Leader of the Packed: Unpacking, Egocentrism,
and the Costs and Benefits of Perspective Taking in Groups

Key words: Judgment and Decision Making, Egocentrism, Perspective Taking, Heuristics, Biases
Abstract

Individuals working in groups often reason egocentrically, believing they have contributed more work than is logically possible. Actively thinking about others’ contributions effectively reduces these egocentric judgments, but this research suggests such perspective taking may contain hidden costs as well. In two experiments with journal authors and MBAs, leading participants to think about (or “unpack”) their collaborators as individuals reduced egocentric biases in responsibility allocation. However, unpacking other group members also decreased enjoyment and interest in continued collaboration among those who believed they contributed more than others, especially in cooperative groups (Study 3). Caution is therefore urged when attempting to reduce egocentric biases in groups. Members who look into the minds of their collaborators may not like what they see.

Word count: 120
Drs. Banting and Macleod won the 1923 Nobel Prize in Medicine for the discovery of insulin. Banting, so outraged at the credit given to Macleod, boycotted the ceremony in Stockholm and “awarded” half of his own prize money to a lab co-worker. Macleod, who oversaw Banting’s experiments as director of the laboratory, conveniently failed to mention Banting in speeches about the research (Harris, 1946). Contrast this animosity to the 2002 Nobel Prize in Economics awarded to Daniel Kahneman, whose late collaborator and close friend Amos Tversky was ineligible to receive the distinction posthumously. Consistent with the collaborative nature of their relationship, Kahneman’s opening line in his award address emphasized the critical importance of Tversky’s efforts in their research together – a sentiment he has stressed many times before and since.

Unfortunately, research suggests that people more often collaborate like Banting and Macleod than like Kahneman and Tversky. Indeed, people are notorious for claiming more responsibility in collective endeavors than they objectively deserve. In the classic demonstration (Ross & Sicoly, 1979), for example, married couples were asked to assess their responsibility for a variety of household activities, such as preparing breakfast, shopping, and making important decisions. When summed together, self-allocated responsibility exceeded 100%, indicating that at least one member of the couple was—perhaps sorely—mistaken. Similar results have been observed across domains as diverse as fund-raising (Zander, 1971), academics (Ross & Sicoly, 1979), and athletics.
Unpacking Egocentrism, 4

(Brawley, 1984; Forsyth & Schlenker, 1977), just to name a few (for a review see Leary & Forsyth, 1987).

As the opening example suggests, disagreements about the actual allocation of work in group projects can create conflict among group members, even if they aren’t disagreeing about credit for a Nobel Prize (Babcock & Loewenstein, 1997; Forsyth, Berger, & Mitchell, 1981; Forsyth & Mitchell, 1979). Reducing these egocentric biases by leading people to consider their collaborators’ contributions would therefore seem to be a simple strategy for minimizing the unhappiness, dissatisfaction, and conflict they produce. However, an egocentric blindness to others’ contributions may not always be problematic. In this paper we suggest that whether egocentrism in social interaction exacerbates or diminishes conflict depends on what people see when they shine the spotlight on others’ contributions. To the extent that people believe they have done more work than their peers, inducing perspective taking may heighten perceptions of inequity and unfairness, serving unexpectedly as the poison rather than the antidote.

We conducted three experiments to investigate the impact of perspective taking on egocentric allocations of responsibility and two indicators of group conflict—overall enjoyment and interest in future collaboration. Although we predicted that actively adopting the perspective of other group members would generally diminish egocentric biases, we predicted it would reduce measures often associated with conflict only among those who contributed little to the group project. For those who contributed much, we predicted that perspective taking would actually decrease overall enjoyment and interest in future collaborations. We base our predictions on the mechanisms that produce
Egocentrism, 5

Egocentric responsibility allocations and the importance of equity in groups, to which we now turn.

Egocentric Responsibility Allocations

At least two mechanisms contribute to excessive responsibility claiming in groups: motivated reasoning and differential accessibility. In general, people are motivated to view themselves in a favorable light. This motivated reasoning leads people to view their own traits and attributes more favorably than others (Brown, 1986; Taylor, 1989; Taylor & Brown, 1988), to predict that they have and will behave more ethically and desirably than others (Wade-Benzoni, Thompson, & Bazerman, 2003), to interpret ambiguous information in a manner that reflects positively on them (Babcock & Loewenstein, 1997; Diekmann, Samuels, Ross, & Bazerman, 1997), and to disparage any information that reflects negatively on them (see Miller & Ross, 1975; Zuckerman, 1979). Claiming more responsibility for positive group outcomes is obviously an effective strategy for improving one’s self-image, and people commonly utilize it (Miller & Schlenker, 1985; Ross & Sicoly, 1979, Experiment 2; Schlenker & Miller, 1977).

