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FEELINGS AS A HEURISTIC IN ULTIMATUM NEGOTIATIONS

On Feelings as a Heuristic for Making Offers in Ultimatum Negotiations

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Abstract

This research examines how the reliance on emotional feelings as a heuristic influences the proposal of offers in negotiations. Results from three experiments based on the classic ultimatum game show that, compared to proposers who do not rely on their feelings, proposers who rely on their feelings make less generous offers in the standard ultimatum game, more generous offers in a variant of the game allowing responders to make counteroffers, and less generous offers in the dictator game where no responses are allowed. Reliance on feelings triggers a more literal form of play, whereby proposers focus more on how they feel toward *the offers themselves* than on how they feel toward the possible *outcomes* of these offers, as if their offers were the final outcomes. Proposers relying on their feelings also tend to focus on gist-based, simpler construals of negotiations that capture only the essential aspects of the situation.

From salary demands to the amount of TV a child is allowed to watch, negotiation is an integral part of everyday life. A powerful framework for studying negotiation processes is the ultimatum game (Guth, Schmittberger, & Schwarze, 1982). In this game two players have to split a given amount of money. One player, the “proposer,” makes an offer, which the other player, the “responder,” either accepts or rejects. If the offer is accepted the money is split accordingly; if it is rejected both players receive nothing. Although this game is ostensibly simple, its psychology can be quite intricate. This is especially true for proposers who have to select an offer with a payoff that is contingent on the responder’s response. According to traditional, computational models of decision making, the selection of offers will entail explicit considerations of the likelihood that offers of a given size will be accepted by the responder. For example, proposers selecting their offers based on expected utility would assess the utilities associated with different offer sizes and weight them by the probabilities that these offers would be accepted by the responder. Similarly, a proposer behaving like a rational economist would anticipate that any positive offer would be accepted by a rational responder (because any positive offer should be more attractive than receiving nothing in the case of rejection), and therefore make the smallest possible offer. According to other models of decision making, however, explicit considerations of the responder’s likely responses need not take place.

Human decision making often is not driven by computational “cognitive” processes but by noncomputational affective processes (Epstein & Pacini, 1999; Pham, 2004). In particular, decisions are often based on a monitoring of one’s subjective feelings toward the options, which are interpreted as indicative of the options’ relative value. This process is variously known as the “how-do-I-feel-about-it?” heuristic in social psychology (Schwarz & Clore, 1988) and consumer psychology (Pham, 1998), the “affect heuristic” in behavioral decision research (Slovic,

Finucane, Peters, & MacGregor, 2002), and the “somatic marker hypothesis” in some neuroscience circles (Damasio, 1994). How does this reliance on emotional feelings influence the selection of offers in the ultimatum game?

Our research suggests that the reliance on feelings as a heuristic triggers a more literal form of play in the ultimatum game. Specifically, proposers who rely on their feelings tend to have simpler representations of the game and select offers based on their feelings toward *the offers themselves* as opposed to the eventual outcomes of these offers, which depend on their likelihood of acceptance by the responder. This literal form of play results in less generous offers in the standard ultimatum game, more generous offers in a variant of the game allowing a counteroffer from the responder, and less generous offers in a “dictator” version of the game not allowing any response from the responder.

The “Feels Right” Heuristic and the Literal Play Hypothesis

The reliance on feelings as a decision heuristic entails a monitoring of one’s feelings toward the target and a weighting of these feelings that is proportional to their perceived informativeness (Pham, 2004; Schwarz & Clore, 2007). Emotional feelings have been shown to weigh more heavily on judgments and decisions when they are perceived to be representative of the target (Schwarz & Clore, 1983), when they are perceived to be relevant to the decision maker’s goals (Pham, 1998), and when they are momentarily trusted as a decision guide (Avnet & Pham, 2007). However, the reliance on feelings as a heuristic does more than just increase their weight in judgments and decisions: it also triggers a *qualitatively distinct* form of decision making (see Epstein & Pacini, 1999; Pham, 2007 for reviews).

Compared to more “cognitive” decisions, feeling-based decisions tend to be more imagery-based, with greater dependence on concrete mental pictures of the targets (Kahneman &

Snell, 1990; Loewenstein, Weber, Hsee, & Welch, 2001). This is because genuine feelings are more likely to be accessed through concrete mental representations of the target (Pham, 1998). In addition, because the affective system rests heavily on the assignment of targets to categories from which affective markers can be retrieved (Fiske & Pavelchak, 1986; Pham, 2007; Pham, Cohen, Pracejus, & Hughes, 2001), people relying on their feelings are particularly sensitive to their ability to identify the target unambiguously (van Dijk & Zeelenberg, 2006).

