Research Reports

The Effect of the Negotiator's Social Power as a Function of the Counterpart's Emotional Reactions in a Computer Mediated Negotiation

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Abstract

A negotiator's own power and their counterpart's emotional reaction to the negotiation both influence the outcome of negotiations. The present research addressed the question of their relative importance. On one hand, social power should be potent regardless of the other's emotions. On the other hand, the counterpart's emotional reactions inform about the ongoing state of the negotiation, and as such are more diagnostic than the more distal power cue. In a simulated computer mediated negotiation, 248 participants assumed the role of a vendor of computerized avionics test equipment and their objective was to negotiate the price, the warranty period, and the number of software updates that the buyer will receive free of charge. Participants negotiated the sale after being primed with either high or low power or not primed at all (control condition). They received information that their counterpart was either happy or angry or emotionally neutral. The findingsshowed that even though power was an important factor at the start of negotiations, the informative value of emotion information took precedence over time. This implies that emotional information may erase any advantage that counterparts have in a negotiation thanks to their higher social power.

Keywords: emotions, social power, negotiation, anger, happiness

Social power has an important influence on how people behave (Galinsky, Gruenfeld, & Magee, 2003; Keltner, Gruenfeld, & Anderson, 2003; Sachdev & Bourhis, 1991). Social power is usually defined as one's ability to influence and control the behavior of others (French & Raven, 1959; Imai, 1993; Manz & Gioia, 1983). The social power of negotiators affects negotiations in several ways, for one, by determining the negotiator's aspirations, demands, and willingness to make concessions (see e.g., De Dreu, 1995; Giebels, De Dreu, & van de Vliert, 1998) but also by influencing the extent to which a negotiator is aware of what the counterpart's underlying interests in the negotiation are (Mannix & Neale, 1993). Yet, the effect of social power on negotiations should also vary as a function of how the negotiation unfolds.

Next to social power, the emotions expressed during a negotiation are a potent factor for the unfolding of a negotiation (see e.g., Kopelman, Rosette, & Thompson, 2006; Sinaceur & Tiedens, 2006; Steinel, van Kleef, & Harinck, 2008; van Kleef, De Dreu, & Manstead, 2004a, 2004b, 2006). Generally emotions serve a communicative function by providing information about expressers (Hareli & Hess, 2012; Hareli & Rafaeli, 2008; Hareli, Sharabi, & Hess,
2011; van Kleef, 2009, 2010). In the specific context of a negotiation, emotions can serve as feedback about the negotiator’s mood and their willingness to agree to proposed offers (Putnam, 1994). Indeed, every emotion carries a specific message; for example, a positive emotion signals trust and a willingness to cooperate (Frank, 1988; Fridlund, 1994; Knutson, 1996), whereas a negative emotion may denote an intention to compete (Allred, Mallozzi, Matsui, & Raia, 1997; Thompson, Medvec, Seiden, & Kopelman, 2001). More specifically, the emotions of a participant in a negotiation provide information about how far the current offer is from what the participant wants to achieve. Thus, negotiators concede more to angry counterparts than to neutral ones and less to happy counterparts than to neutral ones (van Kleef et al., 2004a, 2004b).

