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Gaming Emotions

Working paper

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Abstract

One's own emotions may influence others' behavior in a given social interaction. If one believes this, s/he has an incentive to *game emotions*—to strategically conceal a current emotion or display a non-experienced emotion—in an attempt to influence her/his counterpart. In a series of three experiments, we show that people deliberately conceal (experiment 1) or misrepresent (experiments 2 and 3) their emotional state in a negotiation setting. When given the opportunity to either hide or express their current emotions before playing an ultimatum game, receivers who have reported low (vs. high) level of anger are more likely to conceal their emotion right before the proposers decide on the division of the pie (experiment 1). When the procedure allows participants to change their previously reported emotion, receivers choose to inflate their reported level of anger prior to proposers' decision (experiment 2). Finally, this emotion gaming hypothesis generalizes to positive emotions as well. In a standard trust game, trustees inflate the level of happiness before trusters decide on passing vs. keeping a fixed amount of money to the trustees (experiment 3).

Keywords: Emotion, Negotiation, Self-Presentation, Strategic Display of Emotion, Impression Management

Gaming Emotions

“ ‘Mr. Chairman’, he said, striding toward me smiling and reaching to shake hands. I could see why he was reputed to be a great retail politician. He made me believe he really had been looking forward to seeing me.” (Alan Greenspan describing a meeting with Bill Clinton – *The Age of Turbulence*, p. 143).

Imagine the following scenario. John is upset. It is eight o’clock in the morning when his son shows him the far from perfect grade report. On the way to work, the traffic jam does just enough to empty his tank and fuel his anger. At the office building, a final stroke of bad luck with the elevator forces him to climb up five stories to the company’s main entrance. As he enters the conference room, the meeting is about to start. On the table, there is a potential joint venture with a new partner company. Since he has never personally met its directors, the development of mutual trust will definitely be crucial to the negotiation process. Disappointed at his son, frustrated by the long commute, and tired of climbing up five stories, John walks into the room and without hesitation says: “Isn’t this a wonderful day? The sun shines, the coffee is warm, and I couldn’t be happier. It’s great meeting you all. I’m John.”

There are two points worth noting in the above scenario. First, people intuit that their displayed emotions may influence other people’s decisions. John reasoned that showing any signs of frustration at the beginning of the meeting could jeopardize the negotiation process. Second, and as an implication of the first, people seem willing to conceal or even fake their own emotions for strategic purposes. John decided that the best strategy would be to conceal his true emotions and display happiness and enthusiasm instead, which could positively correlate with trust and confidence, and, as result, improve the likelihood of closing the deal.

Anecdotal evidence suggests that John's strategic reaction is not contrived to the world of high level executives or retail politicians. This emotion gaming phenomenon seems quite common in our daily life. Teachers hide their anxiety in front of students to avoid showing lack of confidence, which in turn, could reduce students' receptivity to their lectures. By wearing appropriate apparels (e.g., dark sunglasses), professional poker players hide both bad *and* good feelings from their competitors to avoid revealing any clues about their cards. Waiters smile when they hand customers the check in an attempt to get a bigger tip. Parents pretend to be very angry at their kids' misbehavior just to make sure the children behave accordingly. Finally, the rationale can also be applied to visceral factors or drives (Loewenstein, 1996). HMO patients exaggerate their reported level of pain to the doctors to increase the chance of getting an early appointment with a specialist.

In short, knowing that one's expressed affective state can influence other's decisions, people are usually tempted to *game emotions*—that is, to either conceal a current emotional state or display an emotional state which diverges from the true state, in a strategic attempt to optimize the chances of success in a given social interaction. This paper investigates this emotion gaming hypothesis experimentally.

Emotions in Interpersonal Relationships

Research on the effect of emotions on interpersonal relationships has received significant attention in the past decades. The oldest tradition has focused on how *one's* emotions would influence *one's own* behavior in a dyadic relationship. The helping literature represents the cornerstone of this tradition: would one's emotions influence one's willingness to help or

cooperate with someone else? More than forty years of research has shown that generally speaking happy people are more willing to help, to cooperate with, and to trust others in a negotiation (Allred, Mallozi, Matsui, & Raia, 1997; Baron, 1990; Baron, Fortin, Frei, Hauver, & Shack, 1990; Berkowitz, 1987; Carnevale & Isen, 1986; Dunn & Schweitzer, 2005; Forgas, 1998). On the other hand, people experiencing negative emotions, and particularly anger, are less trustworthy, more competitive, and more selfish (Allred et al., 1997; Berkowitz, 1989; Baron, 1990; Baron, Fortin, Frei, Hauver, & Shack, 1990; Dunn & Schweitzer, 2005; Pillutla & Murnighan, 1996; Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003; Travis, 1989).

A second and much more recent research stream has asked whether *other people's* emotions would influence *one's own* decision in negotiations (Andrade & Ho, 2007; Kopelman, Rosette, & Thompson, 2006; van Kleef, de Dreu, & Manstead, 2004; Sinaceur & Tiedens, 2006). For instance, van Kleef, de Dreu, and Manstead (2004) shows that after receivers' allegedly angry, neutral, and happy reactions to a given offer (e.g., an angry reaction: "This offer makes me really angry", p. 61), the negotiation outcomes change systematically. A proposer concedes more to an angry than to a happy opponent, with neutral being somewhere in the middle. These results show that other's *integral* affect—e.g., the angry feeling generated by an unappealing offer during a negotiation—is taken into account in a subsequent negotiation.

Andrade and Ho (2007) move a step further by showing that people can take other people's feelings into account even when the source of affect is *incidental*, and as a result, the affective state is independent of the level of satisfaction associated with the negotiation process or the offers received. In an ultimatum-type game in which proposers move first by dividing a given pot of cash (keeping 50% or 75% of the pot) and receivers respond by choosing the size of the pot (from \$0 to \$1), proposers are more likely to make an uneven offer (i.e., to keep 75% of

the pot) if they are told that receivers have watched a funny sitcom, rather than a movie clip portraying anger, in an unrelated study before the game begins. However, this systematic effect occurs only if proposers know that receivers are not aware of the sharing of their affective state. Also in an ultimatum setting, Kopelman, Rosette, and Thompson (2006) demonstrate that receivers facing a proposer (confederate) who displays positive (vs. negative or neutral) emotions are more likely to accept a given offer. Finally, Sinaceur and Tiedens (2006) show that receivers with poor alternatives available are more willing to concede to a purportedly angry (vs. neutral) negotiator.