More relevant for the current studies, however, egocentric responsibility allocations are also produced by the increased accessibility of one’s own contributions relative to others’. People are always present and usually attentive for their own contributions, but not necessarily so for others’ contributions. Therefore, they are more likely to both notice and recall their own contributions than others’ (Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, & Simons, 1991; Tversky & Kahneman, 1973). Because noticing and remembering are both critical requirements for crediting
contributions, people are likely to believe they have contributed more to a group project than others have (Ross & Sicoly, 1979).¹

Three empirical findings are consistent with this accessibility interpretation. First, people not only overestimate their contributions to positive group outcomes, but also to negative group outcomes. Spouses in one experiment, for example, claimed more responsibility than is logically possible for both “resolving conflicts that occur between the two of you” and for “causing arguments that occur between the two of you” (Kruger & Gilovich, 1999; see also Ross & Sicoly, 1979). Similarly, ROTC cadets working on a tactical decision problem overestimated their contributions to both failures and successes (Caine & Schlenker, 1979). Second, people naturally report considering information about themselves more than information about others when assigning responsibility (Brawley, 1984; Thompson & Kelly, 1981). Finally, increasing participants’ focus on their own contributions increases the tendency to overestimate one’s contributions (Burger & Rodman, 1983; Ross & Sicoly, 1979), and increasing their focus on others’ contributions diminishes this tendency (Savitsky, Van Boven, Epley, & Wight, 2004). Even the most dispassionate group members, it appears, would come to conclude that they have contributed more than is warranted simply because their own contributions are so much easier to recall than others’ contributions.

The impact of differential accessibility in responsibility allocations may be compounded by a related tendency for people to think of other group members as a collective rather than as individuals, even further masking their unique contributions (Savitsky et al., 2004). This tendency for people to “pack” the constituent elements of a category into a single unit is best seen in research on Support Theory (Rottenstreich &
Unpacking Egocentrism, 7

Tversky, 1997; Tversky & Koehler, 1994), which demonstrates that the perceived likelihood of an event is determined by the amount of support that can be generated in favor of a focal hypothesis relative to alternative hypotheses. “Unpacking” the constituent elements of a category—by describing them separately rather than collectively, for instance—increases the amount of support that can be generated in favor of a focal hypothesis and therefore increases its perceived likelihood. In one experiment, for example, people indicated that they were more likely to die from “heart disease, cancer, or other natural causes” than simply from “natural causes” (Tversky & Koehler, 1994).

This suggests that one effective way to reduce egocentric responsibility allocations is to ask group members to unpack their collaborators, considering them as individuals rather than “the rest of the group.” Consistent with this possibility, a series of experiments involving debate teams, MBA groups, and academic group projects found that participants asked to unpack (or think about) their collaborators as individuals claimed significantly less credit for the overall work than participants not encouraged to unpack their collaborators (Savitsky et al., 2004). Simply getting people to think about the other members of their group was sufficient to attenuate self-allocations of responsibility in the subjective judgments of one’s own contributions to a group project. Reducing egocentric allocations of responsibility through unpacking therefore seems like a logical way to help restore perceptions of fairness and reduce conflict over inequity in group interactions.
Egocentrism and Group Well-being

People who overestimate their own importance may feel underappreciated or believe that others are trying to take advantage of them (Gilovich, Kruger, & Savitsky, 1999). In addition, those who appear to take more credit than they deserve for a group accomplishment are less well liked and thought to be less desirable collaborators (Forsyth et al., 1981). In fact, egocentrism is one of the key instigators of dissatisfaction and conflict in negotiations. Negotiators consistently overestimate the likelihood that a neutral arbitrator will agree with their egocentric assessments of fairness (Bazerman & Neale, 1982; Neale & Bazerman, 1983), and these biased perceptions predict negotiation impasse (Thompson & Loewenstein, 1992). These results have been replicated in a variety of negotiation contexts, regardless of the presence or absence of financial incentives for performance (Babcock, Loewenstein, Issacharoff, & Camerer, 1995; Camerer & Loewenstein, 1993; Loewenstein, Issacharoff, Camerer, & Babcock, 1993).

In one instance, participants in an asymmetric social dilemma involving ocean overfishing formed egocentric interpretations of a fair division of the limited catch, and the degree of egocentrism predicted the magnitude of resulting overfishing (Wade–Benzoni, Tenbrunsel, & Bazerman, 1996).

If egocentric allocations of responsibility contribute to conflict and dissatisfaction within groups, and if focusing people on others’ contributions rather than their own decreases egocentric allocations, then focusing people on others’ contributions should also reduce conflict and increase satisfaction. Although this argument is logically compelling, we suspect it is often wrong. Whether considering the contributions of other group members will decrease conflict and dissatisfaction within a group depends, we
argue, on what people see when they look at those contributions. Although people are generally prone to overestimate their own contribution to a group project, almost all groups include natural variability in actual contributions. Asking someone who contributes a great deal to consider others’ contributions will indeed decrease the relative importance of one’s own contribution, but will also highlight the minimal contributions of others. Asking someone who contributes little will again decrease the relative importance of his or her own contributions, but will also highlight the impressive efforts of others. Because calling attention to others’ contributions highlights the inequities among group members, and because such inequities are likely to produce dissatisfaction with group outcome (e.g., Walster, Walster, & Berscheid, 1978), we predict a relative decrease in satisfaction and desire for further collaboration among high credit-claimers but a relative increase among low credit-claimers. To the extent that people are prone to claim more than their logical share of group contributions, these predictions would suggest that undermining egocentric responsibility allocations will generally contain more costs than benefits for the well-being of individual group members.

