Deservingness and Unethical Behavior in Loss and Gain Frames

Authors

Jessica Schwartz Cameron, U. of California, Berkeley, jesss@haas.berkeley.edu
Dale Miller, Stanford U., Miller_Dale@GSB.Stanford.edu
Benoit Monin, Stanford U., monin@stanford.edu

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ABSTRACT

Two experiments illustrate the role of impending losses in unethical behavior. In Study 1, participants standing to lose $1 for each anagram they failed to solve felt they deserved more money than participants who could earn $1 for each anagram they did solve. In Study 2, participants left unsupervised to compensate themselves cheated significantly more (by walking away with more money than their performance warranted) when payment was framed as a loss for failure rather than a gain for success. These findings suggest that individuals are more likely to act unethically to forestall impending losses than to achieve undeserved gains.

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"When I arrived in Texas in 2001, I felt an enormous amount of pressure, felt all the weight of the world on top of me to perform and perform at a high level every day… I wanted to prove to everyone that I was worth, you know, being one of the greatest players of all time. And I did take a banned substance."

– Alex Rodriguez, February 9, 2009

In 2001, professional baseball player Alex Rodriguez signed a record-breaking, $252 million contract with the Texas Rangers. In 2009, Rodriguez admitted that shortly after signing that contract, he began using performance-enhancing substances banned by Major League Baseball ("Rodriguez Admits," 2009).

According to Rodriguez, the pressure of having signed that contract to become the highest-paid player in baseball was what led him to break the rules and use banned substances. In bowing to this pressure, Rodriguez was not trying to *become* the greatest player in the game, but rather to *remain* the greatest player in the game. Although it is impossible to know whether Rodriguez's post-hoc and motivated explanation for his cheating reflects his true motivations at the time, the fact that he offered up this explanation at all says a great deal about his lay theory of how the American public views unethical behavior. We propose that Rodriguez chose to provide this particular explanation because wanting to remain at the top is an understandable, if not forgivable, motive for cheating (Ben-Yehuda, 1990). Put another way, it may be more acceptable to cheat to keep a reward to which one has already staked a claim than to cheat to acquire a

reward in the first place.

In this paper, we test that proposition directly. We operationalize cheating as the willful violation of stated rules in order to maximize one's own performance or outcome. We examine whether people are in fact more likely to engage in this type of behavior when trying to avoid a loss than when trying to secure an equivalent gain, and we consider one explanation for this effect: that people actually feel more deserving of better outcomes when they start off with those outcomes in hand. To introduce these ideas, we first review evidence showing that loss framings facilitate self-interested and otherwise antisocial behavior. We then present the results of two studies that directly tested whether people will feel that they deserve better outcomes, and will be more likely to cheat to obtain them, when facing a loss than when facing a gain.

THEORY AND HYPOTHESES

Loss Aversion

Past research has demonstrated that people trying to avoid losses are more reward-focused (McCusker & Carnevale, 1995), more competitive (Neale & Bazerman, 1985), and more self-interested (Brewer & Kramer, 1986; De Dreu & McCusker, 1997) than those trying to secure equivalent gains. Individuals judge harmful corporate actions as more forgivable when they are aimed at avoiding the loss of profits than when they are aimed at increasing profits (Kahneman, Knetsch, & Thaler, 1986). Furthermore, in negotiations, individuals are more likely to intentionally mislead their partners when they are told that they have a 75% chance of losing a desired outcome than a 25% chance of winning it (Kern & Chugh, 2009).

As these findings demonstrate, framing a change in wealth as a loss motivates people to act, sometimes badly, to protect it. We hypothesize that if necessary, their actions will include outright cheating. Some precedent for this idea comes from past research showing that people are

more likely to cheat when they are trying to achieve concrete goals (Schweitzer, Ordóñez, & Douma, 2004), which may reflect the tendency to code goals as reference points and failures to achieve them as losses (Heath, Larrick, & Wu, 1999).

Why might threats of losses evoke such competitive, selfish, and even unethical thoughts and behaviors? In this paper we propose that having a desired outcome in hand will lead people to feel that they *deserve* that outcome more than those who have yet to earn it – and that people will go to greater lengths (even cheating) in order to hold on to what they feel they deserve.