In short, there has been growing evidence suggesting that one's feelings influence other's decision in the negotiation process. If this is the case and people are able to intuit it (e.g., Andrade & Ho, 2007), they may be willing to display non-experienced emotional states or to conceal experienced ones in order to improve their material wellbeing in a negotiation.

Gaming Emotions

The impression management (or self-presentation) literature has provided robust evidence that in a social interaction people are usually willing to control or modify aspects of the self for strategic reasons (Schlenker, Bonoma, & Tedeschi, 1973; Schlenker & Pontari, 2000; Vohs, Baumeister, & Ciarocco 2005). Emotions might well be one of such aspects (Jones & Pittman, 1982). Since emotions serve social functions in a negotiation process, and people know that (Keltner & Kring, 1998, Morris & Keltner, 2000), they have an incentive to strategically display their feelings. Surprisingly, little empirical evidence has been provided to assess the extent to which individuals wishfully express or hide a given emotional state during a social interaction in an attempt to increase wellbeing (for an exception, see Clark, Pataki, & Carver,

1996).

To game emotions means to either express an emotional state that is not being experienced (i.e., fake the intensity or type) or not express an emotional state that is being experienced (i.e., conceal)¹. Moreover, the phrase emotion gaming is used here to emphasize the fact that people deliberately conceal or misrepresent emotions for purely strategic reasons because they believe they might profit from doing so. Emotional gaming differs from emotion regulation (Gross 1998) in the sense that people are not trying to change the current affective state as much as they are trying to modify the display of the emotional state. In many cases, emotional gaming can take place without any attempt to change a current affective state. For instance, parents can portray an angry face when their little kids misbehave, even though there is no deliberate attempt to actually feel angrier. Patients may be willing to report more pain during a doctor examination (in order to get an appointment with the specialist), although there is no attempt to really experience more soreness. In short, based on the assumption the emotional expression conveys information to others and people are aware of it, they have an incentive to game emotions.

Survey and observational-based evidence have suggested that individuals do display non-experienced emotions, especially when their jobs require them to do so. This so-called *emotional labor* literature has addressed (a) the extent to which the workplace demands specific emotional expressions and (b) how much such requirements influence employees' wellbeing (Ashforth & Humphrey, 1993; Diefendorff & Richard, 2003; Gosstrand & Diefendorff, 2005; Grandey, 2003; Hochschild, 1983; Morris & Feldman, 1996). This research stream shows that employees have frequently been obliged either by implicit social norms or by explicit company policies to display, and usually fake, specific emotional states. The service industry has numerous examples.

Amusement parks (Rafaeli & Sutton, 1987), airline companies (Hochschild, 1983), and fast food chains (Boas & Chain, 1976), to mention a few, usually suggest—or request—their employees to continuously display positive feelings when they interact with their customers. At Disney, for instance, new employees take classes to learn the importance of expressing positive feelings to patrons (Rafaeli & Sutton, 1987). They are taught the difference between being “onstage” (i.e., where the interaction with customers might take place) or “offstage” (i.e., ‘employee’s only’ area), and how expressed emotions, whether experienced or not, are crucial for a company’s long term success. Finally, emotional display rules are not unique to organizational settings. Zeman and Garber (1996) showed that due to spontaneously learned social norms children are less likely to display a positive or a negative emotion in the presence of their friends than in front of their parents or when they are alone.

The dissonance between inner and outer feelings described above can lead to negative physiological and psychological consequences and can affect employees’ wellbeing in the long run. For instance, there is evidence to suggest that the environmental pressure to deliberately fake feelings is positively correlated with emotional exhaustion and negatively correlated with job satisfaction (Grandey, 2003). In addition, deliberate attempts at suppressing one’s positive and negative feelings can be physiologically costly (Gross & Levenson, 1997). Nevertheless, it is possible that people, when given the opportunity, may deliberately choose to game emotions on their own in an attempt to succeed in a given negotiation and, as a result, improve their overall wellbeing (Rafaeli & Sutton, 1987). For instance, it has been shown that customers give a higher tip when positive feelings are made salient in a restaurant, either through a waitress’s “maximal” smile (Tidd & Lockard, 1978) or a joke card next to the check (Gueguen, 2002). Kopelman, Rosette, and Thompson (2006) show that similar effects emerge in a controlled negotiation

setting. In one of their studies, participants are more likely to accept a deal in an ultimatum setting when they are matched with a proposer—a confederate—who expresses more positive (vs. negative or neutral) emotions. Therefore, those who intuit that their emotions will influence other people's decisions may have an incentive to game emotions, especially when the associated physiological and psychological costs are low relative to the potential benefits.

There are a few pieces of evidence to suggest that people do game emotions, either by inflating or concealing current states. Clark, Pakati and Carver (1996) showed that participants who were presented with an ingratiation goal (i.e., to get others to like them), reported higher levels of happiness relative to their own previous assessment before knowing about the ingratiation task. The authors argue that since people infer that happiness and likeability are positively associated, it instigated participants to intensify their current level of happiness as to be perceived as a more likeable person. To game emotions also means to conceal feelings. Observational evidence shows that professional poker players hide their emotions to avoid disclosing any affective information to their competitors, which turns out to be one of the poker player's critical skills (Hayano, 1982). Hence, there may be circumstances in which the gains of gaming emotions are significantly greater than its associated psychological and physiological costs so that people will find it advantageous to do so.

In this paper, we attempt to systematically address the emotion gaming phenomenon. Precisely, are people willing to deliberately game emotions in a given negotiation process? Most of research so far has either manipulated emotional expression in order to examine its impact on other's behavior (Andrade and Ho, 2007) or observed people's emotional expressions in social contexts (Hayano, 1982). While the former does not address people's willingness to game emotions, the latter relies on observational or survey techniques, which makes it difficult to

separate expressed from experienced emotional reactions (e.g., how much of a Starbucks employee's smile captures "true" vs. "fake" happiness?).

