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## **COGNITIVE DISSONANCE IN NEGOTIATION: FREE CHOICE OR JUSTIFICATION?**

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Previous research suggests a barrier to conflict resolution whereby negotiators inflate their valuation for offers they make due to the psychological process of cognitive dissonance reduction. Research outside of the negotiation context indicates that cognitive dissonance is induced either by being forced to choose among relatively equal options, or by having to justify a counter-attitudinal position. A negotiation involves both choice and justification, so it is unclear which process is responsible for inducing preference inflation. We present two studies in which we examine the independent effect of choosing an opening offer, as well as the additive effect of justifying that choice on preference inflation. Findings suggest that both processes induce negotiator preference change and that justification has an additive effect beyond choice alone. We discuss implications of these results for cognitive dissonance theory and the practice of negotiation.

Conventional wisdom assumes that individuals negotiate to get what they want. That is, individuals enter negotiations with a fixed set of preferences and the process of negotiation involves identifying goods and services that all parties are willing to accept. However, researchers theorize that preferences for negotiation outcomes are in fact dynamic (Bazerman, Tenbrunsel, & Wade-Benzoni, 1998; Curhan, Neale, & Ross, 2004). For example, in a recent experiment by Curhan et al. (2004), individuals who were engaged in an active, face-to-face negotiation generally inflated valuation for offers they made themselves, and devalued offers received

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from their counterparts. These results suggest that the negotiation process involves the parties *changing* what they want as much as obtaining what they want.

Such changes in preferences not only run counter to rational choice theory (Von Neumann & Morgenstern, 1944), but also potentially create barriers to the resolution of conflicts. If negotiators devalue offers they receive and inflate valuation for offers they make, then the exchange of offers could widen, rather than narrow, the "gap" to be bridged between the negotiating parties. The wider the perceived gap between the value of the offer proposed and the value of the offer received, the harder it is for the parties to reach an agreement (Curhan et al., 2004).

Although a considerable body of research has examined why individuals devalue offers they perceive to have been generated by their counterparts in a dispute, a process known as "reactive devaluation" (e.g., Kwon & Weingart, 2004; Ross, 1995; Ross & Stillinger, 1991; Ross & Ward, 1995; Stillinger, Epelbaum, Keltner, & Ross, 1991; Ward, Gerber, & Ross, 2006), relatively less research has explored the process by which individuals increase valuation for offers they propose in a negotiation (hereafter, "preference inflation"). We define preference inflation as the phenomenon whereby negotiators come to value the offers they make in a negotiation more positively than offers that they do not make. Given that the confluence of reactive devaluation and preference inflation widens the gap to be bridged by the parties, representing a barrier to resolution, it is crucial that we examine the process of preference inflation to complement previous research that has examined reactive devaluation.

This article represents a first step in exploring the mechanisms underlying preference inflation in negotiations. Although prior research has demonstrated that preference inflation occurs in negotiations, and seems to be a more robust effect and of greater magnitude than reactive devaluation (Curhan et al., 2004), the experiments reported here extend research and theory by exploring two potential mechanisms underlying preference inflation in negotiation: Namely, free-choice and justification. Although each of these mechanisms for inducing cognitive dissonance has been explored extensively in research outside of the negotiations context, the negotiation process represents an opportunity to study both mechanisms within a single paradigm, thereby revealing important relationships between dissonance-induction mechanisms seldom examined simultaneously.

Thus, we contribute to the literature in the following ways. First, we complement previous research on reactive devaluation by examining the other side of the negotiation process—that is, preference inflation. Second, this is the first study that we know of to examine mechanisms underlying cognitive dissonance in the negotiation context. Finally, this is one of a handful of studies that explore the cognitive dissonance-inducing effects of both choice and justification together, and the first to do so with respect to preference change.

## INDUCING COGNITIVE DISSONANCE

In the few instances where researchers have identified the phenomenon of preference inflation in negotiation, they have attributed it, at least in part, to cognitive dissonance reduction (Bazerman, 2002; Bendersky & Curhan, 2003; Curhan et al., 2004). Dissonance theory asserts that individuals are motivated to reduce cognitive dissonance—a state of psychological discomfort that is aroused when people

freely choose to perform a behavior that is discrepant with their attitudes—by revising their attitudes to be more consistent with their actions (Cooper & Fazio, 1984; Elliot & Devine, 1994; Festinger, 1957; Kiesler & Pallak, 1976; Zanna & Cooper, 1976).

Making an offer in a negotiation involves two processes that correspond roughly to the two predominant research methods for inducing cognitive dissonance. We turn now to a brief review of each of these methods.

*The Free-Choice Method.* Making an offer in a negotiation often begins with a choice about which offer to put forth. Similarly, the free-choice method induces cognitive dissonance by forcing participants to make a difficult choice. In one of the earliest dissonance experiments, Brehm (1956) demonstrated that individuals who were offered a choice between two appliances that they had previously rated as almost equally attractive increased their valuation for the chosen appliance and decreased their valuation for the forfeited appliance from before to after making their decision. More recently, research by Shultz, Léveillé, and Lepper (1999) refined Brehm's original paradigm and found that, for choices among options considered equivalently attractive, dissonance is reduced mostly by devaluing the forfeited option, however. For choices among options considered equivalently unattractive, dissonance is alleviated mostly by inflating valuation for the selected option (see also Shultz & Lepper, 1996). Additionally, Lyubomirsky and Ross (1999) found that chronically happy people are inclined to increase their valuation of selected options but not decrease their valuation of non-selected options, whereas chronically unhappy people devalue non-selected options but do not increase valuation of selected options. Thus, people may reduce the cognitive dissonance that arises from freely choosing one option over another by inflating their preferences for the selected option and/or devaluing the unselected option. Their cognitive response appears to depend on the attractiveness of the options being considered and the affective predisposition of the chooser. One key assumption of this research is that the process of making a choice induces dissonance insofar as it obligates the chooser to accept unattractive features of the elected option and forfeit attractive features of the rejected option (Brehm, 1956). Additionally, more difficult choices (i.e., less discrepancy among pre-choice assessments) should result in greater dissonance, presuming the options are qualitatively different (Shultz et al., 1999).