The Endowment Effect, Value and Deservingness

From research on the endowment effect, we know that people value what they already have more than that which they have yet to acquire (Kahneman, Knetsch, & Thaler, 1990; Thaler, 1980). This phenomenon is a direct implication of prospect theory (Kahneman & Tversky, 1979), and involves overweighting out-of-pocket costs (actual losses) relative to opportunity costs (foregone gains). The consequence is that the amount that people are willing to pay to acquire a new possession is typically much lower than the amount they are willing to accept for the loss of the same item.

When people have their compensation in hand, in addition to valuing it more, we propose that they will feel they deserve it more. Past research has shown that it is not difficult to make people feel deserving of allocated resources that exceed what is warranted by their performance, at least relative to others. Merely designating study participants as leaders leads them to feel entitled to, and to allocate themselves, more money than their fellow participants (De Cremer & van Dijk, 2005). Participants given more money than they were promised for an experimental task evaluate that payment as perfectly fair, even if they see that a confederate who completed the same task at the same time does not receive the same arbitrary bonus (O'Malley, 1983).

However, participants who receive lower initial allotments than their experimental partners not only report feeling envious of those partners, they are more likely to lie if doing so will increase their own earnings and reduce their partners' (Gino & Pierce, 2009). We predict that facing a loss will also increase feelings of deservingness relative to the amount that participants have legitimately earned for their performance.

Our prediction applies specifically to situations in which people's compensation is not arbitrary, but depends instead on their performance on a task. In such cases, having cash in hand before they start may cue people that their performance is worth that higher amount. In the studies that follow, we test two hypotheses.

Hypothesis 1. Starting with a high endowment leads people to think that they are more deserving of it.

Hypothesis 2. Starting with a high endowment leads people to be more likely to cheat to hold onto it.

OVERVIEW OF STUDIES

In two studies, we investigated whether individuals would 1) feel they deserved a better outcome and 2) be more likely to cheat when trying to avoid a loss than when trying to secure a gain. In Study 1 we tested hypothesis 1, by looking at the effect of threatened losses on feelings of deservingness; we tested whether participants would believe they deserved more compensation for an anagram-solving task when facing the prospect of losing (rather than gaining) an initial allotment of money. In Study 2 we tested hypothesis 2, by investigating whether starting with that high allotment of money would also make participants more likely to cheat on the anagram task when given the opportunity.

STUDY 1

The goal of this study was to test hypothesis 1, that participants would feel more deserving of an unearned higher payment when it was given to them at the start. Participants were told that their payment for the study would depend on their performance on an anagram task, and they were given either a loss or a gain framing for this payment.

This study entailed solving nine anagrams. Participants were told that they would be paid a dollar for each anagram that they solved in order; thus, failing to solve an early anagram meant that they could not legitimately be paid for any of the later ones. To increase the temptation to cheat, we made the second and seventh anagrams essentially unsolvable. Consequently, it was virtually impossible for anyone to earn more than $2 through honest means.

We manipulated payment framing by instructing participants either that they would earn a dollar for each anagram they solved, or that they would lose a dollar for each anagram they failed to solve. We predicted that participants trying to retain resources would claim to deserve more money, despite not performing any better, than participants trying to acquire resources.

Methods

Participants. Eighty-six participants (43 women, 42 men, 1 unreported) were recruited from a subject pool open to Stanford University affiliates, mostly undergraduate students. When they signed up for this study, participants read that their participation would take approximately 20 minutes, and that their compensation for the study would depend on their performance on a problem-solving task.

Procedure. Upon arriving at the lab participants were told that they would be solving anagrams, and were given a booklet containing ten anagrams. On the first page of the booklet, the first anagram (ACDELN) was presented with its solution (candle) as an example. The remaining nine anagrams, presented three to a page on the next three pages, were for participants

to solve. The specific anagrams were as follows (presented without solutions): EFLORW (flower), ADELMN (menald), ELLOWY (yellow), DEINNR (dinner), AEHMMR (hammer), BMOOTT (bottom), ACCIPR (capric), CEEEHS (cheese), ADDENS (sadden). Anagrams #2 (in the middle of page one) and #7 (at the top of page three) were intended to be unsolvable for most participants, given that their solutions were very uncommon words. Indeed, during pretesting, not a single participant was familiar with the words menald (covered with spots) or capric (pertaining to goats, or to capric acid).

