

A Satisfied Mind: Motivational Orientation, Feedback and the Subjective Value of Negotiation Outcomes

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Abstract Although negotiation research has systematically investigated the factors that contribute to negotiators' satisfaction with economic outcomes, relatively less attention has been given to the factors that influence their satisfaction with social outcomes. In this research, we used a computer-based task to present pairs of outcomes (own outcome, other's outcome) to participants and asked them to rate their satisfaction with their own outcomes, their self-image and an opponent's perceived willingness to negotiate in the future. Because satisfaction is context-sensitive, we tested how two factors influenced these ratings: *motivational orientation*, whether negotiators held cooperative or individualistic goals, and *feedback*, whether negotiators received feedback only about an opponent's economic outcome or received feedback about both an opponent's economic outcome and satisfaction with the outcome. Our analysis showed informative parallels between the satisfaction ratings of participants who were cooperatively-oriented or received feedback about an opponent's satisfaction with outcomes, and between those who were individualistically-oriented or received outcome-only feedback. Whereas participants' satisfaction changed most rapidly with increasing joint gain when they were cooperatively-oriented or received outcome satisfaction feedback, participants' satisfaction changed most rapidly with increasing outcome differences when they were individualistically-oriented or received outcome-only feedback. Several three-way interactions showed that the most rapid changes in negotiators' satisfaction occur when interdependence is highlighted, that is, when

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cooperatively-motivated negotiators receive information about an opponent's outcome satisfaction.

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1 Background and Hypotheses

At the end of their deal-making, negotiators step back to evaluate their outcomes. In all but the most simple buyer-seller transactions, they have limited objective information for doing so. Individual economic outcomes provide one reference point for this evaluation, with higher outcomes predicting greater satisfaction (Gillespie et al. 2000; Loewenstein et al. 1989). Individual outcomes, however, are only one part of the satisfaction equation. Negotiators also make interpersonal comparisons, assessing their economic outcomes relative to those of their counterparts, and intrapersonal comparisons, assessing the social costs of pursuing their preferred economic outcomes (Curhan et al. 2006; Novemsky and Schweitzer 2004). How these economic and social criteria are weighted in the evaluation process remains an open, but important, question in negotiation research: negotiators who are dissatisfied with their outcomes are less willing to negotiate again with their counterparts, and may seek to restore equity in outcomes possibly via a range of ethically ambiguous tactics (Gino and Pierce 2010).

Analyses of negotiators' satisfaction have focused predominantly on the impact of economic outcomes, but even this economic focus recognizes that satisfaction is not shaped solely by individual outcomes. Pruitt's (1981) Dual Concern Model, which links negotiators' strategy choices to the relative importance that they assign to their own and their counterparts' outcomes, highlights the role of interpersonal comparisons in shaping negotiators' satisfaction with their deals. This model was among the first to suggest that negotiators' satisfaction may be affected not just by individual outcomes but also by the combined outcomes of both parties (joint gain) and the difference between their own and counterparts' outcomes (also Messick and McClintock 1968). The Dual Concern Model also foreshadowed the role of social context in shaping negotiators' satisfaction by recognizing that negotiators consider both parties' economic outcomes when they evaluate their deals.

Obtaining a good economic outcome is only one component of effective deal-making. In evaluating their deals, negotiators also consider their social outcomes. The growing attention given to constructs such as trust, the 'shadow negotiation' and the 'spirit of the deal' highlights the importance of social outcomes (Kolb and Williams 2001; Fortang et al. 2003; Olekalns and Smith 2011) such as individuals' ongoing reputations (Tinsley et al. 2002), feelings of self-esteem, and counterparts' willingness to negotiate again in the future (Curhan et al. 2006, 2010). Social, or reputational, outcomes increase in importance as individuals move from single transactions such as buying a car to recurrent negotiations such as employment contracts. For example, Curhan et al. (2009) found that social, but not economic, outcomes predicted greater pay and job satisfaction a year after an employment negotiation. Consequently, ending a negotiation with improved social outcomes is increasingly recognized as the second

component of effective deal-making (Olekalns and Brett 2008) and as contributing to negotiators' satisfaction (Curhan et al. 2006).

Negotiators' evaluations of their social and economic outcomes are not made independent of the negotiating context. The Dual Concern Model, and related theories, imply that how negotiators assess their economic outcomes depends on the relative emphasis that they place on maximizing their own and their counterparts' outcomes (Messick and Sentis 1985). Loewenstein et al. (1989) demonstrated that negotiators' satisfaction with joint outcomes and the discrepancy between their own and their counterpart's outcomes varies as a function of dispute type and disputant relationship. It is plausible that other aspects of the negotiation context, such as negotiators' goals or their power, similarly affect negotiators' evaluation of and satisfaction with their economic and social outcomes. This as yet untested possibility implies that negotiators' evaluations of their deals, and the consequences of those evaluations, are dynamic: the same objective outcomes may yield distinctly different evaluations depending on the context in which deals are made.

1.1 Subjective Utility in Negotiation

Negotiators' satisfaction with alternative outcomes can be represented as a subjective utility function. Obtaining judgments of multiple alternative outcomes makes it possible to construct a subjective utility function, that is, a quantitative representation of the level of satisfaction with alternative outcomes. These functions vary both in whether they take on a convex or a concave form, and in the steepness of the utility function slope. Differences in slope are informative because they indicate how sensitive negotiators are to changes in their own and their counterparts' outcomes.

Initial research mapping negotiators' subjective utility focused solely on negotiators' satisfaction with their economic outcomes (Loewenstein et al. 1989). More recent research, however, suggests that negotiators' satisfaction with their outcomes is also shaped by their relational outcomes. In assessing their subjective utility, negotiators might consider the reputational and relational impact of pursuing specific outcomes, as well as the likelihood that their pursuit of economically attractive outcomes will elicit retaliation or reduce opponents' willingness to engage in future negotiations (Balakrishnan et al. 1993; O'Connor et al. 2005). Using the Subjective Values Inventory (Curhan et al. 2006), research shows that individuals who end negotiations with high subjective value (satisfaction with own outcome, satisfaction with relationship) are not only more willing to negotiate with the same counterpart in the future but also obtain higher economic value in a subsequent negotiation (Curhan et al. 2010). Research focusing on relational outcomes has not, however, mapped the subjective utility of relationship satisfaction nor has it considered the possibility that negotiators' satisfaction may be affected by their evaluation of a counterpart's outcomes. We thus have an incomplete picture of the factors that contribute to the subjective utility of both economic and relational outcomes.