*The Justification Method.* After choosing an offer to put forth to one's counterpart, the negotiation process typically entails some form of justification of that offer, either to one's constituencies or to one's counterpart. The justification method—also known as "forced compliance" (Festinger & Carlsmith, 1959), "insufficient justification" (Shultz & Lepper, 1996), or "induced compliance" (Cooper & Fazio, 1984; Cooper & Worchel, 1970)—creates cognitive dissonance by having participants justify, in a similar fashion, a position with which they disagree. For example, in Festinger and Carlsmith's (1959) classic study of cognitive dissonance, participants were instructed to inform fellow students that a tedious peg-turning task was in fact exciting. Participants who did so became more positively predisposed toward the peg-turning task, particularly when they were given relatively small monetary incentives to make the counter-attitudinal assertion in the first place. Cooper and Worchel (1970) refined this experiment, and found that only those participants who were told they had successfully convinced their fellow students exhibited a shift in attitudes. When told that the fellow student remained uncon-

vinced, the subjects did not revise their attitudes towards the task. In more recent experiments, Elliot and Devine (1994) determined that psychological discomfort was alleviated for subjects by the act of revising their preferences to be more consistent with the counter-attitudinal position they had just been asked to advocate. In sum, cognitive dissonance is induced when people's counter-attitudinal behavior is done voluntarily, cannot be attributed to external causes, and could produce an adverse event. Dissonance is alleviated when people revise their attitudes to be more consistent with their behavior.

*Cross-Method Comparison.* Although dissonance theory is perhaps the most extensively researched theory in social psychology (Ross & Ward, 1995), almost no studies have compared the dissonance-inducing effects of choice and justification within a single research paradigm. In one exception, Bobocel and Meyer (1994) separated out the effects of choice and justification on escalation of commitment, which generally is interpreted within a self-justification or cognitive dissonance framework (Brockner, 1992; Staw & Ross, 1987). Bobocel and Meyer point out that most previous research confounded choice and public justification. In their experiment, they test the effects of choice, private justification, and public justification separately on deciding to change or continue a previously chosen course of action (i.e., an investment plan). They found that choice exerts no significant effect on escalating commitment, but that both private and public justification significantly increase escalation of commitment to the same extent. This study, therefore, suggests that choice and justification may differentially induce cognitive dissonance. Our study builds on Bobocel and Meyer's by examining the effects of choice and justification—not on escalation of commitment, but on preference inflation.

## COGNITIVE DISSONANCE IN NEGOTIATION

One of the few published efforts to examine cognitive dissonance reduction in negotiation was a study conducted by Curhan et al. (2004) on "dynamic valuation"—or the process of negotiator preference change. In this experiment, researchers demonstrated both preference inflation for offers proposed and devaluation of offers received in a face-to-face negotiation simulation. Consequently, the gap between proposers' and receivers' valuation of offers widened from before to after the point at which offers were exchanged. Experimental manipulations involving pre-rating potential offers and/or engaging in discussions prior to the exchange of offers reduced this gap and increased the likelihood of resolution. Whereas reactive devaluation appeared only upon the initial exchange of offers, preference inflation seemed more robust, recurring every time offers were made. Although Curhan et al. documented multiple instances of dynamic valuation (i.e., reactive devaluation or preference inflation), no underlying mechanisms were examined.

The findings from Curhan et al. (2004) strongly suggest that preference inflation for offers that are made in negotiation poses a considerable barrier to resolution and warrants additional research. The purpose of the present investigation is to explore the mechanisms of choosing and justifying negotiation offers for the process of preference inflation. We present two studies in which participants pre-rate a menu of potential offer packages a few days prior to engaging in a negotiation.

On the day of the negotiation, participants choose an opening offer to put forth to their counterparts and then re-evaluate the original menu of option packages, including the offer package that they selected as well as any non-selected packages. The first study considers only the process of choice in a naturalistic negotiation simulation where participants choose among attractive options, whereas the second study constrains participants' choices to unattractive options and includes both choice and justification.

## STUDY 1

### OVERVIEW AND HYPOTHESES

In our first study, we sought to replicate the findings from Curhan et al. (2004) and determine whether or not the process of choosing an opening offer to put forth to one's counterpart in a naturalistic negotiation was sufficient by itself to induce preference inflation for the selected option and/or deflation of non-selected options. Like Curhan et al., we had participants choose an opening offer to make in a negotiation from among a menu of 12 potential option packages that they had rated in advance. We did not constrain their choices, so this negotiation situation is realistic in that it allowed participants to present relatively attractive opening offers to help achieve their target outcomes.

We also attempted to address a possible alternative explanation for why Bobocel and Meyer (1994) did not observe a choice effect. That is, their reliance on a binary (i.e., change vs. no change) behavioral outcome might have masked the effect. Therefore, in our studies we measure preferences directly using subjective response scales so that more subtle preference shifts can be observed.

Given that previous research using the free-choice induction method has demonstrated that cognitive dissonance can be alleviated by preference inflation of selected options, deflation of non-selected options, or by a combination of both processes (Shultz et al., 1999), we hypothesize that selecting an opening offer to put forth to one's counterpart in a negotiation would be associated with an increase in the difference in valuation between the selected offer and non-selected offer, which we are calling "rating spread." Furthermore, since Shultz et al. (1999) found that among people who had chosen between two attractive options, cognitive dissonance was alleviated by devaluing the unselected choice rather than inflating preferences for the selected one, we also hypothesize that the difference in valuation we observe will be due to devaluation of the forfeited option.

