Who helps more? How self-other discrepancies influence decisions in helping situations

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Abstract

Research has shown that people perceive themselves as less biased than others, and as better than average in many favorable characteristics. We suggest that these types of biased perceptions regarding intentions and behavior of others may directly affect people's decisions. In the current research we focus on possible influences in the context of helping behavior. In four experiments we found that, people believe that others, compared to themselves, are less inclined to help and cooperate, are less aware of the number of bystanders and more influenced by the "proportion dominance" bias and by the "identifiable victim effect." We demonstrate that these perceptions are naïve and unrealistic by showing that decisions from both self and others' perspectives are equally biased. Finally, we show how the perspective from which a decision is made (self vs. others) may affect private as well as public decisions in ways that might not be in the best interest of the decision maker and the public.

Keywords: Helping behavior, self-other discrepancies, better than average, proportion dominance, identifiable victim, bystander effect.

1 Introduction

Research on judgment and decision making in recent decades shows that, because of cognitive and motivational biases, individuals consistently rate themselves above average across a variety of domains, such as positive traits (Alicke, 1985; Dunning, Meyerowitz, & Holzberg, 1989) and behavior (Allison, Messick, & Goethals, 1989; Messick, Bloom, Boldizar, & Samuelson, 1985). This bias is known as the "Better Than Average" (BTA) effect. For example, Kruger and Dunning (1999) found that participants' self-rating of their ability to judge humor and solve logic and grammar problems was higher than average. They show that this tendency is stronger among those who perform more poorly. The BTA belief has been described as illusory because, on the group level, the majority of people cannot be better than average, assuming a normal distribution of the examined trait (Taylor & Brown, 1988; Weinstein, 1980).

In these studies, people typically compare their characteristics, behaviors or performance with the norm, standard, or the average standing of their reference group. The BTA bias is greater when the comparable target is abstract (such as the average student) and declines when the target is individuated (Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995; Hsee & Weber, 1997).

The BTA bias is also salient in people's evaluations of judgments: People believe their own judgments to be less susceptible to biases than the judgments of others (Ehrlinger, Gilovich, & Ross, 2005; Pronin, Gilovich, & Ross, 2004; Pronin, Lin, & Ross, 2002). They tend to view their own decisions as relying on objective cues in the environment, while other's judgments are influenced more by subjective and self-serving features (Jones & Nisbett, 1972; Pronin, et al., 2002). The "naive realism" idea (Griffin & Ross, 1991; Pronin, Puccio, & Ross, 2002; Ross & Ward, 1996) suggests that people assume that their own views, ideas and perceptions reflect the "truth" or the "real world," and, when others do not share their views, they tend to conclude that the others' views were subject to bias and misperceptions. Although the BTA bias may serve the individual by enhancing self esteem (Kruger, 1999; Taylor, 1989), it may have a negative effect on decisions when the decision depends on belief about others' behavior. For example, believing mistakenly that other people won't donate to a certain cause might increase my willingness to donate even when I can't afford it. On the other hand, thinking that other people will help and relying on their expected help may inhibit intervention, with the result that no help will be provided.

The perceptions of what other people view as the best way to act may influence decisions, especially when these

involve public issues. The public, as well as public decision-makers, are prone to the same biases. In contrast to private decisions, decisions regarding public policy (often taken by politicians and civil servants) affect thousands of individuals. The cost of bad decisions, because of biased perception of citizens' behavior, attitudes or opinions might be very high. Moreover, as public decision-makers and politicians depend strongly on public support, one of their main concerns when making a decision is public opinion and how their decision will be judged by most people. Biased perceptions of public opinion, preferences and choices may thus negatively affect the behavior of individuals and of public decision-makers.

One domain in which the perceptions of others' behavior and judgments may have a critical influence on one's own decisions is the decision to act or intervene in situations when help is needed. Individuals are often exposed to situations in which their personal help is needed directly or indirectly. Policy makers often consider policies that require the cooperation or help of the public. The Self-Other comparison has not been studied in this domain, although it is most likely that people's judgments and decisions concerning helping behavior are affected by their perceptions of others.

Literature on helping-behavior and bystander intervention emphasizes that other people's behavior in a given situation has considerable influence on one's own decision whether or not to intervene. Not only are people concerned about the opinion of others (Allport, 1985), other people's behavior may also serve as information regarding the appropriate, or right, thing to do (i.e., Latanè & Darley, 1968). For example, when a person monitors the reactions of others in a situation where help is needed, s/he may conclude, from the others' lack of initiative, that everyone believes that intervention is not critical and thus not needed. The person adopts what s/he thinks is the norm of behavior. Perceptions regarding others' opinions and behaviors can be accurate or biased. Individuals may misperceive their social groups or larger social environments in a number of ways that influence their behavior. "Pluralistic Ignorance" is one of the most common misperceptions. It occurs when a majority of individuals falsely assumes that most of their peers behave or think differently from them, when, in fact, their attitudes and/or behavior are similar (Miller & McFarland, 1987, 1991; Prentice & Miller, 1996; Toch & Klofas, 1984). Pluralistic ignorance was suggested as one explanation of the "bystander effect": individuals are less likely to offer help when other people are present than when alone (Ahmed, 1979; Latanè & Darley, 1970; Levy et al., 1972). Pluralistic ignorance may thus cause lack of intervention in a case when help is needed, demonstrating how other people's opinions or behavior may have a direct influence on the decision to act (or not to act).