Overview of the Experiments

Three experiments are conducted and follow a similar procedure. Participants come to the lab and are randomly assigned to one of the laptops located in the east or west side of the room. The instructions inform that subjects will be participating in two tasks involving interactive decision making. In addition, they are told specifically that their payment is contingent on the outcome of the tasks. Thus, the experimental tasks are consequential and subjects have an incentive to perform well. Finally, all experiments are web-based so that interactions between participants occur (a) anonymously and (b) in real time.

There are three parts to each of the experiments: i) emotion manipulation (Task 1), ii) emotion measurement and gaming, and iii) targeted social interaction (Task 2). In both experimental tasks, subjects play a 2-person game. A Dictator Game (DG) is used in "Task 1," whereas either the Ultimatum Game (UG) (experiments 1 and 2) or the Trust Game (TG) (experiment 3) is used in "Task 2". In task 1, the DG is used to manipulate receivers' emotional state (i.e., proposers make either a fair or an unfair offer to receivers who must accept them). Right after the emotion manipulation, receivers are asked to report their emotional state. After a short duration (around 2 to 3 minutes) and before the actual social interaction (Task 2) begins, receivers (when playing the UG) or trustees (when playing the TG) are given an opportunity to game emotions. They can game emotions either by choosing not to report experienced feelings (i.e., concealing emotions - experiment 1) or by misrepresenting experienced feelings (i.e.,

faking emotions - experiments 2 and 3). Subjects are paid based on the outcome of the targeted social interaction (UG – experiment 1 and 2 and TG – experiment 3). Figure 1 shows the overall design for all 3 experiments.

--- Insert Figure 1 around Here ---

It is well established that physical postures, and particularly facial expressions, can actually change one's current experienced emotions (for a review, see Adelman & Zajonc, 1989). Therefore, when people attempt to display an emotional state, they may end up changing it. To control for this potential confounding, receivers or trustees are asked to report their experienced emotions on a 101-point scale on a computer screen, which are then electronically sent to anonymous partners during the experiments. Since there are no physical changes required as a function of emotional expression (e.g., smile or frown), this procedure allows us to disentangle gamed (faked or concealed) emotions from actual emotion regulation (Gross 1998).

Experiment 1

People might want to conceal their feelings because they are afraid others may take advantage of them if they display their true feelings. For instance, poker players hide their feelings completely so as to avoid conveying diagnostic information about their cards to their competitors. Most of these observations however are anecdotal. There is a lack of direct and systematic evidence on people's willingness to conceal emotions for strategic purposes.

Moreover, it is unknown whether this phenomenon is restricted to a specific context (i.e., poker game) or if it applies to other social interactions as well.

In Experiment 1, we address this issue with a simple and well-established negotiation paradigm, the Ultimatum Game (Güth, Schmittberger, & Schwarze, 1982). In a modified version of this game (see procedure below), receivers are given the opportunity to convey or conceal their current level of anger to their matched-proposers before the proposers decide on how to divide the pie. Since anger tends to increase receivers' likelihood of rejection to unfair offers in the UG (Pillutla & Murnighan, 1996; Sanfey et al. 2003) and people are intuitively aware of this association (Andrade and Ho 2007), *angry* receivers have an incentive to convey their emotion to their matched-proposers before they determine the division of the pie ("If s/he knows I'm angry, s/he might be more likely to offer me a fairer share of the pie, as s/he anticipates that I might reject any unfair proposition."). The opposite holds true for receivers who are *not angry at all*. Here, to avoid giving proposers a "green light" for an uneven offer, receivers have an incentive to conceal the absence of anger from the matched-proposer ("If s/he knows I'm not angry at all, s/he might be more likely to offer me a smaller share of the pie, as s/he anticipates that I might accept any unfair offer").

In this experiment, receivers' actual level of anger is manipulated in task 1 (DG). Then, in task 2 (UG) receivers are given an opportunity to convey or conceal their previously reported level of anger to their matched-proposers before the proposers make an offer on the share of the pie. We hypothesize that receivers who have previously reported low levels of anger are more likely to conceal their current emotional state from their matched-proposers compared to receivers who have reported high levels of anger.

Method

Participants and design. Seventy-two students from a major western university participated in this experiment. The students received a course credit plus additional monetary earnings contingent on the outcomes of the games. The experiment adopted a single factor (Receiver's reported level of anger: low vs. high) between subjects design.

Procedure. The experiment was conducted in a computerized environment. Participants were randomly assigned to either the east or the west side of the room. The general instructions informed that the experiment was about interactive decision-making and that they would be participating in two web-based tasks. In each task, participants were randomly matched with a different person from the other side of the room. The subjects did not know who their partner was either during or after the studies. Finally, the amount of money subjects earned depended partly upon their decisions, partly on the decisions of others, and partly on chance. A subject's total monetary earning for the experiment was the sum of his/her earning in each of the two experimental tasks.

DG: Task 1 was a slightly different version of the standard dictator game. In this game, two players (labeled as proposer and receiver) are matched at random. The proposer is endowed with a pot of money and asked to divide the pie between him/her and the receiver. The receiver has no choice and must accept the offer as it is (i.e., the proposer is a dictator). The game is played in complete anonymity. In our version, the proposer was endowed with \$10 and asked to suggest a division of the pie between her and the matched-receiver. To systematically manipulate the offers made, and, as a result, receivers' emotional reaction to it, we assigned proposers to either the unfair offer or fair offer condition. In both conditions, proposers were informed that the computer would always decide on the offers to be made.

In the unfair offer condition, the design always yielded a Proposer:\$8/Receiver:\$2 offer. In other words, a low offer would always be sent to the receiver, who was required by the rules of the game to accept it. This would ensure a *high level of anger* on the receiver's side. In the fair offer condition, the computer always yielded Proposer:\$5/Receiver:\$5 option. In other words, receivers in the fair offer condition would always receive an even offer, which again they had to accept. This would ensure a *low level of anger* on the receiver's side. Importantly, in both condition receivers were not aware of this manipulation. Therefore, they believed these offers were a consequence of proposers' deliberate choice.