We integrate and extend research on subjective utility by mapping negotiators' satisfaction with both their economic and relational outcomes. We also recognize that the subjective utility function may take on different shapes depending on the context

within which satisfaction judgments are made (Loewenstein et al. 1989; Novemsky and Schweitzer 2004). For example, Loewenstein et al. (1989) showed that both the relationships between disputants and the nature of the dispute affect the shape of negotiators' utility functions. Similarly, Curhan et al. (2008) showed that negotiators differ in their willingness to incur social costs in pursuit of their preferred economic outcomes. In this research, we test how negotiators' motivational orientation and feedback influence three components of subjective utility: satisfaction with their own outcomes, their self-image, and their perception that a counterpart will be willing to engage in future negotiations.

1.2 Motivational Orientation and Subjective Utilities

Motivational orientation, which has proven to be one of the most enduring and robust constructs in negotiation research (De Dreu et al. 2000), captures differences in individuals' preferences for the allocation of resources between themselves and others. Individuals make both absolute and comparative assessments of their outcomes: in addition to their satisfaction with their own outcome, negotiators' satisfaction may be influenced by the combined outcomes of both negotiators (joint outcomes) or their outcomes relative to a counterpart's outcomes (outcome differences; Loewenstein et al. 1989; Messick and Sentis 1979). Motivational orientation differentiates negotiators based on the salience of either joint outcomes or outcome differences (Koning and Dijk 2013). Specifically, research shows that outcome differences are more salient to negotiators who strive to maximize individual outcomes whereas joint outcomes are more salient to those who strive to maximize both their own and their counterpart's outcomes (Messick and McClintock 1968; Messick and Sentis 1985; Pruitt and Lewis 1975).

An extensive body of research shows that negotiators who are instructed to maximize individual outcomes (individualistic orientation) and those who are instructed to maximize joint outcomes (cooperative orientation) differ in how they think about negotiations (De Dreu and Boles 1998), in the strategies that they favor (Olekalns et al. 2003), and in the outcomes that they obtain (Carroll and Payne 1991; De Dreu et al. 2000). Individualistically-oriented negotiators are guided by competitive heuristics such as "your loss is my gain", favor contentious strategies, and typically obtain low joint gain. Cooperatively-motivated negotiators are guided by cooperative heuristics such as "play fair", choose problem-solving strategies, and consistently obtain higher joint gains than individualistically-motivated negotiators (Anderson and Patterson 2008; De Dreu and Boles 1998; De Dreu et al. 2000; Carnevale and Lawler 1986; Lewis and Fry 1977; O'Connor 1997; Olekalns and Smith 1999, 2003a, b; Schulz and Pruitt 1978; Pruitt and Lewis 1975; Tzafrir et al. 2012; Weingart et al. 1993).

By definition, individualistically- and cooperatively-motivated negotiators are sensitive to different aspects of negotiated outcomes. Whereas individual outcomes and the distribution of outcomes between negotiators is more salient to individualistically-oriented negotiators, the combined outcomes of both parties is more salient to cooperatively-oriented negotiators. Increased saliency should increase the slope or steepness of the relevant part of the utility function. On this basis, we hypothesize that:

H1a Relative to cooperatively-oriented negotiators, individualistically-oriented negotiators' utility functions will be steeper in the domain of outcome differences.

H1b Relative to individualistically-oriented negotiators, cooperatively-oriented negotiators' utility functions will be steeper in the domain of joint outcomes.

1.3 Feedback and the Adaption of Subjective Utilities

Negotiators' assumptions about others' interests are strongly influenced by the fixed pie bias, and their understanding of others' true payoffs is at best moderate (Thompson and Hastie 1990; Mumpower et al. 2004). However, like other decisions that extend over time and involve others, negotiators uncover information about others' preferences: negotiators receive implicit feedback about preferences from the demands and concessions that their counterparts make and may receive explicit feedback if their counterparts express (dis)satisfaction with the offers that they receive. As a result, negotiators do adjust their perceptions of others' payoffs (Mumpower et al. 2004).

Despite the recognition that negotiators' perceptions of others' preferences may change as a negotiation unfolds (Ikle and Leites 1962; Thompson and DeHarpport 1994), surprisingly little is known about how such information influences negotiators' subjective utilities. A small number of experiments explore the relationship between knowledge of others' outcomes and negotiators' satisfaction. Thompson and DeHarpport (1994) showed that, relative to negotiators who only receive information about counterparts' outcomes, those who receive complete information about their counterparts' interests are better able to recognize those interests and to obtain improved outcomes in subsequent negotiations. Focusing on outcome feedback, Novemsky and Schweitzer (2004) showed that when negotiators learn that their counterparts have outperformed them they report decreased satisfaction with their outcome and with the negotiation process; conversely, they report increased satisfaction when they outperform their counterparts. In a comparison of how economic versus affective information influences negotiators' behaviors, Pietroni et al. (2008) showed that negotiators demands and concessions are not influenced by economic or affective feedback when counterparts are tough, but reduce concessions and increase demands when they are 'soft'.

Although somewhat disparate in their focus, jointly these experiments highlight negotiators' sensitivity to others' outcomes. We extend these findings by comparing how information about others' outcomes and information about others' outcome satisfaction affects negotiators' subjective utilities. Based on the available research, we predict that negotiators' subjective utilities will more influenced by outcome satisfaction information than by outcome-only information:

H2 Negotiators' subjective utility functions will be steeper following outcome satisfaction feedback than following outcome-only feedback.