In ultimatum settings, if proposers using their feelings as a heuristic rely more on mental pictures and place more weight on being able to identify the target unambiguously, they should focus on the offers themselves as opposed to their possible outcomes. Indeed, the offers themselves should be easier to mentally picture and categorize (e.g., “20% feels too greedy”) than their responder-dependent outcomes, which are inherently uncertain. This prediction is consistent with the finding that, compared to reason-based evaluations, affect-based evaluations are less sensitive to probability information (Loewenstein et al., 2001). For example, willingness to pay to avoid unpleasant affective prospects (e.g., electric shocks) is less sensitive to the probability of the prospects than willingness to pay to avoid nonaffective negative prospects (e.g., losing \$20; Rottenstreich & Hsee, 2001).

In addition, feeling-based decisions tend to be more “gist-based” (Reyna & Brainerd, 1995). That is, decision makers relying on their feelings are more likely to invoke condensed representations of the essence (or “gist”) of the situation than decision makers who rely on computational processes, who tend to invoke more intricate representations of the situation (Epstein & Pacini, 1999). If the reliance on feelings increases the reliance on gist, in ultimatum settings, proposers relying on their feelings should have simpler construals of the game, capturing its essence. Specifically, they should construe the game more literally along its stated

rules, whereas proposers who rely on computational processes should have more elaborate construals that also include various *implications* of the rules such as likely responses of the responder to various offers and other considerations.

Overall, in the ultimatum game the reliance on feelings as a heuristic should result in a more *literal* form of play whereby proposers are likely to represent the game more simply and to focus on their feelings toward the offers themselves as opposed to the outcomes of these offers. In other words, they should tend to treat their offers as if they were the eventual outcomes of the game. We tested this conceptualization in three incentive-compatible experiments in which participants played as proposers against another person whom they believed was real and were compensated based on the offers they made. To manipulate participants' reliance on feelings while playing the game, we used Avnet and Pham's (2007) trust-in-feelings manipulation (TFM), which varies the perceived diagnosticity of feelings in judgments and decisions while holding constant the cognitive and emotional content of the task. Building on the ease-of-retrieval effect (Schwarz et al., 1991), this manipulation manipulates the momentary trust that people have in using their feelings as a heuristic by varying the perceived availability of past instances of successful reliance on feelings in decisions. Avnet and Pham (2007) show that, compared to participants exposed to the low-trust-in-feelings version of this manipulation, participants exposed to the high-trust-in-feelings version are more influenced both by feelings evoked by the target and by their mood states in evaluations and invoke a greater number of feeling-based considerations to justify their evaluations.

Experiment 1 involved a standard ultimatum game, where the responder could only accept or reject the offer. If proposers who rely on their feelings as a heuristic tend to focus on their feelings toward the offers themselves rather than on whether they will be accepted, they

should make lower offers than proposers who rely less on their feelings. Experiment 2 involved a variant of the game where the responder was allowed to make a counteroffer. If proposers who rely on their feelings tend to treat their offers as if they were the final outcomes of the game, adding this extra layer of response (by the responder) should have less influence on their offers compared to the standard ultimatum game than on the offers of proposers who rely less on their feelings. Experiment 3 involved a “dictator” variant of the game where the responder was forced to accept the offer. If proposers who rely on their feelings represent this game more literally around its gist (a mere allocation task), they should make lower offers than proposers who rely less on their feelings who would factor in nonessential considerations such as fairness.

Experiment 1: Standard Ultimatum Game

Proposers who rely on their feelings should focus on the offers themselves, and thus pay less attention to the responder’s possible responses and the possibility of lower offers being rejected. To them, offers that are somewhat less generous are more likely to “feel right.” It was therefore predicted that proposers who rely more on their feelings would make less generous offers than those who rely less on their feelings.

Method

Sixty students participated as proposers in exchange for a \$5 fee plus up to \$20 based on performance. The momentary trust that participants had in their feelings (higher or lower) was manipulated between-participants; the amount to be allocated (\$5 or \$15) was manipulated within-participant.