Three experiments examined these hypotheses by investigating the impact of perspective taking in group endeavors on two proxies of group well-being, namely perceived enjoyment and interest in future collaborations. In each, participants working as part of a group were either asked to think carefully about the contributions of each individual group member or not before assessing responsibility. Consistent with previous research (Savitsky et al., 2004), we predicted that those led to unpack the contributions of others would claim less responsibility than those not led to do so. More important, participants in each of our experiments also indicated their enjoyment with the group and
their interest in continued collaboration. In the unpacked condition, we predicted that highlighting others’ contributions would create an increase in enjoyment and desire for future collaboration among low credit-claimers, but a decrease among high credit-claimers. In the packed condition, we predicted no relationship between credit-claiming and enjoyment with the group or interest in future collaboration. Although few people would choose to be more biased in their judgment rather than less, we suggest that reducing egocentric biases in collective endeavors may sometimes have important and unexpected costs.

Study 1: Authors

Academic collaboration is the paradigmatic anecdote for egocentric responsibility allocations. The number and ambiguity of diverse tasks spread out over months or even years make accurate attributions virtually impossible. Ross and Sicoly (1979) discuss the problem of determining authorship as particularly relevant to their original investigation of egocentric biases, and suggestions for the appropriate way to overcome problems with authorship credit are a popular topic of discussion and debate (e.g., Fine & Kurdek, 1993; Goodyear, Crego, & Johnston, 1992; Zanna & Darley, 2004). Given its prominence, we attempted to upgrade its anecdotal status by conducting research on authors of major academic journals. In addition, we examined our specific hypotheses about the impact of perspective taking by asking authors to indicate their satisfaction with the order of authorship and desire to collaborate in the future.
**Method**

**Participants.** We selected manuscripts from five Organizational Behavior journals for this study: Academy of Management Journal (AMJ), Academy of Management Review (AMR), Administrative Science Quarterly (ASQ), Journal of Applied Psychology (JAP), and Organizational Behavior and Human Decision Processes (OBHDP). Articles with three to six authors, published between 1999 and 2001, were included in the investigation. E-mail addresses for all authors were available for 231 of the resulting 293 papers. If an author in this set had more than one paper, all but one of those papers were randomly excluded to ensure that no author received the questionnaire more than once. Finally, all papers by two colleagues familiar with our hypotheses were excluded, leaving a sample of 145 papers with 484 unique authors.

**Procedure.** Participants received an e-mail with a link to an online questionnaire containing questions about the experience of writing the article with their author group. Participants were asked to complete the questionnaire in the next few days, and not to discuss their responses with anyone. Each paper was randomly assigned to the **packed** \((n = 108)\) or **unpacked** \((n = 89)\) condition so that all authors of a particular article each received the same condition.

Participants in the packed condition were simply asked, “Of the total work that your author group did on the article, what percent of the work do you feel you personally contributed?” Participants in the unpacked condition, in contrast, were first asked to write down the initials of their co-authors, and then told, “For all authors of the paper, please take a few moments to think about the contributions that they made to the article. Go down the list one at a time and consider the work that each person prepared and the
contributions they made based on their particular area of expertise.” Following these instructions, respondents in the unpacked version indicated the percentage of work that each author (including themselves) contributed to this paper. The order of the list of authors was held constant (“Author 1 contributed…,” “Author 2 contributed…,” etc.) to avoid confounding this unpacking manipulation with the order of self-allocations.

**Dependent measures.** After reporting the amount of work contributed, participants were asked how interested they would be “in initiating a brand new line of research (independent of any current ongoing research projects) with this same author group,” how much they enjoyed “working with the group… compared to others with which you have worked,” how happy they were “right now with the order in which your name was listed among the authors of this paper,” and how happy they were “with the order in which your name was listed among the authors of this paper when the order was first decided.” Responses to these items were made on scales ranging from 1 (not at all) to 7 (very).

**Results**

As might be expected given movement within academia, response rates were highest for first and second authors. Forty-six percent of first authors and 47% of second authors completed the questionnaire, compared to 32% of third authors, and 10% of fourth authors. Only one fifth author, and no sixth authors, responded. However, response rates by author order did not differ between conditions, \( \chi^2 (5, N = 197) = 4.42, ns \). In addition, the average size of author groups did not differ between the packed (\( M = 3.42 \)) and unpacked groups (\( M = 3.48 \)), \( t(195) = 0.40, ns \), nor did the mean author position or distribution of author numbers differ between the packed (\( M = 2.05 \)) and
unpacked groups ($M = 2.10$), $t(195) = 0.63$, $ns$. Response rates may influence the generalizability of the following results to all compositions of author groups, but do not influence the validity of comparisons between the packed and unpacked conditions.

Responsibility Allocations. To assess responsibility allocations across different group sizes, an index of adjusted responsibility for the author was created by multiplying the self-report of work for each participant by the number of authors in his or her group (see also Savitsky et al., 2004). For instance, if a respondent claimed to have contributed 30% of the work in a four-author group, the adjusted responsibility for that author would be 120%. Note that we are making no claim that adjusted responsibilities greater than 100% necessarily represent an overestimation, because author position is expected to be objectively related to this adjusted responsibility estimate. Rather, we are simply creating an index that allows for comparison between unpacked and packed study participants across different sizes of author groups.