Evidence that negotiators' utilities are influenced by context (Curhan et al. 2008; Loewenstein et al. 1989; Mumpower et al. 2004) suggests that our hypothesized feedback effect will be moderated by negotiators' motivational orientation. Kelley and Stahelski's (1970a, 1970b) Triangle Hypothesis provides the clearest evidence

that this might be the case. In their Prisoner's Dilemma Game research, they compared the strategy choices of cooperatively- and individualistically-oriented players in repeated dilemma games. Consistent with their theorizing, Kelley and Stahelski (1970a, b) found that cooperatively-oriented players shifted from cooperation to defection when their opponents defected (and returned to cooperation when their opponents cooperated; Parks and Rumble 2001). Individualistically-oriented players, however, continued to defect irrespective of their opponent's strategy (Kelley and Stahelski 1970b; McClintock and Liebrand 1988; Van Lange 1992). We test whether cognitive differences parallel the behavioral differences reported in the literature, that is, whether cooperative and individualistic orientations result in different subjective utility functions. Extending the Triangle Hypothesis to negotiators' subjective utilities suggests that cooperatively-oriented negotiators will be more sensitive to feedback than individualistically-oriented negotiators. Because we expect that subjective utilities will be more affected by outcome satisfaction feedback than by outcome-only feedback (H2), we hypothesize that:

H3 Cooperatively-oriented negotiators who receive outcome-satisfaction feedback will report a steeper subjective utility function than all other groups (for both joint outcomes and outcome differences).

Subsequent research suggests that cooperatively-oriented and individualistically-oriented negotiators focus on different features of context. Several studies have shown a false consensus effect, that is, an expectation that others have the same orientation that we do (Iedema and Poppe 1994; Van Kleef and De Dreu 2002). Importantly, this belief leads to confirmatory information search: cooperatively-oriented individuals search for evidence of cooperation in others, and individualistically-oriented negotiators search for evidence of competition in others (Van Kleef and De Dreu 2002). These findings suggest that cooperatively- and individualistically-oriented negotiators may weight information differently when assessing their subjective utilities. We have already hypothesized that joint outcomes are more salient to cooperatively-oriented negotiators and outcome differences are more salient to individualistically-oriented negotiators. Based on the above research, we now consider the possibility that motivational orientation differences also affect the relative salience of outcome-satisfaction and outcome-only feedback. Cooperatively-oriented negotiators, who are more attuned to their counterparts' outcomes and their concern with fairness, are more likely weight their counterparts' outcome satisfaction when they assess their subjective utilities. Individualistically-oriented negotiators, who are attuned to their performance relative to that of their counterpart, are less likely to weight their counterparts' satisfaction in assessing their subjective utilities. These considerations suggest an alternative hypothesis:

H4a Cooperatively-oriented negotiators who receive outcome-satisfaction feedback will report steeper subjective utility functions for joint gain than all other groups.

H4b Individualistically-oriented negotiators who receive outcome-only feedback will report steeper subjective utility functions for outcome differences than all other groups.

2 Method

2.1 Participants

Sixty-nine participants (53 females, 16 males) completed a decision task based on a description of an employment contract negotiation. Participants had an average age of 19.6 (SD = 2.8 years) and an average of 1.9 years work experience (SD = 2.21).

2.2 Procedure

Participants were given information about a forthcoming negotiation with the manager of a restaurant chain. They were given information about the issues that were under negotiation (which outlet the participant would work in, amount of on-job training, percentage of work on weekends, number of hours worked per week, percentage of front-of-house duties, hourly wage rate, percentage of tips, and “on call” notice) as well as a payoff table showing the number of points associated with each settlement option. This enabled them to quantify the economic benefit of the deal.

After reading the instructions, participants completed a computer-based decision task administered using Inquisit. Participants were presented with an opening screen that explained the task followed by 48 pairs of outcomes (own outcome, other’s outcome, joint outcome) in graphic form. These outcomes pairs were derived from the payoffs for the negotiation and were selected to provide a broad range of individual outcomes (0–21,000 points). Participants saw a series of bar graphs showing their own and the other’s outcome, as well as the joint outcome. Outcomes were presented in random order.

2.2.1 Motivational Orientation Manipulation

A Motivational Orientation manipulation was embedded in participants’ instructions. The initial screen, which provided background information about the negotiation also told negotiators that their goal in this negotiation was either to “get the best possible deal for both you and the other person” or to “get the best possible deal for yourself”, establishing a cooperative or an individualistic motivational orientation, respectively (e.g., Olekalns and Smith 2003a, b; Schulz and Pruitt 1978; Weingart et al. 1993).

2.2.2 Feedback Manipulation

Participants completed the task twice, once with information about both parties’ outcomes (Outcome Only) and once with feedback about the other party’s satisfaction with the outcome (Outcome Satisfaction). In the Outcome Satisfaction condition, the other party’s satisfaction was represented using frowning and smiley faces (Conlon and Hunt 2002), ranging from two frowning faces through a neutral face to two smiling faces. Feedback was congruent with motivational orientation condition, meaning that (dis)satisfaction with an outcome pair was based in individual outcomes in the Indi-

vidualistic Orientation condition and joint outcomes in the Cooperative Orientation condition.

2.2.3 Subjective Utility Measure

We drew three items from Curhan et al.'s (2007) Subjective Value Inventory to measure negotiators' subjective utility. For each outcome pair, participants were asked to respond to the following questions using a 7-point scale: How satisfied are you with your outcome? How has the outcome affected your self-image or impression of yourself? Based on this outcome, how likely do you think it is that the other person would negotiate with you again in the future? Own outcome satisfaction correlated with positively with self-image ($r = 0.89$, $p < 0.001$) and negatively with others' willingness to negotiate in the future ($r = -0.36$, $p < 0.001$); and self-image correlated negatively with others' willingness to negotiate in the future ($r = -0.34$, $p < 0.001$)

3 Results

We used the data from our Inquisit decision task to analyze negotiators' ratings of satisfaction with their outcome, their self-esteem, and the other parties' willingness to negotiate again in the future. This task yielded utility ratings of 96 pairs of outcomes as described in the Methods section. Our model included terms for joint outcomes and outcome differences (Loewenstein et al. 1989). We calculated *joint outcome* by summing own and other's outcome. We calculated *outcome difference* by subtracting a counterpart's outcome from the negotiators outcome. Positive differences indicate outcomes that favor the negotiator whereas negative differences indicate outcomes that favor their counterpart.

