Asymmetric De-Biasing in Negotiation:

The Effect of Communication, Power Imbalance, and Deliberation

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Abstract

Egocentric notions of fairness lead to conflict escalation, impasse, and efficiency losses. While communication may attenuate this self-serving bias, the authors find that more powerful parties are relatively less inclined to adjust their fairness views following communication in a negotiation. A more even reduction of egocentrism is achieved when parties are exhorted to communicate under deliberative democracy conditions, by justifying their offers in terms of fairness. Two experiments using a three-party distributive negotiation task render support for these claims. However, the exhortation to communicate by justifying offers in terms of fairness also resulted in a higher likelihood of exclusion of less powerful parties. Discussion focuses on implications for our understanding of egocentric biases, power imbalance, and deliberative democracy theory.

Keywords: Egocentric biases, power imbalance, communication, deliberative democracy, negotiation.
Husbands and wives often argue bitterly because they both believe they contribute more than their fair share to domestic affairs; two companies may not sign a mutually beneficial joint venture because they both overestimate their contribution to the value created; Pakistan and India have not been able to craft a peace accord that both nations perceive as fair. In negotiations, the tendency for individuals to hold egocentric notions of fairness is considered one of the most significant psychological barriers to resolving disputes, causing conflict escalation, prolonged impasse, and efficiency losses (Babcock & Loewenstein, 1997; Babcock & Olson, 1992; Bazerman & Neale, 1982; Diekmann, Samuels, Ross, & Bazerman, 1997).

To transcend differences in perspective, such as those that may arise from egocentric biases, psychotherapists, consultants, and peace-builders alike often recommend more communication. Conventional wisdom suggests that expressing oneself and being able to listen are fundamental skills for solving our conflicts in daily life. Indeed, several studies have shown that communication among parties with conflicting interests may reduce egocentrism (Epley, Caruso, & Bazerman, 2006; Thompson & Loewenstein, 1992; Wade-Benzoni, Tenbrunsel, & Bazerman, 1996). But what happens when talk takes place among parties with different levels of power? Feminists have argued that gender-based power imbalance hurts the ability of women to exert influence, particularly when it comes to negotiating fair terms of the relationship in the workplace or in divorce mediation (Kolb & Coolidge, 1991; Silbey, 2002). More generally, powerful individuals are less able to consider the perspectives of others (Galinsky, Magee, Inesi, & Gruenfeld, 2006) and are less motivated to process new information (Brinol, Petty, Valle, Rucker, & Becerra, 2007; Gruenfeld, Inesi, Magee, & Galinsky, 2005). Thus, in the context of power imbalance, the effect of communication on egocentrism may be asymmetric, favoring the higher power party.
If power imbalance indeed plays a role in shaping notions of fairness as parties seek agreement, how might we level the playing field? The answer may stem from an ancient tradition in political theory, which has advocated a specific form of communication as a means of creating shared understandings. Deliberation theorists have long claimed that the exchange of reasons among citizens enables other-concerned changes in perspective (Chambers, 2003; Gutmann & Thompson, 2004; Mendelberg, 2002; Yankelovich, 1991). In other words, if communication is to have a transformative effect on all participants, it should be based on reason rather than on coercive power (Habermas, 1996). Otherwise, powerful parties may have a disproportionate influence on the outcomes of communication (Gramsci, 1971; Habermas, 1996). These claims suggest that improving the normative conditions of communication, such that parties are encouraged to base discussion on legitimate reasons rather than on power, might lead to a more symmetric effect of communication on the reduction of egocentrism.

The experiments reported here extend research and theory on egocentric biases, power imbalance, and democracy theory. We replicate the finding that communication attenuates egocentrism in notions of fairness, while exploring asymmetries in this de-biasing effect among parties with different levels of bargaining power. We also test the effectiveness of a strategy based on deliberative democracy theory in reducing the asymmetry in de-biasing. This strategy consists of an exhortation to exchange reasons during the negotiation.

De-Biasing Egocentric Notion of Fairness

According to the theory of egocentric biases, in ambiguous situations where multiple fairness criteria might apply, individuals tend to claim as fair for themselves more than a neutral arbitrator would give them (Babcock & Loewenstein, 1997; Babcock & Olson, 1992; De Dreu & Van de Vliert, 1995; Diekmann et al., 1997; Loewenstein, Babcock, Issacharoff, & Camerer
1995). Parties value fair treatment and are willing to punish perceived unfairness (Babcock & Loewenstein, 1997; Güth, Schmittberger, & Schwarze, 1982; Kahneman, Knetsch, & Thaler, 1986). Consequently, the more parties claim as fair for themselves, the more challenging it becomes to reach agreement in a negotiation, and the risk of impasse and conflict escalation increases.

Several studies on egocentrism show that this bias cannot be explained as a strategic move to advance self-interest. Rather, like other judgment biases (for reviews see Wegner & Bargh, 1998), unconscious mental processes lead to selective storage and retrieval of information which, in turn, give rise to distorted fairness judgments. Although these processes are triggered by egoistic motivations, individuals are unable to make unbiased fairness judgments even when given monetary incentives to be as objective as possible (Babcock & Loewenstein, 1997).