Hypothesis 1a: Selecting an opening offer to make in a negotiation will be associated with an increase in rating spread.

Hypothesis 1b: In this context (i.e., choosing among attractive options), selecting an opening offer will induce devaluation of the non-selected option more than preference inflation for the selected option.

## METHOD

*Participants.* Participants were 48 employed MBA students at a West Coast university enrolled in a course on Organizational Behavior. Of those eligible to participate, 97% volunteered to do so. Participants' ages ranged from 25 to 54 years ( $M = 31$ ,  $SD = 4.41$ ), and 24% were women.

*Procedure.* This study was conducted in the context of an in-class negotiation simulation that has been used in previous research (Bayazit & Mannix, 2003; Kurtzberg, 2005; case developed by Valley & Medvec, 1996). The negotiation was concerning a Union-Management labor contract dispute in which the Management had the option of relocating a plant and the Union could strike if no agreement was reached. Each participant was randomly assigned to play the Union or the Management role. A week before the class in which we conducted the simulation, all participants received one of two sets of confidential background information consistent with their role (i.e., Union or Management). The background information described several negotiation issues in detail (e.g., the location of a new plant, wages, worker autonomy, production quotas, and incentives), including information on relative prioritization of these issues.

Along with their background information, participants received a link to a secure, online questionnaire that they were instructed to complete and submit shortly after reading their background information and at least 24 hours prior to the class in which the simulation was to be conducted. The questionnaire comprised a menu of 12 potential option packages that participants were instructed to rate in terms of the positivity or negativity of each option from the perspective of their assigned role on scales ranging from 1 ("Terrible") to 9 ("Excellent"). Hereafter, we refer to these ratings as "pre-ratings."

Upon arrival at the class during which the simulation was to be conducted, participants received a second questionnaire (on paper) that they were instructed to complete before they left the classroom to begin the simulation. On the first page of the questionnaire was a copy of the original menu of 12 option packages (ordered differently than on the pre-rating questionnaire). Participants were instructed to choose an opening offer for their own negotiation from among the 12 options listed on the menu. Hereafter, we refer to the contents of this offer as the "selected option."

On the second page of the questionnaire, participants completed a distracter task in which they were asked to describe briefly a real-world union-management negotiation similar to the case portrayed in the simulation. Finally, on the third page of the questionnaire, participants re-evaluated all 12 option packages (ordered differently than on the pre-rating questionnaire) using the same 9-point scale as before. Hereafter, we refer to these ratings as "post-ratings."

*Rating Spread.* Given that past dissonance induction research using the free-choice paradigm has limited people's choices to two closely-rated options (cf. J. Brehm, 1956), we identified the non-selected option pre-rated most closely to the selected option and calculated a measure of each person's difference in valuation between the selected and non-selected options before and after making the choice.<sup>1</sup> We call the difference between selected and non-selected options the "rating spread."

1. In all but two cases, the closest non-selected option was rated lower than the selected option. We also created an alternative measure of rating spread which used the average ratings of all non-selected options and the results did not change when using this measure.

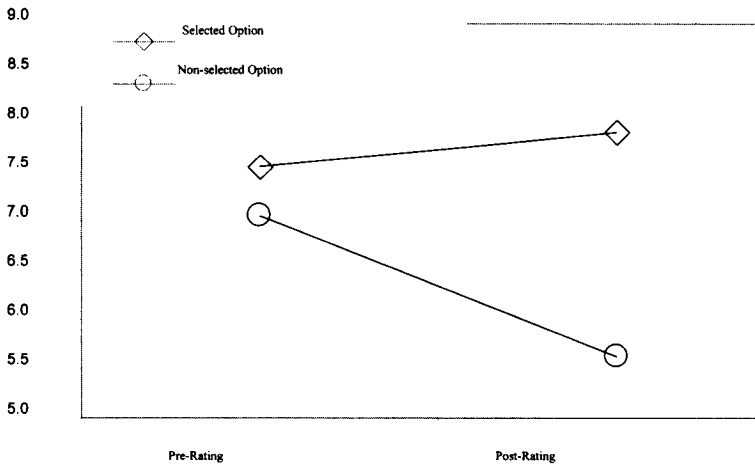


FIGURE 1. Pre- and post-ratings of selected and non-selected options (Study 1)

## RESULTS

Prior to testing our primary hypotheses concerning changes in rating spread from pre-rating to post-rating, we sought to determine whether participants' selected option or participants' role in the simulation had any effect on pre-rating spread or post-rating spread. We therefore applied analysis of variance (ANOVA) to pre-rating spread and post-rating spread with selected option (A through L) and role (Union or Management) as independent factors.<sup>2</sup> The main effect of selected option was not significant in either the ANOVA on pre-rating spread or the ANOVA on post-rating spread, all  $F_s < 2.05$ , *ns*. However, the main effect of role was significant in both ANOVAs, such that pre-rating spread ( $M = .833$ ,  $SD = 1.01$ ) and post-rating spread ( $M = 2.72$ ,  $SD = 2.83$ ) made by the Union role were higher on average than pre-rating spread ( $M = .17$ ,  $SD = .48$ ) and post-rating spread ( $M = 1.84$ ,  $SD = 1.80$ ) made by the Management role,  $F(1, 47) = 4.46$ ,  $p < .05$  and  $F(1, 47) = 8.22$ ,  $p < .01$ , respectively. We, therefore, include role as a factor in subsequent analyses and present the results by role in the Appendix.

To test Hypothesis 1a, we subjected rating spread to a 2 (role) X 2 (rating time period) repeated measures ANOVA with the second factor within-subjects. As hypothesized, the ANOVA yielded a significant main effect for rating time period,  $F(1, 46) = 25.93$ ,  $p < .01$ . As illustrated in Figure 1, the rating spread increased from .50 ( $SD = .85$ ) at pre-rating to 2.28 ( $SD = 2.39$ ) at post-rating. The interaction between role and rating time period was not significant,  $F(1, 46) = .09$ , *ns*. To test Hypothesis 1b, we ran post-hoc simple effects analyses, with role included as a factor.