We tested our hypotheses using the SPSS procedure Mixed Models. Ratings of each of the 96 outcome pairs were nested within individuals and within Feedback condition. Drawing on work by Loewenstein et al. (1989) and Messick and Sentis (1979) we tested three models, one for each satisfaction rating. Each model included two fixed factors (Motivational Orientation, Feedback), two continuous variables (joint outcomes, outcomes differences) as well as interactions between fixed and continuous factors. Table 1 shows the results of these analyses. Our discussion below focuses on hypothesized effects.

3.1 Negotiators' Outcome Satisfaction

Consistent with Hypothesis 1, we found interactions between Motivational Orientation and both outcomes (joint outcome, outcome difference). Because outcomes are a continuous variable, we compare outcome-satisfaction regression slopes of cooperatively- and individualistically-oriented negotiators. As predicted by H1a, individualistically-oriented negotiators' outcome satisfaction increases more rapidly than cooperatively-oriented negotiators' outcome satisfaction as outcome differences increasingly favor them (slopes = 21.6 and 14.8, respectively); and, as predicted by H1b, cooperatively-oriented negotiators' outcome satisfaction increases more rapidly

Table 1 Summary of effects

	Own outcome	Self-image	Future negotiation
Motivational orientation (MO)	$F(1, 6612) = 104.39$ $p < 0.001$	$F(1, 6612) = 67.20$ $p < 0.001$	$F(1, 6612) = 49.12$ $p < 0.001$
Feedback	$F(1, 6612) = 6.77$ $p = 0.009$	$F(1, 6612) = 8.55$ $p = 0.003$	$F(1, 6612) = 34.74$ $p < 0.001$
Joint outcome (JO)	$F(1, 6612) = 427.19$ $p < 0.001$	$F(1, 6612) = 286.44$ $p < 0.001$	$F(1, 6612) = 262.17$ $p < 0.001$
Outcome difference (OD)	$F(1, 6612) = 10,597.24$ $p < 0.001$	$F(1, 6612) = 7739.2$ $p < 0.001$	$F(1, 6612) = 2389.35$ $p < 0.001$
MO \times feedback	$F(1, 6612) = 9.85$ $p = 0.002$	$F(1, 6612) = 6.75$ $p = 0.009$	$F(1, 6612) = 5.04$ $p = 0.025$
<i>Test of Hypothesis 1</i>			
MO \times JO	$F(1, 6612) = 114.58$ $p < 0.001$	$F(1, 6612) = 75.11$ $p < 0.001$	$F(1, 6612) = 45.02$ $p < 0.001$
MO \times OD	$F(1, 6612) = 382.98$ $p < 0.001$	$F(1, 6612) = 159.69$ $p < 0.001$	$F(1, 6612) = 465.54$ $p < 0.001$
<i>Test of Hypothesis 2</i>			
Feedback \times JO	$F(1, 6612) = 8.99$ $p = 0.003$	$F(1, 6612) = 10.30$ $p = 0.001$	$F(1, 6612) = 34.64$ $p < 0.001$
Feedback \times OD	$F(1, 6612) = 3.09$ $p = 0.079$	$F(1, 6612) = 5.23$ $p = 0.022$	$F(1, 6612) = 10.72$ $p = 0.001$
<i>Test of Hypotheses 3 and 4</i>			
MO \times FB \times JO	$F(1, 6612) = 13.57$ $p < 0.001$	$F(1, 6612) = 9.24$ $p = 0.002$	$F(1, 6612) = 6.73$ $p = 0.010$
MO \times FB \times OD	$F(1, 6612) = 11.71$ $p = .001$	$F(1, 6612) = 1.09$ $p = 0.295$	$F(1, 6612) = 109.77$ $p < 0.001$

than individualistically-oriented negotiators' outcome satisfaction as joint outcomes increase (slopes = 14.3 and 4.44, respectively). Consistent with H2, we found interactions between Feedback and joint outcomes. This interaction showed that, as joint outcomes increased, own outcome satisfaction increased more rapidly when negotiators received others' outcome satisfaction feedback than when they received outcome-only feedback (slopes = 10.8 and 8.15, respectively).

A 3-way interaction among Motivational Orientation, Feedback, and joint outcomes influenced negotiators' satisfaction with their outcomes (Fig. 1, left panel). An analysis of simple effects showed that Feedback interacted with joint outcomes to affect negotiators' outcome satisfaction when they had a cooperative motivational orientation, $F(1, 3354) = 20.81$, $p < .00$, but not when they had an individualistic motivational orientation, $F(1, 3258) = 0.25$, $p = .61$, ns. As indicated by the steeper slope of their utility function, as joint outcomes increased cooperatively-motivated negotiators

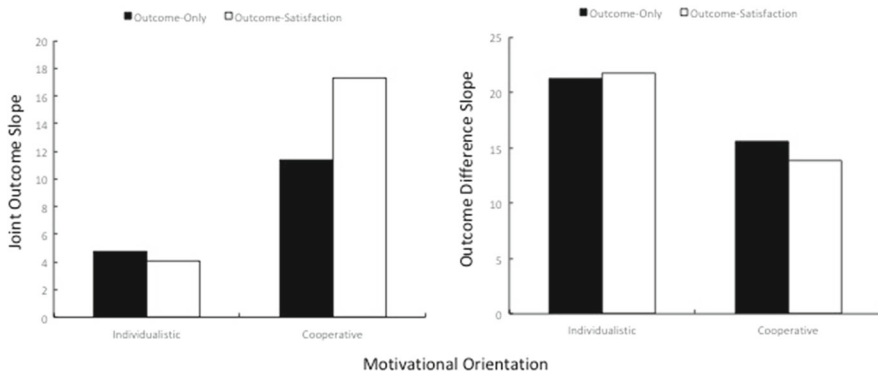


Fig. 1 Satisfaction with own outcomes as a function of motivational orientation, outcome feedback and joint outcomes (left) or outcome differences (right)

satisfaction with own outcomes increased more rapidly when they received outcomes-satisfaction feedback than when they received outcome-only feedback.

Finally, we found a 3-way interaction among Motivational Orientation, Feedback, and outcome differences (Fig. 1, right panel). An analysis of simple effects showed that Feedback interacted with outcome differences to influence negotiators' satisfaction with their outcomes when they had a cooperative motivational orientation, $F(1, 3354) = 12.51, p < .001$, but not when they had an individualistic motivational orientation, $F(1, 3258) = 1.50, p = .22, ns$. As indicated by the steeper slope of their utility function, cooperatively-motivated negotiators who did not receive feedback about opponents' satisfaction were more sensitive to changes in outcome differences than those who received feedback (Fig. 1b).

