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Chapter 2
Self-Other Differences in Outcome Allocations:
We Think that Others Are Less Fair[1]

Imagine that a colleague asks you a favor when you are leaving for your favorite hobby. How would you respond to this request? Perhaps you think if you were asking him or her that very question, you would be helped. Or perhaps you think the colleague would find a polite way to leave and not help. Expectations about other people's interpersonal behavior may be quite important as they may help determine whether we help others or not. But what are the beliefs that people have about other people's social motives? Are others equally fair and nice as we are ourselves? Or are others considered less nice and less fair?

Past research has revealed that people tend to believe that self-interest is a powerful motive in other people. For example, people overestimate the impact of financial rewards on their peers' willingness to donate blood (see Miller & Ratner, 1996, 1998; Miller, 1999). Second, specific judgments about another person's overt behavior are also guided by the same principle: When people have only incomplete information about their partner's behavior, they tend to fill in missing pieces with self-interest (Vuolevi & Van Lange, 2010). Third, research on self-other judgments in personality descriptions has revealed that people think of themselves as better and not as bad as other people (e.g., more honest, less unfair; Alicke, Dunning, & Kruger, 2005; Dunning & Cohen, 1992; Messick, Bloom, Boldizar, & Samuelson, 1985; Van Lange & Sedikides, 1998).

We examine three different social motives that may underlie social behavior (Van Lange, 1999). First, social behavior is importantly guided by the preference to enhance outcomes for self (i.e., self-interest). This social motive has been well-acknowledged in social sciences, including classic economics (Smith, 1776), game theory (Luce & Raiffa, 1957; Von Neuman & Morgenstern, 1944), and psychology (Fehr & Schmidt, 1999; Loewenstein, Thompson, & Bazerman, 1989; Van Lange, 1999). Second, people are also concerned with enhancing outcomes for others (i.e., altruism). In many social situations, people choose behaviors that provide good outcomes for others but potentially bad outcomes for the self (for a review, see Caporael, Dawes, Orbell, & Van de Kragt, 1989). And third, people are also oriented toward equality in outcomes (i.e., egalitarianism). People tend to be aversive to inequality, which is an important motive underlying a variety of behaviors (e.g., the inequality aversion model; Fehr & Schmidt, 1999; see also Bolton & Ockenfels, 2000; Camerer & Thaler, 1995; Deutsch,

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[1] This chapter is based on Vuolevi and Van Lange (2011a)

1975; Güth & Tiez, 1990; Roth, 1995, for a recent developmental evidence, see Fehr, Bernhard, & Rockenbach, 2008).

We conducted two experiments to assess social motives that people attribute to other people, and compared these motives to those that they exhibit themselves. Building on previous research showing that people tend to overestimate self-interest in others, we expected people to think that others' behaviors are more strongly influenced by selfish motives than own behaviors, and less strongly influenced by unselfish motives, such as altruism and egalitarianism.

Experiment 2.1

Method

Participants and design. The participants of the computerized, laboratory experiment were 63 VU University students in the Netherlands (28 women, 35 men, M_{AGE} = 21.8, SD = 4.18) who were randomly assigned to the behavior condition or the expectation condition. After completing the experiment, the participants were debriefed and paid €2.5.

Procedure. *The ring measure of social values* consists of 24 decomposed games, each of them displaying a choice between two alternatives that represent different combinations outcomes for the self and another person (Liebrand, Jansen, Rijken, & Suhre, 1986). The outcomes for self and other are sampled from a circle in the own-other outcome plane, which represent orthogonal dimensions for the self and the other. In the current experiment, the centre of the circle was set to 200 points for the self and 200 points for the other, and the radius was set to 150 points (Van Lange, 1999). Each item involved a choice between two equidistant own-other outcome distributions that were located next to each other on the circle (i.e. 15 degrees difference in angle). An example is the choice between Alternative #1 that gives 345 points for the self and 239 points for the other, and Alternative #2 that gives 350 points for the self and 200 points for the other.

Three orthogonal measures were derived based on 24 choices: The weight to Self, the weight to Other, and the weight to Equality in outcomes. The weights to Self and the Other were calculated by accumulating the number of points for the self and the other across 24 choices and normalizing the value between -1 and 1. If all binary choices were made to maximize the outcome for the self, Self would be 1 (i.e., MaxOwn). If all binary choices were made on minimize the outcome for the other, Other would be -1 (i.e., MinOther). Similarly, the weight to equality in outcomes was defined as the absolute difference between the outcome to the self and the other across choices. If all choices minimized the difference in outcomes for the self and the other, Equality would be 1 (i.e., MinDiff). If all choices maximized the difference in outcomes for the self and the other, Equality would be -1 (i.e., MaxDiff).