Participants were told they would have 15 minutes to solve as many anagrams as they could, and that they would also be given questionnaires to complete outside of that time limit. The experimenter reviewed the sample anagram and made sure that the participants understood how to solve anagrams, and then explained the payment schedule to participants.

All participants were told that they would only be paid for the anagrams that they solved in order. The total compensation for solving a given number of anagrams was equivalent in each condition. Payment framing was manipulated by describing the payment in one of two ways: using a *gain* framing or a *loss* framing.

Manipulation. The experimenter told participants randomly assigned to the *gain* (*loss*) condition that their base pay would be *$1 ($10)*, and that for each anagram they *solved* (*failed to solve*) they would *earn* (*lose*) $1. Participants learned that the most additional money they could *earn (lose)* would be $9, so that they could end up with *as much as $10 (as little as $1)*. Participants in the *gain* condition then learned that that if they solved every anagram but the fifth one, they would only be paid a total of $5: $1 for coming in, and $4 for solving each of the first four anagrams. Participants in the *loss* condition learned that with the same performance, they would lose $5 of their original $10 (for a total of $5 in earnings): $1 for the anagram they

missed, and $1 for each of the four anagrams that followed it. The experimenter also demonstrated how payment would work by laying dollar bills out on the table in front of participants.

After making sure that each participant understood the payment schedule, the experimenter left the appropriate base pay – $1 in the *gain* condition, $10 in the *loss* condition – on the table in front of the participant. An envelope containing any remaining pay – nine dollar bills in the *gain* condition, and none in the *loss* condition – was left within the participant's view.

Dependent measures. After setting down the base pay (Time 1), the experimenter also administered the first of the two questionnaires that comprised the dependent measures in this study. On this questionnaire, the participant recorded how much he or she expected to be paid for the study. The experimenter then left the participant to work on the anagrams.

Ten minutes into the study (Time 2), while participants were still working on the anagrams, the experimenter unexpectedly entered and administered a second questionnaire. Participants answered questions about their performance to that point (how many anagrams they had solved so far, how many anagrams they had solved *in order* so far), how fair they thought the payment structure of the study was (*1 = very unfair, 7 = very fair)*, and how much money they thought they deserved to be paid for the experimental session. Participants were then left to work on the anagrams for five more minutes.

After the expiration of the 15 minutes they had to work on the anagrams, all participants were thoroughly debriefed and paid $10 for their participation in the study.

The primary dependent measure in this study was the amount of money that participants reported they deserved for their performance on the anagram task. The remaining dependent measures were of interest in narrowing down the precise impact of a loss framing.

Results

One individual was excluded from the analysis due to spontaneously reported suspicion during debriefing (e.g., "Seems like a study about honesty"), leaving 85 participants (43 women, 41 men, 1 unreported).

As predicted, participants who were trying not to lose money claimed that they deserved more compensation for their efforts ($M = \$7.62$) than did those who were trying to earn money ($M = \$6.32$), $t(78) = 2.03$, $p < .05$.

We next looked at whether differences in performance, expectations, or perceived fairness of the payment scheme might explain the differences in participants' reported feelings of deservingness. As we expected, we found that facing a loss did not improve participants' performance on the task; at the time when deservingness was assessed, there were no corresponding differences by condition in the number of anagrams participants claimed to have been able to solve in the required order ($Ms = 2.20$ and 2.14), $t(79) = .12$, *ns*, nor in the total number of anagrams participants claimed to have been able to solve ($Ms = 5.83$ and 5.98), $t(79) = -.32$, *ns*. Furthermore, participants' expectations at the beginning of the study (Time 1) of the amount they would be paid at the end of the session did not differ across framing conditions ($\$7.43$ and $\$7.21$ in the loss and gain conditions, respectively), $t(79) = .53$, *ns*. Finally, there were no differences in participants' perceptions of the fairness of the payment structure of the study in the loss ($M = 3.38$) and gain conditions ($M = 3.90$), $t(79) = 1.28$, *ns*. It thus appears that differences in felt deservingness between participants facing losses and gains did not result from differences in expectations, performance, or perceived unfairness.

Discussion

The results of this study supported hypothesis 1; participants who were facing the

prospect of losing money they had already been given felt that they deserved more of that money than did participants who had yet to earn it. This difference emerged despite there being no differences in initial expectations regarding payment for the session, perceptions of how fair the payment structure of the study was, or actual performance. A loss framing simply widened the gap between what people thought they deserved and what they thought they were going to receive.