3.2 Negotiators' Self-Image

Consistent with H1, we found interactions between Motivational Orientation and both outcomes (joint outcome, outcome difference). As predicted by H1a, individualistically-oriented negotiators' self-image improves more rapidly than cooperatively-oriented negotiators' self-image as outcome differences increasingly favor the negotiator (slopes = 17.4 and 13.2, respectively); and, as predicted by H1b, cooperatively-oriented negotiators' self-image improves more rapidly than individualistically-oriented negotiators' self-image as joint outcomes increase (slopes = 11.5 and 3.74, respectively). Consistent with H2, we found an interaction between Feedback and both outcomes (joint outcomes, outcome differences). These interactions showed that, as joint outcomes increased, self-image improved more rapidly when negotiators received others' outcome-satisfaction feedback than when they received outcome-only feedback (slopes = 9.1 and 6.2, respectively). As outcome differences increasingly favored the negotiator, self-image improved more rapidly when negotiators received outcome-only feedback than when they received others' outcome satisfaction feedback (slopes = 15.6 and 14.9, respectively).

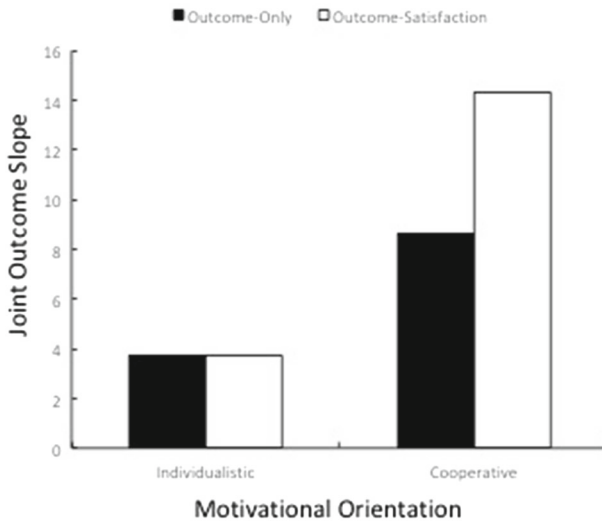


Fig. 2 Self-image as a function of motivational orientation, outcome feedback and joint outcomes

These 2-way interactions were qualified by a 3-way interaction among Motivational Orientation, Feedback, and joint outcomes (Fig. 2). An analysis of simple effects showed that Feedback interacted with joint outcomes to affect negotiators' self-image when they had a cooperative motivational orientation, $F(1, 3354) = 18.38$, $p < .001$, but not when they had an individualistic motivational orientation, $F(1, 3190) = 0.015$, $p = .90$, ns. As indicated by the steeper slope of their utility function, cooperatively-motivated negotiators self-image improved more rapidly as joint outcomes increased when they received outcome-satisfaction feedback than when they received outcome-only feedback.

3.3 Other's Willingness to Negotiate in the Future

Consistent with H1, we found interactions between Motivational Orientation and both outcomes (joint outcomes, outcome differences). As predicted by H1a, this comparison shows that, as outcome differences increasingly favor the negotiator, a counterpart's perceived willingness to negotiate decreases more rapidly when negotiators are individualistically-oriented than when they are cooperatively oriented (slopes = -16.1 and -6.48 , respectively). As joint gains increase (H1b), perceived willingness to interact in the future increases more rapidly for cooperatively-oriented negotiators than for individualistically-oriented negotiators (slopes = 13.6 and 5.51 , respectively). Feedback also interacted with joint outcomes and outcome differences to affect counterparts' perceived willingness to negotiate in the future (H2). Whereas perceived willingness to negotiate in the future increased more rapidly with outcome satisfaction feedback than with outcome-only feedback as joint gains increased (slope = 13.3 and 6.04 , respectively), it increased more rapidly with outcome-only

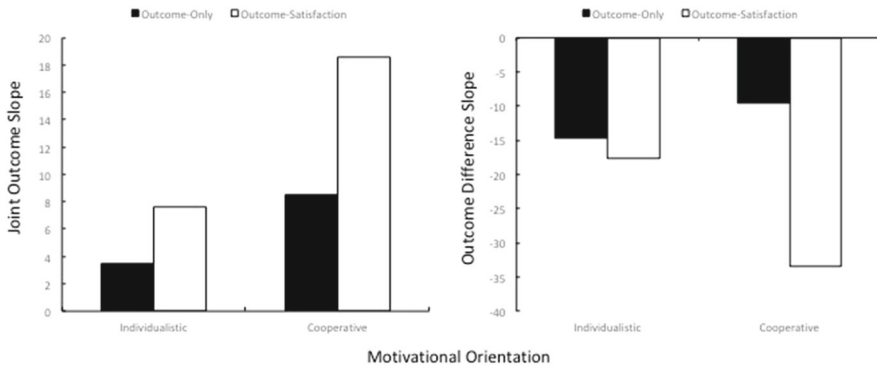


Fig. 3 Other's willingness to negotiate in the future as a function of motivational orientation, outcome feedback and joint outcomes (left) or outcome differences (right)

feedback than with outcome satisfaction feedback as outcome differences increasingly favored the negotiator (slopes = -12.0 and -10.4 , respectively).

We also found a 3-way interaction among Motivational Orientation, Feedback, and joint outcomes (Hypothesis 4a). An analysis of simple effects showed that others' perceived willingness to interact in the future was affected by Feedback when negotiators had either an individualistic, $F(1, 3258) = 5.84$, $p = 0.016$, or a cooperative orientation, $F(1, 3354) = 33.76$, $p < 0.001$. As can be seen in Fig. 3 (left panel), perceived willingness to interact in the future increased as joint outcomes increased more rapidly for individualistic and cooperative negotiators who received outcome satisfaction feedback than for those who received outcome-only feedback; however, this increase was more rapid when negotiators had a cooperative orientation. Figure 3 also shows that perceived willingness to interact in the future was least influenced by increasing joint outcomes when individualistically-oriented negotiators received outcome-only feedback and most influenced by increasing joint outcomes when cooperatively-oriented negotiators received outcome-satisfaction feedback.

