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## **Anger in Ultimatum Bargaining: Emotional Outcomes Lead to Irrational Decisions**

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Anger in Ultimatum Bargaining: Emotional Outcomes Lead to Irrational Decisions Francine Espinoza, University of Maryland Alexander Fedorikhin, Indiana University Joydeep Srivastava, University of Maryland In ultimatum bargaining, unfair offers are rejected even when it is rational to accept any offer. We suggest that appraisals of fairness are linked to anger such that when individuals confront an unfair offer, they feel angry and are inclined to reject the offer. However, when individuals misattribute the cause of anger, they are more inclined to cooperate, decreasing the rate of rejection. Experiment 1 supports the idea that fairness appraisals are related to anger. Experiment 2 shows that if individuals misattribute the cause of anger, rejection rates of unfair offers can be significantly reduced, although the fairness appraisals are held constant.

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French-cultured individuals will be motivated by the maintenance/enhancement of positive emotions, and for English participants, comfort food consumption is more likely to be related to the alleviation of negative emotions. Finally, the type of food eaten to provide emotional comfort is another factor likely to be tied to affect asymmetry. For instance, sweet and high-fat foods (SHF), like ice cream, cookies or chocolate, have been linked to the experience of negative affect. Thus, we expect that the consumption of SHF foods is more likely to be triggered by negative affects than is the case for non-sweet high-fat foods (NSHF) or for foods of low energy density (LED) regardless of their dominant nutrient.

A survey was administered via the World Wide Web and was promoted in electronic and mass media in the city of Montreal, a multicultural Canadian city with a predominance of French- and English-cultured citizens. In total, 277 participants (196 women; 81 men) completed the survey. The age distribution was as follows: 117 young adults (age 18-24), 136 adults (25-54) and 21 older adults (55 and more). The language primarily spoken at home was taken as a proxy for cultural background: 121 participants primarily spoke French, 129 primarily spoke English at home, and the remaining 27 primarily spoke another language. Participants did not receive any incentive for this study. Participants first provided background information (age, height, weight, etc.), identified their favorite comfort food and were then asked to think back to instances when they ate their favorite comfort food, taking time to form a vivid and complete recollection. Next, using 7-point scales ("not at all" to "very intensely") participants indicated the degree to which they typically felt a set of positive (happy, joyful, calm and relaxed,  $\alpha=.81$ ) and negative affects (depressed, anxious, sad, nostalgic, upset, and lonely,  $\alpha=.88$ ) prior to eating their favorite comfort food. Finally, to explore the effects of the proposed factors on the emotional consequences of comfort food consumption, we also asked participants to indicate the degree to which they typically experience the same positive and negative affects after eating their favorite comfort food. The difference between the pre- and post-consumption reports was used to assess change in affect. Guilt was added to the post-consumption list since it is distinct from general negative affects and was shown to arise from comfort food consumption.

Favorite comfort foods cited by participants were assigned to one of three categories: 1) sweet high fat (SHF) foods, which totalled 101 mentions (36.5%) and included primarily chocolate, ice cream and baked goods; 2) non-sweet high-fat (NSHF) foods with 69 mentions (24.9 %) including meats and meat products, pizza and salted snacks; 3) lower energy density foods (LED) with 93 mentions (33.6%) including soups, pasta dishes, fruits and vegetables. Fourteen favorite comfort foods could not be coded into these categories or were incomprehensible (e.g., foreign language vernacular or abbreviation).

Consistent with expectations, results indicate that men's comfort food consumption was preceded by more intense positive emotions than women (Men=4.18, Women=3.69,  $p<.001$ ). On the other hand, women's consumption tended to be triggered by more intense negative affect (Women= 3.03, Men= 2.9) but this difference did not reach significance. Consumption of comfort foods alleviated women's negative emotions but also produced more intense feelings of guilt than men (Men=2.00, Women=2.69,  $p<.05$ ). Positive affect was a particularly powerful trigger of comfort food consumption for older participants (younger= 3.65, older=4.36,  $p<.05$ ) and for French-cultured participants (French=4.06, English=3.66,  $p<.05$ ). Younger participants and English-culture participants reported more intense negative emotions prior to consuming comfort foods. Foods high in sugar and fat content were more efficient in alleviating negative affects whereas low- to medium energy density foods were more efficient in increasing positive emotions.

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## Anger in Ultimatum Bargaining: Emotional Outcomes Lead to Irrational Decisions

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Consumers evaluate most retail prices in terms of utility/value of the good, but they may also infer fairness from these offers. When buying a car, for instance, consumers may judge the price as fair or unfair, and accept the offer (purchase) or not (do not purchase). This mechanism is similar to ultimatum bargaining, where perceptions of fairness influence offer evaluation. It is argued that emotions such as anger are a consequence of the fairness appraisal and it is possible to influence bargaining behavior by altering the perceived source of the emotion, holding fairness perceptions constant.