One important question is how these two factors work together in affecting the negotiation. This question is important because, as reviewed briefly above, both factors were shown to independently play an important role in negotiations. However, given that both factors often coexist in a negotiation and that they are closely linked (Keltner et al., 2003; Tiedens, 2000) it becomes of interest to examine how these factors interact to affect negotiations. Previous research, acknowledging the potential link between these factors in negotiations, has shown that the extent to which negotiators consider the emotions expressed by their counterpart during the negotiation depends on the decisional power of the perceiver (van Kleef, De Dreu, Pietroni, & Manstead, 2006). Specifically, when negotiators were not dependent on the counterpart, that is, were not obliged to reach an agreement in the negotiation, their offers were not influenced by the counterpart’s emotions. By contrast, the counterpart’s emotions were taken into account in situations of high dependency, either because negotiators did not have an alternative to the negotiation, or because they are low in organizational status, that is, held a low level position in the organization (van Kleef, De Dreu, Pietroni, et al., 2006). Yet, this raises the question of the relative importance of emotions and power for the negotiation. On the one hand, social power is known to be a potent factor in negotiations, hence its impact should be potent regardless of the emotions of a counterpart. On the other hand, emotions are more proximal signals about the ongoing state of the negotiation, and as such can be more diagnostic in specific situations than power, which is a more distal cue (Hareli, Sharabi, Cossette, & Hess, 2011). Thus, the question arises of how the influence of power and emotions unfolds over the course of the negotiation and whether they interact or both independently influence the negotiation. This was the main question addressed in this research. Based on the rationale delineated above, we predicted that emotions, being a more proximal signal of the way the negotiation unfolds, will overpower the importance of the negotiator’s social power as this is a more distal cue and hence less predictive of what is expected to happen at specific points in the negotiation.

We explored the extent to which negotiators’ offers in a computer-mediated negotiation were affected by their social power and their counterpart’s emotional reactions to their offers using a paradigm adapted from van Kleef and colleagues (see e.g., van Kleef et al., 2004a, 2004b). Specifically, participants were to assume the role of a vendor (i.e., a sales person) who has to negotiate with a buyer (i.e., costumer) a deal involving a computer system, using a computer mediated communication system. They had to negotiate the price of the computer system, the number of free software updates and the years of warranty. The “buyer,” who was actually simulated by the computer, rejected offers that were above a pre-set acceptable offer, with a message reflecting either anger, happiness or emotional neutrality. The negotiation task was designed such that it captured the main characteristics of real-life negotiations in that it included multiple issues differing in utility to the negotiator, information about one’s own payoff only, and a typical offer-counteroffer sequence (see also van Kleef et al., 2004a). Computer-mediated negotiation is a frequently used tool for negotiation and important in its own right (De Dreu & van Kleef, 2004) and research indicates that results from negotiation studies using computer mediated communication and studies in which similar negotiations were performed in face to face communication (Kopelman et al., 2006) or by
other means such as the simulation of negotiations over the phone (van Kleef, De Dreu, Pietroni, et al., 2006) are comparable. Importantly, both studies mentioned above, tested the role of emotions in negotiation and the second one specifically tested the role of emotions and power in negotiations.

To manipulate the vendor’s power, priming was used. In previous research, power has been manipulated in various ways, for example, by varying negotiators’ freedom to act or by giving them a specific organizational status (van Kleef, De Dreu, Pietroni, et al., 2006). Organizational status refers to the standing or position of a specific individual in the organization, for example, an employee or manager. However, a person with high organizational status has also more decisional latitude than a person with low organizational status. Yet, this larger latitude can grant the negotiator a practical advantage in the negotiation that is not necessarily uniquely related to power. Also, organizational status is not always equivalent to actual power and this may be of specific concern in a country with low power distance such as Israel where hierarchies are often perceived as flat (Basabe & Ros, 2005). Previous studies testing the role of emotions and power in negotiation were conducted mainly in the Netherlands (e.g., De Dreu & van Kleef, 2004; van Kleef, De Dreu, Pietroni, et al., 2006) and the U.S. (e.g., Koppelman et al., 2006). We therefore decided to manipulate power through priming, a procedure that has been shown to be effective for power manipulations and that does not present the above mentioned disadvantages (see e.g., Galinsky et al., 2003; Galinsky, Magee, Inesi, & Gruenfeld, 2006; Smith & Trope, 2006).

Method

Participants

A total of 248 participants (128 men) with a mean age of 30 years (SD = 7.3, range 20-56) who were graduate and undergraduate students from the University of Haifa participated in the study for partial course credit. They were recruited from MBA (188 participants) and B.A. social psychology classes and participated in the experiment for extra course credit. Participants volunteered to participate in the experiment during class breaks. The study was approved by the University’s ethics committee.

