Research Article

On Feelings as a Heuristic for Making Offers in Ultimatum Negotiations

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ABSTRACT—*This research examined how reliance on emotional feelings as a heuristic influences how offers are made. Results from three experiments using the ultimatum game show that, compared with 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 a dictator game in which no responses are allowed. Reliance on feelings triggers a more literal form of play, whereby proposers focus more on how they feel toward the content of the offers than on how they feel toward the possible outcomes of those offers, as if the offers were the final outcomes. Proposers who rely on their feelings also tend to focus on gist-based construals of the negotiation that capture only the essential aspects of the situation.*

Negotiation—whether about salary or the amount of television a child is allowed to watch—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, especially 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 consideration of the likelihood that the responder will accept offers of given sizes. For example, a proposer selecting offers on the basis of expected utility would assess the utilities associated with different offer sizes and weight those offers by their probabilities of being accepted. 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 would therefore make the smallest possible offer. According to other models of decision making, however, the responder's likely responses need not be considered explicitly.

Human decision making often is driven not by computational "cognitive" processes, but rather 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, with these feelings being 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 reliance on feelings as a heuristic triggers a literal form of play in the ultimatum game. Specifically, proposers who rely on their feelings, compared with those who do not rely on their feelings, tend to have simpler representations of the game and to select offers on the basis of their feelings toward the offers, as opposed to the offers' eventual outcomes, which depend on the likelihood of the offers being accepted. 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 in which no response is allowed.

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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 carry greater weight in judgment and decision making when they are perceived to represent genuine responses to 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 judgment and decision making: It also triggers a qualitatively distinct form of decision making (for reviews, see Epstein & Pacini, 1999, and Pham, 2007).

Compared with more cognitive decisions, feeling-based decisions tend to be more imagery based, showing 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 than through abstract ones (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; van Dijk & Zeelenberg, 2006), the reliance on feelings naturally steers decision makers toward representations of the target that enable unambiguous identification.

In ultimatum settings, if proposers who use their feelings as a heuristic tend to rely on mental pictures and place particular weight on being able to identify the target unambiguously, they should focus on the offers as such, as opposed to the offers' possible outcomes. Indeed, the offers should be easier to picture mentally 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 with 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 is 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" than reason-based decisions (Reyna & Brainerd, 1995). That is, decision makers who rely on their feelings are more likely to invoke condensed representations of the essence (or gist) of the situation than are decision makers who rely on computational processes, who tend to invoke more intricate representations of the situation (Epstein & Pacini, 1999). If reliance on feelings increases reliance on gist, proposers who rely on their feelings in ultimatum settings should have relatively simple 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 to various offers and other considerations.

Overall, in the ultimatum game, reliance on feelings as a heuristic should result in a literal form of play whereby proposers are likely to represent the game simply and to focus on their feelings toward the offers as such, as opposed to the outcomes of the offers. In other words, they should tend to treat their offers as if the offers were the eventual outcomes of the game and choose them on the basis of whether they "feel right." We tested this conceptualization in three experiments in which participants played as proposers and were compensated on the basis of the offers they made. To manipulate participants' reliance on feelings while playing the game, we used the trust-in-feelings manipulation (TFM; Avnet & Pham, 2007), 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), the TFM 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 decision making. It has been shown that, compared with the evaluations of participants exposed to the low-trust-in-feelings version of this manipulation, the evaluations of participants exposed to the high-trust-in-feelings version are more influenced both by feelings evoked by the target and by the participants' mood states; in addition, participants exposed to the high-trust-in-feelings version invoke a greater number of feeling-based considerations to justify their evaluations (Avnet & Pham, 2007).

Experiment 1 involved a standard ultimatum game, in which the responder could only accept or reject the offer. In this setting, if proposers who rely on their feelings as a heuristic tend to focus on their feelings toward the offers, rather than on whether the offers will be accepted, they should make lower offers than proposers who rely less on their feelings. Experiment 2 involved a variant of the game in which 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, the addition of this extra layer of response (by the responder) should result in less change in offers, relative to the standard ultimate game, among proposers who rely on their feelings than among those who do not rely on their feelings. Experiment 3 involved a dictator variant of the game in which the responder was forced to accept the offer. In this setting, if proposers who rely on their feelings represent this game literally according to its gist (a mere-allocation task), they should make lower offers than proposers who rely less on their feelings, who factor in nonessential considerations such as fairness.