As predicted, asking authors to unpack their co-authors’ contributions diminished egocentric responsibility allocations. Participants in the unpacked group had lower adjusted responsibility estimates ($M = 123.1\%$) than participants in the packed condition ($M = 140.4\%$), $t(195) = 2.04$, $p < .05$. Table 1 shows the mean amount of claiming by author order for the packed and unpacked groups.

To account for author order and group size, we also conducted a regression on the raw self-allocated responsibility. This analysis predicted self-allocated responsibility from condition (packed vs. unpacked) and a set of dummy variables to control for seven possible combinations of group size (3 or 4 authors) and the participant’s author position ($1^{st}$, $2^{nd}$, $3^{rd}$, or $4^{th}$ author), using the fourth author in a four author paper as a baseline.
The results of this regression show a significant negative effect of unpacking on percentage of the work claimed by our study participants ($B = -4.552, t(172) = -2.365, p < .02$). This implies that unpacking, on average, controlling for number of authors and authorship position, reduces self-allocated responsibility by 4.5% on the raw estimates in this context.

**Interest in future collaboration.** One might intuitively expect that enhancing others’ relative contributions would increase authors’ interest in future collaboration, but it did not. There was no significant difference in the desire to initiate a new line of research between authors in the packed ($M = 4.74$) and unpacked conditions ($M = 5.09$), $t(195) = 1.26, ns$. As predicted, however, the impact of unpacking depended on the amount of responsibility authors claimed for themselves. In the unpacked condition, the more responsibility authors claimed, the less interested they were in future collaborations, $r = -0.40, p < .01$. There was no significant relationship, however, in the packed condition, $r = -0.09, ns$. These two correlations differ significantly from one another, $z = 2.29, p < .025$.

Notice, however, that this correlational analysis does not control for number of authors on the paper or the participant’s author position. To do so we conducted a second regression examining the relationship between condition (packed versus unpacked), self-allocated responsibility, and the interaction between condition and self-allocations on the desire to initiate a new project. We again added a set of dummy variables to control for the seven possible combinations of the number of authors on the paper and the participant’s author position. The results of this regression indicated that while unpacking was positively related to desire to initiate a new project ($B = 1.291, t(170) = ...
Unpacking Egocentrism, 15

1.851, \( p < .07 \), this effect was qualified by the interaction of unpacking and the level of claiming (\( B = -.03, t(170) = -1.747, p < .09 \)), showing that the effect of unpacking was weaker (and even potentially negative) for those who claimed more.

To see this more clearly, we ran an additional regression of unpacking on desire to initiate a new project for only the top quartile of claimers within each of the seven group size/author order combinations (using the same set of dummy variables as before). This regression revealed that the effect of unpacking on desire to initiate a new project among these high credit claimers was directionally negative (\( B = -.72, t(170) = -.97, ns \)), but not even approaching significance.

PERCEIVED ENJOYMENT. We followed a similar analysis plan on the dependent variable of how much people enjoyed working with their author group. A similar pattern of correlations with self-allocations emerged for ratings of how much people enjoyed working with this group, with the unpacked group more negative than the packed group (\( rs = -0.49 \) and \(-0.15 \), respectively), \( z = 2.38, p < .01 \). This pattern of correlations shows that both the desire to work with the group in the future and the enjoyment of working with the group decrease as work claimed for the self increases in the unpacked condition only. Apparently, thinking about the other authors (through unpacking) decreases one’s overall evaluation of the group among those who feel they contributed more to the project.

Again, we conducted a regression examining the relationship of condition (packed versus unpacked), self-allocated responsibility, and the interaction between these two on how much people enjoyed working with their author group. We again added a set of dummy variables to control for the seven possible combinations of the number of authors
on the paper and the participant’s author position. The results of this regression revealed that while unpacking was positively related to how much people enjoyed working with their author group ($B = 1.04$, $t(170) = 2.19$, $p < .05$), this effect was qualified by the interaction of unpacking and the level of claiming ($B = -.02$, $t(170) = –2.22$, $p < .05$), showing that the effect of unpacking was weaker (and even potentially negative) for those who claimed more.

To see this more clearly, we again conducted a regression of condition (packed versus unpacked) on how much people enjoyed working with their author group for only the top quartile of claimers within each of the seven group size/author order combinations (using the same set of dummy variables as before). This regression again revealed that the effect of unpacking on perceived enjoyment with the author group among these high credit claimers what marginally significant in the negative direction ($B = -.99$, $t(39) = –1.892$, $p < .07$).

Independent of group size and author order, unpacking others’ contributions did significantly increase authors’ happiness with the order in which their names appeared in the final author list. This was true both at the time the order was decided ($M_{unpacked} = 6.52$, $M_{packed} = 6.13$, $t(195) = 2.10$, $p < .04$) and at the time of our experiment ($M_{unpacked} = 6.47$, $M_{packed} = 5.97$, $t(195) = 2.44$, $p < .02$). While this last effect is not central to the core theme of this paper, it is consistent with the logic that having a greater appreciation of the work of others reduces the likelihood of feeling that a higher status of authorship was deserved.
Discussion

As expected, the authors in our sample appeared to collaborate more like Banting and Macleod than like Kahneman and Tversky. Of course, biases in response rates could account for at least some of participants’ tendency to claim a significant amount of credit. However, a sizeable and significant decrease in self-allocations among participants who considered each of the other authors’ contributions separately suggests that authors in the packed condition were naturally claiming more responsibility than they deserved.