Procedure

Participants entered the laboratory where they were told that they are going to be engaged in two separate and unrelated studies and that for each they would get separate course credit. Participants, who signed the informed consent form, then received randomly one out of three texts used for the power priming task developed by Galinsky, Gruenfeld, and Magee (2003). Specifically, participants in the high social power condition were requested to describe as detailed as possible a time when they had power over another person or persons. Participants in the low social power condition were asked to describe a time when another person or persons had power over them. In the control condition, participants had to describe what happened yesterday. Each participant wrote one of these descriptions as a function of the condition he or she was assigned to. Thus, the social power of the participant was exclusively determined on the basis of the type of situation they were asked to describe. Once they had finished this task, participants placed the page in one of three boxes on which it was written “You having power over others,” “Others having power over you,” or “Yesterday,” in line with the experimental condition they were assigned to. The respective box was left in front of them during the entire study to increase the impact of the priming.

The negotiation task

The negotiation task consisted of a computer mediated negotiation paradigm adapted from van Kleef et al. (2004a, 2004b). The task was designed to capture the main characteristics of real-life negotiations as detailed above. In
the adapted version, participants were assigned the role of a vendor of computerized avionics test equipment (i.e., computer hardware and software designed to test aircraft electronic devices) and their objective was to negotiate the price, the warranty period, and the number of software updates that the buyer will receive free of charge. They were told that the other negotiator is a student from a different university who studies in a similar program. In reality the buyer was simulated by the computer program. Participants received a payoff chart (see Table 1) that showed them which outcomes were most favorable to them and were told that their objective was to earn as many points as possible. As shown in Table 1, higher prices, fewer updates and fewer years of warranty yielded more points.

Table 1

<table>
<thead>
<tr>
<th>Software updates</th>
<th>Warranty period</th>
<th>Price of Computer system</th>
<th>Payoff</th>
<th>Payoff</th>
<th>Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Updates</td>
<td>Payoff</td>
<td>Warranty (in years)</td>
<td>Price ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>120</td>
<td>400</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1.5</td>
<td>105</td>
<td>350</td>
<td>210</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>90</td>
<td>300</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2.5</td>
<td>75</td>
<td>250</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>60</td>
<td>200</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3.5</td>
<td>45</td>
<td>150</td>
<td>90</td>
<td></td>
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<tr>
<td>7</td>
<td>4</td>
<td>30</td>
<td>100</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4.5</td>
<td>15</td>
<td>50</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

The participants were told that "You can observe that the best deal for you is 1-1-1, which will yield 760 points (400 + 120 + 240)." To clarify the payoff chart, consider the following examples. A choice of 8-7-7- will yield 140 points (50 + 30 + 60), 7-6-7 yields 205 points (100 + 45 + 60) and a choice of 6-6-6 yields 285 points (150 + 45 + 90). The corresponding payoff table for their counterpart was not shown, but participants were told that it differed from their own.

To enhance participants’ involvement in the negotiation task, they were informed that at the end of the experiment the points they receive would be converted into lottery tickets and that the more points they earned, the more lottery tickets they will obtain and hence the greater their chance of winning the prize (dinner for two at a restaurant) would be. To emphasize the mixed motive nature of the negotiation, participants were told that only those who reached an agreement could participate in the lottery. Thus, on the one hand, there was an incentive to earn as many points as possible, whereas on the other hand, there was an incentive to reach an agreement.

After a short pause during which the computer supposedly assigned buyer and vendor roles to the participants, all participants were assigned the role of vendor. They were told that the buyer (i.e., their counterpart) would make the first offer and that the negotiation would continue until an agreement was reached or until time ran out. Just before the negotiation started, participants were told that an additional goal of the study was to examine the effects of having versus not having information about the counterpart’s intentions. They read that they had been randomly assigned to receive information about the intentions of their counterpart without the counterpart knowing this; and that the counterpart would not conversely receive information about their intentions.
Following these instructions, the negotiation started and the buyer (i.e., the computer) made a first offer. During the course of the negotiation, the buyer accepted higher prices and less service. Conditions set by the participants were accepted if they equaled or exceeded the offer the computer was scheduled to accept in the next round. If no agreement was reached after the sixth and last round, the negotiation was terminated (for the rationale of this choice, see van Kleef et al. (2004a). Thus, the maximum number of rounds was six.