Another explanation for the bystander effect is known as "diffusion of responsibility." By this account, lack of intervention is at least partially caused by the belief that some people will act and thus one's own action is less necessary (Latanè & Darley, 1976). Other people's behavior may have a greater influence on one's own decisions in situations that are more ambiguous or unfamiliar (Miller & McFarland, 1987). Recent research indicates that the idea of how other people would act may influence decisions even without the physical presence of others. Blair, Thompson, & Wuensch (2005) demonstrated that the diffusion-of-responsibility phenomenon extends beyond face-to-face environments: the virtual presence of many others significantly reduced e-mail responsiveness to a request for help.

Both explanations for the bystander effect are based on the assumption that people have specific beliefs about the perceptions of others, though there has been no direct effort to test these assumptions. In the present experiment, we directly test the self-perceptions of participants as well as their perceptions of others in the context of helping behavior. Most people perceive helping others as a desirable behavior and altruism as a superior characteristic. Thus, according to the BTA effect, people are expected to perceive themselves as more willing to help than the average person.

In the present research we will examine the BTA effect also concerning biases, in the context of helping behavior and intervention. Two biases have recently been studied in that context: the Proportion Dominance (PD) bias and the Identifiable Victim (IDV) effect. Do people perceive themselves as less susceptible than others to those two? With regard to Proportion Dominance, studies have shown that people prefer a risk-reducing intervention policy that maximizes relative life-saving (saving a larger proportion of the population) at the expense of absolute life-saving (saving more lives) (Baron, 1997; Bartels, 2006; Fetherstonhaugh, Slovic, Johnson, & Friedrich, 1997; Finucane, Peters, & Slovic, 2003; Jenni & Loewenstein, 1997). Those studies demonstrate that people tend to choose options that maximize relative life saving even when presented with a comparison of absolute and relative savings (Bartels, 2006). This preference is incompatible with a normative model according to which the value of a single life should be the same regardless of the size of the reference group (Baron, 1997). With regard to the Identified Victim effect, people are more willing to help identified victims (victims about whom they have some, even if only minimal, information) than unidentified ones (Jenni & Loewenstein, 1997; Kogut & Ritov, 2005a, 2005b; Slovic, 2007; Small & Loewenstein, 2003; Small, Loewenstein, & Slovic, 2007).

In situations when the decision to help involves biases,

we expect decisions from the perspective of the self to be as biased as the decisions for the average other as people are not aware of the bias. However, when confronted with a bias, we assume that the BTA mechanism will come into play, resulting in people believing that others are more biased than they themselves are. The naïve belief (about others, as opposed to oneself) may cause decision-makers to choose an alternative of action which is not to the best of their interest when the behavior, perceptions or attitudes of others is a relevant consideration (as often happens in decisions concerning public policy).

Thus, in sum, we hypothesize that people perceive themselves as more willing to help than the average person and, at the same time, perceive others to be more prone to biases in the context of helping behavior than they are. These perceptions affect actual (private as well as public) decisions in situations where help is needed.

2 Overview of the experiments

Four studies confronted participants (students) with situations where help and/or cooperation were needed. The cases are framed from one of two perspectives: A decision for oneself or a prediction of the average person's decision (a student or a citizen). The first experiment examines the "bystander effect," i.e., the influence of the number of other potential helpers in a situation, on the decision to help, from the perspective of self and others. The second experiment studies the Proportion Dominance bias from both perspectives (Experiment 2a), and the effect of confrontation with the bias on the perception of others' judgments (2b). Experiment 3a explores the same questions as in Experiment 2 in the context of the Identified Victim effect, while in Experiment 3b the focus is on the effect of the way participants perceive others on decisions involving those others. Finally, Experiment 4 looks into the influence of biased perceptions regarding others' attitudes on public policy decisions.

2.1 Willingness to Help

2.1.1 Experiment 1

The first experiment was designed to examine the self-other phenomenon in the context of helping behavior, similar to the classic study by Latané & Darley (1968). Two hypotheses can be formulated: Based on the BTA literature, participants will believe that others are less helpful than they are, as each participant is "better than the average." Based on the "naïve realism" phenomena (Ross & Ward, 1995, 1996) participants' predictions regarding others' behavior will not be affected by the number of bystanders, while their own behavior will. Naïve realism is defined as the conviction that one perceives and responds

to the world based on objective cues in the environment (e.g., number of bystanders), while others are more prone to be influenced by subjective cues. In line with these differences, Jones and Nisbett (1972) claimed that people attribute others' behavior to others' dispositions, while they attribute their own behavior mainly to situational cues. The following experiment examines these predictions, using the electronic helping request scenario adopted from Blair, Thompson, & Wuensch (2005).