Reducing egocentric biases in responsibility allocations, however, did not simultaneously lead to universally positive evaluations of the authors’ collaborative experience. Reminding authors of others’ contributions increased interest in future collaboration and reported enjoyment among those who believed they contributed less to the project, but decreased both of these measures among authors who believed they contributed much. Reminding people of how much more work they did than others in the group is exactly the violation of equity that would lead to dissatisfaction with a group project, whereas reminding participants how much they were helped by others’ contributions would obviously increase satisfaction.

Study 2: Study Groups

The results of Study 1 are consistent with our hypotheses about the occasionally costly impact of perspective taking in collaborative endeavors. We sought to replicate and expand on them in Study 2 by investigating a different group entirely, namely MBA student study groups. At the beginning of their first year, more than 90% of entering MBA students at this particular business school form study groups that typically consist of 4 to 8 people. These groups meet, often daily, to prepare materials for class, complete
group projects together, and socialize. The process of finding (in some cases, interviewing for) a study group is rather involved, and study groups tend to remain in tact for at least the entire first year of the program. In contrast to the author groups in Study 1 who may have collaborated on only one project, these MBA groups are relatively stable and work together across a variety of domains. As a result, it might be more notable to see any effects of unpacking on desire to work with the same study group in the future.

In addition, Study 2 adds a more subtle unpacking manipulation to examine boundary conditions of these effects. In particular, Study 2 adds an implicitly unpacked condition in which participants are merely asked to think about, rather than to explicitly report, the contributions of each group member before making self-allocations. This more subtle manipulation has been used elsewhere to diminish egocentric responsibility allocations (Savitsky et al., 2004), and has—as one might expect—produced somewhat weaker effects than the more explicit unpacking manipulation used in Study 1 (Rottenstreich & Tversky, 1997; Tversky & Koehler, 1994). We also expected to find slightly weaker but consistent effects of this more subtle perspective taking manipulation on both responsibility allocations and overall group evaluations.

**Method**

*Participants.* Participants were 699 MBA students who were all enrolled in a course on negotiation, and were participating in this study as a learning exercise for the course.4

*Procedure.* Participants were informed that a link to an online questionnaire would appear on their course platform Web site. They were asked to complete the questionnaire within a one-hour period following their class one day, and not to discuss
their responses with anyone. Similar to Study 1, this survey asked participants to indicate the amount of work they personally contributed to the study group, their enjoyment with the group, and their subjective likelihood of working with this same study group again in the future. All responses were again made on scales ranging from 1 (not at all) to 7 (very).

Participants were randomly assigned to one of three conditions: packed (n = 282), explicitly unpacked (n = 206), and implicitly unpacked (n = 211). As in Study 1, participants in the packed group indicated the total amount of work they personally contributed, whereas participants in the explicitly unpacked group did so after allocating responsibility to each of the other group members. Participants in the implicitly unpacked condition, in contrast, were asked to consider the contributions of their other study group members but did not actually estimate the percentage of work contributed by each other member.

On the survey Web site, participants indicated their other study group members via drop-down menus that were pre-populated with a list of their classmates. In the two unpacked conditions, these menus were included as part of the experimental manipulation before the actual survey questions, while the menus were included at the very end of the questionnaire in the packed condition.

Results and Discussion

As in Study 1, we created an index of adjusted responsibility for the study groups by multiplying self-allocations of each participant by the number of group members. As predicted, participants in the packed condition claimed more responsibility in their study group (M = 130.8%) than participants in the implicitly unpacked condition (M =
117.6%), \( t(491) = 2.45, p < .02 \), who in turn claimed more than the explicitly unpacked condition (\( M = 104.4\% \)), \( t(415) = 2.84, p < .005 \). The one-way ANOVA on these differences was significant, \( F(2, 696) = 14.66, p < .001 \).

As in Study 1, these reductions in egocentric responsibility allocations were not accompanied by universal increases in desire to work with one’s group again in the future. There were no significant differences between the three conditions, \( F < 1, ns \). All groups were generally interested in remaining in their group in the future (overall \( M = 6.04 \) on 7-point scale), a result consistent with their general stability.

As with Study 1, our main predictions centered on the correlations between interest in future collaboration and self-allocations of responsibility. Replicating the results of Study 1, this correlation was significantly negative in the explicitly unpacked condition, \( r = –0.21, p < .001 \), but did not differ from zero in the packed condition, \( r = 0.01, ns \). The correlation in the implicitly unpacked condition, as with self-allocations, fell in between, \( r = –0.07, ns \). These correlations show a significant linear trend, becoming more negative from the packed to the explicitly unpacked condition, \( z = 2.42, p < .02 \).

Similar results were found in participants’ reported enjoyment of their study group. There was no significant effect of unpacking on reported enjoyment, \( F < 1, ns \), and most participants generally enjoyed working in their study groups (overall \( M = 5.90 \) on 7-point scale). However, the correlation between self-allocation of responsibility and enjoyment was significantly negative in the explicitly unpacked condition, \( r = –0.22, p < .01 \), but did not differ from zero in the packed condition, \( r = 0.06, ns \). Again, this correlation in the implicitly unpacked condition fell in between, \( r = –0.04, ns \). These
correlations also show a significant linear trend, becoming more negative from the packed to the explicitly packed condition, $z = 3.09, p < .002$.