Given the pervasiveness of egocentric biases, it is not surprising that attenuating such biases and mitigating their negative consequences has proven to be quite difficult (for reviews see Bazerman, Curhan, & Moore, 2001; Epley & Caruso, 2004). Past efforts to do so have included a host of different approaches, such as providing individuals with additional information (Babcock, Loewenstein, & Issacharoff, 1996; Bazerman & Neale, 1982; Thompson & Loewenstein, 1992), changing the context in which fairness judgments are made (Diekmann, 1997), or focusing individuals’ attention on different aspects of the situation (Babcock et al., 1996; Cain, Moore, & Loewenstein, 2005; Carruso, Epley, & Bazerman, 2006; Epley et al., 2006; Savitsky, Van Boven, Epley, & Wight, 2005). However, most of these efforts have proven inconsistently effective, outright ineffective, or even counterproductive (for reviews see Epley & Caruso, 2004; Bazerman, 2002).
Notwithstanding this conflicting evidence on the efficacy of de-biasing efforts, two approaches stand out as being consistently effective at reducing egocentrism—namely, perspective-taking and communication. *Perspective-taking* is “the act of intuiting, as accurately as possible, another person’s thoughts, feelings, attitudes, interests, or concerns in a particular situation” (Epley et al., 2006, p. 873). Because egocentrism has been associated with a tendency to focus excessively on one’s own interests, feelings, and concerns, it seems reasonable to expect that refocusing the attention of individuals on the perspectives of others will reduce egocentrism, as documented in several studies (Babcock et al., 1996; Carruso et al., 2006; Epley, et al., 2006; Savitsky et al., 2005). For example, Babcock, Loewenstein, and Issacharoff (1997) effectively reduced egocentrism and associated levels of impasse by asking negotiators to identify the weakness of their case before making fairness judgments. However, a series of experimental studies shows that, although perspective-taking does reduce egocentrism, it may also have significant negative consequences on behavior, such as lower levels of cooperation (Epley et al., 2006) and reduced desire to collaborate (Caruso et al., 2006). The problem seems to be that perspective-takers, particularly when they have conflicting interests or views, tend to visualize overly self-serving and egotistical others, leading to cynical attributions (Caruso et al., 2006; Epley et al., 2006; Kramer, 1994). Perhaps as a result of these negative traits that they perceive in others, perspective-takers behave more egotistically themselves (Caruso et al., 2006; Epley et al., 2006).

The other de-biasing technique that has received a reasonable amount of empirical support is communication among parties with conflicting interests (Epley et al., 2006; Thompson & Loewenstein, 1992; Wade-Benzoni et al., 1996). Whereas perspective-taking is the act of “intuiting” others’ perspectives, communication can involve a more direct and explicit exchange
of information about perspectives. Thus, communication carries less risk of overestimating the level of self-centeredness of others and consequently has a lower likelihood of spawning egoistic behaviors. A study by Epley et al. (2006) compared the effects of communication and perspective-taking on levels of egocentrism in a social dilemma, concluding that communication and perspective-taking have effects of an equivalent magnitude on egocentrism, but perspective-taking decreases cooperation, whereas communication increases it. Furthermore, in their study, participants who had already been instructed to engage in perspective-taking did not benefit additionally from communication, remaining at levels of egocentrism similar to those of participants who engaged only in either communication or perspective-taking alone. These results suggest that the effect of communication on egocentrism results from perspectives being exchanged directly, which might explain why communication results in comparable effects on egocentrism but with fewer negative side effects than perspective-taking alone. Indeed, several studies have shown that communication between parties with conflicting interests reduces egocentrism and fosters pro-social behavior, such as higher levels of cooperation (Epley et al., 2006; Wade-Benzoni, et al., 1996) and lower levels of impasse (Thompson & Loewenstein, 1992).

In our studies, we predicted that communication within the context of a negotiation would lead to a reduction in egocentrism.

Power Imbalance as a Source of Asymmetry in De-Biasing

If listening and understanding others’ perspectives explains the effect of communication on egocentrism, then there are two reasons why power differences might lead to asymmetries in de-biasing. First, the distribution of power might affect the ability and motivation to consider perspectives expressed by others during communication, such that powerful individuals are less
able and motivated to process new information that might alter their fairness judgments. Second, less powerful individuals might be less able or less willing to express their perspectives explicitly.

Evidence for the first assertion comes from a number of experiments suggesting that powerful individuals are less capable of considering others’ perspectives and less motivated to do so. For example, Galinsky et al. (2006) showed that individuals primed to feel powerful were less capable of adopting the visual point of view of others; had a heightened tendency to anchor themselves on their own vantage point, failing to anticipate the perspective of others who had less information; and were less able to discern the emotions of other individuals. Gruenfeld et al. (2005) found that individuals in a position of power, such as managers, team leaders, or individuals primed to feel powerful, were more likely to objectify their social targets than less powerful individuals. This tendency to objectify might in turn reduce the motivation of powerful parties to listen to less powerful others. Similarly, a series of experiments by Brinol et al. (2007) concluded that more powerful individuals feel less need to attend to counterattitudinal information. This later result suggests that powerful individuals might have a heightened tendency to ignore information favoring notions of fairness that are not consonant with their own egocentric notions of fairness. While none of these studies were intended to assess the impact of communication per se, they suggest that powerful individuals will be less inclined to consider the perspectives expressed by less powerful individuals during communication.