2.1.2 Method

One hundred and seven undergraduate students at the Hebrew University were randomly assigned to one of six groups in a 2 X 3 experimental design. For each perspective (self vs. others), the number of other potential helpers was manipulated: no other potential helpers, one other potential helper or 14 other potential helpers. All participants were asked to imagine that they [an average student] received an e-mail message requesting assistance with an online library search task. The message resembled a real e-mail message, with an indication that 0, 1 or 14 others were also contacted (their Email addresses were added as CC's). Similarly to the help request in the study by Blair, Thompson, & Wuensch, (2005), the help request in the current study said:

> Hi. I'm a student here at the Hebrew U. One of my professors said that I could get articles on-line from the University's library Web site instead of looking them up in the library itself. But, I tried the library's Web site and could not download the article, since I was asked for some code number and I don't know where to get one, or is there a regular code for all students?
>
> Would [you; one of you] mind sending me the code or telling me where I could get one?
>
> I noticed the Hebrew U e-mail address book has you listed as "student," so I thought you might know.

Below the request, the questionnaire said, "Imagine that you [the average student] received this message and know[s] the information required. Would you [the average student] send an answer to the sender?" Participants marked their answer on a 10 cm. visual scale ranging from: [the average student] would certainly not reply, to [the average student] would certainly reply, with an undesignated middle point.

2.1.3 Results

Figure 1 shows the mean responses as a function of perspective (self vs. other) and the number of potential
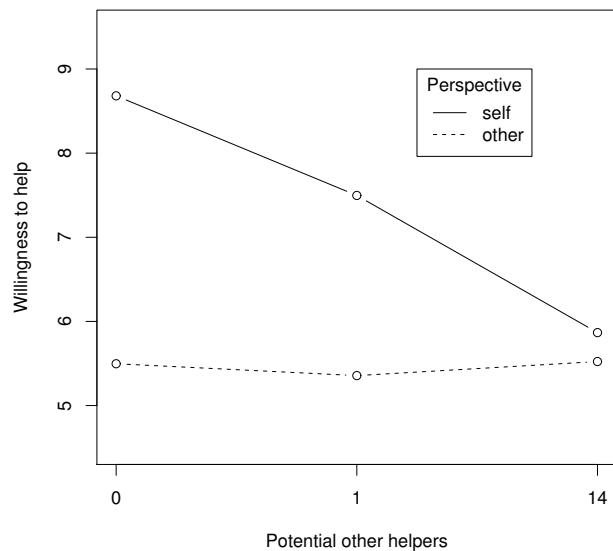
Figure 1: Experiment 1, mean willingness to help as a function of perspective (self vs. other) and the number of potential helpers.

helpers. Willingness to help (WTH) was determined by the distance from one end of the scale ("would certainly not reply") to their marks. Analysis of WTH ratings by the two independent factors (perspective [self vs. others] and number of potential helpers [0 vs. 14] shows a significant perspective main effect $F(1,73)=11.04$, $p=.001$. Participants rated their own willingness to help (M=7.35) higher than that of the average student (M=5.46). The main effect of the number of potential helpers was also significant ($F(1,73)=6.9$, $p=.011$), showing that, overall, participants were more willing to help when there was no other potential helpers available (M=7.09) than when there were 14 other potential helpers(M=5.69). Consistent with our hypothesis, the interaction between perspective and number of other helpers was also significant ($F(1,73)=7.15$, $p=.009$): in the self condition, participants' WTH ratings were higher when there was no other potential helpers (M=8.68), and lower when there were 14 other addressees (M=5.87; $t(34)=6.16$, $p<.001$). In the "others" condition no significant difference was found between WTH when there were 0 or 14 other potential helpers.[1,2]

In sum, the results of this study demonstrate that people indeed perceive themselves as more willing to help

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[1]Comparing participants intention to help in the two perspectives revealed a significant difference between self and others' perspectives when there were no other potential helpers ($t(37)=4.28$, $p<.001$), and when there was only one other helper available ($t(37)=2.37$, $p=.024$), but no significant difference between the two perspectives when there were 14 other addressees.

[2]The results were similar when all three levels of number of other helpers were included in the analysis.

than others. Moreover, as suggested, although the decision to help is influenced by the number of other potential helpers available, when participants were asked to predict others' behavior, predicted willingness to help is insensitive to the availability of other potential helpers. The above discrepancy may illustrate another BTA phenomenon: "I take the number of potential helpers into account, but others don't." The belief that other people are insensitive to the number of potential helpers may influence people's own decision to help and strengthen the bystander effect. If I think that others are insensitive to the number of other helpers, then I would be more sensitive to that number thinking that when many helpers are available someone else is sure to help. Thus, biased perceptions of others' intentions may cause lack of intervention.

3 Biases in decisions concerning willingness to help

The next two studies were designed to examine the differential behavior and perceptions (regarding biases) of self vs. others in two additional helping behavior situations where susceptibility to biases is already known. We assume that despite the fact that people see others as more susceptible to cognitive and motivational biases than themselves (Pronin et al., 2004), their actual helping decisions will be just as biased. However, this similarity will change when participants will be aware of a possible bias. In this situation we predict, decisions from the perspective of others will be more biased than those from the self perspective. We chose two common biases in the helping behavior context: the proportion dominance bias (Experiment 2), and the identifiable victim effect (Experiment 3). In experiment 3 we also demonstrate how these perceptions may affect public decisions.