EXPERIMENT 1: STANDARD ULTIMATUM GAME

Proposers who rely on their feelings should focus on the content of the offers. Therefore, compared with proposers who do not rely on their feelings, they should pay less attention to the responder's possible responses and the possibility of low offers being rejected. As a result, offers that are in a somewhat lower range (e.g., 35–40%) are more likely to "feel right" to proposers who rely on their feelings than to proposers who do not rely on their feelings. We 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 the ultimatum game, in exchange for a $5 fee, plus whatever they earned in the game (which ranged between $0 and $12 in this study). 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 participants.

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 in which they "relied on their feelings to make decisions in the past and it was the right thing to do," whereas participants in the lower-trust-in-feelings (lower-TF) condition were asked to list 10 such instances. Participants asked to identify 2 such situations find it easy to do so, which increases their trust in their feelings and therefore their reliance on feelings; conversely, participants asked to identify 10 such situations find it difficult to do so, which decreases their trust in their feelings and therefore their reliance on feelings (Avnet & Pham, 2007). In a pretest with 36 participants, we tested this manipulation in the context of ultimatum games. After completing the TFM, they were asked to assume the proposer role and describe how they would decide on an offer by using 7-point scales to rate their agreement with three items (e.g., "I would trust my feelings"; $\alpha = .81$). Participants in the higher-TF condition were more likely to report trusting their feelings ($M = 5.20$, $SD = 0.91$) than were participants in the lower-TF 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. One round involved $5 to be allocated, and the other involved $15 (order was counterbalanced across participants).[1] Participants were led to believe that on each round they would be connected via the Internet with a different person at another university and that they would be playing against that person in real time (in fact, the responder was 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 the probability that the other player would accept the offer, using a scale from 1 through 100%. Participants learned whether or not their offers had been accepted only after they had completed both rounds. We designed the experiment so that responses would be consistent with typical responses observed in ultimatum games (Camerer, 2003). Specifically, all offers of at least 35% were accepted by the simulated responder, and all other offers were rejected. Participants were paid accordingly.

[1]There were no order effects ($ps > .45$).

Results and Discussion

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

An alternative explanation for the lower offers of proposers in the higher-TF condition is that they were more optimistic about offers of a given size being accepted. However, an analysis of covariance controlling for offer size indicated that subjective estimates of the probability that the offer would be accepted were lower in the higher-TF condition (adjusted $M = 68.0\%$) than in the lower-TF condition (adjusted $M = 76.3\%$), $F(1, 57) = 3.76$, $\omega^2 = .04$, $p = .06$, $p_{rep} = .87$ (see Fig. 3). Moreover, although estimates of the probability that the offer would be accepted were predictive of offer size among participants in the lower-TF condition ($r = .31$, $p = .02$, $p_{rep} = .93$), they were not predictive among participants in the higher-TF condition ($r = -.14$, $p = .25$, $p_{rep} = .68$). This finding 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 trust in their feelings pay less attention to responders' likely responses, we