Measuring Anger. After getting a fair or unfair offer, and being required to accept it, receivers were asked to report their level of anger on a 101 point scale "Right now, I feel ____ (0=not angry at all, 50=moderately angry, 100=very angry – any number from 0 to 100 is allowed)."

Introduction to UG. Subjects were then introduced to task 2 (UG). Similar to a DG, proposers in an UG are endowed with a certain amount of cash and asked to propose a division of the pie with their paired-receivers. Contrary to a DG, in an UG, receivers can either accept or reject proposers' offer. If a receiver rejects an offer, both players receive nothing. In our procedure, the proposers were endowed with \$10 and asked to make an offer on the share of the pie. Any division of the pie was possible and both proposers and receivers were fully aware of this possibility.

Gaming reported anger. Before the targeted social interaction began (i.e., before proposers decided on an offer in the UG), receivers were asked if they would want to express or not their previously reported level of anger to their matched-proposers. If a receiver decided to convey the previously reported emotional state, her/his matched-proposer (a) would be informed

that the receiver was asked to report current feelings on a 101 point anger scale, and (b) would receive the actual emotion report prior to the decision on the division of the pie. If a receiver decided to conceal the reported anger, the matched-proposer would neither be informed that the receiver was asked to rate his/her current feelings nor that s/he was given the opportunity to convey an emotional state. The decision to conceal or convey represents our main dependent variable. As indicated above, we hypothesize that the reported level of anger would moderate receivers' preference for concealing vs. conveying the information. Specifically, receivers who previously reported experiencing very low levels of anger would be more willing to conceal relative to those experiencing high levels of anger.²

Results

Manipulation Check. As expected, receivers who were presented with an unfair offer in the DG felt significantly angrier ($M = 68.8$, $SE = 4.2$) than those presented with a fair offer ($M = 5.4$, $SE = 4.5$; $F(1, 34) = 105.51$, $p < .001$, $\eta_p^2 = .76$). In fact, the level of anger was not significantly different from 0 (not angry at all) when in the fair offer condition ($t(16) = 1.49$, $p > .10$) whereas it was significantly greater than 50 (moderately angry) in the unfair offer condition ($t(18) = 3.89$, $p < .005$). Hence, the offer manipulation strongly influenced receivers' current level of anger.

Gaming Emotions. To test whether receivers gamed their emotion, a chi-square analysis was conducted to assess the association between receivers' reported level of anger (high vs. low) and their decision to convey or conceal it before an offer was made in the UG. A significant association emerged ($\chi^2(1, N = 36) = 7.61$, $p < .01$). Only 10% of receivers chose to conceal their *high* level of anger from their matched-proposers, whereas 53% of receivers chose to

conceal their *low* level of anger when facing the same decision ($z = 2.75, p < .01$). It was also possible to assess the extent to which reported anger was directly associated with receivers' choice. A logistic regression was conducted with receivers' choice as the dependent variable (0=conceal; 1=convey) and the reported level of anger as the independent variable. The omnibus test showed a statistical significance ($\chi^2(1, N = 36) = 5.81, p < .05$). The Wald's test of the parameter estimate showed that as anger decreased receivers became less likely to send their experienced emotion to their respective matched-proposers ($\beta = .03, SE = .01; \chi^2(1, N = 36) = 4.80, p < .05$). Figure 2 plots the estimated logistic regression curve. As shown, the probability of concealing decreases as the reported level of anger increases. For example, the probability of concealing drops from 35% to 13% as the reported level of anger increases from 25 to 75.

--- Insert Figure 2 around Here ---

Discussion

Experiment 1 provides initial evidence that people game emotions. In an UG setting, receivers' likelihood of concealing their anger depended on the level of anger itself. Receivers who reported low levels of anger were 5 times more likely to conceal their experienced emotions from their matched-proposers than those who reported high levels of anger. The former group probably believed that low levels of anger might be associated with high likelihood of accepting an unfair offer. Consequently, by conveying their current emotional state, receivers might encourage proposers to make unfair offers. As a result, fifty three percent of the receivers decided to conceal it from their matched-proposers.

A potential concern about experiment 1 is that receiver's willingness to communicate their reported level of anger (high vs. low) is by definition confounded with their experienced level of anger. Therefore, one might argue that the reason why receivers conveyed their anger when it was high but less so when it was low, was not an explicit attempt to game emotions but an impulsive reaction to anger itself. Since anger has been associated with aggressive behavior (Berkowitz, 1989; Travis, 1989), receivers' decision to express anger might have simply been an instance of a hostile tendency rather than a careful and calculated effort to game emotions. To eliminate this concern, in the next two experiments, we make all receivers obtain an unfair offer in Task 1 (DG), and therefore experience similar emotional states.

Moreover, as per our definition, to game emotions means not only to conceal experienced emotions, but also to misrepresent non-experienced emotions. Hence, in the next two experiments, subjects will be given the opportunity to deliberately inflate their emotions right before the targeted social interaction begins.

Experiment 2

Similar to the procedure used in experiment 1, participants in experiment 2 are asked to play the same two games (DG followed by an UG), and receivers are asked to report their level of anger immediately after playing the DG. However, unlike experiment 1, receivers are once again asked to report their current level of anger right before the targeted social interaction in the UG. Prior to this second measure of anger, a manipulation is introduced. Half of them are informed that this second report will be sent to their matched-proposers (displayed emotion condition). The other half is not provided with this additional information (control condition).

Within this paradigm, we hypothesize that in the control condition the level of anger will not increase from report one to report two. In the displayed emotion condition, however, receivers in the second report are expected to report stronger than current levels of anger in an attempt to discourage their matched-proposers from making unfair offers.

Method

Participants and design. One hundred fifty two students from a western university participated in this experiment. They were paid a \$5 flat fee plus additional earnings contingent on the outcome of the games. The experiment adopted a 2 (affective information: control vs. displayed emotion; between) by 2 (self-report of anger: first vs. second; within) mixed design.