The experiment was administered in two supposedly unrelated studies. In the “first” study, participants’ momentary trust in their feelings was manipulated using the TFM. Participants in the higher-trust-in-feelings (higher-TF) condition were asked to list 2 instances of

successful past reliance on feelings in decisions, whereas participants in the lower-trust-in-feelings (lower-TF) condition were asked to list 10 such instances. Avnet and Pham (2007) have shown that participants asked to identify two such situations find it easy, which increases their trust in their feelings and therefore their reliance on feelings. Conversely, participants asked to identify 10 such situations find it difficult, which decreases their trust in their feelings and therefore their reliance on feelings. We tested this manipulation in the context of ultimatum games among 36 participants. After completing the TFM, they were asked to assume the proposer role and describe how they would decide on an offer by rating their agreement with three 7-point items (e.g., “I would trust my feelings”; $\alpha = .81$). Participants in the two-situation (high-trust) condition were more likely to report trusting their feelings to decide on an offer ($M = 5.20$, $SD = .91$) than participants in the 10-situation (low-trust) condition ($M = 4.33$, $SD = 1.37$, $F(1, 34) = 5.15$, $\omega^2 = .10$, $p = .03$, $p_{rep} = .91$).

In the “second” study, participants played the ultimatum game twice using a computer interface. Each round (counterbalanced across participants)¹ involved either \$5 or \$15 and a different responder. Participants were led to believe that they would be playing in real time against another person at another university with whom they were connected via Internet (the responder was in fact computer-simulated). All participants were assigned the role of the proposer but were told that the roles were assigned randomly in each round. In each round participants were told the amount of money to be allocated and made their offer to the other player. They then estimated on a 0–100% scale the probability that the other player would accept it. Participants learned whether their offer had been accepted only after completing the two rounds. Consistent with typical responses observed in ultimatum games (Camerer, 2003), all

offers of at least 35 percent were accepted and all other offers were rejected by the simulated responder. Participants were paid accordingly.

Results and Discussion

On average, participants offered 44.9 percent of the money to be allocated ($SD = 11.4$), consistent with typical offers in ultimatum games. More importantly, regardless of the amount of money to be allocated ($F < 1$), proposers with higher TF made somewhat less generous offers ($M = 42.3\%$, $SD = 8.83$) than proposers with lower TF ($M = 48.0\%$, $SD = 9.25$, $F(1, 58) = 5.97$, $\omega^2 = .08$, $p = .02$, $p_{rep} = .93$; Fig. 1). This effect is consistent with the idea that proposers with higher TF focus on how they feel toward the offers themselves, paying less attention to the responder's possible responses. Note that proposers with higher TF were not overly greedy; rather, they operated in a somewhat lower offer range (Fig. 2). Interestingly, 37 percent of the proposers with lower TF offered more than 50 percent of the amount. This seemingly surprising finding is not inconsistent with our theorizing. If proposers with lower TF pay more attention to their offers' likelihood of acceptance, they may try to increase this likelihood by making overly generous offers.

An alternative explanation for the lower offers of higher-TF proposers is that they were more optimistic about offers of a given size being accepted. However, when controlling for offer size, subjective estimates of the probability that the offer would be accepted were in fact *lower* among participants with higher TF (LS-M = 68.0%) than among participants with lower TF (LS-M = 76.3%; $F(1, 57) = 3.76$, $\omega^2 = .04$, $p = .06$, $p_{rep} = .87$; Fig. 3). Moreover, while estimates of the probability that the offer would be accepted were predictive of offer size among participants with lower TF ($r = .31$, $p = .02$, $p_{rep} = .93$), they were not predictive among participants with higher TF ($r = -.14$, $p = .25$, $p_{rep} = .68$). This is consistent with the idea that greater reliance on

feelings results in a more literal form of play that puts less emphasis on the responder's likely responses.

Experiment 2: Counteroffer Game

To further test the notion that proposers with higher TF pay less attention to the responders' likely responses, we compared the offers made in the standard ultimatum game (Experiment 1) with those made in a variant of the game in which one layer of responder responses was added (this experiment). Rather than having to accept or reject the proposer's offer, the responder could make a counteroffer, which the proposer then had to either accept or reject. If the reliance on feelings makes proposers treat their offers as if they were the final outcomes of the game, adding this counteroffer stage should have little influence on their offers. Among proposers with higher TF, offers in this counteroffer game should thus be comparable to those made in the standard game (Experiment 1). In contrast, if the *nonreliance* on feelings triggers greater attention to how responders might respond to the offers, adding this counteroffer stage should have more influence on the offers made. Among proposers with lower TF, offers in this counteroffer game should differ from those made in the standard game.

