LDLF] ones, which we considered a limitation in the experimental design. However, this factor did not prevent us from concluding that the weight assigned to desirability and feasibility is determined by decision target. What we were interested in was the tradeoff between desirability and feasibility when deciding for the self or for others. Therefore, conflicting choices were more effective in illustrating such trade-off given that HDHF choices were desirable and LDLF choices were less favored regardless of the decision target. Nevertheless, future studies should manipulate desirability and feasibility separately to better understand whether self-other decisionmaking differences can be attributed to individual influences of desirability or feasibility, or to both.

In addition, although significant interactions between decision target and desirability/feasibility consideration

were found across five experiments, some expected results were not observed. For instance, in Experiment 2, advisors were no more interested in desirability-related information than self decision makers. Similarly, in Experiments 3a and 3b, the two groups showed either no difference or marginal difference in feasibility-related information. We speculate that such findings were dependent on decision scenarios. Specifically, selecting courses is the most important task for undergraduates. In such a case, desirability is far more significant than feasibility, as confirmed by the main effect for information type. A ceiling effect might exist in desirability; thus, detecting the moderation effect of the decision target became difficult. The same logic applies to the results of Experiments 3a and 3b. In traveling decisions, feasibility (especially costs) takes precedence. Thus, self-other differences in feasibility might be covered by the main effect for information type.

Finally, a potential argument is that we did not distinguish deciding for others from advising others. However, proxy decision makers and pure advisors always make similar decisions (Beisswanger et al., 2003). In addition, both advising others and deciding for others are more psychologically distant events compared with deciding for the self. Therefore, in accordance with CLT, both pure advisors and proxy decision makers should assign different weights to desirability and feasibility compared with self decision makers.

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Notes

1. A pilot study was conducted to determine desirability-related and feasibility-related criteria. First, 36 undergraduates at Peking University finished an open-ended questionnaire, asking them to list all criteria they would consider when choosing an elective course. Next, 8 experts indicated the extent to which all these listed criteria could represent desirability or feasibility on a 9-point scale (1 = feasibility, 9 = desirability). Finally, according to the experts' ratings, the 5 criteria with the highest scores were classified as desirability-related criteria and the 5 with the lowest scores as feasibility-related criteria.

2. To identify the desirability and feasibility attributes, 40 students at Peking University answered two open-ended questions in a pilot study: "What are your main goals for selecting a travel destination abroad?" and "What are the main constraints for selecting a travel destination abroad?" adapted from Liu's study (2008). Scenery (67.50%), exotic culture (65.00%), leisure (57.50%), horizon (30.00%), and cuisine (27.50%) were ranked as top goals, whereas costs (82.50%), safety (42.50%), climate (32.50%), transportation (32.50%), and time (27.50%) were the main constraints.

References

- Bar-Anan, Y., Liberman, N., & Trope, Y. (2006). The association between psychological distance and construal level: Evidence from an Implicit Association Test. *Journal of Experimental Psychology: General*, 135, 609-622.
- Beisswanger, A. H., Stone, E. R., Hupp, J. M., & Allgaier, L. (2003). Risk taking in relationships: Differences in deciding for oneself versus for a friend. *Basic and Applied Social Psychol*ogy, 25, 121-135.
- Bettman, J. R., Luce, M. F., & Payne, J. W. (1998). Constructive consumer choice processes. *Journal of Consumer Research*, 25, 187-217.
- Chun, M. M., & Turk-Browne, N. B. (2007). Interactions between attention and memory. *Current Opinion in Neurobiology*, 17, 177-184.
- Dalal, R. S., & Bonaccio, S. (2010). What types of advice do decision-makers prefer? Organizational Behavior and Human Decision Processes, 112, 11-23.
- Fernandez-Duque, D., & Wifall, T. (2007). Actor/observer asymmetry in risky decision making. *Judgment and Decision Making*, 2, 1-8.
- Fujita, K., Eyal, T., Chaiken, S., Trope, Y., & Liberman, N. (2008). Influencing attitudes toward near and distant objects. *Journal of Experimental Social Psychology*, 44, 562-572.
- Gino, F., Shang, J., & Croson, R. (2009). The impact of information from similar or different advisors on judgment. *Organizational Behavior and Human Decision Processes*, 108, 287-302.
- Henderson, V. R., Hennessy, M., Barrett, D. W., Martin, S., & Fishbein, M. (2006). Tell me more: Sensation seeking and information seeking in evaluating romantic partners. *Journal of Research in Personality*, 40, 611-630.
- Hsee, C. K., & Weber, E. U. (1997). A fundamental prediction error: Self-others discrepancies in risk preference. *Journal of Experimental Psychology: General*, 126, 45-53.
- Johnson, M. M. S. (1993). Thinking about strategies during, before, and after making a decision. *Psychology and Aging*, 8, 231-241.
- Jonas, E., & Frey, D. (2003). Information search and presentation in advisor-client interactions. Organizational Behavior and Human Decision Processes, 91, 154-168.
- Jonas, E., Schulz-Hardt, S., & Frey, D. (2005). Giving advice or making decisions in someone else's place: The influence of impression, defense, and accuracy motivation on the search for new information. *Personality and Social Psychology Bulletin*, 31, 977-990.