Finally, we found a 3-way interaction among Motivational Orientation, Feedback, and outcome differences (Hypothesis 3). An analysis of simple effects showed that others' perceived willingness to interact in the future was affected by Feedback when negotiators had either an individualistic, $F(1, 3258) = 27.89$, $p < 0.001$, or a cooperative orientation, $F(1, 3354) = 88.80$, $p < 0.001$. As can be seen in Fig. 3 (right panel), perceived willingness to interact in the future decreased more rapidly as outcome differences favoring the negotiator increased when individualistic and cooperative negotiators received outcome satisfaction feedback than when they received outcome-only feedback; however, this increase was more rapid when negotiators had a cooperative orientation. Figure 3 also shows that perceived willingness to interact in the future was most influenced by outcome differences that increasingly favored the negotiator when cooperatively-oriented negotiators received outcome-satisfaction feedback and least influenced by outcome differences when cooperatively-oriented negotiators received outcome-only feedback.

4 Discussion

Researchers frequently use negotiators' satisfaction with their individual outcomes to assess their evaluation of the final deal. Recent theory and research, however, suggest that this measure is only one of several attributes that negotiators might consider in the evaluation process. We proposed that negotiators are sensitive to both economic and social aspects of the deal, and take into consideration both their own and their opponents' reactions to a specific outcome. On this basis, we considered three attributes that shape negotiators' evaluations of their deals: satisfaction with own outcome, impact on self-image, and opponent's perceived willingness to negotiate again in the future.

We observed informative parallels between how motivational orientation and feedback influenced negotiators' satisfaction with their outcomes and their self-image. Joint outcomes more strongly influenced the utilities of cooperatively-oriented negotiators and those who received outcome-satisfaction feedback, whereas outcome differences more strongly influenced the utilities of individualistically-oriented negotiators and those who received outcome-only feedback. The motivational orientation effects are consistent with the different concerns of cooperatively- and individualistically-oriented negotiators, and highlight differences in the relative emphasis that they place on others' outcomes. The parallel effects for feedback suggest that these same differences in emphasis can be triggered through the feedback that negotiators provide to their counterparts. We conclude that a cooperative orientation or outcome-satisfaction feedback, because it encourages negotiators to give weight to their counterparts' outcomes, challenges the fixed pie bias and likely sensitizes them to outcome inequities by encouraging negotiators to focus on both parties' outcomes. Conversely, an individualistic orientation or outcome-only feedback may not only leave the fixed-pie bias unchallenged, it may also enable negotiators to discount outcome inequities in resource distribution, explaining why satisfaction increases as outcome differences increase under these conditions.

These differences become even more apparent when we consider negotiators' assessments of their counterpart's willingness to negotiate again in the future. We observed the same broad pattern of effects that we observed for own outcome satisfaction and self-esteem. As joint gains increased, negotiators with a cooperative orientation or who received outcome-satisfaction feedback rated the likelihood of subsequent negotiations as increasingly likely. As outcome differences increased, negotiators with an individualistic orientation or who received outcome-only feedback rated the likelihood of subsequent negotiations as increasingly unlikely. This pattern suggests that negotiators' beliefs about the conditions that preserve negotiation relationships are influenced by the extent to which they are focused on, or receive information about, their counterparts' satisfaction. For negotiators who are concerned or informed about counterparts' outcomes, own satisfaction and the quality of their relationship are linked. However, for negotiators who are concerned solely with their own outcome, satisfaction and relationship are not linked: individualistic negotiators and those who receive outcome-only feedback report increasing satisfaction as outcomes become more favorable for them despite their recognition that this disparity decreases others' willingness to negotiate in the future.

The three-way interactions among motivational orientation, feedback and outcomes add insight into how these variables influence negotiators' subjective utilities. Across all three utility measures, we showed that utilities changed most rapidly when cooperatively-motivated negotiators received outcome-satisfaction feedback. As joint outcomes increased, this group reported the most rapid increase in satisfaction with their outcomes, their self-image, and the perceived likelihood of future negotiations. As outcome differences increasingly favored them, they report the slowest increase in satisfaction with own outcomes and the most rapid decrease in perceived likelihood of future negotiations. The influence of outcome-satisfaction feedback across both joint outcomes and outcome differences, for cooperatively-oriented negotiator but not for individualistically-oriented negotiators, provides evidence that the Triangle Hypothesis underpins negotiators' subjective utilities.

The one exception to this pattern was the finding the perceived likelihood of future negotiations was also affected by feedback for individualistically-oriented negotiators. They also reported more rapid changes to their subjective utility when they received outcome-satisfaction feedback than when they received outcome-only feedback, but this effect was considerably smaller than for cooperatively-oriented negotiations. These findings suggest that—across both joint outcomes and outcome differences—negotiators' utilities are most responsive to information when the relational and fairness concerns of cooperatively-oriented negotiators are combined with knowledge of counterparts' satisfaction. In considering the likelihood of future interaction, they are least responsive when the outcome maximization concerns of individualistically-oriented negotiators remain unchallenged by knowledge of a counterpart's satisfaction.

An important consideration for future research is how the cognitive differences that we observed link to behavioral differences. The Triangle Hypothesis, which was developed in the context of Prisoner Dilemma Games, showed clear behavioral differences between cooperatively- and individualistically-oriented individuals. Subsequent research in the more ambiguous context of negotiations, does not consistently show the same support. Although Weingart et al. (2007) show that cooperatively-oriented negotiators adjust their strategies in response to the negotiation context whereas individualistically-oriented negotiators do not, Schei, Rognes and Shapiro's (2011) findings suggest that individualistically-oriented negotiators also adapt their strategies in response to the motivational orientation of their partners. Our findings suggest that both groups make cognitive adaptations, but that these adaptations are more contained for individualistically-oriented negotiators than for cooperatively-oriented negotiators. Research exploring the links between the cognitive and behavioral adjustments that negotiators make as a function of their motivational orientation and the feedback that they receive from opponents would build an interesting bridge both between cognition and behavior, and between findings that support the triangle hypothesis and those that demonstrate the false consensus effect.