Method

Forty-seven participants whose trust in their feelings was manipulated played the above-described counteroffer game as proposers for a \$5 fee plus up to \$15 depending on the outcome. The procedure was very similar to that of Experiment 1. After completing the TFM in a supposedly unrelated study, participants were explained the rules of the game and led to believe that they were playing against a real person (in fact computer-simulated). Participants were given \$15, made an initial offer, and then estimated the probability that the other player would accept this offer without making a counteroffer. All offers greater than 50 percent were accepted,

whereas offers less than 50 percent elicited a counteroffer (randomly assigned across participants) requesting an additional 10 or 30 percentage points above the initial offer.

Participants who accepted the counteroffer were paid accordingly; those who rejected it received nothing.

Results and Discussion

The critical test of our conceptualization was not the comparison between the offers of higher versus lower TF participants *within* this counteroffer game, but the comparison *between* the offers that higher and lower TF participants made in this experiment relative to their counterparts in Experiment 1. As expected, there was an experiment-by-TF interaction ($F(1, 103) = 9.04, \omega^2 = .07, p < .01, p_{\text{rep}} = .97$; Fig. 1.). While proposers with higher TF made similar offers in the counteroffer game ($M = 42.0\%$) as in the standard game ($M = 42.3\%, F < 1$), proposers with lower TF made substantially lower offers in the counteroffer game ($M = 34.5\%$) than in the standard game ($M = 48.0\%; F(1, 103) = 17.79, \omega^2 = .23, p < .01, p_{\text{rep}} = 1$). Therefore, proposers with higher TF were *less* influenced by the addition of another layer of responder response than proposers with lower TF. This is consistent with the literal-play hypothesis that proposers with higher TF are less influenced by the possible responses of the responder than proposers with lower TF.

Additional evidence comes from participants' estimates of the probability that the initial offer would be accepted outright. These estimates were closer to those reported in Experiment 1 among participants with higher TF ($M_{\text{Counteroffer}} = 57.1\%, SD = 24.5$ vs. $M_{\text{Ultimatum}} = 68.0\%, SD = 18.1$) than among participants with lower TF ($M_{\text{Counteroffer}} = 46.9\%, SD = 26.3$ vs. $M_{\text{Ultimatum}} = 76.3\%, SD = 11.3$; experiment-by-TF interaction $F(1, 103) = 5.44, \omega^2 = .04, p = .02, p_{\text{rep}} = .92$; Fig. 3). This is again consistent with the idea that in such games proposers with higher TF pay

less attention to the responder's likely responses than proposers with lower TF. Furthermore, as in Experiment 1, estimates of the probability of acceptance of the initial offer were more predictive of the offer size among participants with lower TF ($r = .78, p < .01, p_{\text{rep}} = 1$) than among participants with higher TF ($r = .58, p < .01, p_{\text{rep}} = .97; t = 2.12, p = .04, p_{\text{rep}} = .89$).

Interestingly, whereas in Experiment 1 proposers with higher TF made somewhat less generous offers than those with lower TF, in this counteroffer experiment it was proposers with *lower* TF who made less generous initial offers ($M_{\text{Low-TF}} = 34.5\%$, $SD = 16.4$, $M_{\text{High-TF}} = 42.0\%$, $SD = 10.4$; $F(1, 45) = 3.57, \omega^2 = .05, p = .07, p_{\text{rep}} = .86$; see Fig. 1). Proposers with lower TF may have anticipated that the responder would likely counteroffer and thus “low-balled” their initial offers, whereas proposers with higher TF focused more on their feelings toward the offer itself as if it were the final offer.

Experiment 3: Dictator Game

The first two experiments suggest that in settings where the responder is allowed to respond, the literal play triggered by the reliance on feelings involves a reduced consideration of the responder's possible responses when making offers. How does the reliance on feelings influence offers in games where the responder's responses are objectively irrelevant? This issue was examined in a dictator game where the responder could not reject the offer and was forced to accept it. Because the reliance on feelings entails a greater reliance on gist representations, proposers who rely on their feelings should be more likely to construe this game for what it is: a mere allocation task totally under their control. We therefore predicted that they would make lower offers than proposers who rely less on their feelings who may consider objectively nonessential factors such as fairness.