2. The selected option factor had only 11 levels because one of the options was never selected by our participants.

This analysis indicated that, as predicted, the increase in rating spread primarily was due to devaluation of the non-selected option ( $M$  pre-rating = 7.06,  $SD$  = 1.28;  $M$  post-rating = 5.63,  $SD$  = 1.89),  $F(1, 46) = 29.66$ ,  $p < .01$ , as opposed to inflation of the selected option ( $M$  pre-rating = 7.56,  $SD$  = 1.43;  $M$  post-rating = 7.90,  $SD$  = 1.36),  $F(1, 46) = 2.44$ ,  $ns$ .

## DISCUSSION

These results support our hypothesis that the process of choosing an opening offer to put forth to one's counterpart in a negotiation is associated with an increase in rating spread between selected and non-selected options. This effect suggests that choice by itself is sufficient to induce cognitive dissonance among negotiators, and that negotiators respond by coming to value the selected and non-selected options more distinctly from one another. Furthermore, consistent with findings from Shultz et al. (1999), it seems that most of the increase in spread was due to devaluation of the non-selected option rather than inflation of the selected option. Indeed, the average pre-rating of selected option ( $M$  = 7.57,  $SD$  = 1.43) and non-selected option ( $M$  = 7.06,  $SD$  = 1.28) were quite high, suggesting that participants in this study were making a difficult choice between relatively attractive options. We believe this corresponds to most real negotiation situations where parties make strong opening offers (i.e., offers that are highly attractive to their own side) from which to concede as the negotiation progresses. Additionally, our results contrast with those of Bobocel and Meyer (1994), suggesting either that choice may be more important in negotiation than in personal investment decisions and/or that the effect of choice is fairly subtle and is only clearly observable with a fine-grained, direct measure of preferences rather than a binary behavioral measure.

This study has several limitations. First, in an effort to enhance the external validity of the procedure, following the design of Curhan et al. (2004), we elected not to force participants to make a choice between only two specific options, as has been done in previous research using the free-choice method of inducing dissonance (e.g., Brehm, 1956; Shultz et al., 1999). Since participants were free to choose whichever option package they wished (from a menu of 12), we had to construct a comparison variable post hoc. Another result of our methodological choice was that we had no control over which options were selected by our participants. Consequently, the average pre-ratings of selected and non-selected options were quite high, potentially giving rise to a ceiling effect or other methodological artifacts. Finally, we examined only the effect of choice on changes in rating spread; we did not examine how justifying that choice might further affect changes in valuation. Study 2 addresses these limitations.

## STUDY 2

### OVERVIEW AND HYPOTHESES

Our second study builds on Study 1 by forcing participants to choose their opening offer from between two relatively unattractive option packages in order to in-



crease the chances that we would observe preference inflation for the selected option as well as (or instead of) devaluation of the non-selected option. Participants engaged in a negotiation simulation as attorneys, each representing the interests of individual parties who opposed one another in a dispute. In our control condition, we aimed to extend our observed choice effect in Study 1 to conditions where the options were relatively unattractive. As in Study 1, we hypothesized, based on previous research using the free-choice induction method, that the process of choice by itself would be associated with an increase in rating spread from pre-rating to post-rating.

Hypothesis 1a: Selecting an opening offer to make in a negotiation will be associated with an increase in rating spread.

Furthermore, based on Shultz et al. (1999), we hypothesized that because participants were choosing between unattractive options, the increase in rating spread would be due to inflation of the selected option more than to devaluation of the non-selected option.

Hypothesis 1b: In this context (i.e., choosing between unattractive options) selecting an opening offer will induce preference inflation for the selected option more than devaluation of the non-selected option.

In addition to examining the effects of choice between unattractive options, we also added new experimental conditions to test the effects of justification on the spread of alternatives above and beyond the effect of choice alone. Specifically, participants were instructed to justify their choice to their own client, to the opposing client, or to the opposing client specifically on the basis of fairness. The first experimental condition, "choose and justify to own side," most resembled previous dissonance research using the justification method. Participants justified why an option they had previously rated as relatively unattractive for their own side was in fact good for their client. We expected the inconsistency between their pre-rating and their justification to generate cognitive dissonance.

Although there are many negotiation situations involving principal-agent relationships in which the negotiators must justify their offers to their own constituents, we also wanted to examine the kind of justification that tends to occur in a one-on-one negotiation situation—that is, justification aimed at trying to persuade the counterpart to accept an offer. Thus, in the second experimental condition, "choose and justify to other side," participants justified why their selected option was good for their counterpart's client. This condition most closely resembled the form of justification used by participants in the study by Curhan et al. (2004) where negotiators chose and justified offers directly to their counterparts. Just as participants in the study by Cooper and Worchel (1970) exhibited a shift in attitudes as a function of believing that they had convinced a fellow student to participate in an unpleasant experiment, we reasoned that making an offer palatable to one's negotiation counterpart might cause the counterpart to accept the offer, which could be regarded as a potentially aversive event given that the offer had previously been rated poorly. To alleviate this dissonance, we expected that participants using this form of justification would increase their rating spread between selected and non-selected options.

Finally, we added a third experimental condition, "choose and justify based on fairness grounds," to simulate another commonly used form of justification that is particularly pertinent to negotiations. Raiffa (1982) observed that "most people want to be fair, and they can be persuaded somewhat by fairness arguments" (p. 268). Additionally, Fisher and Ury (1981) suggest that negotiators should seek out and use fairness arguments in their negotiations. From a dissonance perspective, we reasoned that justification based on fairness grounds would lead to the perception that the selected option was indeed fair and, based on relevant findings from the justice literature (Lind & Tyler, 1988; Lind & van den Bos, 2002; Thibaut & Walker, 1975; Tyler & Lind, 1992; van den Bos, Wilke, Lind, & Vermunt, 1998), the perception that the selected option was fair would, in turn, lead to the selected option being viewed more positively. Thus, once again, we expected this form of justification to be related to increased rating spread between the selected and non-selected options.