- Jones, E. E., & Nisbett, R. E. (1972). The actor and the observer: Divergent perceptions of the causes of behavior. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: Perceiving the causes of behavior* (pp. 79-94). Morristown, NJ: General Learning Press.
- Kray, L. (2000). Contingent weighting in self-other decision making. Organizational Behavior and Human Decision Processes, 83, 82-106.
- Kray, L. & Gonzalez, R. (1999). Differential weighting in choice versus advice: I'll do this, you do that. *Journal of Behavioral Decision Making*, 12, 207-217.
- Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology*, 75, 5-18.
- Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. *Science*, *322*, 1201-1205.
- Liberman, N., Trope, Y., & Stephan, E. (2007). Psychological distance. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (Vol. 2, pp. 353-383). New York, NY: Guilford.
- Liu, W. (2008). Focusing on desirability: The effect of decision interruption and suspension on preferences. *Journal of Consumer Research*, 35, 640-652.
- Liviatan, I., Trope, Y., & Liberman, N. (2008). Interpersonal similarity as a social distance dimension: Implications for perception of others' actions. *Journal of Experimental Social Psychology*, 44, 1256-1269.
- Payne, J. W., Bettman, J. R., Coupey, E., & Johnson, E. J. (1992). A constructive process view of decision making: Multiple strategies in judgment and choice. *Acta Psychologica*, 80, 107-141.
- Pollai, M., & Kirchler, E. (2012). Differences in risk-defusing behavior in deciding for oneself versus deciding for other people. *Acta Psychologica*, 139, 239-243.
- Polman, E. (2010). Information distortion in self-other decision making. *Journal of Experimental Social Psychology*, 46, 432-435.
- Polman, E. (2012). Effects of self-other decision making on regulatory focus and choice overload. *Journal of Personality and Social Psychology*, 102, 980-993.
- Polman, E., & Emich, K. J. (2011). Decisions for others are more creative than decisions for the self. *Personality and Social Psychology Bulletin*, 37, 492-501.
- Pronin, E. (2008). How we see ourselves and how we see others. *Science*, *320*, 1177-1180.
- Russell, E. W., & D'Hollosy, M. E. (1992). Memory and attention. *Journal of Clinical Psychology*, 48, 530-538.
- Sagristano, M. D., Trope, Y., & Liberman, N. (2002). Timedependent gambling: Odds now, money later. *Journal of Experimental Psychology: General*, 131, 364-376.
- Shani, Y., Igou, E. R., & Zeelenberg, M. (2009). Different ways of looking at unpleasant truths: How construal levels influence information search. *Organizational Behavior and Human Decision Processes*, 110, 36-44.

- Simon, H. A. (1955). A behavioral model of rational choice. *Quarterly Journal of Economics*, 69, 99-118.
- Stone, E. R., & Allgaier, L. (2008). A social values analysis of selfother differences in decision making involving risk. *Basic and Applied Social Psychology*, 30, 114-129.
- Stone, E. R., Yates, A. J., & Caruthers, A. S. (2002). Risk taking in decision making for others versus the self. *Journal of Applied Social Psychology*, 32, 1797-1824.
- Svenson, O. (1996). Decision making and the search for fundamental psychological regularities: What can be learned from a process perspective? Organizational Behavior and Human Decision Processes, 65, 252-267.
- Todorov, A., Goren, A., & Trope, Y. (2007). Probability as a psychological distance: Construal and preferences. *Journal of Experimental Social Psychology*, 43, 473-482.
- Trope, Y., & Liberman, N. (2000). Temporal construal and timedependent changes in preference. *Journal of Personality and Social Psychology*, 79, 876-889.
- Trope, Y., & Liberman, N. (2003). Temporal construal. Psychological Review, 110, 403-421.
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, *117*, 440-463.
- Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of Consumer Psychol*ogy, 17, 83-95.
- Vallacher, R. R., & Wegner, D. M. (1989). Levels of personal agency: Individual variation in action identification. *Journal of Personality and Social Psychology*, 57, 660-671.
- Wakslak, C. J., Trope, Y., Liberman, N., & Alony, R. (2006). Seeing the forest when entry is unlikely: Probability and the mental representation of events. *Journal of Experiment Psychology: General*, 135, 641-653.
- Wray, L. D., & Stone, E. R. (2005). The role of self-esteem and anxiety in decision making for self versus others in relationships. *Journal of Behavioral Decision Making*, 18, 125-144.
- Wyer, N. A., Perfect, T. J., & Pahl, S. (2010). Temporal distance and person memory: Thinking about the future changes memory for the past. *Personality and Social Psychology Bulletin*, 36, 805-816.
- Xu, J., & Xie, X. (2011). Self-other decision making difference: A construal level perspective. Acta Psychologica Sinica, 43, 11-20.
- Yaniv, I. (2004). Receiving other people's advice: Influence and benefit. Organizational Behavior and Human Decision Processes, 93, 1-13.
- Yaniv, I., & Kleinberger, E. (2000). Advice taking in decision making: Egocentric discounting and reputation formation. Organizational Behavior and Human Decision Processes, 83, 260-281.
- Zeleny, M. (1982). *Multiple criteria decision making*. New York, NY: McGraw-Hill.