Method

Fifty-eight participants whose trust in feelings was manipulated played as proposers in the dictator game for a \$5 fee plus up to \$10 depending on their offer. The procedure was very similar to that of the previous experiments. After completing the TFM, participants were asked to allocate \$10 between them and another allegedly real person who was to accept the offer.

Participants were paid accordingly.

Results and Discussion

Consistent with previous findings, the average offer (35.2%; SD = 21.1) was substantially lower than in the standard ultimatum game in Experiment 1 (44.9%). More importantly, participants with higher TF made significantly lower offers ($M = 27.4\%$, $SD = 22.3$) than participants with low TF ($M = 43.6\%$, $SD = 19.6$; $F(1, 56) = 8.51$, $\omega^2 = .11$, $p < .01$, $p_{rep} = .97$; Fig 1). This is consistent with the idea that proposers with higher TF interpreted the game more literally according to its gist than those with lower TF who behaved as though they were more concerned about the responder's reactions, even though the offer could not be rejected.

Note that proposers with higher TF made substantially lower offers in this dictator game ($M = 27.4\%$) than in the standard ultimatum game ($M = 42.3\%$, $F(1, 114) = 13.37$, $\omega^2 = .16$, $p < .01$, $p_{rep} = .99$). This suggests that in ultimatum-like negotiations proposers with higher TF do *not* completely ignore the fact that the other players can reject the offer. Rather, this fact seems to be captured in their gist representation of the game, thus shaping the range of options that “feel right” given the essence of the game.

General Discussion

This research shows that the reliance on feelings as a heuristic changes the way offers are made in negotiations. This phenomenon was demonstrated across three experiments using a

manipulation of reliance on feelings that varies the perceived diagnosticity of feelings without changing the feelings (unlike mood manipulations). Compared to proposers with lower TF, proposers with higher TF were found to make less generous offers in the standard ultimatum game, more generous offers when a counteroffer was allowed, and less generous offers in the dictator game. Overall, the reliance on feelings appears to trigger a more literal form of play. Proposers with higher TF seem to focus more on how they feel toward *the offers themselves* than on how they feel toward the possible *outcomes* of these offers, as if their offers were the final outcome of the negotiation. This is presumably because feeling-based decisions entail a mental picturing of the options, and it is easier to picture the offers themselves than their inherently uncertain outcomes. Feeling-based decisions also involve greater reliance on gist representations, resulting in simpler, essence-based construals of these types of negotiations.

In negotiations, proposers who rely on their feelings therefore appear to place less weight on the other party's potential responses, whether these responses are logically relevant (standard ultimatum and counteroffer games) or irrelevant (dictator game). This is not to say that proposers who rely on their feelings completely ignore the potential for the other party to respond when they can reject or counteroffer. Proposers who rely on their feelings do seem to recognize this potential, as evidenced by the contrast between their standard ultimatum offers and their much lower dictator offers. We believe that when proposers rely on their feelings, the relative position of power implied by the rules of the game is central to their gist representation of the negotiation, which shapes whether offers "feel right" to them. In their minds, the gist of the standard ultimatum game and the gist of the counteroffer game appear to be equivalent (i.e., the other player has some power), whereas the gist of the dictator game is quite different (i.e., the other player has no power).

Interestingly, across experiments, proposers with higher TF did not fare worse financially. In fact, compared to lower-TF participants, higher-TF participants made 6% more money in Experiment 1, near-identical amounts of money in Experiment 2, and 29% more money in Experiment 3. While not the main focus of this research, this ancillary finding echoes other findings suggesting that the reliance on affect in decision making is not necessarily disadvantageous (Damasio, 1994; Lee, Amir, & Ariely, 2008; Pham, 2007).

One limitation of this research is that participants did not actually play the games against a real opponent. They only believed they were. Although it is not clear why the results would be any different, it could be useful to replicate these effects in games with actual opponents. It would also be useful to test the literal play hypothesis in other economic games, as this form of play may reflect a more general, noncomputational process for approaching strategic decisions.

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Footnotes

1. There were no order effects (p 's $> .45$).

Figure Captions

Figure 1. Mean offer sizes across experiments.

Figure 2. Distribution of offers in Experiment 1.

Figure 3. Mean estimated probabilities of offer acceptance in Experiments 1 and 2.