3.1 Experiment 2

The second study examined a common bias in people's helping decisions — the proportion dominance bias (PDB — saving a larger proportion of a population at the expense of absolute numbers). We used one of Bartels' (2006) dilemmas about Anthrax powder that has been weaponized and released into the air above two mid-sized cities. In each city, several people are expected to die as a result of anthrax inhalation. Participants read that a powerful antibiotic exists that will successfully treat some of the affected victims but there is only a limited amount of this treatment available. Program A would allocate the treatment to city A, where 225 of the 300 at risk of death would be saved. Program B would delegate the treatment to city B, and 230 of the 920 people at risk would be

saved. These programs are mutually exclusive and are the only two options available. Only one can be chosen. Participants are asked to indicate which program to adopt. The results of Bartels' (2006) study as well as other studies (e.g., Baron, 1997; Fetherstonhaugh et al., 1997; Finucane et al., 2003; Jenni & Loewenstein, 1997) show that participants' choice is often based more on the proportion of people saved (which is higher in city A than in city B) than on the absolute number saved (which is higher in city B), resulting in a preference for program A. This response pattern is known as "the proportion dominance bias."

Two sub-studies (2a and 2b) examined self vs. other's perceptions regarding the proportion dominance bias in helping behavior using the above dilemma. The first study examined participants' choices between the two options as opposed to their prediction of the average student's choice. The second study directly examined the importance of each type of information: The number of victims saved or the proportion of victims saved in the at risk group. We compared self-evaluation of each type of information with the predicted average students' evaluation of them. As long as participants are not aware of a possible bias (in the first study), we don't expect any difference between the choices under the two perspectives: in line with Bartels' results we expect participants' choices to be influenced by the proportion dominance bias from the self and others' perspective. However, when directly confronted with a possible bias (in the second experiment) by evaluating the importance of the two considerations (absolute number vs. relative number), we expect participants to believe that others are more biased than themselves.

3.2 Experiment 2a

3.2.1 Method

Sixty-nine undergraduate students at the Hebrew University were randomly assigned to one of the four groups of a 2 (perspective: self vs. the average student) X 2 (order: counterbalance of program A and program B) between-subjects design. They all read the same dilemma taken from Bartels (2006) and described above. After reading the dilemma, they were asked to choose one of the two programs (A or B) on a seven-point unnumbered scale, ranging from program A (that maximizes the proportion of victims saved) to program B (that maximizes the number of victims saved). To avoid order effects, we changed the order of the two programs. Participants in the others' perspective condition were instructed to predict the average student's choice.

3.2.2 Results

Participants' choices were represented by a 7-point scale, where 1 (the choice of the extreme end point) designated the program that maximizes absolute numbers and 7 designated the program that maximizes proportions. There were no significant differences or significant interaction found between the two perspectives or orders. Both self and others' mean choices were M=4.5; 52% of the participants in the self condition and 57% of the participants in the others' choice condition preferred the biased option (a choice above the mid-point).

3.3 Experiment 2b

3.3.1 Method

Seventy-four undergraduate students at the Hebrew University participated in the study using the same design as in experiment 2a: a 2 (perspective: self vs. the average student) X 2 (order: counterbalance of program A and program B) between-subjects design. After reading the dilemma, participants were presented with two types of information: "The dilemma you have read gives the decision-maker two pieces of information: (1) Program A saves 225 [230] people and program B saves 230 [225] people; (2) Program A saves 75% [25%] of the people injured in city A and program B saves 25% [75%] of the people injured in city B." Participants were then asked to rate the importance of the two pieces of information, on a seven-point scale ranging from 1 (not important at all for the decision) to 7 (most important for the decision). Participants in the others' perspective were asked to predict how the average student would rate the importance of each piece of information.

3.3.2 Results

Participants' ratings were analyzed in a mixed model analysis. The within-subject variables were the ratings of the importance of each piece of information. The between-subjects variables were the perspective (self vs. the average student) and order (counterbalance of the two programs). No significant main effects were found; therefore the two order groups were combined. However, a significant interaction was found between the importance of the two types of information and the perspective of the decision-maker $F(1,70)=8.08$, p=.006. As can be seen in Figure 2, participants in the self condition rated the importance of the number of victims saved (M=5.5) higher than the importance of the proportion of victims saved (M=4.48). In contrast, participants in the "average student" condition predicted that the average student would perceive the proportion of lives saved (M=5.65) as more important than the number of people saved (M=4.59).
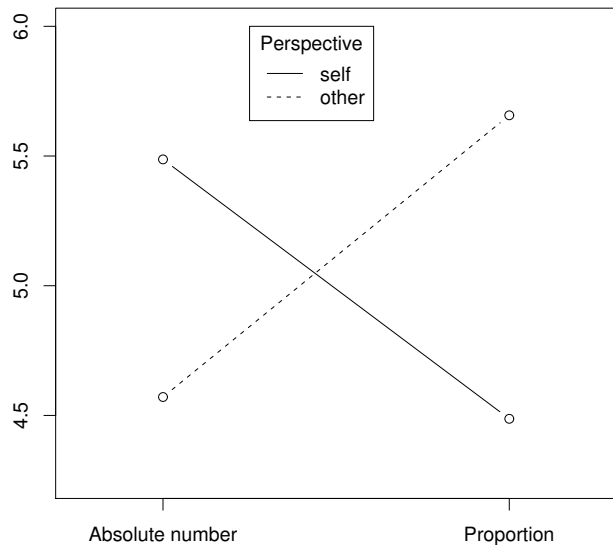
Figure 2: Experiment 2b, mean importance of each type of information, as a function of the decision-makers' perspective.