These results replicate those of Study 1, using groups that are generally more stable and work together in more varied domains than the author groups used in our first study. These results also extend the results of Study 1 by demonstrating consistent, albeit weaker, effects using a more subtle unpacking manipulation. Merely being asked to consider other group members significantly decreased overall responsibility allocations and produced group evaluations that were consistent with the explicit unpacking measure, but were nonsignificant. Nevertheless, we find these overall results somewhat impressive given the stability and overall positive evaluations of these groups.

Study 3: Cooperative and Competitive Group Projects

The results of the first two studies demonstrated potentially deleterious effects of unpacking on desire to collaborate with the same group among individuals who thought they did more than their fair share of the group’s work. It is possible, however, that this pattern only holds for certain types of groups. Both author and student study groups—as with most groups in work environments—are collaborative in nature. That is, group members expect each other to contribute to the extent they can to the group’s work, often explicitly agree on the proper division of various responsibilities, and are rewarded collectively rather than individually. Loafers in these cooperative groups should therefore be particularly unwanted because of the clear inequity between effort and rewards. A decreased desire to collaborate in the future is therefore a likely outcome when one thinks about how much more one has contributed than others, exactly as we found in the first two experiments.
In competitive group contexts, however, it is less clear that those who claim more credit would be less satisfied with the group when thinking about their own contributions relative to others’. In situations where one is explicitly competing against other group members, higher claiming and contribution might be synonymous with success or victory. Rewards in competitive group settings are not proffered to the group as a whole but rather to the individual or individuals who perform the best. In such cases, feeling responsible for the majority of the group’s accomplishments may translate to greater enjoyment and desire to continue working with this group in the future. After all, loafers within a competitive group will actually increase the rewards given to a person who contributes a great deal. We explored this potential moderator directly in Study 3 by asking participants to recall a competitive or cooperative group of which they were a part, and to either unpack the other group members’ contributions or not.

Method

Participants. Seventy participants composed mainly of college students in a large metropolitan area were recruited from an existing subject pool. Participants completed the experiment in exchange for $5.

Procedure. Participants arrived at a computer laboratory and completed an unrelated study. Following this task, participants were handed a questionnaire packet for the current study (adapted from Savitsky et al., 2004, Study 3). The first sheet of this packet asked participants to think of a recent time when they participated in a group project, with between 2 and 5 other people, that was now finished. Approximately half of the participants were asked to describe a cooperative group and the other half a competitive group. Participants in the cooperative group condition recalled a project in
which they “worked together as a group toward a common goal, and where the entire group as a whole was recognized for the outcome of the project,” such as “a project from a job you have held where the team as a whole was recognized or rewarded for its efforts.” Participants in the competitive group condition, in contrast, were asked to recall a group project in which they “worked together as a group toward a common goal, but where the individual members of the group were recognized separately for their contribution to the outcome of the project,” such as “a project from a job you have held where you were working as part of a group but individually competing with your group members for a raise, bonus, or the affection of the boss.”

After writing a short description of the project and indicating how many people were in their group, participants randomly assigned to the packed condition \((n = 36)\) indicated how much work they had contributed to the group project. In contrast, participants randomly assigned to the unpacked condition \((n = 34)\) were asked to write down the first name or initials of all other group members, think about each member’s specific contributions to the group, and place a check mark next to each name once they had done so. On the following page, participants indicated how much each member, including themselves, had contributed. Half of this unpacked condition indicated their own contributions first, and the other half indicated their contributions last. This order manipulation had no significant influence on the amount of work claimed \((t < 1, ns)\), however, and is therefore not discussed further.

Finally, all participants indicated how interested they would be in working with this group again in the future and how much they enjoyed working in the group, both on scales ranging from 1 (not at all) to 7 (very much). Participants also indicated how
cooperative or competitive they felt the group was on an 11-point scale, ranging from –5 (very competitive) to 5 (very cooperative), and how well they knew their fellow group members before participating in the project on an 11-point scale, ranging from –5 (not at all) to 5 (very well).

Results

As intended, participants in the cooperative condition \((M = 2.73)\) rated their groups as more cooperative than those in the competitive condition \((M = 0.94)\), \(t(68) = 2.85, p < .006\). There were no significant differences between conditions in enjoyment with the group, \(t(68) = 1.45, ns\), or how well participants knew other group members, \(t(68) = 1.02, ns\). Unexpectedly, the unpacked condition \((M = 4.75)\) thought of groups with more members than the packed condition \((M = 4.26)\), \(t(68) = 2.04, p < .05\); group size was thus used as a covariate in the subsequent analyses.

To create an index of adjusted responsibility, as in Studies 1 and 2, participants’ responsibility allocations were multiplied by their reported group size. Once again, leading participants to unpack their collaborators reduced egocentric responsibility allocations. Participants in the unpacked condition \((M = 125.4\%)\) claimed to be responsible for less of the overall work than participants in the packed condition \((M = 153.7\%)\), \(F(1, 67) = 5.44, p < .025\).