Evidence for the second assertion, that lower power parties are less willing or less able to express their views, comes from research in political science (e.g., James, 1959; Mansbridge, 1983; Strodtbeck, James, & Hawkins, 1957). For example, jury members with higher income or higher levels of education tend to speak more and be perceived as more accurate in their
judgments than jury members with lower income or lower levels of education (Hastie, Penrod, & Pennington, 1983; Strodtbeck et al., 1957). Moreover, women participate less frequently than men in jury deliberations (e.g., James, 1959; Nemeth, Endicott, & Wachtler, 1976; Strodtbeck et al., 1957). In town hall meetings, only a few individuals participate on a regular basis, and these individuals tend to have higher-than-average levels of power or status (Mansbridge, 1983).

Based on these two assertions concerning perspective-taking among higher power parties and participation rates among lower power parties, we predicted that communication would have an asymmetric effect on the reduction of egocentrism across power levels, such that higher power parties would be less inclined than their lower power counterparts to adjust their egocentric views in a negotiation.

Countering the Effects of Power Imbalance Through Deliberation

The effects of communication processes on pro-social behavior have been widely discussed by political theorists (Chambers, 2003; Gutmann & Thompson, 2004; Habermas, 1996; Mansbridge, 1983; Mendelberg, 2002). In particular, deliberation has been said to reduce narrow self-interest, promote convergence to shared principles, and encourage public-spirited changes in perspective (Chambers, 2003; Gutmann & Thompson, 2004; Mendelberg, 2002; Yankelovich, 1991). If a transformation in fairness views, from egocentric to nonegocentric, qualifies as a “public-spirited” change in perspective, then all empirical evidence for a de-biasing effect of communication render at least partial support for the benefits attributed to deliberation.

However, consistent with our prediction that communication might have asymmetric effects on fairness views, political theorists have cautioned that communication might help preserve or even exacerbate preexisting power imbalances (Gramsci, 1971; Habermas, 1996; Mansbridge, 1983; Mendelberg, 2002; Przeworski, 1998; Sanders, 1997; Young, 1996). Some
scholars have argued that powerful individuals participate more frequently and persuasively in deliberative forums (James, 1959; Mansbridge, 1983; Strodtbeck et al., 1957); others have pointed out that powerful parties might be able to generate the perception that their views are more widely accepted and thus foster conformity to these views (Przeworski, 1998); still others have suggested that the preferences and even identities of citizens might be manipulated by powerful elites who have resources to shape the content of mass communication (Stokes, 1998; Zaller, 1992).

To level the playing field, political theorists have argued that communication should comply with a series of normative preconditions, so as to qualify as deliberation. These preconditions include equal rights, mutual respect, and a commitment to base discussion on reasons rather than on coercive power (Habermas, 1996). While such claims may be compelling from a theoretical perspective, political scientists have noted that empirical evidence has “lagged behind theory and practice” (Delli Carpini, Cook, & Jacobs, 2004, p. 316) and that there is “thin or nonexistent” (Mendelberg, 2002, p. 151) evidence for many of the claims deliberation theorists make.

From a social psychological perspective, exhortations to strive for these ideal normative preconditions could have framing effects on the conversation, such that participants might feel compelled to act in line with the exhortation. Framing effects have been documented in several studies (e.g., Larrick & Blount, 1997; Liberman, Samuels, & Ross, 2004). For example, Liberman et al. (2004) found that participants cooperated more in a prisoner’s dilemma when told that they were playing the “community game,” as opposed to the “wall street” game (see also Kay & Ross, 2003). Frames seem to shape interpretations and construals of situations, evoking norms and definitions of what is acceptable or appropriate behavior (Ross & Ward,
1996; see also Bazerman, Curhan, Moore, & Valley, 2000). Thus, an exhortation to base discussion on reasons rather than coercive power might moderate the claims of strong parties while empowering weak parties, thereby leading to a more symmetric de-biasing of egocentrism.

Based on the theory of deliberative democracy and empirical research from social psychology, we hypothesized in Study 2 that framing negotiations with an exhortation to comply with the normative preconditions of deliberation would lead to more symmetric debiasing. In particular, we exhorted participants to justify their negotiation offers in terms of fairness and predicted that this exhortation would level the playing field by leading to a more symmetric reduction in egocentric notions of fairness.

Study 1

The distributive aspects of a negotiation are often the most difficult to resolve, particularly when multiple fairness criteria might apply and there is ambiguity with respect to what may constitute a fair distribution. In such situations, the literature reviewed above suggests that negotiators will tend to hold egocentric notions of fairness that are likely to delay settlement and may even lead to conflict escalation.

In Study 1 we predicted that participants would hold egocentric notions of fairness at the beginning of a three-party distributive negotiation but that, following negotiations with unrestricted communication, levels of egocentrism would be significantly lower. We also explored whether negotiations with unrestricted communication would lead to asymmetric de-biasing, such that parties with more bargaining power would be less influenced by the interaction than parties with less bargaining power.
Method

Participants

Our participant sample was composed of 147 undergraduate students in a negotiation course and 168 executives enrolled in a negotiation workshop who participated in the context of an in-class exercise. Because of missing data, 10.9\% of participant responses were discarded from the analysis, along with those of their respective counterparts, leaving a total of 70 triads for the analysis: 38 triads comprised of undergraduates and 32 triads comprised of executives.

We computed \( t \)-tests comparing the means for undergraduates and executives on all dependent variables and found no significant differences (all \( ps > .10 \)). Hence the two subsamples, undergraduates and executives, were pooled together for all subsequent analyses.