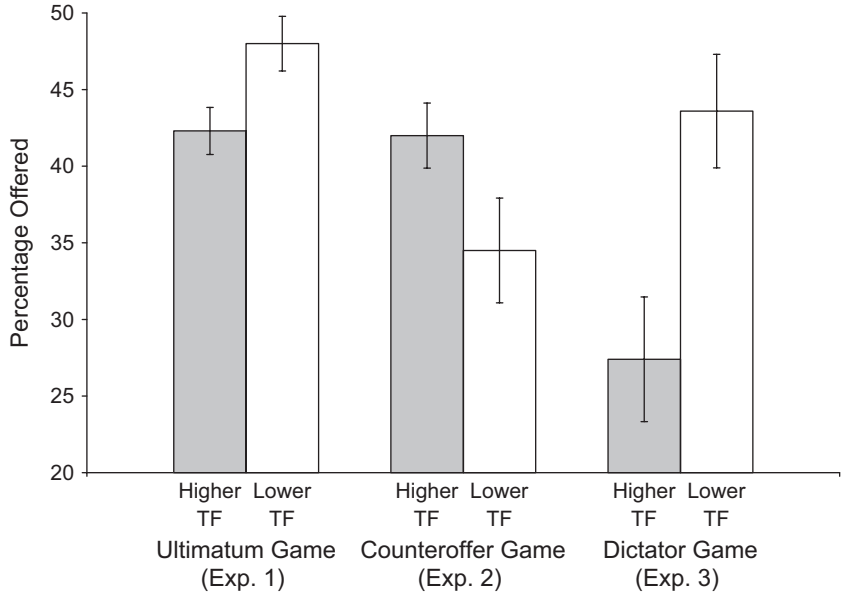

Fig. 1. Mean offer size as a function of condition, across the three experiments. TF = trust in feelings.

added a layer of responses in Experiment 2 so that we could compare the offers made in that situation with those made in the standard ultimatum game (Experiment 1). In Experiment 2, 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 reliance on feelings makes proposers treat their offers as if the offers were the final outcomes of the game, adding this counteroffer stage should have little influence on their offers. Therefore, we predicted that the offers of proposers in the higher-TF condition would be comparable in Experiments 1 and 2. In contrast, if nonreliance on feelings triggers attentional focus on how responders might respond to the offers, adding this counteroffer stage should influence the offers made by proposers who do not rely on their feelings. Therefore, we predicted that the offers of proposers in the lower-TF condition would differ between Experiments 1 and 2.

Method

Forty-seven participants whose trust in their feelings was manipulated played a single round of the counteroffer game as proposers. In return, they received a $5 fee, plus whatever they earned in the game (between $0 and $10.50 in this study). The procedure was very similar to that of Experiment 1. After completing the TFM in a supposedly unrelated study, participants were told the rules of the game and led to believe that they were playing against a real person (in fact, the responder was 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% were accepted, whereas offers less than 50% always elicited a counteroffer requesting an additional 10 or 30% above the initial offer (the counteroffer amount was randomly assigned across participants). 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 in the two conditions within this counteroffer game, but rather was the comparison between the offers in this experiment and in Experiment 1. As expected, there was an experiment-by-condition interaction, $F(1, 103) = 9.04$, $\omega^2 = .07$, $p < .01$, $p_{rep} = .97$ (see Fig. 1). Whereas proposers in the higher-TF condition made similar offers in the counteroffer game ($M = 42.0\%$) and the standard game ($M = 42.3\%$, $F < 1$), proposers in the lower-TF condition made substantially lower offers in the counteroffer game ($M = 34.5\%$) than in the standard game ($M = 48.0\%$), $F(1, 103) = 17.79$, $\omega^2 = .23$, $p < .01$, $p_{rep} = 1$. Therefore, proposers in the higher-TF condition were less influenced by the addition of another layer of response than were proposers in the lower-TF condition. This finding is consistent with the literal-play hypothesis that proposers who rely on their feelings are less influenced by the possible responses of the responder than are proposers who do not rely on their feelings.

Additional evidence in support of our hypothesis 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 in the higher-TF condition (Experiment 2: $M = 57.1\%$, $SD = 24.5$; Experiment