Thus, although people make the same choices for self and for others and are, in fact, as biased as others, they believe others to be more biased and to have considerations that are more irrational in their decisions.

3.4 Experiment 3

People's greater willingness to help identified victims as compared with unidentified ones is known as the Identifiable Victim (IDV) effect. This preference has a strong intuitive appeal but appears incompatible with rational logic, according to which the value of the lives of identified victims is not greater than the value of the lives of unidentified victims. The present study examines three hypotheses: (a) overall, people perceive themselves as more willing to contribute (WTC) than others, to both identified and unidentified victims (BTA); (b) WTC to identified victims will be greater than WTC to unidentified victims for both self and others (The IDV Effect); (c) although people's decisions are as biased as their predictions of others' decisions, people perceive themselves as less biased and therefore assume that others are more affected by the identification of the victim than they are. In Experiment 3a participants are first asked for their or an average other's willingness to contribute to both identified and unidentified victim. To enhance the awareness of a possible bias, participants were next asked to choose between the two cases from both perspectives. Experiment 3b demonstrates how awareness of a possible bias influences public decisions.

3.5 Experiment 3a

3.5.1 Method

Sixty-six undergraduate students at the Hebrew University were randomly assigned to one of four groups in a 2 (the decision-makers' perspective: self vs. other) X 2 (order of victims: identified first vs. unidentified first) between subjects' experimental design. The questionnaires presented the identified victim and the unidentified victim side by side on the same page divided lengthwise (this manipulation is based on Kogut & Ritov 2005a). To avoid order effects we varied the sides of the two targets. For each victim, participants were instructed to state their or the average student's willingness to contribute. Participants were all presented with two descriptions. In both they read about a sick child, whose life is in danger, being treated in a medical center. They were told that a new, recently developed drug cures the disease. Unfortunately, the drug is extremely expensive, and, unless the money is raised soon, it will no longer be possible to save the child's life. In the identified condition, the name of the child, his age (two years) and his picture were presented. Participants read both the identified and the unidentified cases, and were instructed to state how much money (if any) they [the average student] were willing to donate to each of the two cases. Next, participants were asked to imagine that they could contribute money to only one of the two cases (the identified or the unidentified child) and were asked to rate their preference on a five-point scale ranging from the unidentified victim at one pole to the identified victim at the other pole. The middle point represented indifference.

3.5.2 Results

Mean WTC to identified and unidentified victims from the two perspectives (self vs. the average student) are presented in Table 1. Since the contributions were not distributed normally, we report the results for the log-transformed contributions. Contributions did not significantly differ for the different orders, and were thus averaged across the two. As can be seen in the Table, participants' WTC to identified victims (M=56.79) was higher than WTC to unidentified ones (M=46.35) for both self and the average student; $F(1,63)=7.83$, $p=.002$, for the identification main effect in a mixed model analysis, with contribution to the two cases (identified and unidentified) as a within-subject factor and perspective (self vs. other) as a between-subjects variable. This difference was significant for both self ($t(31)=2.14$, $p=.016$) and the average student ($t(32)=1.97$, $p=.044$). As predicted, participant's assessments of other's WTC (M=41.97) were significantly lower than self WTC statements (M=61.17) for both identified and unidentified victims ($F(1,63)=5.71$,

Table 1: Experiment 3a: Mean (SD) willingness to contribute, in Shekels (ILS) and in the log transformation (log), to identified and unidentified victims, for self and for the average student.

		Self	Average student	Total
Identified victim	ILS	68.28 (55.77)	45.30 (66.17)	56.79 (61.89)
	log	1.65 (.59)	1.21 (.92)	1.43 (.69)
Unidentified victim	ILS	54.06 (61.89)	38.63 (67.20)	46.35 (60.63)
	log	1.46 (.69)	0.98 (.97)	1.22 (.87)
Total	ILS	61.17 (58.81)	41.97 (66.51)	
	log	1.55 (.65)	1.09 (.95)	

p=.020), for the perspective main effect. No significant interactions were found.

Although participants were willing to contribute more money to identified victims from both the perspective of the self and of others, when confronted directly with a choice, they judged themselves as less biased than others: In the self condition, 68% declared that they were indifferent about contributing to the identified victim or to the unidentified one (a choice that is compatible with rational logic models) and only 32% showed a preference for the identified victim. The opposite pattern was found for the "other" condition: 69% chose to contribute to the identified victim and only 31% were indifferent (Mann Whitney, Z=2.2, p=.03, for the difference).

Overall contributions from the self perspective were higher than those from the other's perspective. Willingness to contribute was higher for the identified victim than for the unidentified one from both perspectives. Furthermore, participants believed that others are more prone to the biases than they are. Experiment 2 and 3a both demonstrate the same pattern: When asked to make a decision or to predict how others will make it, people show similar choices and biases. However, when confronted directly with a possible bias, their naïve beliefs about others' biased behavior affect their judgment and they rate themselves as less biased, thus, again, Better Than Average.