Procedure. The procedure followed similar to the one used in the previous experiment, with the exception of two changes. First, all receivers in the DG received an unfair share (e.g., Proposer:\$7:Receiver:\$3) of the pie in order to put all receivers in a similar emotional state.³ Second, a manipulation was introduced so that half the receivers were given the opportunity to inflate their reported emotion during their second report of anger. In summary, all receivers in the DG received an unfair offer and were forced to accept it. Right after, they were asked to report their anger. Participants were then introduced to UG. Finally, receivers were again asked to report their level of anger just before the targeted social interaction (i.e., before proposers decided on the offer). Half of receivers were in the displayed emotion condition and the other half were in the control condition.

Results

An analysis of variance with repeated measures was conducted to test the extent to which the self-report of anger (first vs. second) and affective information (control vs. displayed) interacted. The results confirmed the interaction ($F(1, 74) = 8.2, p = .005, \eta_p^2 = .10$; see figure 3). Precisely, the control condition showed that receivers' level of anger at the time of the second report ($M = 32.8, SE = 4.6$) was marginally lower than in the first report ($M = 39.1, SE = 4.1$; $F(1, 74) = 2.94, p < .10, \eta_p^2 = .04$). Most importantly, when receivers knew that their second report of anger would be sent to their matched-proposers (i.e., displayed emotion condition), the second report ($M = 43.5, SE = 5.0$) was significantly higher relative to the first one ($M = 34.4, SE = 4.5$; $F(1, 74) = 5.3, p < .05, \eta_p^2 = .07$). In other words, receivers pretended to be angrier than they actually were right before the proposer decided on how to divide the pie. Note that the elapsed time between the two reports was around 3 minutes and did not vary across conditions ($M_{control} = 178.2, SE = 98.0$ vs. $M_{displayed} = 183.7, SE = 98.3$; $F(1, 74) = .11, p > .10, \eta_p^2 = .00$).

--- Insert Figure 3 around Here ---

Discussion

Experiment 2 provides further evidence that people game emotions. In the displayed emotion condition, participants reported stronger than actually experienced levels of anger, probably in a deliberate attempt to improve their chance of getting a reasonable offer from their matched-proposers during the targeted social interaction. This results expands the previous finding in two ways. First, it shows that emotion gaming occurs even in a scenario where people have to inflate the to-be displayed negative emotions. In experiment 1, subjects simply chose whether or not to reveal their true emotion. To the extent that they have concealed their actual

emotion, they are not necessarily misrepresenting it. In experiment 2, however, subjects must go beyond the omission of current affective state and willfully misreport their true emotion. Note that the effect happened despite the fact that consistency biases might have been a force against it. Since receivers reported their emotions at 2 points in time with no more than three minutes in between, a pressure for consistency could have undermined an attempt to report higher levels of anger during the second report. However, the displayed emotion condition showed that receivers clearly decided to inflate their current emotional state in the second report. In short, emotion gaming seems to be a relatively strong motive. Second, this experiment eliminates the concern that the higher report of anger might be a function of the higher propensity to express emotion when one is angry. The results from the control condition show that people actually report slightly lower level of anger in the second relative to the first report.

One might argue that even if people do game emotions, the strategy might only occur in specific contexts and in a given direction (e.g., inflate anger). Thus, in experiment 3, we test the robustness of this phenomenon using with a different emotion scale (happiness) and a different targeted social interaction (i.e., different game in task 2). In that case, people will be expected to inflate happiness in order to increase the chances of being trusted by a matched-partner.

Experiment 3

In the example at the beginning of this article, John is disappointed at his son, frustrated by the long commute, and tired of climbing up five stories. However, as he enters the conference room to start a negotiation with a new partner company, he decides that the best strategy would be to display happiness and enthusiasm instead, which could positively correlate with trust and

confidence, and, as a result, improve the likelihood of closing the deal. In this third and final experiment, we test this intuition.

Experiments 1 and 2 focus on reported negative emotions. In experiment 3, we test whether the emotion gaming hypothesis holds when the reporting is framed in terms of positive emotions. Generally speaking happier people are more cooperative, trustworthy, and conciliatory (Allred et al., 1997; Baron, 1990; Dunn & Schweitzer, 2005; Carnevale & Isen, 1986; Forgas, 1998) and, importantly, are perceived as such (Andrade & Ho, 2007). Therefore, like the example described above, we expect people to inflate their reported happiness while negotiating with a third party if the targeted social interaction requires cooperation and mutual trust.

Method

Participants and design. One hundred twenty four students from a western university participated in this experiment. They were paid a \$5 flat fee plus additional earnings contingent on the outcome of the games. The experiment adopted a 2 (affective information: control vs. displayed emotion; between) by 2 (self-report of happiness: first vs. second; within) mixed design.

Procedure. The procedure was identical to the one used in experiment 2, with the exception of the following two changes. First, we use the trust game (TG) instead of UG in task 2. Participants who played the role of the proposer in the DG played the role of the truster in the TG. Likewise, those who played the role of the receiver in DG played the role of the trustee in the TG. Second, participants were asked to report their level of happiness on a 101-point scale “Right now, I feel ____ (0=not happy at all, 50=moderately happy, 100=very happy – any

number from 0 to 100 is allowed).” As in experiment 2, the emotion reports took place after the DG and right before the targeted social interaction in the TG.

Introduction to TG. In the TG, participants are matched at random and assigned to the role of the “truster” or the “trustee” (we labeled them role “A” and role “B”, respectively). The truster is endowed with a certain amount of cash and given the opportunity to pass it to the trustee. Once passed, the endowment triples in trustee’s hands. It is now up to the trustee to decide how much to return to the truster. The latter must accept whatever amount is returned. In our experiment, trusters were endowed with \$10 and matched with trustees from the other side of the room. After the matching, trusters were asked whether they wanted to keep or pass the \$10 (i.e., the targeted social interaction). When trusters decided to pass, this amount grew to \$30 in trustees’ hands, who then decided how much to return to trusters.

Gaming reported happiness. Before the targeted social interaction (i.e., before trusters decided on whether to pass or keep the \$10), half the trustees were given an opportunity to game happiness (displayed emotion condition). The other half served as the control condition. The manipulation was identical to the one used in experiment 2.