5 Implications for Negotiators

Our findings have four implications for negotiators. First, individuals leave their negotiations satisfied for different reasons. As joint gains increase, negotiators' satisfaction

increases if they have cooperative goals or information about their counterparts' satisfaction; as outcome differences increase, negotiators' satisfaction increases if they have individualistic goals or lack information about their counterparts' satisfaction. An implication of these differences is that negotiators need to tailor the information that they provide to their context: own outcome satisfaction and self-image are harmed by the absence of counterparts' outcome-satisfaction feedback when joint gains are salient but harmed by the presence of outcome-satisfaction feedback when individual gains are salient.

Second, negotiators who are focused on outcome maximization or who have no information about counterparts' satisfaction are slow to recognize the relationship damage of pursuing high personal outcomes. Although providing outcome satisfaction information may mitigate this effect, it is also likely that relationship building may be an ineffective tool for reducing outcome inequities under these conditions.

Third, the most rapid changes in negotiators' utilities occurred when the interpersonal concerns of negotiators were reinforced by outcome-satisfaction information; the slowest changes occurred when profit maximization goals were pursued in the absence of satisfaction feedback. This effect suggests that negotiators' reap considerable benefits if they can create a strongly interdependent context (cooperative goals, focus on joint gains, outcome-satisfaction feedback) but obtain minimal benefits if they create a strongly independent context (individualistic goals, focus on outcome differences, outcome-only feedback).

Finally, participants evaluated their satisfaction without engaging in a negotiation. It is, however, possible that negotiators' motivational orientations change as the negotiation moves through distributive and integrative phases (Morley and Stephenson 1977; Olekalns et al. 2003). Despite this possibility, research suggests that motivational orientation influences strategy in predictable ways. Cooperatively- and individualistically-oriented negotiators use different strategies and they arrive at the same outcomes (e.g., high joint gain) via different strategy paths. In multi-party negotiations, cooperatively-oriented, but not individualistically-oriented, negotiators' strategies are influenced by the group's motivational orientation (Olekalns and Smith 2003a, b; Weingart et al. 2007). Jointly, these findings imply that motivational orientation remains stable through a negotiation but strategies do not. Instead, motivational orientation influences how specific phases are implemented in light of their counterparts' strategies. An interesting avenue for future research would be to verify whether motivational orientation does remain stable over time, and to identify boundary conditions for stability: is there a critical point at which the actions of a counterpart trigger a shift in negotiators' outcome goals rather than a modification of their strategies?

Exploring negotiators' satisfaction in a more dynamic context also raises the question of whether it is more heavily influenced by the opening or closing moments of a negotiation. Curhan and Pentland (2007) showed that the opening moments of a negotiation are highly predictive of negotiators' final outcomes. Extending their findings suggests that negotiators' initial motivational orientation will cast a long shadow over the negotiation and be the strongest predictor of their overall satisfaction at the end of a negotiation. An alternative possibility is that it is the closing moments of a negotiation that will be the strongest predictor of negotiators' satisfaction with their negotiation. Based on the findings that we described in the previous paragraph, we speculate that if

closing moments are more heavily weighted in determining negotiators' satisfaction, motivational orientation will influence negotiators' satisfaction with their economic outcomes but the path by which they obtained those outcomes will influence their self-esteem and willingness to negotiation again with the same counterpart.

6 Conclusion

Drawing on Kelly and Stahelski's Triangle Hypothesis, we tested whether the different strategy choices of cooperatively- and individualistically-oriented negotiators were paralleled by cognitive differences. Our findings both support and extend the Triangle Hypothesis by showing that cooperatively-oriented negotiators' utilities changed most rapidly as joint gains increased whereas individualistically-oriented negotiators' utilities changed most rapidly as outcome differences increased. We observed the same patterns as a function of whether negotiators did or did not receive outcome-satisfaction information: when negotiators received outcome satisfaction feedback utilities changed most rapidly as joint gains increased whereas when they received outcome-only feedback utilities changed most rapidly as outcome differences increased. These patterns suggest that negotiators who focus on joint gains maximize utilities when interdependence is highlighted (cooperative orientation, outcome satisfaction feedback) whereas negotiators who focus on individual gains maximize utilities when independence (individualistic goals, absence of satisfaction feedback) is highlighted. The greatest increases in utility occur as interdependence increases.

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References

- Anderson WD, Patterson ML (2008) Effects of social value orientations on fairness judgments. *J Soc Psychol* 148:223–245
- Balakrishnan PL, Patton C, Lewis PA (1993) Toward a theory of agenda setting in negotiations. *J Consum Res* 19:637–654
- Carnevale PJ, Lawler EJ (1986) Time pressure and the development of integrative agreements in bilateral negotiation. *J Confl Resolut* 30:636–659
- Carroll JS, Payne JW (1991) An information processing approach to two-party negotiations. *Res Negot Organ* 3:3–34
- Conlon DE, Hunt CS (2002) Dealing with feeling: the influence of outcome representations on negotiation. *Int J Confl Manag* 13:38–58
- Curhan JR, Pentland A (2007) Thin slices of negotiation: predicting outcomes from conversational dynamics within the first 5 minutes. *J Appl Psychol* 92:802–811
- Curhan JR, Elfenbein HA, Xu H (2006) What do people value when they negotiate? Mapping the domain of subjective value in negotiation. *J Pers Soc Psychol* 91:493–512
- Curhan JR, Neale MA, Ross L, Rosencranz-Engelmann J (2008) Relational accommodation in negotiation: effects of egalitarianism and gender on economic efficiency and relational capital. *Org Behav Hum Decisi Proc* 107:192–205
- Curhan JR, Elfenbein HA, Kilduff G (2009) Getting off on the right foot: subjective value versus economic value in predicting longitudinal job outcomes from job offer negotiations. *J Appl Psychol* 94:524–534
- Curhan JR, Elfenbein HA, Eisenkraft N (2010) The objective value of subjective value: a multi-round negotiation study. *J Appl Soc Psychol* 40:690–709