**Emotion manipulation**

After the first, third, and fifth negotiation round, participants received information about “the intentions of the buyer,” which included information about the buyer’s emotion. Figure 1 describes the task and its various stages.

![Figure 1. Graphic description of the negotiation task.](image)

Participants had to wait for about a minute and a half while the buyer was supposedly asked to reveal what he or she intended to do in the next round, and why. Participants then received the written answer in a separate box on the screen. The answers consisted of the buyer’s intentions for the next round as well as of an emotional verbal statement, for example, “This offer makes me really angry,” that comprised the experimental manipulation. It was stressed that the buyer did not know that his or her “intentions” were revealed to the participant. This was done in order to lead participants to believe that they received information about the real emotions of the counterpart, and not strategically faked, inhibited, or exaggerated emotions. The emotional statement was either angry, happy, or neutral (see Table 2).

As shown in Table 2, the emotional verbal statements representing each emotional reaction were somewhat varied across the rounds in which this information was provided to increase the impression that these were actual written responses of the counterpart. Thus, as Figure 1 shows, for up to 6 rounds, as long as the buyer does not accept the vendor's offer, the negotiation continues and the vendor receives the buyer's emotional reaction to his/her previous offer. If the buyer accepts an offer, the negotiation ends.

To sum, our experimental manipulation resulted in a 3 (social power: high vs. low vs. not defined) x 3 (emotional response of the buyer: anger vs. happiness vs. emotional neutrality) between-subjects design.
Table 2

Statements Used for the Manipulation of the Counterpart’s Experienced Emotion

<table>
<thead>
<tr>
<th>Counterpart’s emotion</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>After Round 1</strong></td>
</tr>
<tr>
<td>Anger</td>
<td>This offer makes me really angry, I think I will offer 8-7-7.</td>
</tr>
<tr>
<td>Happiness</td>
<td>I am happy with this offer, I think I will offer 8-7-7.</td>
</tr>
<tr>
<td>No emotion</td>
<td>I think I will offer 8-7-7.</td>
</tr>
<tr>
<td></td>
<td><strong>After Round 3</strong></td>
</tr>
<tr>
<td>Anger</td>
<td>This is really getting on my nerves. I am going to offer 7-6-7.</td>
</tr>
<tr>
<td>Happiness</td>
<td>This is going pretty well so far. I am going to offer 7-6-7.</td>
</tr>
<tr>
<td>No emotion</td>
<td>I am going to offer 7-6-7.</td>
</tr>
<tr>
<td></td>
<td><strong>After Round 5</strong></td>
</tr>
<tr>
<td>Anger</td>
<td>I am going to offer 6-6-6, because this negotiation pisses me off.</td>
</tr>
<tr>
<td>Happiness</td>
<td>I am going to offer 6-6-6, because I feel good about this negotiation.</td>
</tr>
<tr>
<td>No emotion</td>
<td>I am going to offer 6-6-6.</td>
</tr>
</tbody>
</table>

*Note.* Statements have been translated from Hebrew.

## Results

Participants’ negotiation results for price, warranty and updates were converted into points based on Table 1. The following analyses were conducted on the total number of points obtained at each round of the negotiation.

To assess the effect of the negotiation partners’ emotion expression and participant’s social power on the negotiation results, a 3 (emotion: neutral, happy, anger) x 3 (priming: no status priming, high status priming, low status priming) x 6 (negotiation round) a mixed factors ANOVA was conducted on the total number of points obtained at each of the six negotiation rounds. Simple effect analyses (Fisher LSD, p < .05) were used to follow-up on these effects.

A significant main effect of negotiation round emerged, \( F(2, 421) = 219.4, p < .0001 \), such that over the course of the negotiation participants compromised by asking for a lower price, and granting more updates and longer warranties. In addition, a significant main effect of emotion expression emerged, \( F(4, 421) = 4.80, p < .01 \), which was qualified by an emotion expression x negotiation round interaction, \( F(4, 421) = 4.75, p < .01 \). Specifically, at the first negotiation round (before the first emotion feedback was given) no significant differences between the emotion conditions emerged.