It is worth noting that in both conditions participants felt they deserved quite a bit more than $2, despite the explicit payment structure of the study and the unsolvable second anagram that effectively limited their earnings. However, this exaggerated sense of deservingness was greater for participants in the loss condition. Participants facing a loss thus faced a larger discrepancy between what they felt they deserved and the amount they stood to legitimately earn according to the rules of the study – a discrepancy that, under the right circumstances, might motivate increased cheating. We explore that possibility further in Study 2.

One alternative explanation for the findings of Study 1 that merits consideration focuses on participants' understanding of the norms of study participation. Study participants are typically paid a set amount for their participation, either in the form of money or course credit, and are generally not asked to give any of that money back. Our participants in the loss condition thus might have felt entitled to a certain payment not because they were trying not to lose it, but because they thought it either unlikely or unfair that an experimenter would try to take money away from them. However, the data do not support this alternative. First, the finding that participants in the loss and gain conditions did not differ in how much they expected to be paid for the anagram task indicates that they accepted that the experimenter might take back some of their initial allotment. Second, the fact that participants did not differ in their assessments of the

fairness of the study structure suggests that participants did not find it any more egregious for an experimenter to take money away than to withhold it. The differences in deservingness found in this study thus do not appear to be due to study participation norms.

In our next study, we sought to test whether the differences in reported deservingness in the loss and gain conditions would yield different levels of cheating.

STUDY 2

Study 2 used essentially the same procedure as Study 1, but provided participants with the opportunity to cheat by allowing them to self-report their performance on the anagram task and pay themselves accordingly. As in Study 1, we manipulated whether participants' payment was framed as a loss or a gain, and tested the hypothesis that participants starting with an allotment of money would be more likely to cheat in order to keep it.

Methods

Seventy participants (35 female, 30 male, 5 unreported) were recruited from the subject pool used in Study 1. When they signed up for this study, participants saw the same recruitment information as provided in the previous study.

The procedures, including the description and demonstration of the payment and the anagrams given to participants to solve, were identical to those used in Study 1 – except that instead of being given questionnaires, participants were given the opportunity to cheat. Participants were shown how to record the anagrams they solved on a tracking sheet, and were told that they would be paid based solely on what they recorded on this sheet. The experimenter added that participants could also use the anagram booklet to work out or write down their answers, but that it would be theirs to keep and their work would not be checked. Giving participants the opportunity to keep their actual work separate from their answer sheet has been

shown to be effective in liberating them to over-report their actual performance (Mazar, Amir, & Ariely, 2008).

Ten minutes into the study, the experimenter interrupted each participant. The experimenter explained that he needed to start another participant in a room down the hall, and would not be back to pay the current participant before time was up. The experimenter then asked each participant to do him a favor and pay him- or herself, by taking any money that he or she had *earned* from an envelope with nine dollar bills in it (*gain* condition), or by leaving any money that he or she had *not earned* in an empty envelope (*loss* condition). He also reminded each participant to leave behind the completed tracking sheet.

In reality, there was no other participant. The experimenter waited around the corner for each participant to finish, pay him- or herself, and leave, and then apprehended the participant. Participants were fully debriefed, and to not reward dishonest behavior above honest behavior, all were paid the full $10. Before paying participants, the experimenter recorded how much they had paid themselves from the money left on the table.

To test whether participants cheated more in the *loss* condition than in the *gain* condition, we looked at the number of times they misrepresented their performance. A participant could have "earned" up to $7 by claiming to have solved the unsolvable second anagram. To earn $8 or more, a participant would have had to misrepresent his or her ability to solve the seventh anagram as well. We were thus able to analyze not only the amount that participants paid themselves in each condition, but the number of times they cheated as a function of how much they took.

Results

Three individuals were excluded from the analysis due to spontaneously reported

suspicion of the experimental hypothesis (e.g., "Is this study about honesty?") during debriefing, leaving 67 participants (34 female, 28 male, 5 unreported).