3.6 Experiment 3b

In order to demonstrate how the perception of others as being more affected by the IDV effect, influences decisions, the present experiment confronted participants with a public decision. To enhance the awareness to the bias, participants were first asked to choose between the identified and unidentified victims for a private donation from one of the two perspectives (as done in the second part of Experiment 3a). They then were confronted with a public dilemma.

3.6.1 Method

Sixty undergraduate students at the Hebrew University were randomly divided into the two perspective groups (self vs. an average student). We used the same method as in the previous study (3a) describing a sick child in need for an expensive medicine. Participants were introduced with both the identified and the unidentified sick child and were asked to choose to which of the victims (identified or unidentified) they prefer donating (by rating their preference on a five-point scale ranging from the unidentified victim at one pole to the identified victim at the other pole), with the middle point representing indifference. After rating their/an average student's choice, participants in both conditions were asked the same question (all from the self perspective): "Since the child's disease is very rare, the expensive medication that treats it is not covered by health insurances in Israel. Imagine that you are trying to get public support for the inclusion of the medicine in the 'basket' of covered medicines. Which of the two cases would you use in order to recruit more support: the identified child, or the child about whom no information was provided (the unidentified child)?" Participants were asked to rate their preference on the same five-point scale (ranging from the unidentified victim at one pole to the identified victim at the other pole).

3.6.2 Results

Participants' responses to the two questions (choice for private donation and choice for recruiting public support) were analyzed in a mixed model design; the two types of decisions as a within subjects variable, and perspective (self/average person) as a between subject variable. Overall, participants were more likely to choose the identified child in the decision regarding recruiting public support (M=4.6) than in the private donation decision (M=4.2; F(1,58)=11.67, p<.001, for the difference). Since people believe that others' are more affected by the identifiable victim effect, they are more likely to choose the identifiable child for the purpose of recruiting public support than when asked about a private donation. The perception of others' is more important in a public decision than

in a private one, as public support is significant. Perspective also showed a significant main effect ($F(1,58)=16.48$, $p<.001$), replicating study 3a: Participants in the self condition were less prone to choose the identified victim than participants in the other condition (M=4.1 vs. M=4.8). No significant interaction was found suggesting that the perspective from which participants made the private decision (in the first part of the experiment) served as a sort of an anchor which affected the public decision in the second part of the experiment (Figure 3).

Looking at the percent of participants who preferred the identified victim (ratings 4 & 5 on the scale) gives a similar picture: In the private decision 61.3% of participants in the self condition chose the identified victim as opposed to 93.1% in the "others" condition ($\chi^2_3=8.47$, $p=.004$). In the public decision the comparable percentages were: 71.9% and 96.6%, respectively ($\chi^2_3=6.86$, $p=.032$).

In sum, as in the "proportion dominance" case, when confronted with a possible bias, people perceive themselves as less biased than others, though they are similarly affected by it. People take into account their perceptions regarding others when asked about a decision involving those others; their choice of an identified victim is higher when they have to convince others to donate than when they have to make a personal decision regarding donation. However, this tendency is also influenced by their initial perspective as manipulated by the self other point of view.

Looking at a public issue from the self perspective may not always lead to the best results. In the current example this perspective decreased the use of an identifiable victim when trying to recruit public support, even though presenting an identifiable victim could help for that purpose.

4 Implications for public policy

4.1 Experiment 4

The previous study demonstrated that perceptions of others' intentions and beliefs affect decisions that involve others. Public policy very often concerns such decisions, for which decision makers may adopt their own or what they think is others' perspective.

These perspectives may lead to different decisions. Underestimating others' willingness to help or to cooperate, and overestimating others' biases may affect decision makers. In the present experiment, we investigate a different context of helping behavior: willingness to cooperate and willingness to make efforts for the public welfare. We assume that people perceive themselves as more cooperative than others, and as willing to make greater efforts for the public welfare than the average person. This
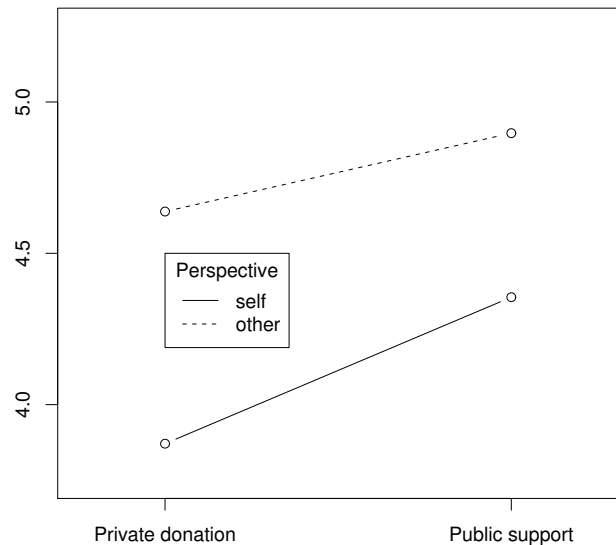

Figure 3: Experiment 3b, mean choices between the two victim (on a 5 point scale ranging from 1- unidentified child, to 5- identified child) as a function of the decision-makers' perspective and the type of decision (private donation vs. recruiting public support).

biased perception may lead public decision-makers to underestimate others' willingness to cooperate and consequently guide their decisions in ways that may not be in the public best interest. The fourth experiment examines this assumption using the context of recycling household waste.