In contrast to the original measure, the two partners involved in the task were labelled as Person A and Person B. Participants in the own behavior condition were told that Person B is another participant in the same experiment. When each choice was presented, participants were asked to choose the option that they would choose as Person A. Participants in the expected behavior condition were told that Person A and Person B are other participants in the same experiment. When each choice was presented, participants were asked to choose the option that they would think that Person A would choose. Thus, participants in both conditions faced the same binary choices, but they either answered on their own behalf, or on behalf of another participant.

Results

Three independent sample t-tests compared the weights to Self, Other, and Equality in the own behavior and the expected behavior conditions. The analysis revealed that the equality weight is lower in the expected behavior condition ($M = 0.06$, $SD = 0.22$) than in the own behavior condition ($M = 0.25$, $SD = 0.28$), $t(61) = -2.99$, $p = .004$, $\eta^2 = .128$, supporting that idea that people expect less equalitarianism from others than they exhibit themselves. Thus, while equalitarianism affects people's own social behavior, they believe that it hardly affects other people's behavior.

By contrast, the weight to Other in the expected behavior condition ($M = 0.01$, $SD = 0.32$) did not differ from the one in the own behavior condition ($M = 0.04$, $SD = 0.37$), $t(61) = -0.36$, $p = .718$. Also, the weight to Self in the expected behavior condition ($M = 0.75$, $SD = 0.27$) did not differ from the one in the own behavior condition ($M = 0.66$, $SD = 0.29$), $t(61) = 1.20$, $p = .236$.

Finally, to test the idea that the self-other difference is greater for egalitarianism than for altruism, we conducted a 2 (behavior vs. expectation) × 2 (Equality vs. Other) mixed-model ANOVA. The analysis revealed a two-way interaction, $F(1,61) = 4.59$, $p = .036$, indicating that the difference in unselfish motives between self and other is more pronounced for egalitarianism than for altruism (see Figure 2.1).

Figure 2.1: Weight people assign to self-interest (i.e., Self), altruism (i.e., Other), and egalitarianism (i.e., Equality) in the own behavior and in the expected behavior conditions, in Experiment 2.1. 95% confidence intervals are presented in line-graphs.
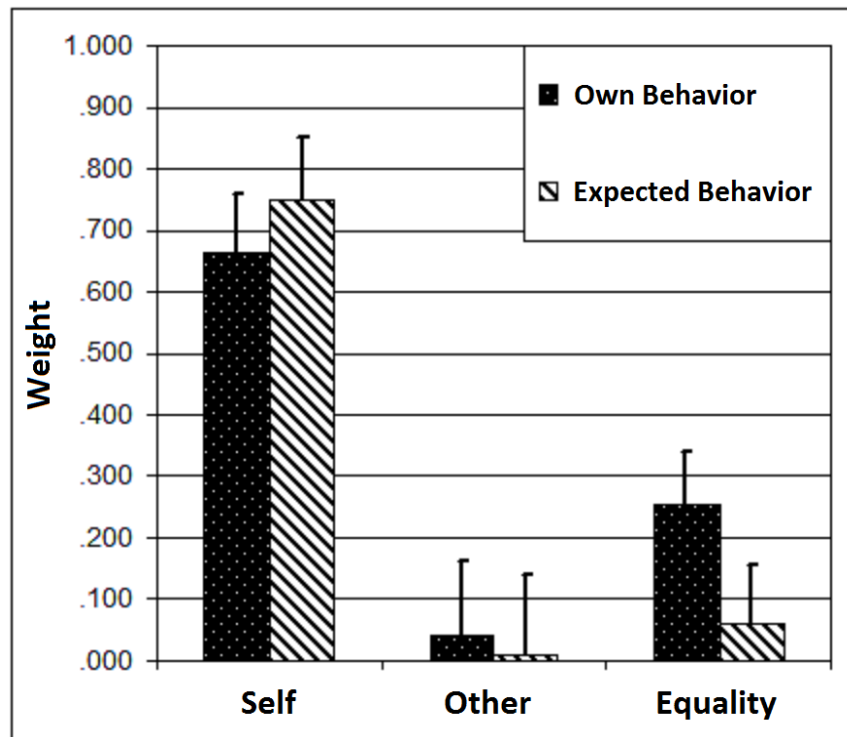
Experiment 2.2

Experiment 2.1 used own allocation behavior as a benchmark and revealed that people underestimate egalitarianism in other people. Interestingly, such self-other differences were not found for self-interest or altruism, and in fact, altruism was not found for self either. This indicates that while the model for own behavior includes self-interest and egalitarianism (and no altruism), the model for the expected behavior of others is even more straightforward: It includes only the self-interest component and virtually no egalitarianism or altruism.