As predicted, participants in the loss condition paid themselves significantly more ($M =$ $5.41) than participants in the gain condition ($M =$ $3.73), $t(65) = 2.10$, $p = .04$. We also compared the numbers of participants in each condition who cheated twice (paying themselves $8 or more), cheated once (paying themselves more than $3 but less than $8), and did not cheat at all (paying themselves $2 or less). A loss framing led participants to cheat more times ($M =$ .88), $t(65) = -2.52$, $p = .02$ than participants given a gain framing ($M = .39$). Participants in the loss condition were also more likely to cheat twice than their gain condition counterparts; while 12 (35%) of the 34 participants in the loss condition paid themselves $8 or more, only three (9%) of the 33 participants in the gain condition did the same, $\chi^2 = 6.62$, p $= .01$. A total of 18 (53%) of the loss participants cheated at least once, compared to only 10 (30%) of the gain participants; this difference was marginally significant, $\chi^2 = 3.53$, $p = .06$. Condition differences in the percentages of participants who did not cheat, cheated once and cheated twice are presented in Figure 1.

Insert figure 1 about here

Discussion

In Study 1, framing the prospect of potential compensation in terms of loss led participants to report that they deserved more for their performance. In Study 2, it led them to pay themselves more for that performance. A loss framing thus elicited more cheating from participants than a gain framing. Hypothesis 2 was thus also supported.

One alternative possibility for the observed condition difference that warrants attention is that failing to return unearned money to an envelope could be viewed as a sin of omission, while taking unearned money out of the envelope could be viewed as a sin of commission. As previous research has shown, when the consequences of failing to act well and acting badly are the same people often experience an omission bias, or the perception that the former type of action is not as harmful or unethical as the latter (Spranca, Minsk, & Baron, 1991). The condition difference in the present study is not easily categorized as an omission-commission difference, however. Cheating required multiple acts of commission even in the loss condition, as cheating participants in both conditions had to walk out of the room with more money than they had really earned and to claim to have solved more anagrams than they really had (all but three of the 28 participants who paid themselves more than $2 misrepresented their performance on the tracking sheet to justify that amount). Furthermore, given evidence that moral hypocrisy – assessing one's own immoral behavior as moral – is an effortful process that is reduced under cognitive load (Valdesolo & DeSteno, 2008), it is difficult to argue that cheating in this study is really a passive act.

GENERAL DISCUSSION

The results of two studies support the hypotheses that, relative to gain framings, loss framings elicit stronger feelings of deservingness and more unethical behavior. A loss framing did not improve performance in these studies, but it did increase the likelihood that participants would use the dishonest means at their disposal to inflate their performance.

In Study 1, framing participants' payment for an anagram-solving task in terms of a potential loss from an initial endowment led them to report that they deserved more compensation for the task than their counterparts who were trying to gain an equivalent amount.

However, a loss payment framing did not give these participants higher task performance expectations, improve their task performance, or even induce harsher appraisals of the payment scheme – it merely increased the amount that they felt they deserved.

A loss framing also led participants to take more money than they had legitimately earned in Study 2. When participants in this study were given the opportunity to misrepresent their performance on the same anagram task used in Study 1 and to pay themselves more than they had earned, they took advantage of it more often when they were facing a loss than when they were facing a gain.

A loss framing can thus influence deservingness, as well as unethical behavior itself. It must be said, of course, we cannot definitively determine from these studies whether increased deservingness itself plays a role in the increased cheating that we observed. We tested the impact of a loss framing on deservingness and cheating separately out of necessity, to minimize suspicion among participants whom we sought to liberate to cheat. Future research, perhaps using different experimental paradigms, could distinguish among possible relationships between these responses to loss framings.

We can extrapolate from these findings some implications for the ways that organizations and institutions structure their reward systems. Professional baseball players are not the only ones who are guaranteed a large salary upfront, and who may code any failure to meet the accompanying expectations as a loss. Individuals who work in professions like banking and the law – perhaps not coincidentally, two occupations that have been fraught with their own ethical scandals of late – typically expect that a large portion of their total compensation will come in the form of a bonus at the end of the year. Depending on these individuals' particular work circumstances and how their compensation is framed, these "bonuses" may not be

experienced as gains but rather as rebates, or returns to the status quo (Epley, Mak, & Idson, 2006).[1] When individuals face losing these sources of income, whether due to personal or organizational factors, unethical professional behavior aimed either at recapturing income or at righting perceived wrongs may be the result.