The Coalition Game

To test predictions about power and egocentrism we used a three-party, face-to-face negotiation simulation called the Coalition Game. This role-play was designed by Raiffa (1982), based on a real-life negotiation about how to allocate the benefits of a joint venture between three for-profit organizations. It involves three players (A, B, and C) and a simple distributive task. If players A, B, and C agree to sign on to the final deal, they have to decide how to allocate 121 units of value; if only players A and B sign on, they distribute 118 units; if only players A and C sign on, they distribute 84 units; and if only players B and C sign on, they distribute 56 units. In the event of a two-party agreement, the third party earns zero units.

Insert Table 1 about here

Insert Table 1 about here
Given this payoff function (see Table 1), the three players have to negotiate who is in the deal and how much each player receives. Participants are given 20 min to reach a deal and are told that any agreement they reach must be sustained for at least 1 min. If by the end of the 20 min, parties do not reach an agreement that lasts more than a minute, all parties earn zero points.

In this setting, it is not clear what a fair outcome should look like. Those favoring equality might regard an equal split of 121 as the only fair solution. Those inclined to support equity would view a proportional split (points for A > points for B > points for C) as most appropriate, since such a distribution would allocate more to those who contribute more. We predicted that this ambiguity as to which criterion of fairness is the most appropriate would generate egocentric notions of fairness, particularly for the most and least powerful parties. In other words, individuals assigned to the role of C (the least powerful party) would be more likely to view an equal split as the fairest outcome, while those playing A (the most powerful party) would be inclined to favor a proportional split—one recognizing that player A “brings more points to the table.”

In the coalition game, bargaining power is distributed asymmetrically: If player C leaves the negotiation, only three points are lost, but if players A or B withdraw, the total number of points shrinks by 62 or 34, respectively. In other words, player A can punish the other two players by simply withdrawing from the negotiation, whereas player C has almost no power to do so. Note that player B has less at stake with respect to these different fairness criteria, gaining more or less the same number of points with an equality- or equity-based rule. Therefore, we focus on players A and C to test our predictions of asymmetric de-biasing, with the expectation that communication would reduce egocentrism to a greater extent for player C than for player A.
**Procedure**

Participants were randomly assigned to one of three roles (A, B, or C) within a triad that was also randomly assigned to one of two experimental conditions. All participants then received written instructions for the Coalition Game and were given 10 min to read them. Next, participants were instructed to complete a pre-negotiation survey, negotiate for 20 min, and then complete a post-negotiation survey.

To elicit notions of fairness, we asked the following question, hereafter referred to as the *fairness question*:

Suppose you were a neutral arbitrator asked by three other people in this exercise to decide how to allocate the 121 points among them. Please indicate how many points you would allocate to each party in order to be as fair as possible:

\[
\begin{align*}
A: & \quad B: \quad C: \\
\end{align*}
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To test our hypotheses, we needed to measure notions of fairness before and after the negotiation. However, based on past research (e.g., Ross & Ward, 1996), we were concerned that eliciting notions of fairness might have a framing effect on the behavior of individuals. Furthermore, evidence of anchoring effects in the context of negotiation (Curhan, Neale, & Ross, 2004; Galinsky & Mussweiler, 2001) led us to anticipate that pre-negotiation responses would anchor post-negotiation responses to the fairness question. Hence, to control for the framing and anchoring effects of the pre-negotiation fairness question, we designed the following two experimental conditions. In the *pretest* condition, the pre-negotiation survey included the fairness question and a filler task, whereas in the *no-pretest* condition, the pre-negotiation survey
included only the filler task. The post-negotiation survey included the fairness question for all triads. Hence, the relevant comparison was between the pre-negotiation fairness measure for triads in the pretest condition and the post-negotiation fairness measure for triads in the no-pretest condition. This comparison allowed us to evaluate the effect of the negotiation on overall levels of egocentrism, while controlling for the anchoring and framing effects of the pre-negotiation fairness question.

**Measures**

_Egocentrism._ To assess levels of egocentrism in the Coalition Game, we used the triadic sum of fairness claims (i.e., the sum of points that each of the three parties assigned to his or her own role in response to the fairness question). An equivalent measure was used by Wade-Benzoni et al. (1996). In the absence of an egocentric bias, we would expect that, on average, the sum of fairness claims would equal the total number of points available. For example, if player A allocated 40.3 to herself, player B allocated 40.3 to herself, and player C allocated 40.3 to himself, then their sum of fairness claims would be exactly 121 points. Similarly, if player A believed she should be rewarded with extra points because she is the party that brings more points to the final deal, and player C followed a similar reasoning, assigning less than one third of the points to himself, then the sum of fairness claims still might be close to 121. In contrast, if participants entered the negotiation with egocentric notions of fairness, their sum of fairness claims would be higher than what a neutral arbitrator would assign them. For example, if player A believed in a proportional split, while player C believed in an equal split, then the sum of fairness claims within this triad would be likely to exceed 121 points.

Looking first at pre-negotiation responses, we expected a mean sum of fairness claims larger than 121, which would be evidence of egocentrism prior to communication. Looking next

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1 The filler task instructed participants to write a brief description of their strategy for the negotiation.
at the post-negotiation responses, we expected that post-negotiation egocentrism in the no-pretest condition would be lower than pre-negotiation egocentrism in the pretest condition, and we interpreted this as evidence of the reduction of egocentrism as a result of the negotiation. In contrast, we expected little or no effect on the sum of fairness claims from the negotiation in the pretest condition, because of the anticipated anchoring effect of having asked the fairness question 20 min earlier, at the outset of the negotiation.