Experiment 2.2 focused on the conflict between self-interest and equality, using a modified version of the dictator game (see Bolton, Katok, & Zwick 1998). Instead of acting as allocators (i.e., dictators), participants either evaluated the allocator's behavior, or indicated how they think that other people would evaluate the allocator's behavior. We predicted that the more equal allocations the allocator made (i.e., closer

to the 50-50 split), the more people would think that others evaluate the allocations as less positive than the self.

Method

    Participants and design. The participants of the computerized, laboratory experiment were 81 VU University students in the Netherlands (52 women, 29 men, $M_{AGE} = 21.23$, $SD = 4.15$) who were randomly assigned to the own evaluation or the expected evaluation condition. After completing the experiment, the participants were debriefed and paid €2.

    Procedure. The participants completed a dyadic outcome allocation and evaluation task with another person, Person A, who was described as another participant, but whose behavior was controlled by a computer. Person A always acted as the allocator and the participant always acted as the evaluator. The participants were told that they and Person A had a common resource of 8 coins, but Person A could freely divide the resource between the two. Across 7 trials that appeared in a random order, Person A allocated between 1 and 7 coins to the participant. After each allocation was presented graphically on the screen, participants were asked to evaluate Person A's allocation on a scale ranging from 1 ("Very Negative") to 13 ("Very Positive").

    After each allocation, participants in the own evaluation condition were asked the question "How would you evaluate this allocation?" Participants in the expected evaluation condition were instructed that they would make evaluations on behalf of another person, Person B, who was also described as another participant. They were asked the question "How would Person B evaluate this allocation?" Thus, participants in the expected evaluation condition were asked to imagine how another participant would evaluate Person A's outcome allocations.

Results

We normalized participants' evaluations between 0 and 1 and predicted them based on seven allocations that Person A made. We computed separate utility functions for each participant, which consisted of Self and Equality (i.e., self-interest and egalitarianism). We could not compute Other component, because the resource size was fixed (i.e., 8 coins) and Other was not independent of Self component.

    We ran a series of t-test to compare model parameters in the expected and the own evaluation conditions. We found that participants in the expected evaluation condition ($M = 0.09$, $SD = 0.17$) put less weight on equality than participants in the own evaluation condition ($M = 0.21$, $SD = 0.19$), $t(79) = -2.74$, $p = .008$, $\eta^2 = .087$ (see Figure 2.2). This supports the hypothesis that the more equal allocations the allocator made, the more people would think that others evaluate the allocations as less positive than the self. We also found that participants in the expected evaluation condition ($M =$

0.61, *SD = 0.14*) rated the allocations as less positive than participants in the own evaluation condition (*M* = 0.69, *SD = 0.17*), *t*(79) = -2.29, *p* = .025. Finally, the weight to Self did not differ between the expected evaluation (*M* = 0.45, *SD = 0.10*) and the own evaluation conditions (*M* = 0.44, *SD = 0.09*), *t*(79) = 0.29, *p* = .772.