Because no monetary compensation was offered in exchange for the justification, all three justification conditions involved the same cognitive inconsistency of identifying and publicly articulating the positive aspects of an option package that had previously been rated poorly, and "selling" a fairly unattractive proposal could result in adverse consequences (i.e., a negotiated agreement that is close to one's reservation price), we expected any form of justification to induce cognitive dissonance that would be alleviated by increasing the rating spread between selected and non-selected options. Based on Bobocel and Meyer's (1994) research on the effects of choice and different justification processes on escalation of commitment, we did not expect to find differences among the effects resulting from different types of justification. Our experimental design afforded us the opportunity to test for such differences directly.

*Hypothesis 2a: The process of choosing an opening offer in negotiation and justifying the choice to one's constituency, to one's counterpart, or to one's counterpart based on fairness grounds will be associated with an increase in rating spread.*

As in previous research on escalation of commitment (Bobocel & Meyer, 1994), we predicted for all three justification conditions that justifying one's choice would have a greater effect on preference inflation than would choice alone.

*Hypothesis 2b: The process of choosing an opening offer in negotiation and justifying the choice to one's constituency, to one's counterpart, or to one's counterpart based on fairness grounds will be associated with a greater increase in rating spread than will the process of choice by itself.*

We had no hypotheses concerning whether differences in rating spread as a function of justification resulted primarily from preference inflation of the selected option versus devaluation of the non-selected option because we are only aware of previous research examining this question in the context of the free choice rather than the justification method of inducing cognitive dissonance.

## METHOD

*Participants.* Participants were 183 MBA students at a university in the Northeast who were enrolled in a course on Negotiation. Participants' ages ranged from 26 to 39 years ( $M = 30$ ,  $SD = 2.61$ ) and 30% were women. Fourteen participants were dropped because they did not submit a second questionnaire.

*Procedure.* Participants prepared for a negotiation simulation in which they were to play the role of an attorney representing an individual party in a dispute between two business partners (see Goluke & Groth, 1991; case developed by Patton, Gordon, & Clarkson, 1984). Participants were randomly assigned to represent the lawyer for either Hacker (a computer programmer) or Star (a business manager). All participants received background information in advance that was consistent with their respective roles.

Following a procedure similar to Study 1, participants completed an online questionnaire after reading their background information, but at least five hours prior to the class in which they believed the simulation would occur. The questionnaire comprised a menu of ten potential option packages, and participants were instructed to rate the positivity or negativity of each package from the perspective of their assigned role, using a 9-point scale identical to the scale used in Study 1. Once again, hereafter, we refer to these ratings as "pre-ratings."

After the pre-ratings had been submitted online, a research assistant identified two option packages for each role to be presented on the second questionnaire. The two option packages for each role were selected on the basis of having been pre-rated similarly to one another ( $M = 4.96$  and  $5.04$ ,  $t = -.41$ , *ns* for Hacker and  $M = 3.71$  and  $4.22$ ,  $t = -1.63$ , *ns* for Star) and relatively low in comparison with other option packages ( $M = 5.81$ ,  $SD = 0.99$  for Hacker and  $M = 4.91$ ,  $SD = 1.42$  for Star). We reasoned that these option packages represented a difficult choice among fairly unattractive options, which would increase the chances that our participants would inflate their valuation of the selected option (Shultz et al., 1999).

Upon their arrival in class, all participants received a follow-up questionnaire (on paper). In all four conditions, participants first were presented with the two packages from which to choose their opening offer to their counterpart. The instructions were as follows:

Imagine that you and Hacker's [Star's] attorney have agreed to resolve this case through a process known as "final offer arbitration."<sup>3</sup> You and Hacker's [Star's] attorney each independently are to make a final offer that will be shown to a neutral arbitrator. The arbitrator must select either your final offer or the final offer made by Hacker's [Star's] attorney. The arbitrator may not split the difference between the two offers. Whichever offer the arbitrator selects is legally binding upon the parties. Imagine that for some reason you had to choose one of the two offer packages described below as your final offer. Which offer package would you propose?

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3. We opted to use the context of final offer arbitration (rather than having participants select an opening offer) to increase the external validity for a negotiation task in which participants had to choose between unattractive options. We were concerned that asking participants to choose an unattractive option with which to open a negotiation might induce countervailing cognitive processes, such as reactance.

Hereafter, we refer to the offer selected as the "selected option," and the offer not selected as the "non-selected option."

After indicating their choice, participants proceeded to the second page of the questionnaire in which the experimental manipulations (described below) were presented. Finally, on the third page, participants re-evaluated the original ten option packages (ordered differently than on the pre-rating questionnaire) using the same 9-point scale as before. Hereafter, we refer to these ratings as "post-ratings."

*Manipulations.* We randomly assigned each participant to one of four experimental conditions, which determined the task presented on the second page of the second questionnaire, in between selecting their opening offer package and completing the post-ratings. In the "choose only" condition (our control condition), participants were instructed to "briefly describe a real world situation that you have heard of that is similar to this case." In the "choose and justify to own side" condition, participants were instructed to imagine that they had to address their own client to argue why the terms of the selected option met their own client's interests. In the "choose and justify to other" condition, participants were instructed to imagine that they had to address the *opposing* client directly to argue why the terms of the selected option met that client's interests. Finally, in the "choose and justify on fairness grounds" condition, participants were instructed to imagine that they had to address the opposing client to argue why the terms of the selected option were consistent with objective criteria or standards of fairness. In each experimental condition, participants were instructed to write out exactly what they would say.