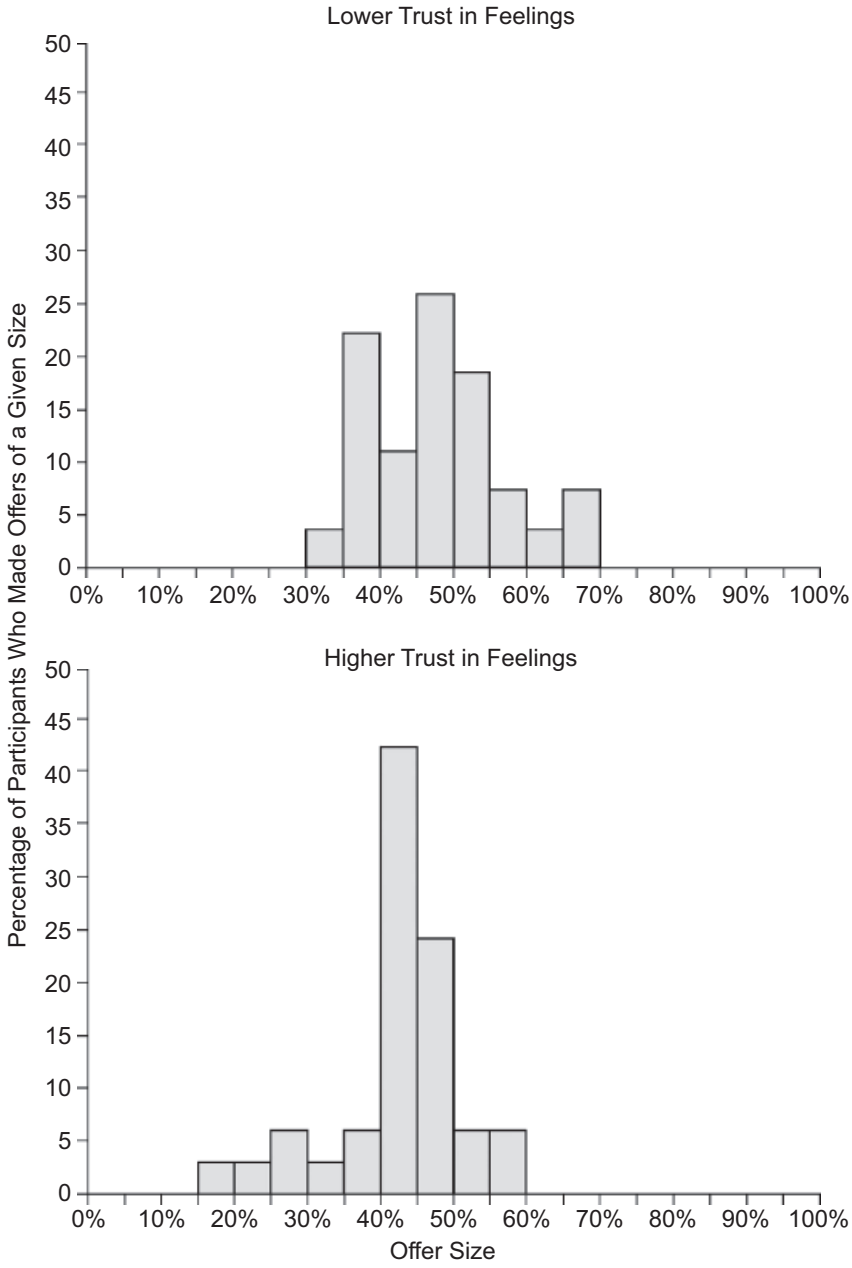

Fig. 2. Frequency distribution of offers in the two conditions of Experiment 1.

1: $M = 68.0\%$, $SD = 18.1$) than among participants in the lower-TF condition (Experiment 2: $M = 46.9\%$, $SD = 26.3$; Experiment 1: $M = 76.3\%$, $SD = 11.3$); the experiment-by-condition interaction was significant, $F(1, 103) = 5.44$, $\omega^2 = .04$, $p = .02$, $p_{rep} = .92$ (see Fig. 3). This finding is again consistent with the idea that in such games, proposers who rely more on their feelings pay less attention to the responder's likely responses than do proposers who rely less on their feelings. Furthermore, as in Experiment 1, estimates of the probability of acceptance of the initial offer were more predictive of offer size among participants in the lower-TF condition ($r = .78$, $p < .01$, $p_{rep} = 1$) than among participants in the higher-TF condition ($r = .58$, $p < .01$, $p_{rep} = .97$), $t(46) = 2.12$, $p = .04$, $p_{rep} = .89$.