In summary, all receivers in the DG were expected to report not feeling happy at all (or close to it) after receiving an unfair offer (Proposer:\$8/Receiver:\$2)⁴ and being forced to accept it. Participants were then introduced to TG. About 2 minutes latter, right before the targeted social interaction began, trustees were again asked to report their level of happiness. Half of receivers were in the displayed emotion condition and the other half were in the control condition. We hypothesize that trustees in the displayed emotion condition will report a higher level of happiness to trusters relative to their previous report. Trustees will infer that if they

report a low level of happiness, trusters may be reluctant to pass them the \$10. In the control condition, no difference is anticipated.

Results

Receivers reported low levels of happiness ($M = 20.2$, $SE = 1.9$; $t(51) = -13.4$, $p < .001$; test value=50 – i.e., moderately happy) after receiving an unfair offer, which they were forced to accept. Importantly, to test whether participants would game (i.e., strategically inflate) happiness, an analysis of variance with repeated measures was conducted. The results showed an interaction between the self-report of happiness (first vs. second) and the affective information (control vs. displayed emotion; $F(1, 60) = 5.4$, $p < .05$, $\eta_p^2 = .08$). Precisely, the control condition showed that trustees' first report of happiness ($M = 20.1$, $SE = 2.71$) did not differ from the second report ($M = 22.9$, $SE = 2.7$; $F(1, 60) = .71$, $p > .10$, $\eta_p^2 = .01$). However, when trustees knew that the second reported happiness would be displayed to their matched-trusters before the latter decided on whether to keep or pass the \$10 (i.e., displayed emotion condition), the second report ($M = 34.3$, $SE = 3.6$) was significantly increased relative to the first one ($M = 20.3$, $SE = 3.6$, $F(1, 60) = 17.21$, $p < .001$, $\eta_p^2 = .22$). In other words, trustees pretended to be happier than they actually were. Note that the elapsed time between the first and second reports was very short (around 2 minutes) and did not vary across conditions ($M_{\text{control}} = 130.9$, $SE = 7.8$ vs. $M_{\text{displayed}} = 121.5$, $SE = 7.8$; $F(1, 60) = .72$, $p > .10$, $\eta_p^2 = .01$).

--- Insert Figure 4 around Here ---

Discussion

Experiment 3 contributes to determine the robustness and scope of the phenomenon. The results replicate previous findings with a different emotion scale (happiness) and a different targeted social interaction (i.e., different game in task 2). Precisely, the findings show that when trustees knew that their happiness would be displayed to their matched-trusters before the latter decided on keeping vs. passing the \$10, trustees reported higher than experienced happiness. When trustees were not informed that the second report of happiness would be sent to trusters, no difference between the two reports were found. Note that contrary to experiment 2 in which there was an inflation of negative emotion, there is an inflation of positive emotion in experiment 3. Finally, similar to experiment 2, we speculate that the degree of inflation in experiment 3 is likely to be a conservative estimate. People decided to inflate current feelings despite the fact that consistency biases might have been a force in the opposite direction. Since trustees reported their level of happiness at 2 points in time with only two minutes in between, a pressure for consistency could have actually prevented trustees from gaming emotion. We would expect a higher degree of inflation when the pressure for consistency is mitigated.

General Discussion

Individuals believe that their expressed emotions can influence others' decisions in social interactions. As a result, individuals have an incentive to game emotions in an attempt to improve their wellbeing. However, the literature has been surprisingly silent on this issue. To fill this gap, we show in a series of three experiments, that people deliberately conceal (experiment 1) or inflate (experiments 2 and 3) an emotional state when they believe this strategy can be beneficial. When the design is such that participants can either hide or display their current emotions, receivers who are not angry at all (vs. very angry) are more likely to conceal their low

level anger to avoid receiving an unfair offer from their proposers (experiment 1). When the design allows participants to misrepresent their current emotions, receivers choose to inflate their reported levels of anger to, again, make sure that proposers do not make them an uneven offer (experiment 2). This effect holds true for positive emotions as well. In a trust game, trustees fake higher levels of happiness to trusters in an attempt to boost trusters' confidence on trustee's good intentions (experiment 3).

The Costs and Willingness to Game Emotions

Our experiments clearly demonstrate that people are willing to game emotions. However, there are potential psychological and physiological challenges associated with emotion gaming, which may undermine people's willingness to engage in it. An attempt to fake emotions, for instance, may raise moral concerns (i.e., honesty) and detract people from trying to take advantage of the partner in a given social interaction. As one of the participants in experiment 2 pointed out in the debriefing phase: "I had a hard time deciding whether to give my actual anger or the anger that I wanted the proposer to see." Contextual cues can make moral costs higher or lower. A parent may feel it is appropriate to fake anger in order to persuade her kid not to behave badly. However, a patient may feel less compelled to fake pain to get an earlier appointment, when he is fully aware that others who have worse symptoms will be put behind in a queue. Physiological challenges can also play a major role. It is quite possible that people might not always be capable of physically expressing a faked emotional state. Professional poker players hide their facial expression altogether in part because of the difficulty associated with inhibiting facial expressions (Kappas, Bherer, & Thériault, 2000). There is also a possibility of extrinsic costs. One may choose not to game emotion if s/he believes that there is a high chance being

caught. This is particularly true if one anticipates that others can retaliate, thereby increasing the costs of a non-successful strategy. Future research could address the extent to which intrinsic (psychological and physiological) and extrinsic costs will influence people's willingness to game emotions.

Faking: Intensity vs. Type

To *fake* an emotion means to either report a stronger or weaker than experienced affective state (i.e., misrepresent the intensity of the emotion) and/or to report a different affective state (i.e., misrepresent the type of emotion). As Ekman and Friesen (1975) have pointed out, there are several ways to express a non-experienced emotion. Among them, people can (de)intensify emotions (i.e., to change the intensity) or they can mask emotions (i.e., to change the type). Our results focus on the former. In experiment 2, receivers reported stronger levels of anger and in the experiment 3, trustees reported higher levels of happiness. It is an open question whether people are willing to deliberately display a different emotional state when gaming emotions. Angry individuals might express sadness if they want to increase sympathy. Similarly, anxious speakers might have an incentive to smile not only to hide their anxiety but also to portray happiness. It will be interesting to investigate people's willingness and ability to fake a different type of emotion.