*Rating Spread.* As in Study 1, we constructed a measure of the difference in ratings between the selected option and the non-selected option, hereafter, "rating spread."

## RESULTS

As in Study 1, we first sought to determine whether participants' selected option or participants' role in the simulation had any effect on pre-rating spread or post-rating spread. The main effect of selected option was not significant in either the ANOVA on pre-rating spread or the ANOVA on post-rating spread, all  $F_s < 2.40$ , *ns*. However, the main effect of role was significant in the ANOVA on post-rating spread ( $M = 1.23$ ,  $SD = 1.88$  for Hacker and  $M = 2.84$ ,  $SD = 2.05$  for Star),  $F(1, 168) = 28.50$ ,  $p < .01$ , although not in the ANOVA on pre-rating spread ( $M = .48$ ,  $SD = 2.01$  for Hacker and  $M = .96$ ,  $SD = 2.47$  for Star),  $F(1, 168) = 1.98$ , *ns*. Thus, we included role as a factor in subsequent analyses, as we had done in Study 1, and we summarize our hypothesis tests by role in the Appendix.

We then examined if there were differences among the three justification conditions by applying a 2 (role) X 4 (condition) X 2 (rating time period) repeated measures ANOVA to rating spread with the last factor within-subjects. Planned contrasts comparing changes in rating spread across the three justification conditions revealed no significant differences, all  $F_s < .60$ , *ns*. Therefore, we collapsed across these three justification conditions for all subsequent analyses.

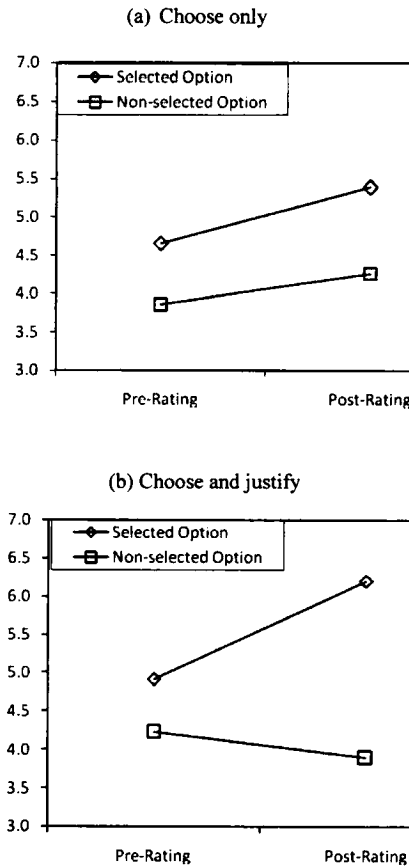


FIGURE 2. Pre- and post-ratings of selected and non-selected options (Study 2)

To test our hypotheses, we applied a 2 (role) X 2 (condition) X 2 (rating time period) repeated measures ANOVA to rating spread with the third factor within-subjects. This revealed a significant main effect for rating time period,  $F(1, 168) = 18.74, p < .01$ . Averaging across the choice and choice plus justification conditions, the rating spread increased from .71 ( $SD = 2.25$ ) to 2.00 ( $SD = 2.12$ ). There was a significant interaction of role with rating time period, such that rating spread increased more for the Star role ( $M$  pre-rating spread = .96,  $SD = 2.47$ ,  $M$  post-rating spread = 2.84,  $SD = 2.05$ ) than for the Hacker role ( $M$  pre-rating spread = .48,  $SD = 2.02$ ;  $M$  post-rating spread = 1.23,  $SD = 1.88$ ),  $F(1, 168) = 6.23, p < .01$ . The condition by rating time period interaction also was significant,  $F(3, 166) = 8.02, p < .01$ , suggesting, in support of Hypothesis 2b, that the effect of justifying ones choice on spread over time was significantly greater than the effect of choice alone. The three way interaction of rating time period, role, and condition was not significant,  $F(3, 166) = .02, ns$ . To test Hypotheses 1a, 1b, and 2a, we applied planned contrasts to the main effect of rating time period within each experimental condition, retaining role as a factor. Pre-ratings and post-ratings for each condition can be seen in Figure 2. In the "choose only" control condition (Figure 2a), rating spread increased from .80 ( $SD = 2.46$ ) to 1.13 ( $SD = 2.16$ ), but this change was not statistically

significant,  $F(1, 168) = .76$ , *ns*. Thus, Hypothesis 1a was not supported. However, post-hoc simple effects analyses, with role included as a factor, indicated that participants significantly inflated their valuation of the selected option ( $M$  pre-rating = 4.66,  $SD = 2.01$ ;  $M$  post-rating = 5.39,  $SD = 1.91$ ),  $F(1, 161) = 5.47$ ,  $p < .05$ , yet did not devalue the non-selected option ( $M$  pre-rating = 3.86,  $SD = 1.80$ ;  $M$  post-rating = 4.27,  $SD = 1.69$ ),  $F(1, 161) = 2.51$ , *ns*. Thus, Hypothesis 1b was supported. In support of Hypothesis 2a, rating spread in the "choose and justify" conditions (Figure 2b) increased significantly from .68 ( $SD = 2.18$ ) to 2.31 ( $SD = 2.02$ ),  $F(1, 168) = 49.27$ ,  $p < .01$ . As can be seen in the Appendix, this increase in spread again is due primarily to an increase in valuation of the selected offer rather than devaluation of the non-selected offer.<sup>4</sup>

## DISCUSSION

The results of Study 2 support most of our hypotheses concerning the effects of choice and justification on preference inflation. In general, participants in this study inflated their valuation for selected offers, and justification of those offers had an additive effect on preference inflation. However, Study 2 did not replicate the effect of choice alone on rating *spread*. Participants in the "choose only" condition significantly inflated their valuation for the selected option, but *also* somewhat inflated their valuation of the non-selected option. We speculate that this inflation of non-selected options stemmed from the final-offer arbitration context of Study 2. Participants may have believed that *both* options were candidates for inclusion in the final agreement because the non-selected option could have been put forth by the counterpart, and thus would be available for selection by the arbitrator as the binding agreement. Indeed, Curhan et al. (2004) found preference inflation for options that were likely to become the final agreement.