*Fairness claims*. To assess the impact of negotiations on egocentrism at the individual level, we also looked at the fairness claims of each participant individually. The more egocentric the individual, the more he or she should claim for his or her own role. In accordance with the prediction that communication attenuates egocentrism, we expected that fairness claims would be significantly smaller after the negotiation (in the no-pretest condition) than before (in the pretest condition). However, in accordance with the prediction that communication attenuates egocentrism asymmetrically, we expected that the difference between pre- and post-negotiation fairness claims would be more pronounced for player C (the least powerful party) than for player A (the most powerful party).

*Results*

Similar to Raiffa’s (1982) results using the Coalition Game, in which 90% of the triads reached three-way agreements, in our study 66 of the 70 triads (or 94%) reached three-way agreements. The remaining four triads reached two-way agreements. All 70 triads were included in the analyses that follow.

*Pre-Negotiation Egocentrism*

In the pretest condition, pre-negotiation egocentrism (or the sum of fairness claims) averaged 126.0 points. As depicted in Figure 1, this mean was significantly greater than 121 (the
total number of points to be allocated), $t(35) = 2.07, p < .05$. In fact, the sum of fairness claims exceeded 121 points in 23 out of 36 triads (or 64%). In other words, notions of fairness were significantly egocentric prior to the negotiation.

Comparison Between Pre- and Post-Negotiation Egocentrism

Our prediction that notions of fairness would be less egocentric after negotiations involving unrestricted communication was supported by our comparison of pre- and post-negotiation egocentrism. We compared the pre-negotiation egocentrism in the pretest condition with post-negotiation egocentrism in the no-pretest condition and found a significant difference in means, whereby, as predicted, the sum of fairness claims was lower after the negotiation ($M = 115.4, SD = 12.7$), than before ($M = 126.0, SD = 14.3$), $t(68) = 3.29, p < .01$.

Before the negotiation (in the pretest condition), 64% of the triads exhibited some degree of egocentrism (sum of fairness claims $> 121$), whereas after the negotiation (in the no-pretest condition), only 32% of triads exhibited egocentrism. In fact, on average, post-negotiation notions of fairness were significantly less than 121, $t(33) = -2.53, p < .05$. The dotted line in Figure 1 depicts the extrapolated change in notions of fairness.

Fairness Claims for Self

Examining data at the individual level, we compared pre-negotiation fairness claims for self (in the no-pretest condition) with post-negotiation fairness claims for self (in the pretest condition), for each of the three roles in the Coalition Game. The difference for all three roles was in the predicted direction (i.e., levels of egocentrism were lower following negotiations with
communication). However, as depicted in Table 2, this difference was statistically significant for player C, marginally significant for player B, and not significant for player A. This result supports our prediction that the least powerful party (player C) would be more likely than the most powerful party (player A) to adjust his or her notion of fairness.

Discussion

The results from Study 1 are consistent with previous research showing that communication among individuals with conflicting interests reduces egocentrism in fairness views. However, this effect did not manifest itself evenly across participants. Rather, only individuals in the lowest power position were significantly affected by communication. By contrast, participants in the highest power position did not show a significant reduction in egocentrism following negotiations.

While our theory attributes the reduction of egocentrism to the exchange of perspectives enabled by communication, there are other equally plausible explanations. For example, it is possible that face-to-face interactions enabled the development of rapport among participants so as to reduce egocentrism. Alternatively, it is also possible that the process of exchanging offers and counteroffers increases understanding of the dynamics of the game, thereby leading to more realistic aspirations and, consequently, lower levels of egocentrism. Finally, several additional explanations might implicate the outcomes themselves in fostering lower levels of egocentrism, more than the process of communication. For example, outcomes might exert an anchoring effect on participants’ notions of entitlement (Kahneman & Tversky, 1982), such that post-negotiation
notions of fairness were correlated with outcomes, regardless of what was communicated in the negotiation.

Study 2 was designed to rule out these alternative explanations. First, all participants negotiated anonymously through a computer-based program. This allowed us to control for the effect of face-to-face contact. Second, to rule out the effect of exchanging offers and counteroffers, we compared a condition in which participants could exchange unrestricted written communication against a condition were participants could only exchange offers and counteroffers. Third, we designed a series of control variables, including the number of offers exchanged, the number of points earned, and a dummy variable for whether participants reached a two- or three-way agreement. We predicted that unrestricted communication would lead to lower levels of egocentrism than pure bargaining, even after introducing these control variables.

Finally, in Study 2 we also sought to replicate the asymmetric de-biasing effect found in Study 1 and to explore the effectiveness of an exhortation to exchange reasons as a means of leveling the playing field in terms of more symmetric de-biasing.

Study 2

In Study 2 we compared the effect of negotiations involving unrestricted communication with those based on pure bargaining, in which participants could only exchange offers and counteroffers. Our prediction was that levels of egocentrism would be lower following unrestricted communication than following pure bargaining. In the pure bargaining condition, there was no explicit exchange of perspectives, so we saw this as a control condition against which to measure the effect of communication. Furthermore, by controlling for negotiation outcomes and the number of offers exchanged, we ruled out the potential for certain alternative explanations, such as anchoring. We also sought to replicate the finding that the effect of
unrestricted communication would be asymmetric across individuals with different levels of bargaining power, even in anonymous, computer-based interactions. Finally, we tested a strategy based on deliberative democracy theory to generate more symmetric de-biasing. This strategy involved communication plus an exhortation to use reasons. We predicted that negotiations under this condition would also lead to lower levels of egocentrism than pure bargaining, but that the de-biasing effect would be more evenly distributed across parties with different levels of power.