In ultimatum bargaining, a proposer controls an amount of money (say \$10) and must offer some fraction (say \$3) to the responder. Both players know the amount being divided and the rules of the game. If the responder accepts the offer, s/he receives \$3, and the proposer receives \$7. If the responder rejects the offer, both people receive nothing (Camerer and Thaler 1995).

Rationally, the respondent should never reject an offer, since even \$.01 has more utility than zero. However, previous research has shown that ultimatum offers are sometimes rejected (Straub and Murnighan 1995), and variables such as fairness (Kahneman, Knetsch, and Thaler, 1986) and anger (Güth 1995) play a critical role. Pillutla and Murnighan (1996) proposed that respondents react to small offers by perceiving them as unfair and attributing responsibility to offerers. Accordingly, people are willing to sacrifice their own outcome to punish a player who had offered an unequal division to another player (Kahneman et al. 1986).

Anger has been found to correspond to appraisal of a negative event caused by another person and involving *unfairness* (Frijda, Kuipers, and ter Schure 1989). One behavioral consequence of anger is that the angry individual will probably try to hurt the agent as a punitive revenge or as retribution (Darley and Pittman 2003). Nevertheless, the punitive behavior will be directed towards the cause of the feeling (e.g. Younger and Doob 1978).

Transferring this to ultimatum bargaining, as people perceive an offer as unfair, they feel anger towards the agent and tend to reject the offer; however, when people misattribute the cause of anger, the rate of rejection tends to decrease. We tested these ideas in two experiments.

In study 1 we manipulated size of offer to test if a low offer leads to higher levels of anger and to what extent the anger felt decreases the probability of acceptance of an offer. Subjects read the description of ultimatum games and learned that participants in their session were randomly selected as respondents. We randomly assigned \$2 and \$4 offers-out of a total amount of \$10-to 155 students from a major west coast university. After they marked their response to the “proposer’s offer” they answered questions about the offer. Then, respondents proceeded to the “next study dealing with scale development”, which included emotion scales, individual difference variable of anger proneness, and background questions.

Participants showed higher levels of felt anger when they were offered \$2 than when they were offered \$4 ( $M_2=2.22$ ;  $M_4=1.74$ ;  $F(1,145)=8.63$ ;  $p<.01$ ). Anger proneness also showed significant effect ( $F(1,145)=8.57$ ;  $p<.01$ ). A logistic regression showed the \$2 offer was more likely to get rejected as a function of anger. Mediation analysis showed rejection was mediated by anger: in the first model, offer had a significant impact on rejection ( $p<.01$ ); when anger is added to this model, anger is significant ( $p<.01$ ), but offer no longer is ( $p>.05$ ). Anger proneness was not significant in the regression ( $p>.1$ ), showing that the individual difference variable does not influence offer rejection.

The goal of study 2 was to examine outcomes when people misattribute the cause of anger. It was a 2 (control, misattribution of anger) x 3 (offer: \$1, \$3, \$5) between-subjects experiment ( $n=120$  students). Misattribution of anger was manipulated through an “independent” task called “life event inventory study” that consisted in asking participants to describe three/four “ordinary and mundane” events of their lives which they do not give much thought to nor have strong feelings about. In the control condition, participants started the “game” study right after this task. In the misattribution condition, they were told “in a similar study participants reported experiencing varying degrees of anger because of this assignment.” Fairness was manipulated through the “proposer-responder game”. The procedure was similar to experiment 1, and participants were asked to accept or reject the offer randomly assigned to them: \$1, \$3, or \$5 out of \$10. Finally, they responded to questions about their feelings and opinions.

In the control condition, 25% of the participants accepted the \$1 offer, 36.36% accepted the \$3 offer, and 100% accepted the \$5 offer. A chi-square test ( $p<.01$ ) revealed that significantly higher proportions of participants accepted the “unfair” offers in the misattribution condition: 50% of the participants accepted the \$1 offer and 63.16% accepted the \$3 offer. The \$5 offer was accepted by 95.24% of the participants. A logistic regression showed that the effect of misattribution was significant ( $p<.05$ ) and the effect of offer was significant ( $p<.01$ ). When anger was included (“to what extent were you angry with the offer?”) as a covariate, the effect of misattribution was not significant ( $p>.05$ ), offer was significant ( $p<.01$ ), and anger was significant ( $p<.01$ ).

Experiment 1 shows anger resulting from the perception of (un)fairness of the offer and increasing the rejection of the offer. Experiment 2 suggests that when people misattribute the cause of anger they tend to “discount” its effect, decreasing the rejection rate of the “unfair” offer. The results have implications for the management of cooperative and competitive behavior in conflict situations such as bargaining.