Figure 2.2: Own and expected evaluations, in Experiment 2.2. The best fitted models are presented in line-graphs.
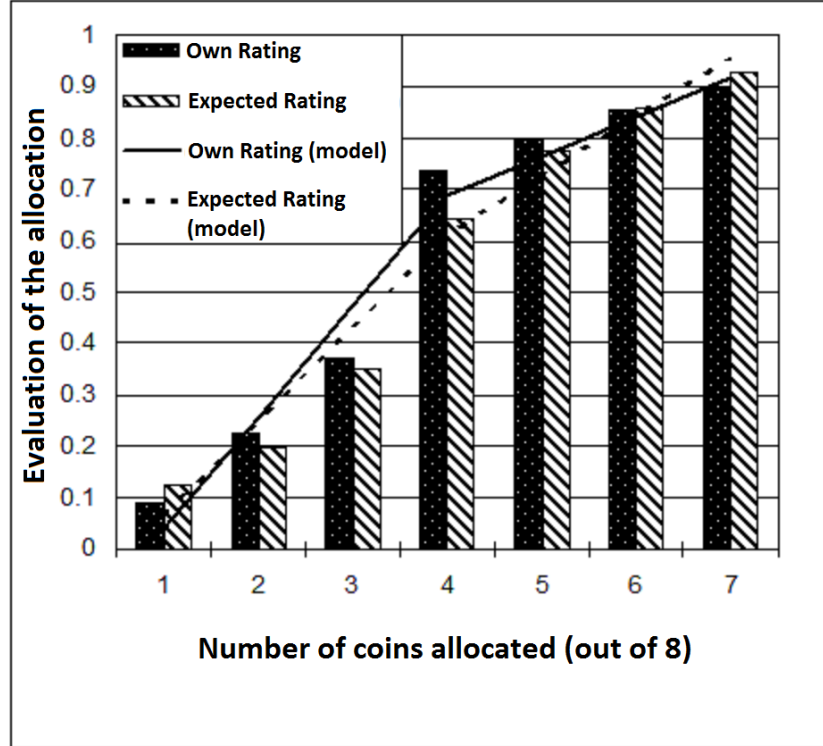
General Discussion

In the present research we assessed social motives that people attribute to other people, and compared these motives to those that people display in their own social behavior. Experiment 2.1 revealed that people expect that equality has a smaller impact on others' social decisions than it has on their own social decisions. Experiment 2.2 demonstrated that people expect others to rate equal or nearly equal allocations as less positive than they rate such allocations themselves. Hence, our research indicates that when people make social decisions (Experiment 2.1), or when they evaluate others'

social decisions (Experiment 2.2), people tend to underestimate egalitarianism in other people.

As previous research has also demonstrated, egalitarianism is a key factor in people's own behavior (see also Deutsch, 1975; Fehr & Schmidt, 1999; Van Lange, 1999), but it is notably absent in the expected behavior of others. People do not think that others would exhibit much egalitarianism or altruism. This conclusion is consistent with previous literature showing that people tend to overestimate self-interest in other people (Miller & Ratner, 1996, 1998; Miller, 1999; Epley, Caruso, & Bazerman, 2006; Vorauer & Sasaki, 2009; Vuolevi & Van Lange, 2010), but it also extends these findings by demonstrating the underestimation of egalitarianism. Because motives beyond self-interest are present in people's own behavior but notably absent in the expected behavior of others, elaborate models such as the integrative model of social value orientation (Van Lange, 1999) are needed for explaining people's own behavior, but quite simplistic self-interest models can be applied for explaining people's ideas about other people's behaviors.

What could be the mechanisms that account for the systematic underestimation of egalitarianism in other people? One general mechanism may be that people's beliefs are rooted in the norm of self-interest, which applies to others but not to the self. Such a straightforward and simple model, which does not recognize egalitarianism (or altruism) may serve as a powerful heuristic for understanding other's actions (Miller & Ratner, 1996, 1998; Miller, 1999). Other contributing mechanisms are that people have greater access to their own intentions (and social motives, such as egalitarianism) than to others' intentions, which typically need to be inferred from behavior (for an overview, see Pronin, 2008; see also Ross & Sicoly, 1979). Further, violations of equality by others may be more salient and memorable than violations of altruism, because the equality is often more normative (e.g., the fairness heuristic) than altruism.

Our findings have important implications for social interactions. Often cooperation would be mutually beneficial (e.g., dividing tasks according to expertise), but it may also require that both partners can rely on each other's egalitarianism (e.g., that each divides tasks in a fair manner). Human cooperation tend to be conditional (e.g., Axelrod, 1984; see also Komorita & Parks, 1995; Trivers, 1971), so people who question their partner's egalitarianism may decide not to cooperate (e.g., they choose to perform the task individually in a more laborious way). Because people tend to underestimate others' egalitarianism, as our research has demonstrated, cooperation may fail solely based on the inaccurate assumption that others do not adhere to equality.

To conclude, the present research identified a new phenomenon—the underestimation of egalitarianism in others—that is potentially important to many interdependent situations, including trust situations, negotiation, social dilemmas, either as tasks in the lab or as tasks in everyday life. One key challenge is to understand

how to overcome this systematic underestimation, because it may often hinder the potential for the development of interpersonal trust, integrative solutions, and human cooperation.