- De Dreu CKW, Boles TL (1998) Share and share alike or winner take all? The influence of social value orientation upon choice and recall of negotiation heuristics. *Organ Behav Hum Decis Process* 76:253–276
- De Dreu CKW, Weingart LR, Kwon S (2000) Influence of social motives on integrative negotiations: a meta-analytic review and test of two theories. *J Pers Soc Psychol* 78:889–905
- Fortang RS, Lax DA, Sebenius JK (2003) Negotiating the spirit of the deal. *Harv Bus Rev* 81:66–75
- Gillespie J, Brett JM, Weingart LR (2000) Interdependence, social motives, and outcome satisfaction in multiparty negotiation. *Eur J Soc Psychol* 30:779–797
- Gino F, Pierce L (2010) Lying to level the playing field: why people may dishonestly help or hurt others to create equity. *J Bus Ethics* 95:89–103
- Iedema J, Poppe M (1994) Effects of social value orientation on expecting and learning others' orientations. *Eur J Soc Psychol* 24:565–579
- Ikle FC, Leites N (1962) Political negotiation as a process of modifying utilities. *J Confl Resolut* 6:19–28
- Kelley HH, Stahelski A (1970a) Errors in perception of intentions in a mixed motive game. *J Exp Soc Psychol* 16:411–438
- Kelley HH, Stahelski AJ (1970b) Social interaction basis of cooperators and competitors beliefs about others. *J Pers Soc Psychol* 16:66–91
- Kolb DM, Williams J (2001) Breakthrough bargaining. *Harv Bus Rev* 79:89–97
- Koning L, Van Dijk E (2013) Motivated cognition in negotiation. In: Olekalns M, Adair WL (eds) *Handbook of research on negotiation*. Edward Elgar, Cheltenham
- Lewis SA, Fry WR (1977) Effects of visual access and orientation on the discovery of integrative bargaining alternatives. *Organ Behav Hum Perform* 20:75–92
- Loewenstein GF, Thompson L, Bazerman MH (1989) Social utility and decision making in interpersonal contexts. *J Pers Soc Psychol* 57:426–441
- McClintock CG, Liebrand WB (1988) Role of interdependence structure, individual value orientation, and another's strategy in social decision making: a transformational analysis. *J Pers Soc Psychol* 55:396–409
- Messick DM, McClintock CG (1968) Motivational bases of choice in experimental games. *J Exp Soc Psychol* 4:1–25
- Messick D, Sentsis K (1979) Fairness and preference. *J Exp Soc Psychol* 15:418–434
- Messick D, Sentsis K (1985) Estimating social and nonsocial utility functions from ordinal data. *Eur J Soc Psychol* 15:389–399
- Morley IE, Stephenson JM (1977) *The social psychology of bargaining*. Allen & Unwin, London
- Mumpower JL, Sheffield J, Darling TA, Milter RG (2004) The accuracy of post-negotiation estimates of other negotiator's payoffs. *Group Decis Negot* 13:259–290
- Novemsky N, Schweitzer ME (2004) What makes negotiators happy? The differential effects of internal and external social comparisons on negotiator satisfaction. *Organ Behav Hum Decis Process* 95:186–197
- O'Connor KM (1997) Motives and cognitions in negotiation: a theoretical integration and an empirical test. *Int J Confl Manag* 8:114–131
- O'Connor KM, Arnold JA, Burris ER (2005) Negotiators' bargaining histories and their effects on future negotiation performance. *J Appl Psychol* 90:350–362
- Olekalns M, Brett JM (2008) Beyond the deal: next generation negotiation skills. *Negot Confl Manag Res* 1:309–314
- Olekalns M, Smith PL (1999) Social value orientations and strategy choices in competitive negotiations. *Pers Soc Psychol Bull* 25:657–668
- Olekalns M, Smith PL (2003a) Social motives in negotiation: the relationship between dyad composition, negotiation processes and outcomes. *Int J Confl Manag* 14:233–254
- Olekalns M, Smith PL (2003b) Testing the relationships among negotiators' motivational orientations, strategy choices and outcomes. *J Exp Soc Psychol* 39:101–117
- Olekalns M, Smith PL (2011) Psychological aspects of negotiation strategy. In: Christie DJ (ed) *Encyclopedia of peace psychology*. Wiley-Blackwell, Hoboken
- Olekalns M, Brett JM, Weingart L (2003) Phases, transitions and interruptions: the processes that shape agreement in multi-party negotiations. *Int J Confl Manag* 14:191–211
- Parks CD, Rumble AC (2001) Elements of reciprocity and social value orientation. *Pers Soc Psych Bull* 27:1301–1309
- Pietroni D, Van Kleef GA, De Dreu CKW (2008) Response modes in negotiation. *Group Decis Negot* 17:31–49

- Pruitt DG (1981) *Negotiation behavior*. Academic Press, New York
- Pruitt DG, Lewis SA (1975) Development of integrative solutions in bilateral negotiation. *J Pers Soc Psychol* 31:621–633
- Schei V, Rognes J, Shapiro D (2011) Can individualists and cooperators play together? The effect of mixed social motives in negotiation. *J Exp Soc Psychol* 47:371–377
- Schulz JW, Pruitt DG (1978) The effects of mutual concern on joint welfare. *J Exp Soc Psychol* 14:480–491
- Thompson L, DeHarpport T (1994) Social judgment, feedback, and interpersonal learning in negotiation. *Organ Behav Hum Decis Process* 58:327–345
- Thompson L, Hastie R (1990) Social perception in negotiation. *Organ Behav Hum Decis Process* 47:98–123
- Tinsley C, O'Connor K, Sullivan N (2002) Tough guys finish last: the perils of a distributive reputation. *Organ Behav Hum Decis Process* 88:621–45
- Tzafirir SS, Sanchez RJ, Tirosh-Unger K (2012) Social motives and trust: implications for joint gains in negotiation. *Group Decis Negot* 21:839–862
- Van Kleef G, De Dreu C (2002) Social value orientation and impression formation: a test of two competing hypotheses about information search in negotiation. *Int J Confl Manag* 13:59–77
- Van Lange PA (1992) Confidence in expectations: a test of the triangle hypothesis. *Eur J Pers* 6:371–379
- Weingart LR, Bennett RJ, Brett JM (1993) The impact of consideration of issues and motivational orientation on group negotiation process and outcome. *J Appl Psychol* 78:504–517
- Weingart LR, Brett JM, Olekalns M, Smith PL (2007) Conflicting social motives in negotiating groups. *J Pers Soc Psychol* 93:994–1010