Method

Participants

Participants were 148 MBA students taking part in an outside-of-class assignment in a course on negotiation. The surveys of 8 individuals and their respective counterparts were discarded because of incomplete data, leaving 120 individuals composing 40 triads for the analysis.

Procedure

Participants engaged in the Coalition Game over the course of a full week, using a computer program that allowed for asynchronous communication. If the parties in a triad had not reached a two- or three-way agreement by the deadline, then they all received zero points. After the deadline, all participants were instructed to complete a post-negotiation survey that included the fairness question (described in Study 1) to measure post-negotiation fairness claims and egocentrism.

All participants were randomly assigned to a role within a triad and to one of the following three conditions. In the pure bargaining condition, which was conceptually a control condition, participants could only exchange offers. In the communication condition, participants
could exchange offers and attach written messages in a text box with a legend that read “Use the following space to write any message you wish to attach to your offer.” In the communication plus reasons condition, participants could exchange offers and attach written messages, but they were also exhorted to exchange reasons. Because notions of fairness constituted our main dependent variable, we designed the exhortation to exchange reasons with an explicit focus on fairness perspectives. The following legend accompanied the text box for written messages: “Use the following space to write any message you wish to attach to your offer and please explain why you think your offer is fair.”

In all three conditions, participants interacted anonymously but were told that they would learn the identity of their counterparts at the end of the exercise. Anonymity reduced noise associated with the relational “baggage” that participants, as classmates in a 2-year MBA program, brought from previous interactions. However, informing participants that they would ultimately learn the identity of their counterparts created a more realistic setting, similar to real-life negotiations and public deliberations, where participants often care about their reputations and face high relational stakes.

We did not measure fairness claims prior to the negotiation both because we were mainly concerned with variation across different modes of interaction and because we wanted to avoid the framing and anchoring effects discussed in Study 1.

Measures

Egocentrism. We used the same triadic measure of egocentrism as in Study 1 to compare egocentrism at the triadic level across the three experimental conditions.

Fairness claims. To examine our hypothesis concerning asymmetry in the effect of negotiations on egocentrism across power levels, we compared post-negotiation fairness claims
for players A and C in the control condition (i.e., pure bargaining) versus the two experimental conditions involving communication (i.e., communication and communication plus reasons). We predicted that the difference in fairness claims between the communication condition and the pure bargaining condition would be greater for player C than for player A, but that this would not be the case for the difference in fairness claims between the communication plus reasons condition and the pure bargaining condition.

Control variables. To rule out other alternative explanations that might explain differences in the effect of negotiations on egocentrism across conditions, we used the following controls: (1) negotiation outcomes (i.e., the number of points obtained in the negotiation), (2) the number of offers exchanged, and (3) a dummy variable for whether the participant was part of a two- or three-way agreement.

Results

Pure Bargaining Versus Communication

Figure 2 depicts mean sum of fairness claims using the triad as the unit of analysis. In the pure bargaining condition, the post-negotiation sum of fairness claims was significantly egocentric \( (M = 130.6, SD = 14.0), t(39) = 2.35, p < .05 \). By contrast, in both conditions involving communication (i.e., the communication condition and the communication plus reasons condition), the post-negotiation sum of fairness claims were not egocentric. In fact, the sum of fairness claims was even less than 121 in the communication condition \( (M = 113.3, SD = 23.6) \) and in the communication plus reasons condition \( (M = 119.5, SD = 14.1) \), although not statistically significantly so, \( t(39) = -1.29, ns; t(40) = 0.38, ns \), respectively.
When we compared mean levels of egocentrism across conditions, the sum of fairness claims was higher in the pure bargaining condition than in either of the two conditions involving communication (see Figure 2). Comparing the sum of fairness claims in the pure bargaining condition versus the communication condition, this difference in egocentrism is significant, $t(23.5) = 2.39, p < .05$. Comparing the sum of fairness claims in the pure bargaining condition versus the communication plus reasons condition, the difference was marginally significant, $t(22.8) = 1.96, p < .10$. Taken together, these results largely support our prediction that negotiations involving communication result in lower post-negotiation egocentrism than negotiations involving only the exchange of offers.

**Controlling for Outcomes**

Given the possibility that outcomes of the negotiations varied across the three experimental conditions, and that this variation played a role in the reduction of egocentrism, we conducted a series of regressions, controlling for outcomes. We tested four different regression models (see Table 3) using ordinary least squares regression (with errors clustered by triads) with fairness claims for self as the dependent variable and dummy variables for roles and experimental conditions. In Model 1, with no outcome controls, the coefficients for the communication condition ($\beta = -5.76, p < .01$) and the communication plus reasons condition ($\beta = -3.86, p < .05$) were negative and significant, indicating that fairness claims were significantly lower in these conditions than in the pure bargaining condition (since the dummy variable for the pure bargaining condition is the omitted dummy variable). In Model 2, we
controlled for numeric outcomes (i.e., number of points obtained in the negotiation) and found that this control variable was not significant ($\beta = 0.01$, ns), while differences between experimental conditions remained significant. In Model 3, we restricted the analysis to those individuals who obtained nonzero outcomes and found that outcomes reached were correlated with fairness claims for individuals who received nonzero scores, yet differences between the pure bargaining condition and the other two conditions remained statistically significant.