Although the subjects in the choose and justify to own side condition clearly were producing a counter-attitudinal rationale by telling their own constituencies that something bad for them was actually good, some might argue that it is consonant-attitudinal to strategically point out why your offer meets the interests

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4. Although, as noted earlier, there were no statistically significant differences in changes in rating spread across conditions, we nonetheless analyzed changes in spread within each of the choose and justify conditions. Rating spread in the "choose and justify to own side" condition increased significantly from .84 ( $SD = 2.18$ ) to 2.47 ( $SD = 1.80$ ),  $F(1, 168) = 16.46$ ,  $p < .01$ . Post-hoc simple effects analyses, with role included as a factor, indicated that the increase in spread primarily was due to preference inflation of the selected option ( $M$  pre-rating = 4.95,  $SD = 2.18$ ;  $M$  post-rating = 6.33,  $SD = 1.60$ ),  $F(1, 161) = 18.92$ ,  $p < .01$ , as opposed to devaluation of the non-selected option ( $M$  pre-rating = 4.12,  $SD = 2.07$ ;  $M$  post-rating = 3.86,  $SD = 1.58$ ),  $F(1, 161) = .80$ , *ns*. Rating spread in the "choose and justify to other" condition increased significantly from .86 ( $SD = 1.85$ ) to 2.28 ( $SD = 2.21$ ),  $F(1, 168) = 13.05$ ,  $p < .01$ . Post-hoc simple effects analyses, with role included as a factor, indicated that the increase in spread primarily was due to preference inflation of the selected option ( $M$  pre-rating = 4.70,  $SD = 1.85$ ;  $M$  post-rating = 6.07,  $SD = 1.37$ ),  $F(1, 161) = 19.48$ ,  $p < .01$ , as opposed to devaluation of the non-selected option ( $M$  pre-rating = 3.84,  $SD = 1.94$ ;  $M$  post-rating = 3.79,  $SD = 1.81$ ),  $F(1, 161) = .01$ , *ns*. Finally, rating spread in the "choose and justify on fairness grounds" condition increased significantly from .31 ( $SD = 2.50$ ) to 2.18 ( $SD = 2.06$ ),  $F(1, 168) = 19.90$ ,  $p < .01$ . Post-hoc simple effects analyses, with role included as a factor, revealed that the increase in spread in this condition was due to *both* preference inflation of the selected option ( $M$  pre-rating = 5.10,  $SD = 2.23$ ;  $M$  post-rating = 6.23,  $SD = 1.29$ ),  $F(1, 161) = 11.59$ ,  $p < .01$ , and devaluation of the non-selected option ( $M$  pre-rating = 4.79,  $SD = 1.96$ ;  $M$  post-rating = 4.05,  $SD = 1.65$ ),  $F(1, 161) = 5.91$ ,  $p < .05$ .

of the other party or to emphasize the fairness of your own offer. However, we believe that all three justification conditions are counter-attitudinal in that they all require identifying and publicly articulating something positive about a mediocre offer. Nonetheless, without measures of arousal or psychological discomfort, we cannot rule out the possibility that the participants did not really experience cognitive dissonance. To the extent that any of the justification conditions are somewhat consonant-attitudinal due to the potential strategic advantage of positively framing one's offer, then the mechanism for preference inflation would be self-perception theory (Bem, 1972). The self-perception explanation regards such shifts as reflecting a "reasonable" inference that subjects make from observing their own justification behavior (Mirels & McPeck, 1977, p. 1133). In either case, our results are consistent with the advocacy effect, which predicts preference inflation from both counter- and consonant-attitudinal justifications (Cialdini, 1971).

## GENERAL DISCUSSION

While preference inflation among negotiators who make offers has been identified as a robust effect in previous research (Curhan et al., 2004), it has not received as much attention as reactive devaluation. Since both types of dynamic valuation can exacerbate the gap between negotiating parties, the current research contributes to our understanding of a potentially dysfunctional psychological barrier to resolving disputes.

These two studies represent a first step in exploring some of the mechanisms associated with preference inflation in negotiation. Taken together, the studies suggest that both the process of choosing an offer to put forth to one's counterpart and the process of justifying that offer induce cognitive dissonance additively, and that negotiators respond by coming to value their selected offers more positively and/or their non-selected offers more negatively.

Justification (coupled with choice) appears to induce considerable preference inflation. The results suggest, therefore, that justification is a powerful dissonance-inducing process in negotiations. In addition, given that we found both a significant increase in rating spread in Study 1 and a significant inflation of the selected offer in Study 2 from choice alone, choice may play an important role in negotiations, especially when choosing an offer that favors one's own side, which characterizes many real-world negotiations.

Finally, these studies extend the findings of Shultz et al. (1999) to the negotiations context. Our results suggest that the dissonance induced by choosing between attractive offers to put forth to one's counterpart in a negotiation is alleviated by devaluing the non-selected offer, whereas the dissonance induced by choosing between unattractive offers is alleviated primarily by inflating one's valuation of the selected offer. Thus, the attractiveness of the options under consideration affected the changes in valuation that resulted.