There was no difference between the competitive and cooperative groups in the total amount of work claimed, \(t < 1, ns\). Because participants were randomly assigned to conditions, we expected no overall difference in claiming between the cooperative and competitive groups.
We expected that participants’ desire to work with their group in the future would replicate those of the cooperative groups used in Studies 1 and 2. Consistent with this prediction, the correlation between self-allocated responsibility and a desire for future work was more negative ($r = -0.73$) in the unpacked condition than in the packed condition ($r = -0.36$), albeit this difference was only marginally significant, $z = 1.56, p < .06$.

Participants in the competitive group condition, in contrast, showed the opposite pattern. These same correlations were positive in the unpacked condition ($r = 0.32$) and slightly negative in the packed condition ($r = -0.10$). As predicted, the overall 2 (packed versus unpacked) X 2 (competitive versus cooperative group) interaction on these correlations was significant, $z = 3.47, p < .001$.

Ratings of enjoyment showed a somewhat similar, but considerably weaker pattern. As in Studies 1 and 2, the correlation between self-allocated responsibility and enjoyment was more negative in the unpacked ($r = -0.33$) than in the packed condition ($r = -0.22$), but this difference was not significant, $z = 0.48, ns$. These correlations did not reverse, however, in the cooperative groups condition between those in the packed ($r = -0.06$) and unpacked ($r = -0.07$) conditions.

**Discussion**

Study 3 confirms that, regardless of the type of group endeavor, unpacking produces lower estimates of personal contributions to group projects. However, this experiment also suggests that the potential negative effects of perspective taking within groups may be moderated by the cooperative versus competitive nature of the group. In cooperative groups, higher claimers were less likely than lower claimers to want to
collaborate in the future once they had thought about the contributions of their other
group members. In competitive groups, however, higher claimers were much more
willing to work with the group again after unpacking their fellow group members. The
relationship between perspective taking within groups and psychological outcomes might
not be as direct as one might initially expect.

This pattern is consistent with the findings from Study 1 and Study 2 when we
consider author groups and study groups to be cooperating together toward a common
goal and common group output. When individuals feel they have done more than what
they should have had to do in these groups, they may feel that the group is taking
advantage of them. Such feelings could result in their unwillingness to collaborate with
the same group of people in the future.

When people think about their contributions to competitive groups, on the other
hand, those who feel they have contributed more may have been more successful (the
basketball player who actually wins the team MVP award, for instance). Among these
people, the more they think about the others against whom they were competing, the
more likely they may be to want to compete with those people again. Given their past
success in the group and the credit they likely received, they should be more inclined than
those in a similar cooperative situation to desire future interactions with the same group.
Study 3 demonstrates that the type of group project can moderate the effect of unpacking
on desire for future interactions with the group.

General Discussion

Group members often appear to have their heads stuck in the proverbial sand
when allocating responsibility for collective endeavors. Across of a wide variety of
domains, people tend to claim more responsibility for group outcomes than is logically possible because they tend to focus on their own contributions more than the contributions of others. This egocentric bias was reduced in all three experiments by simply asking participants, before allocating responsibility, to think about their collaborators’ contributions. However, unpacking others’ contributions in cooperative groups consistently decreased enjoyment and interest in future collaboration among those who felt they contributed much, suggesting that leaving one’s head in the sand may sometimes be an effective strategy for maintaining group cohesion and happiness. The reverse pattern was found in competitive groups, however, suggesting that the practical implications of egocentric biases in group endeavors is more complicated than one might expect.

In general, psychologists interested in human judgment and decision making have focused carefully on errors and biases in human judgment for both their practical and theoretical importance. This research tradition has provided an impressive corpus of knowledge, much of which demonstrates that people’s interpretations of events are largely determined by their own unique perspectives on those events. For example, people tend to view themselves and their futures more positively than is both logically and realistically possible (e.g., Brown, 1986; Epley & Dunning, 2000; Kunda, 1990; Taylor, 1989; Weinstein, 1980). People also tend to overestimate the extent to which others will share their attitudes, emotions, and knowledge (Keysar, 1994; Nickerson, 1999; Ross & Ward, 1996; Van Boven, Dunning, & Loewenstein, 2000), overestimate the extent to which others are focused on them and their behavior (Fenigstein, 1984; Gilovich, Medvec, & Savitsky, 2000), and overestimate the speed with which they will
complete important projects (Buehler, Griffin, & MacDonald, 1997; Buehler, Griffin, & Ross, 1994).

A moderately common view among interested psychologists is that these egocentric or egoistic biases are largely adaptive (e.g., Gigerenzer, Todd, & the ABC Research Group, 1999; Taylor, 1989). These illusions, the story goes, contribute to psychological well-being and protect an individual’s positive sense of self (Taylor & Brown, 1988). As a result, these positive illusions increase personal commitment, enhance persistence at difficult tasks, and facilitate coping with aversive and uncontrollable events. Positive illusions also allow people in their everyday lives to maintain cognitive consistency, belief in a just and meaningful world, and a sense of personal control and efficacy necessary to take beneficial risks (Greenwald, 1980). Some have even gone as far as to advocate the selection of salespeople based on the magnitude of their positive illusion, or “learned optimism” (Seligman, 1990). The logic is that unrealistically high levels of optimism bolster salesforce persistence.