Effectively Gaming Emotions

People fake or conceal emotions to increase the probability of success in a given social interaction. An open question is whether or when the strategy is successful. Since in our

experiments there were indeed proposers and receivers playing the games, we could in principle compute the outcomes. However, across all three experiments, proposers in the DG were stimulated (e.g., computer decides) to make fair (experiment 1) or unfair offers (experiments 1 through 3) to receivers, in order to manipulate receivers' emotions in task 1. As a result, proposers or trusters decision in task 2 was not simply a function of the emotion gaming coming from their matched-partners. Their decision was confounded with their previous experience in the DG: that is, the amount of money they made, their freedom to choose (or lack thereof), as well as the options available to them. This makes it difficult to isolate the effectiveness of emotion gaming. Further research can shed light on whether people underestimate, overestimate or are accurate about the impact of one's own displayed emotions on other people's behavior and how moderating variables can interact with it.

Broadening the Scope

The context of this research has been limited to a set of well established games which allows us to measure whether and how much people conceal or fake positive and negative emotions in an attempt to increase the likelihood of success in a given social interaction. However, other social contexts could be explored. At the time this paper was written, the democratic primary in Iowa provided us with another example of how expressed emotions can have a powerful effect in a political context. Hillary Clinton's unexpected tears became a media spotlight on whether she should have expressed or concealed her feelings. In short, people's willingness to conceal or misrepresent their emotions is a widespread phenomenon which provides an incredible array of opportunities to those interested in the area.

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Footnotes

1) Ekman and Friesen (1975) suggested 5 ways in which individuals modify their displayed emotions: Inhibition (suppressing the display of an emotion), simulation (displaying emotion when no emotion is experienced), intensification (displaying a stronger than experienced emotion), deintensification (displaying a weaker than experienced emotion), and masking (displaying a different emotion from the one that is being experienced). In our typology, to *fake* an emotion means to either report a stronger or weaker than experienced affective state (i.e., misrepresent the intensity of the emotion) or to report a different affective state (i.e., misrepresent the type of emotion). Therefore, it incorporates Ekman and Friesen's intensification, deintensification, and masking categories.

2) To avoid unwanted inferences from the words “conceal” and “convey”, receivers were simply asked if they wanted to report vs. not report it [the emotional state] to the matched-proposer.

3) Receivers were given from 25% to 35% of the pie (instead of 20% as in experiment 1) to give subjects an opportunity to inflate their level of anger in the second report (i.e., we are simply trying to avoid a ceiling effect of anger at the time of the first report).

4) The low offer receivers obtained in the DG is an attempt to set a low level of happiness and as a result leave enough room for receivers/trustees to inflate their current emotions during the TG.

Figure Captions

Figure 1. The overall experimental design

Figure 2. Probability of concealing anger as a function of reported level of anger (Experiment 1).

Figure 3. Gaming Anger (Experiment 2)

Figure 4. Gaming Happiness (Experiment 3)

Figure 1. The overall experimental design

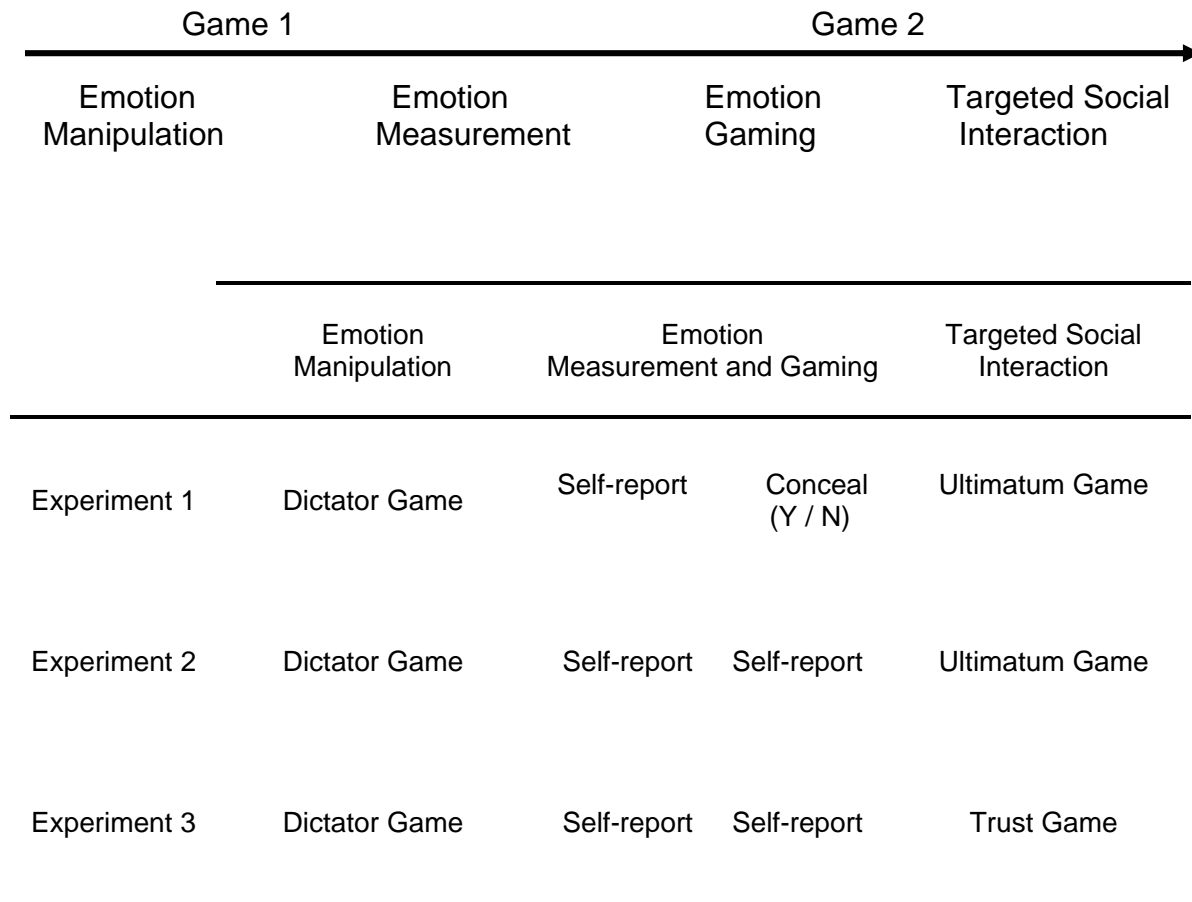


Figure 2. Probability of concealing anger as a function of reported level of anger (Experiment 1).