## THE ROLE OF POWER

The unanticipated role effects we observed in both studies suggest that relative differences in negotiator power may be important in this process. In both cases, the

party with the weaker alternative to negotiation inflated their preferences more. In Study 1's Union-Management scenario, the union's best alternative to a negotiation was to strike, an expensive and highly risky action. The Management had a fairly attractive alternative to relocate the plant and open a non-union facility. Although certainly expensive and risky, at least among the MBA students who participated in this study, it seemed like a more attractive alternative. In the business partnership case, Hacker's alternative was to maintain the status quo, whereas Star's best alternative was to bring legal charges against Hacker. Perhaps the relatively weak alternative of the Union role (in Study 1) and the Star role (in Study 2) made the participants playing these roles more dependent on reaching a negotiated settlement than their counterparts were, so they experienced more dissonance. This pattern of results, taken together with the fact that Curhan et al. (2004) also found more preference inflation among the relatively weaker party in that study, adds to a growing body of research suggesting that power differences play a critical role in the context of negotiation. In other research, power has been associated with a variety of negotiation processes such as making first offers and responding to the other party's emotions (Magee, Galinsky, & Gruenfeld, 2007; Van Kleef, De Dreu, Pietroni, & Manstead, 2006). Our studies suggest that considering the effects of power differences on both preference inflation and reactive devaluation in negotiations could be another fruitful direction for future research.

## LIMITATIONS

A limitation of these studies is that we did not have a situation in which participants justified without choosing, so we cannot compare the effect of choice against the effect of justification when each process occurs *in isolation*. We contemplated adding another experimental condition to Study 2 in which participants were instructed to justify an option they had not personally chosen. However, we opted not to do so because we reasoned, on theoretical grounds, that having an option assigned in this fashion would induce psychological reactance, and hence devaluation rather than preference inflation (S. Brehm & Brehm, 1981). Indeed, this conjecture was supported by the results of a pilot study. Nevertheless, this is a topic that could be explored in future research.

Some researchers have argued that findings from dissonance induction experiments could be attributable to impression management or self-presentation concerns on the part of research participants (Cooper & Fazio, 1984; Tedeschi, Schlenker, & Bonoma, 1971). Under this theory, participants feign changes in attitudes because they are motivated to present themselves in a positive light to the experimenter. For example, in our study we cannot rule out the alternative explanation that participants who had been instructed by the experimenter to justify their proposals might have felt obligated to come to value those proposals more positively. However, we believe that this account of our results is unlikely to be true based on findings from Bobocel and Meyer (1994). Namely, Bobocel and Meyer found no significant differences in escalation of commitment as a function of whether justification was undertaken publicly or privately, suggesting that the effects of justification do not rely on self-presentation motives.



## CONCLUSION

Notwithstanding its limitations, this research context allowed us to explore simultaneously two classic methods for inducing cognitive dissonance that have been used in previous research. Together with Bobocel and Meyer (1994), our research suggests that the justification paradigm in cognitive dissonance research may produce more reliable preference changes and behavioral effects than those resulting from the free-choice paradigm. This could be due to the advocacy effect whereby people come to believe more strongly in the positions that they advocate (Cialdini, 1971; Jellison & Mills, 1969; Mirels & McPeck, 1977), playing an additional role in the justification conditions. This explanation is consistent with our theoretical framing to the extent that parties are advocating a counter-attitudinal rationale; in such circumstances, the advocacy effect rests on a cognitive dissonance explanation. However, the advocacy effect also suggests that we could expect the inflation effects of justification to generalize to negotiations where the parties are proffering offers they find attractive (i.e., close to their aspiration point) and thus making relatively consonant-attitudinal justifications. Given that we observed our strongest choice effect in the experimental condition where subjects chose among attractive options, it suggests the preference inflation process may be quite problematic in many real-world negotiations.

From an applied perspective, this research provides a caveat to the common prescription that negotiators should use objective criteria and standards of fairness to justify their offers to their counterparts (Fisher & Ury, 1981). Although the use of objective criteria might increase the attractiveness of the offer to the counterpart, it may also increase the attractiveness of the offer to the proposer, thereby enhancing the proposer's level of commitment to a specific position and perhaps eroding the proposer's flexibility. We hope that increasing awareness of the prevalence of preference inflation in negotiations will help attenuate its effects. If not, then we suggest negotiators consider introducing a new negotiator after an offer has been made and justified to break the cycle of an ever-widening gap in preference valuation for offers exchanged.

## APPENDIX. Average Pre-ratings and Post-ratings of Selected and Non-selected Options

Option	Pre-Rating	Post-Rating	Rating Change
<b>Study 1: Choose only</b>			
Union			
Selected option	8.04	7.88	-0.16
Non-selected option	7.21	5.16	-2.05**
Spread	0.83	2.72	1.89**
Management			
Selected option	7.08	7.92	0.84**
Non-selected option	6.92	6.08	-0.84**
Spread	0.17	1.84	1.67**
Both roles combined			
Selected option	7.56	7.90	0.34
Non-selected option	7.06	5.63	-1.43**
Spread	0.50	2.28	1.78**
<b>Study 2: Choose only</b>			
Star			
Selected option	4.32	5.38	1.06*
Non-selected option	3.62	3.71	0.09
Spread	0.71	1.67	0.96
Hacker			
Selected option	4.96	5.39	0.43
Non-selected option	4.09	4.78	0.69
Spread	0.87	0.61	-0.26
Both roles combined			
Selected option	4.66	5.39	0.73*
Non-selected option	3.86	4.27	0.41
Spread	0.80	1.13	0.33
<b>Study 2: Choose and justify</b>			
Star			
Selected option	4.48	6.53	2.05**
Non-selected option	3.43	3.28	-0.15
Spread	1.05	3.25	2.20**
Hacker			
Selected option	5.31	5.91	0.60*
Non-selected option	4.97	4.46	-0.51*
Spread	0.33	0.45	0.12**
Both roles combined			
Selected option	4.91	6.21	1.30*
Non-selected option	4.23	3.90	-0.33
Spread	0.68	2.31	1.63**

Note. \* $p < .05$ ; \*\* $p < .01$ . (All values two-tailed.)

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