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## I Want It Even Though I Do Not Like It: Preference for Familiar but Less Liked Music

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Many radio stations play the same songs over and over again, with little willingness to add new songs to the playlist, despite voiced criticism. Station managers argue that they are simply giving the listeners what they want to hear. We investigate this radio paradigm to understand what is driving this discrepancy between voiced preference and actual choice.

Presenting 24 songs from 12 artists (one familiar and one unfamiliar), and 22 famous actors to participants, we show that people do indeed choose to listen to songs, and see actors in movies, based on two factors: their preference (or “liking”) and their familiarity with the song or actor. Interestingly, we find that the effect of familiarity on choice remains significant when we control for the effects of preference on choice. That is, participants sometimes chose a song they liked less than the other option, just because the chosen song was familiar.

In a second study we control for liking across songs based on pretests and show that participants choose playlists of songs that they are familiar with despite lower preferences for these songs. Our last study tested whether the results could be explained by anticipated regret and/or social perceptions (or “coolness,” which may drive people to indicate they do not like familiar songs even though they do actually like them). Using personal computers where participants actually listened to their choices on individual headphones, participants made choices first and then indicated familiarity and liking, as well as how much they may regret their choice and how “cool” they thought each song was. Though regret did affect choice, indicating the presence of some uncertainty about the options, we find that familiarity significantly predicts choice when controlling for the effects of liking, regret, and coolness.

## When do Moods Influence Consumer Preferences?: Moderators of Mood Congruency

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The mood congruency effect refers to the tendency for those in positive moods to make more favorable judgments than those in negative moods. Although mood congruency has been documented in the domain of consumer judgment, past research is equivocal regarding the conditions under which such mood congruency effects emerge. While some authors have documented mood congruency effects in consumer judgments (Curren and Harich 1994; Isen, Shalcker, Clark, and Karp 1978), other researchers have not (Adaval 2001). In addition, several moderators of the mood congruency effect have been proposed, such as relevance of the product (Curren and Haric, 1994), consumer motivation (Pham 1998), ability to attribute the source of one’s moods accurately (Gorn, Goldberg, and Basu 1993; Pham 1998), and desirability of the brand (Barone and Miniard 2002).

One such moderator is the ability to focus on one’s mood states. Although some research suggests that those who focus on their moods are better able to avoid or correct for mood congruency (e.g., McFarland, White, and Newth 2003), other research suggests that those who focus on their moods are more likely to demonstrate mood congruency (e.g., Forgas and Ciarrochi 2001). We suspect that the different judgment tasks used in these two studies may be responsible for the discrepant results. The evaluation task used by Forgas and Ciarrochi (2001) involved evaluations of actual and potential possessions, whereas the evaluation task used by McFarland and colleagues involved making evaluations of another person. It seems plausible that people may consider it more appropriate to allow their moods to influence consumer judgments than interpersonal evaluations.

We attempt to resolve this discrepancy and suggest that the influence of mood-focus on the mood congruency effect will be moderated by *perceived appropriateness* of using moods to guide judgments. For example, Gasper & Clore (2000) found that the future predictions of participants high in mood attention were more affected by their current mood than those of participants low in mood attention. Importantly, the mood congruency bias revealed among persons high in mood attention was eliminated only when they were actively encouraged to view their moods as irrelevant to the judgment task. Thus, our key prediction is that mood congruency in consumer judgment will be most pronounced when individuals both acknowledge their moods and consider it appropriate to allow moods to influence their judgments.

In study 1, we utilized a 2(Mood: positive vs. negative) X 2(Focus: focused vs. not focused) X 2(Appropriateness: moods appropriate vs. cognitions appropriate) between subjects design. We manipulated mood by having participants recall either a negative or positive event (e.g., McFarland et al., 2002)<sup>1</sup>. Participants were either focused on their moods (i.e., they rated their moods before making consumer judgments) or distracted from their moods (i.e., they completed a distraction task before making judgments). Perceived appropriateness was manipulated by having participants read either that using moods to inform consumer judgments is a good strategy or that using cognitions to inform consumer judgments is a good strategy. The consumer judgment task involved rating two products that pretested as being equally perceived as “think” and “feel” products: a camera and a backpack. Participants viewed photographs of both products and rated them in on 9-point likert scales ranging from dislike very much to like very much, unfavorable to favorable, negative to positive, and bad to good. A product evaluation index was created by averaging across these measures ( $\alpha=.86$ ). The interaction between mood, focus, and perceived appropriateness was statistically significant  $F(1, 186)=6.77, p <.02$ . In particular, participants demonstrated mood congruency only when they were focused on their moods and perceived moods to be appropriate ( $M_{\text{positive}}=6.07$  and  $M_{\text{negative}}=5.19, t(186)=2.54, p <.02$ ).

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<sup>1</sup>manipulation checks in study 1 and 2 were successful.