While each of these findings may be true in some specific situations (e.g., severe health conditions), and while positive illusions may prove beneficial in helping people cope with tragic events, they can also create harm. People regularly invest their life savings in new businesses that have little chance of success. Or employees falsely assume that they are irreplaceable and find that their ultimatums are met with a quick firing. Other researchers caution that positive illusions are likely to have a negative impact on learning and on the quality of decision making, personnel decisions, and responses to organizational crises (“the hole in the ozone layer isn’t that big”), and can contribute to conflict and discontent (Brodt, 1990; Kramer, Newton, & Pommerenke,
1993; Tyler & Hastie, 1991). And more relevant to the specific focus of the current studies, positive illusions lead organizational members to claim an inappropriately large proportion of the credit for positive outcomes, to overestimate their value to the organization, and to set objectives that have little chance of success.

Despite this lengthy list of helpful and harmful effects of positive illusions, the empirical science of understanding the conditions under which these illusions help versus hurt has lagged far behind. Our research provides systematic evidence, under controlled experimentation, that the cooperative versus competitive nature of a group may be one such critical condition.

Perhaps most important, however, this paper highlights the specific and complicated relationship between judgmental biases and psychological or behavioral outcomes. Public discourse about the functionality of mental operations is often quite simplistic, and assumes that judgmental biases are either beneficial or they are not. This research demonstrates that egocentric biases in collaborative groups may be harmful for happiness and future collaborations among some participants (i.e., underclaimers), but helpful for others (i.e., overclaimers). Although few would people would wish to be more biased than less, reducing egocentric biases in group contexts may not be the panacea for conflict and impasse that much negotiation research suggests. It is important to bear in mind that reducing egocentric biases not only diminishes people’s focus on themselves, but can also increase their focus on others. Practitioners are therefore advised to remember that the benefits of removing egocentric blinders may depend on what people are able to see once they do so. Although reducing egocentric biases
Unpacking Egocentrism, 30

certainly has its benefits, sometimes it may be better to keep one’s head firmly planted in the sand.
References


Harris, S. (1946). *Banting’s miracle: The story of the discovery of insulin.* Philadelphia:
Lippincott.

Keysar, B. (1994). The illusory transparency of intention: Linguistic perspective taking in

negotiator judgment: Effects of self-esteem and mood. *Organizational Behavior
and Human Decision Processes, 56*, 110-133.

responsibility assessment: On biased assumptions of bias. *Journal of Personality
and Social Psychology, 76*, 743-753.

498.

endeavors. In C. Hendrick (Ed.), *Review of personality and social psychology*

assessments of fairness and pretrial bargaining. *Journal of Legal Studies, 22*,
135-159.


Explaining harvesting behavior and the role of communication. Organizational Behavior and Human Decision Processes, 67, 111-126.


Notes

1 In daily life, of course, motivated reasoning and differential accessibility can work in concert to produce egocentric responsibility allocations, as the desire to view oneself positively can influence the extent to which people search for accessible evidence consistent or inconsistent with this desire (Dawson, Gilovich, & Regan, 2002; Ditto & Lopez, 1992). Our point is not to disentangle these two mechanisms, but to simply point out that either can produce egocentric assessments of responsibility.

2 Readers might be tempted to compare the overall index of claiming with a logical benchmark of 100%, but such a comparison is inappropriate given the higher response rates from first authors who likely were responsible for more credit than second or subsequent authors. Although we cannot be sure of the exact amount of egocentric responsibility claiming that occurred in this experiment, the number of basic replications of this finding leaves us little doubt that authors in the packed condition were exhibiting stronger egocentric biases than authors in the unpacked condition.

3 Because of the extremely low response rates from 5th and 6th authors, we dropped the 17 respondents from papers with 5 or 6 authors to simplify the regression analyses and reduce the number of dummy codes needed. Including the partial data from these groups does not alter the analysis in any meaningful way.

4 Responses from 710 students were actually collected, but 11 students requested to have their data removed from any analyses that were not related to the course learning exercise.

5 Overall, the average work claimed for the study groups was 119.0%. The same caveats about comparing this figure with a logical baseline of 100% mentioned in Footnote 2 still
apply in this experiment, although much less so because of near perfect response rates. Overall, the total amount of work claimed ($M = 119.0\%$) was significantly higher than $100\%$, $t(698) = 9.24$, $p < .001$. In addition, self-allocated responsibility was significantly higher than $100\%$ in both the packed condition ($M = 130.8\%$), $t(281) = 8.47$, $p < .001$, and the implicitly unpacked condition ($M = 117.6\%$), $t(210) = 4.54$, $p < .001$, but was only marginally higher than $100\%$ in the explicitly unpacked condition ($M = 104.4\%$), $t(205) = 1.73$, $p < .09$. 
Table 1

Mean responsibility claimed by author order and condition (Study 1).

<table>
<thead>
<tr>
<th>Author Order</th>
<th>Packed</th>
<th>Unpacked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Authors (n=66)</td>
<td>59.7</td>
<td>56.1</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Authors (n=68)</td>
<td>38.2</td>
<td>32.5</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Authors (n=47)</td>
<td>30.0</td>
<td>25.3</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; Authors (n=15)</td>
<td>21.7</td>
<td>17.4</td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; Authors (n=1)</td>
<td>10.0</td>
<td>n/a</td>
</tr>
<tr>
<td>6&lt;sup&gt;th&lt;/sup&gt; Authors (n=0)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>