As shown in Figure 2, a significant difference between happiness and neutral emotion information emerged from round two to six, such that participants compromised less when their counterpart showed happiness rather than emotional neutrality. From round four onward, happiness was also significantly different from anger such that participants also compromised less when their counterpart expressed anger rather than happiness. No difference between anger and neutrality emerged.
That is, as soon as emotion feedback was provided, participants whose negotiation partner expressed happiness tended to compromise less and this effect became increasingly stronger over the course of the negotiation. Thus, a counterpart’s emotion message had an effect on the subsequent offers of the participant.

Further, a significant status x negotiation round interaction emerged, \( F(4, 421) = 2.60, \ p = .042 \) (see Figure 3). Simple effects analyses revealed, as expected, that in the beginning of the negotiation (rounds one to three) negotiators primed with high power compromised less than those primed with low power. However, from round four to the end of the negotiation, social power made no difference anymore as participants in all three social power conditions made comparable offers. This shows that participants’ primed social power influenced the offers they made during the negotiation. In sum, whereas the emotions of the counterpart had an increasingly stronger effect as the negotiation proceeded, the effect of social power waned.

*Figure 2.* The effect of counterpart’s emotion on participants offer over the course of negotiation terms.
Discussion

The goal of the present study was to assess the impact of the participant's social power and the emotional reactions of their counterpart to the participants' offers on the outcome of a negotiation. Previous research on negotiations already alluded to the importance of negotiators' social power (Kopelman et al., 2006) and even to the interaction between emotion information and power (van Kleef, De Dreu, Pietroni, et al., 2006).

However, this latter study operationalized power in terms of decisional power. Specifically, the high power individual not only had more power but actually additional means to reach their goal in the negotiation, that is, they had a practical advantage over the low power individual.

By contrast we manipulated only the social power of the negotiator without affecting their options in the negotiation. In such a situation we predicted that social power on its own will have a lesser effect on the negotiation relative to the emotional reaction of a counterpart to the negotiation. This, since such emotions serve as a more proximal cue of the way the negotiation unfolds.

As expected, following the logic of the negotiation process, negotiators compromised over the rounds of the negotiation by asking for a lower price, and granting more updates and longer warranties. This effect was qualified by the counterpart's emotion during the negotiation. Specifically, we replicated van Kleef et al.'s (2004a, 2004b) finding that negotiators whose counterpart expressed happiness with the negotiation compromised less than those whose counterpart expressed anger. However, in this study, the same effect as for anger was found for neutral expressions as well.

This latter finding of congruent effects of expressed anger and neutrality replicates previous findings (Hareli, Shomrat, & Hess, 2009) and may reflect a cultural difference in reactions to emotions. Alternatively, people who express neutrality when an emotional reaction might be expected can be perceived as more negative (Hess,
Adams, & Kleck, 2007). Due to this fact, it is possible that in the present context, the two reactions conveyed a similar message regarding the counterpart’s intentions in the negotiation.

Importantly, social power had a significant effect on the offers made by the participant such that the high power participant compromised less than the low power one. However, in line with our predictions, this was the case only at the beginning of the negotiation. The social power of the negotiator lost its effect on the participants’ offers as the negotiation progressed. Thus, over all, when considering the combined effect of the negotiator's social power and the emotions of their counterpart, social power played a role mainly early in the process. By contrast, the role of emotions becomes stronger as the negotiation moves on and agreement is not reached.