4.1.1 Method

One hundred and nine undergraduate students at the Hebrew University were randomly assigned to three experimental groups manipulating the perspective of the decision-maker: Self, others, and a control group (in which participants answered only the second part of the questionnaire and were therefore not given a specific perspective). All participants read the same information regarding recycling household waste in Israel. "Recycling garbage is one of the main objectives of the Ministry of Environmental Protection. Israel lags far behind in its methods of handling garbage compared to western countries, and concern is voiced that the country will drown in mountains of garbage in a few years. Ministry data show that without drastic change in handling garbage, by 2009 there will be nowhere to bury about 10% of the waste produced in Israel (a phenomenon that will worsen over the years)." Next, all participants were informed of two possible solutions proposed in this context, each of which is applied in several places around the world.

Solution 1: The garbage collected from houses is not buried, as is customary, in locations intended for this, but is transferred to a factory where it is separated by type (glass, cardboard, plastic, and organic materials) and then sent for recycling (apart from organic materials that are used for fertilizer).

Solution 2: Four recycling bins are placed in front of every house, into which the residents throw their garbage, separated by type (glass, cardboard and paper, plastic and organic materials). These bins are then sent directly to the relevant factories that recycle the content (and prepare fertilizer from the organic materials).

The costs and benefits of each solution were then summarized explicitly. In places where the first solution is applied, separation of garbage is the responsibility of the State and the citizens pay a special tax. In places where the second solution is applied, separation is the citizens' responsibility and no tax is imposed on them.

Participants in the two experimental groups ("self" and "others") were then asked: "Think about yourself [think of an average citizen in Israel]. To what extent do you think you [he/she] will cooperate in applying the second solution by separating the garbage into the various bins should this method be introduced?" They responded on a scale ranging from 1 (won't cooperate at all) to 7 (will fully cooperate). Participants in the control group did not answer this question. Finally, all participants were asked for their recommendation: "Which garbage recycling method do you think the Ministry should adopt?" Participants were asked to rate their choice on a seven-point unnumbered scale (ranging from solution 1 on one pole to solution 2 on the other, with a midpoint reading "I have no preference"). Thus, participants in the control group answered only the last question regarding the policy the Ministry should adopt, and were not instructed to think about self or other people's cooperation.

4.1.2 Results

A significant difference was found between participants' ratings of the degree to which they vs. the average citizen would cooperate and separate the garbage into the various bins ($t(76)=3.38$, $p<.001$). As expected, participants' ratings for self (M=5.54) were higher than for the average citizen (M=4.38). Furthermore, when recommending to the Ministry (1-adopt the first solution, 7-adopt the second one), the recommendation was significantly different for the three groups (self, others and the control group) $F(2,106)=5.21$, $p=.007$. Participants in the "self" condition were more inclined to choose the option which

requires the citizens' cooperation (M=5.08) than participants in the "others" condition (M=4.28) or the control-group (M=3.39). The two latter groups did not differ significantly. In percentages, 64% of the participants in the self perspective chose the option that requires cooperation; more than participants in the "others" perspective (46%) $Z=1.7$, $p<.05$, and the control group (39%), $Z=3.45$, $p<.001$.

4.2 An addendum study

Self-others discrepancies in willingness to cooperate and make efforts for the public welfare found in the fourth study may have stemmed from a general perception of the self as more idealistic and others as more pragmatic in their decisions. In order to examine this hypothesis, an addendum study examines discrepancies in characteristic perceptions of self and others as idealistic vs. pragmatic in their decisions.

Seventy-nine undergraduate students at the Hebrew University were asked to rate their agreement with each of two sentences on a seven-point scale, ranging from strongly agree (7) to strongly disagree (1). The first sentence read, "I am [the average student is] willing to make efforts in order to follow my [his/her] principles." The second sentence stated, "I am [the average student is] willing to pay for convenience." Next, participants were asked to choose which sentence better describes themselves [the average student]. This experiment was designed within subjects, thus each participant answered the questions for both self and the average student. To avoid order effects, we varied the order of the evaluations for self and for the average student between subjects.