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[1] The discrepancy between the public perception of the bonuses awarded to employees of the insurance company AIG in early 2009, after that company had been bailed out by the federal government, and those employees' understanding of the bonuses they received (DeSantis, 2009) illustrates this issue.

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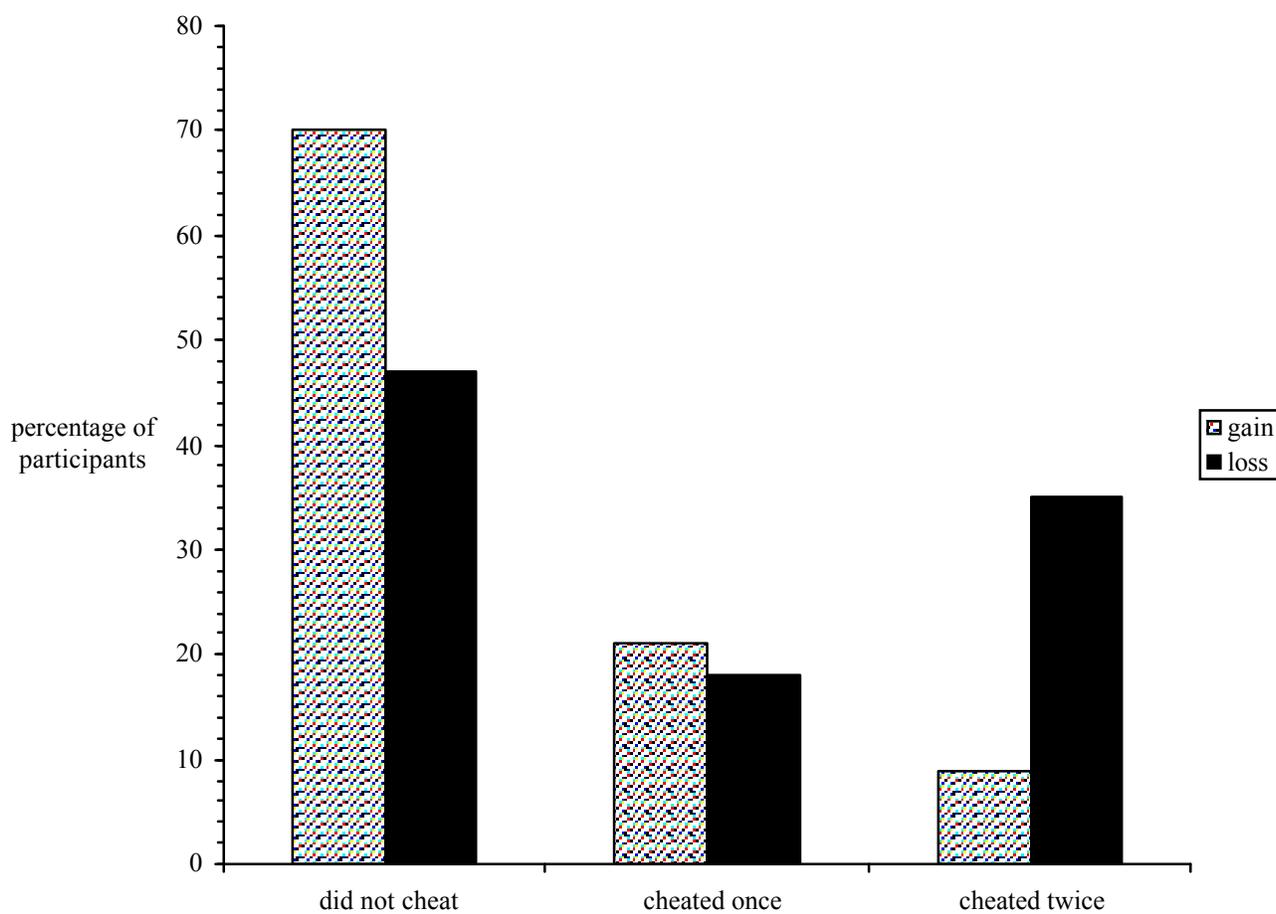
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FIGURE 1

Percentages of Participants in Each Condition Who Cheated Not at All, Once, or Twice by

Claiming to Have Solved Neither, One, or Both of the Unsolvable Anagrams.[a]

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[a] Percentages in each condition sum to 100.