In Experiment 1, proposers in the higher-TF condition made somewhat less generous offers than those in the lower-TF condition. In contrast, in this counteroffer experiment, it was proposers in the lower-TF condition who made less generous initial offers (lower-TF: $M = 34.5\%$, $SD = 16.4$; higher-TF: $M = 42.0\%$, $SD = 10.4$), $F(1, 45) = 3.57$, $\omega^2 = .05$, $p = .07$, $p_{rep} = .86$ (see Fig. 1). Proposers in the lower-TF condition may have anticipated that the responder would likely counteroffer and thus lowballed their initial offers, whereas proposers in the

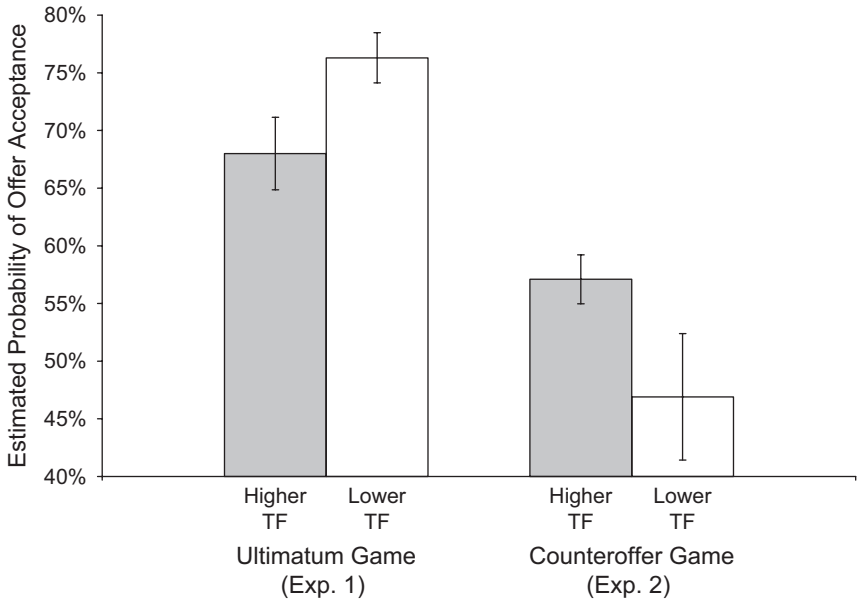

Fig. 3. Participants' mean estimates of the probabilities that their offers would be accepted as a function of condition in Experiments 1 and 2. TF = trust in feelings.

higher-TF condition focused more on their feelings toward their offer itself, as if it were the final offer.

EXPERIMENT 3: DICTATOR GAME

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

Method

Fifty-eight participants whose trust in feelings was manipulated played the proposer role in the dictator game in return 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 themselves and another allegedly real person who was to accept the offer. Participants were paid accordingly.

Results and Discussion

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

Note that proposers in the higher-TF condition 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 who rely on their feelings do not completely ignore the fact that the other player 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 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 themselves (unlike mood manipulations). Compared with proposers with lower trust in their feelings, proposers with higher trust in their feelings made 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 who rely on their feelings seem to focus more on how they feel toward the content of the offers than on how they feel toward the possible outcomes of these offers, as if the offers were the final outcomes of the negotiations. Presumably they do this 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 reliance on gist representations, resulting in simple, essence-based construals in negotiations.

Thus, proposers who rely more on their feelings in negotiations 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. Proposers who rely on their feelings do seem to recognize this potential, as evidenced by the contrast between the offers we observed in the standard ultimatum game (Experiment 1) and the dictator game (Experiment 3). We believe that when proposers rely on their feelings, the relative power implied by the rules of the game is central to their gist representation of the negotiation, and this representation 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 the experiments, proposers in the higher-TF condition did not fare worse financially than those in the lower-TF condition. In fact, participants in the higher-TF condition made 6% more money in Experiment 1, a nearly identical amount of money in Experiment 2, and 29% more money in Experiment 3. Although these comparisons are not the main focus of this research, this ancillary finding echoes other findings suggesting that relying 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 real opponents. They only believed they did. Although it is not clear why the results would be any different if the opponents were real, it could be useful to evaluate the robustness of 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 general, noncomputational process for approaching strategic decisions.

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