In Model 4, we added two additional control variables: the number of offers exchanged during the negotiation (measured for each triad) and a dummy variable to account for whether the individual was part of the final deal. Both of these control variables yielded significant coefficients, but the coefficients for dummy variables of experimental conditions remained highly significant. The significance of the variable for number of offers exchanged suggests that the intensity of the interaction is an additional factor leading to the reduction of egocentrism. Nevertheless, in all four models, the differences between experimental conditions remain significant, even after we controlled for outcomes, number of offers exchanged, and participation in the final agreement. These results suggest that the explicit exchange of perspectives, which was not possible in the pure bargaining condition, might explain the effect of communication on egocentrism.

**Exhortation to Justify and Power Imbalance**

In our results from analyses conducted at the level of the triad, we found that post-negotiation fairness claims were significantly egocentric in the pure bargaining condition yet not
egocentric in either the communication or communication plus reasons conditions. These results are consistent with the explanation that participants reduced their levels of egocentrism when they were able to communicate. However, analyses at the triadic level cannot determine whether there are asymmetries across roles in the reduction of egocentrism. Thus, we used post-negotiation notions of fairness for players A and C in the pure bargaining (control) condition as our baseline against which to measure the effect of communication in each of the other two experimental conditions.

Figure 3 depicts the mean fairness claims for each of the three roles in each of the three experimental conditions. Comparing fairness claims for self in the communication condition against fairness claims for self in the pure bargaining condition, we find no significant difference for player A, \( t(24) = 1.01, \text{ns} \), but a significant difference for player C, \( t(24) = 2.01, p < .05 \). These results replicate our finding from Study 1 in that communication produces an asymmetric de-biasing effect whereby low power parties reduce their egocentrism more than high power parties.

Comparing fairness claims for self in the communication plus reasons condition against fairness claims for self in the pure bargaining condition, we find no significant differences for player A, \( t(23) = 1.12, \text{ns} \), or for player C, \( t(23) = .99, \text{ns} \). These results, taken together with triadic level results showing that the communication plus fairness condition was associated with an overall reduction in egocentrism relative to the pure bargaining condition, support our
prediction that an exhortation to justify offers in terms of fairness produces a more symmetric reduction in egocentrism.

*Differences in Likelihood of Impasse and Inefficiencies*

The percentage of triads that reached impasse in the pure bargaining, communication, and communication plus reasons conditions was 17%, 23%, and 20%, respectively. According to a probit regression using dummy variables for impasse (dependent variable) and for each of the two conditions in which triads could communicate freely (independent variables), neither the coefficient for communication ($\beta = 0.13, SE = 0.56, ns$) nor the coefficient for communication plus reasons ($\beta = 0.23, SE = 0.58, ns$) were significant, suggesting that the probability of reaching an agreement (whether two-way or three-way) was not significantly different between the pure bargaining condition and either of the two conditions involving communication.

We also examined the percentage of triads that reached two-way agreements, which was 50% in the pure bargaining condition, 7% in the communication condition, and 31% in the communication plus reasons condition. A similar probit regression, in which we used dummies for two-way agreements and for each of the two conditions in which triads could communicate, rendered a negative and significant coefficient for the communication condition ($\beta = -1.50, SE = 0.62, p < .05$), but a nonsignificant coefficient for the communication plus reasons condition ($\beta = -0.50, SE = 0.52, ns$). The significant result for the communication condition suggests that negotiations with unrestricted communication are associated with a lower likelihood of exclusion of one of the parties (inevitably one of the low power parties) from the deal as compared with negotiations involving only the exchange of offers. We had not anticipated the nonsignificant result for the communication plus reasons condition, but we further explored with a third regression. Using probit regression analysis of two-way agreements,
with the communication condition as the omitted dummy variable, we found that the coefficient for the communication plus reasons condition was positive and marginally significant ($\beta = 0.99$, $SE = 0.62$, $p < .10$), suggesting that exhortation to justify in terms of fairness increases the likelihood of one party being excluded. In all cases, the excluded parties were B or C, who are the least powerful parties in the coalition game.

Discussion

Taken together, our results suggest that communication among parties with conflicting interests may significantly reduce egocentrism but that this effect can be asymmetrically distributed among parties with different levels of bargaining power. When negotiators are exhorted to justify their claims in terms of fairness, the asymmetric effect disappears, yet the likelihood of exclusion increases. These findings have implications for our understanding of egocentric biases, power imbalance, and deliberative democratic theory.

With respect to egocentric biases, results from Studies 1 and 2 replicate previous findings that communication among parties with conflicting interests attenuates self-serving biases in notions of fairness. Furthermore, results of Study 2 suggest that this reduction in egocentrism cannot be fully explained by the effects of communication medium, the exchange of offers and counteroffers, or anchoring. Rather, the results are consistent with our explanation that egocentrism is reduced by the direct exchange of perspectives that is enabled during communication.

In relation to power imbalance, findings from Studies 1 and 2 suggest that unrestricted communication in negotiations may lead to asymmetric de-biasing, where only the less powerful parties significantly adjust their fairness views. Furthermore, although an exhortation to justify offers in terms of fairness may lead to a more symmetric reduction of egocentrism, exclusion of
the less powerful parties and associated efficiency losses are more likely, when compared against negotiations in which parties are not exhorted to justify in this manner.