4.2.1 Results

No significant order effects were found, thus we report the results across the two orders. Participants' ratings regarding their agreement with the first sentence (willing to make efforts in order to follow principles) was significantly higher for the self (M=5.58) than for the other (4.39), $t(78)=6.38$, $p<001$. No significant difference was found between ratings of the second sentence for self and for other (see Figure 4). When asked to choose the sentence that better describes them, 65% chose the first one. When asked to choose the sentence that better describes the average student, only 39% chose the first sentence, $Z=3.65$, $p<.001$ (Wilcoxon non-parametric test). In sum, the results of the addendum study support our assumption that people perceive themselves as more idealistic and others as more pragmatic in their decisions.
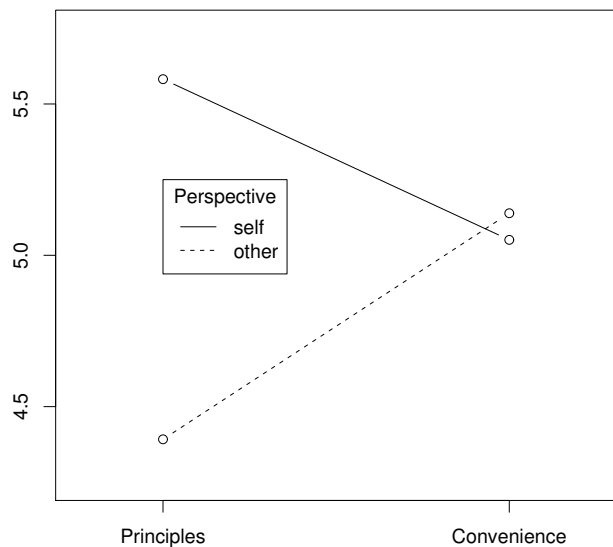
Figure 4: Experiment 4 (Addendum study), mean agreement with each of the two sentences, as a function of the decision-makers' perspective.

5 Discussion

Unrealistic, naïve beliefs regarding others' perceptions or preferences may influence private as well as public decisions in situations where help is needed, and might lead to decisions that are not compatible with normative models and do not serve the decision-makers' best interests. Thus, it is of great importance to identify situations in which this type of bias is more likely to occur. The results of the experiments presented here consistently demonstrate that in general, people perceive themselves as more willing to help than others. Overall, people rate themselves as more willing to respond to an electronic help request (experiment 1), and to contribute to sick people (Experiment 2). Similarly, people believe that they are more cooperative and willing to make efforts for the public welfare than the average person (Experiment 4).

In line with earlier research examining self-others discrepancies (Ehrlinger et al., 2005; Pronin et al., 2004; Pronin, Lin et al., 2002), our results show that also in situations where help is needed people perceive others to be more susceptible to biases than themselves. We found that people believe that others are more influenced by the "proportion dominance" bias (Experiment 2) and by the "identifiable victim effect" (Experiment 3) than themselves. We demonstrated that these perceptions are naïve and unrealistic by showing that, on the one hand, choices from both self and other's perspectives are equally biased; while on the other hand, when confronted directly with the bias people believe that their decisions are more rational and objective than others'.

These results can be explained in terms of the "dual-process theory" of thinking. As proposed by Epstein (1994), people apprehend reality in two fundamentally different ways, one variously labeled "intuitive, automatic, natural, non-verbal, narrative, and experiential, and the other analytical, deliberative, verbal, and rational" (p. 710). The PD bias and the IDV effect are caused by the automatic, intuitive, system, triggering an emotional response which is failed to be corrected by the analytic, rational system. Supporting the corrective functions of System 2 by making rational cues predominant enhances the rational aspects of the decisions from the self perspective. In the PD study this was done by explicitly comparing the two types of information regarding the number of people saved and the proportion of people saved; in the IDV effect by asking participants to choose between identifiable and unidentifiable victims. Since people believe that others are more susceptible to biases than they are, confrontation with the bias does not reduce it from the perspective of others.

Decision-makers are usually not aware of potential biases when deciding about helping or intervening; therefore, their decisions and evaluations are more likely to be influenced by mistaken perceptions of other people's intentions. For example, when people receive an E-mail request for help, they usually notice if there are other addressees, and they are likely to consider that information when deciding whether or not to help. Naïve beliefs about the probability that other addressees will respond may influence the decision whether to intervene or not. If people believe others are not affected by the number of bystanders, and thus the chance of their intervention is relatively high, they might refrain from intervening themselves. A more realistic view of others' as being more similar to self could reinforce intervention: "Others are probably affected, like I am, by the number of bystanders and refrain from helping. I should therefore help."

Although the literature describes the BTA bias, so far no attempt was made to examine possible implication of these types of naïve beliefs on decision making. Our research demonstrates that discrepancies between self and others may have a great influence on private as well as public decision-making. The third and fourth experiments demonstrate how the perspective from which a decision is made (self vs. others) may affect the decision in one of three ways:

First, as was demonstrated in the identifiable victim study, underestimation of one's own bias may lead to decisions that might not serve the decision makers' best interest. In study 3b the perception of self as less susceptible to the IDV bias, leads to less use of an identified target in situations where the use of such a target is recommended to increase support.

Second, underestimation of others' willingness to help or cooperate may cause the adoption of a decision alternative that is incompatible with the best interest of most citizens. In the fourth study we showed that participants in the "others" condition were more likely to choose such a solution due to the belief that other people will not cooperate.

Third, in the case of public decisions, where the decision maker is interested in recruiting public support, biased perceptions of public opinion may divert from the public and the decision makers' interest. For example, the belief that "most people give more weight to the proportion of lives saved than to the absolute number," in Experiment 2b, may lead public decision makers to support the option that will save the lives of fewer people (even when the decision makers themselves are aware of the bias).

In sum, unrealistic beliefs about other people's biases lead to choices that are not optimal: they do not reflect people's actual preferences (and thus are not in the best interest of the decision-maker) and they often are not in the best interest of the public. Being aware of the potential influence of the discrepancies between the two perspectives (self vs. others) might help decision makers when faced with public decisions in situations where help, intervention, or cooperation is needed.

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