This indicates that the tracking role of emotions in negotiations (van Kleef et al., 2004a) becomes a more potent factor in the negotiation as it progresses. This, because emotions provide a more proximal and reliable indicator of where the negotiation stands vis-à-vis one’s counterpart. By contrast, social power, which is a more distal factor, determines the starting point of the negotiation and becomes less and less relevant when the emotions provide on-going feedback about how the negotiation progresses. This finding shows that a negotiator’s social power when determined by his general standing does not determine whether the emotions of the counterpart are relevant or not. Yet, when a negotiator’s social power provides him or her, a practical advantage in the negotiation as, for example, in van Kleef, De Dreu, Pietroni, et al. (2006) it has an effect across the negotiation. Rather as long as the negotiator has an interest in successfully concluding the negotiation (which was not the case in the study referenced above, where power was operationalized as decisional freedom), the emotions of the counterpart, regardless of social power, not only remain pertinent but gain increasing importance as the negotiation progresses. This further shows the power of emotions in negotiations.

Specifically, previous research showed that the social power of negotiators affects negotiations in several ways, among other things, by determining the negotiator’s aspirations, demands, willingness to make concessions, and actual gains (see e.g., De Dreu, 1995; Giebels et al., 1998) as well as the extent to which a negotiator is aware of what the counterpart’s underlying interests in the negotiation are (Mannix & Neale, 1993). Yet, as the present research shows, this effect may be restricted to early stages of a negotiation and/or to situations in which social power is directly linked to decisional freedom in the negotiation. However, when the social power of the negotiator does not impinge on decisional freedom, its effect seems to diminish in the face of more proximal and hence more diagnostic information about the situation such as that provided by the emotions of the counterpart.

Despite the fact that we were able to show the combined effect of social power and emotions on negotiations, our research also suffers from some limitations. First, we employed a computer mediated negotiation. Even though there is good evidence that the results of studies using this type of negotiation match results of studies using face to face negotiations (e.g., Kopelman et al., 2006) or other paradigms of simulating negotiations (e.g., van Kleef, De Dreu, Pietroni, et al., 2006) we cannot preclude the possibility that at least partly our findings are limited to this type of negotiation. This may be especially the case since negotiators do not see one another and hence social power may have less of an importance in this case. Further, our study was conducted in a culture known to be low on power distance (Basabe & Ros, 2005). It may be the case that in a different culture in which power distance is higher social power is a more potent factor in negotiations across the entire process. Future research needs to address these possibilities.
Overall, the present study demonstrated that even though power is an important factor at the start of negotiations, the informative value of emotion information takes precedence over time and emotion information, as a more proximal cue to the other person’s intentions, becomes more diagnostic than perceptions of one’s own power.

Notes

i) To account for lack of sphericity, degrees of freedom were Greenhouse-Geisser adjusted. Reported degrees of freedom were rounded to the next integer.

References


About the Authors

Dr. Shlomo Hareli is a social psychologist and a faculty member of the University of Haifa's Faculty of Management. Dr. Hareli studies the social function of emotion by focusing on the link between emotions and social judgments in social and managerial contexts. For the past several years he has investigated the social implications of people observing the emotions of others. His research in this field is both theoretical and empirical. Dr. Hareli is also the director of the Interdisciplinary Center for Research on Emotions at the University of Haifa.

Dr. David's research focus is on the social function of emotion. Dr. David is the research manager of the Interdisciplinary Center of research on Emotions at the University of Haifa. He is involved in research on the function of emotion in negotiation, social relationships and decisions.

Dr. Akron is an assistant professor of finance at the Faculty of Management, University of Haifa. Dr. Akron holds a Ph.D. in finance, from Tel Aviv University - The Faculty of Management, The Leon Recanati Graduate School of Business Administration. His research focuses on corporate finance and governance - managerial compensation, corporate hedging, and the value of control, anomalies in light of business cycles, business cycles and real estate public sentiment, behavioral finance, the financial implications of corporate social responsibility. He teaches managerial economics, corporate finance, and investments.

Dr. Hess' current research is in the area of emotion psychology, in particular, the communication of affect with an emphasis on two main lines of research. First, using psychophysiological (e.g., electromyography) measures she studies the influence of a sender's expressive behavior on the receiver, in terms of mimicry and emotional contagion. Second, she is interested in the role of social influences (e.g., beliefs about group membership) in the encoding and decoding of emotion expressions. More recent research efforts aim to combine these lines of research into a larger theoretical perspective.