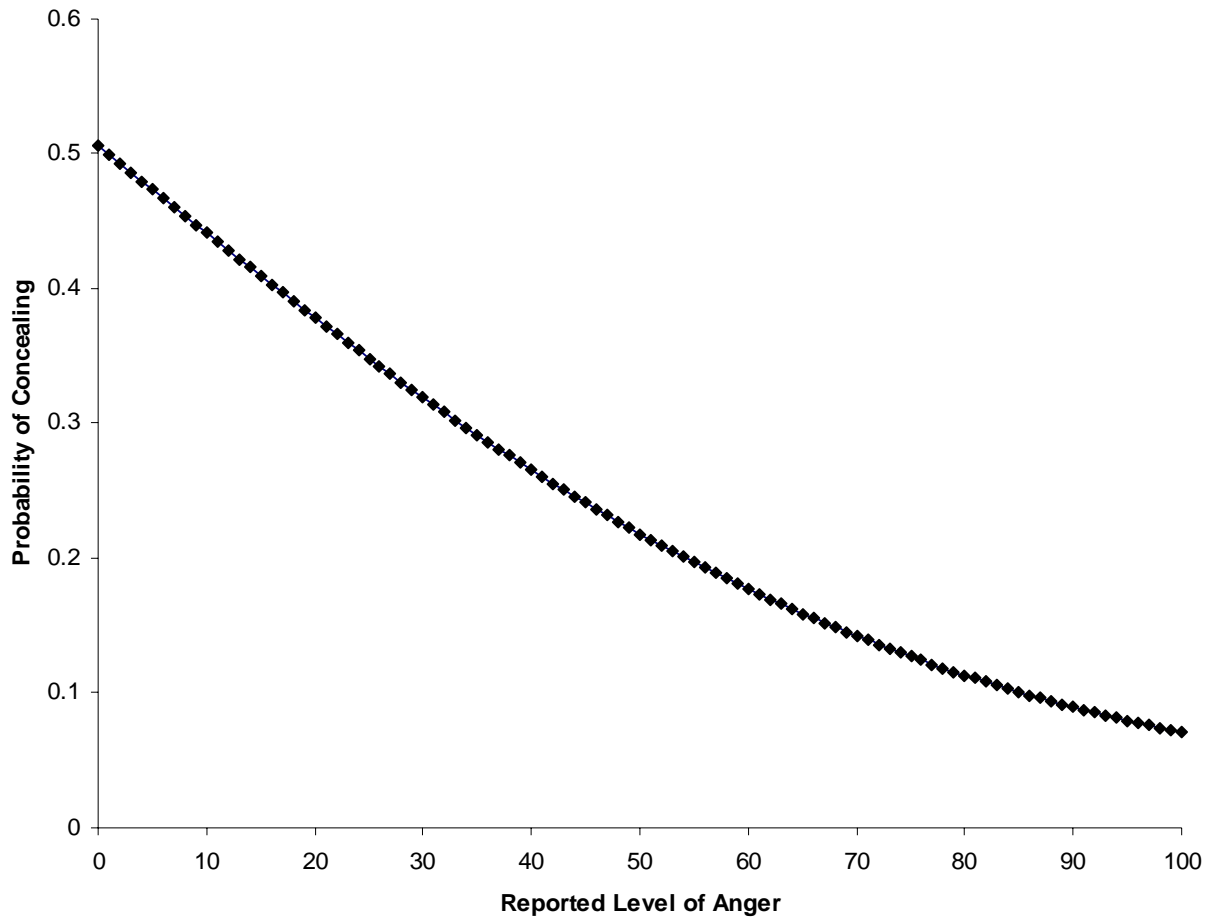


Figure 3. Gaming Anger (Experiment 2)

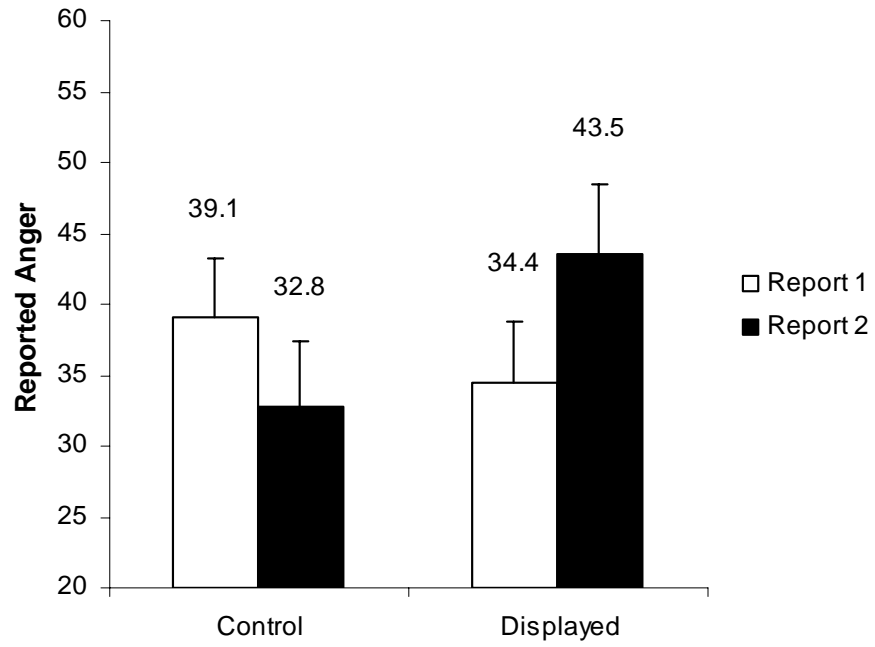


Figure 4. Gaming Happiness (Experiment 3)