These findings also have relevance to deliberative democracy theory in three ways. First, the de-biasing effect of communication renders support for the idea that deliberation enhances public-spirited changes in perspective. Second, the finding that unrestricted communication may lead to asymmetric changes in fairness views is in line with the claims of several deliberation theorists, such as Habermas (1996) and Mansbridge (1983), who cautioned that communication in the context of power imbalance might help perpetuate or exacerbate inequalities. Our results suggest that one way in which communication might perpetuate power imbalance is by transforming notions of fairness held by the least powerful, such that weak parties come to view inequalities as fair, while strong parties remain egocentrically biased. This result cannot be explained by differences in access to media or by differences in education levels, because participants in our studies were randomly assigned to power levels. Third, deliberative democracy emphasizes the importance of basing discussion on reasons rather than on power, as means of neutralizing the effect of the latter on the outcome of communication. However, the fact that the exhortation to exchange reasons increased the likelihood of exclusion suggests that even true deliberation might be insufficient as a means of leveling the playing field in situations of significant power asymmetries. This unexpected result suggests that attention should also be geared toward changing the objective power inequalities, through coalition building or other means, rather than relying on talk alone, or on the “generosity” of the powerful to act in accordance with shared principals discussed in a deliberation. Otherwise well-intentioned efforts might lead to frustration and marginalization of the less powerful.
References


Table 1

*Payoffs in the Coalition Game*

<table>
<thead>
<tr>
<th>Parties in the coalition</th>
<th>Total payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, B, C</td>
<td>121</td>
</tr>
<tr>
<td>A, B</td>
<td>118</td>
</tr>
<tr>
<td>A, C</td>
<td>84</td>
</tr>
<tr>
<td>B, C</td>
<td>56</td>
</tr>
<tr>
<td>A</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
</tr>
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</table>

*Note.* Taken from Raiffa (1982).
Table 2

Pre-Versus Post-Negotiations Fairness Claims (Study 1)\textsuperscript{a,b}

<table>
<thead>
<tr>
<th>Role</th>
<th>Pre-negotiation fairness claims (pretest condition)</th>
<th>Post-negotiation fairness claims (no-pretest condition)</th>
<th>t test for difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>48.4</td>
<td>45.6</td>
<td>1.16</td>
</tr>
<tr>
<td>B</td>
<td>42.4</td>
<td>40.5</td>
<td>1.70\textsuperscript{†}</td>
</tr>
<tr>
<td>C</td>
<td>35.2</td>
<td>29.3</td>
<td>1.95\textsuperscript{*}</td>
</tr>
</tbody>
</table>

Note. We used two-tailed t tests, for two unpaired samples, assuming different variance. The number of observations was $N = 36$ in the pretest condition and $N = 34$ in the no-pretest condition.\\\textsuperscript{†}p < .10. \textsuperscript{*}p < .05.
Table 3

Results of Ordinary Least Squares Regression Analysis of Fairness Claims on Experimental Condition, Outcomes, and Communication Content (Study 2)

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Model 1&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Model 2&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Model 3&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Model 4&lt;sup&gt;a&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>Constant</td>
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<td>53.90&lt;sup&gt;**&lt;/sup&gt;</td>
<td>40.00&lt;sup&gt;**&lt;/sup&gt;</td>
<td>57.37&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
<tr>
<td>Communication condition (dummy)</td>
<td>-5.76&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-5.76&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-7.15&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-6.14&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
<tr>
<td>Communication plus reasons condition (dummy)</td>
<td>-3.68&lt;sup&gt;*&lt;/sup&gt;</td>
<td>-3.68&lt;sup&gt;*&lt;/sup&gt;</td>
<td>-4.06&lt;sup&gt;*&lt;/sup&gt;</td>
<td>-4.66&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>Role B (dummy)</td>
<td>-9.99&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-9.93&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-5.47&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-8.99&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>Role C (dummy)</td>
<td>-21.77&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-21.65&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-14.04&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-19.08&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>Outcomes</td>
<td>0.01</td>
<td>0.24&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.17</td>
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</tr>
<tr>
<td>In a three-way agreement (dummy)</td>
<td></td>
<td></td>
<td>-9.66&lt;sup&gt;†&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Number offers in triad</td>
<td></td>
<td></td>
<td></td>
<td>-0.27&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>$F$</td>
<td>11.86&lt;sup&gt;**&lt;/sup&gt;</td>
<td>9.46&lt;sup&gt;**&lt;/sup&gt;</td>
<td>8.19&lt;sup&gt;**&lt;/sup&gt;</td>
<td>7.69&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>$R^2$</td>
<td>0.42</td>
<td>0.42</td>
<td>0.48</td>
<td>0.46</td>
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</table>

<sup>a</sup>120 observations, 40 clusters of triads. <sup>b</sup>85 observations, 32 clusters of triads.

<sup>†</sup>$p < .10$. <sup>*</sup>$p < .05$. <sup>**</sup>$p < .01$. 
Figure 1. Pre- and post-negotiation levels of egocentrism, measured as the sum of fairness claims, in Study 1.
Figure 2. Post-negotiation levels of egocentrism, measured as the sum of fairness claims, in each of the three experimental condition of Study 2.
Figure 3. Fairness claims for parties A, B, and C in the pure bargaining, communication, and communication plus reasons conditions in Study 2.