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Abstract

People prefer to perceive the world as just; however, the everyday experience of undeserved events challenges this perception. The authors suggest that one way people rationalize these daily experiences of unfairness is by means of a *compensatory bias*. People make undeserved events more palatable by endorsing the notion that outcomes naturally balance out in the end—good, yet undeserved, outcomes will balance out bad outcomes, and bad undeserved outcomes will balance out good outcomes. The authors propose that compensatory biases manifest in people's interpretive processes (Study 1) and memory (Study 2). Furthermore, they provide evidence that people have a natural tendency to anticipate compensatory outcomes in the future, which, ironically, might lead them to perceive a current situation as relatively more fair (Study 3). These studies highlight an understudied means of justifying unfairness and elucidate the justice motive's power to affect people's construal of their social world.

Keywords

belief in a just world, justice, fairness, rationalizations

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According to just-world theory (Lerner, 1977, 1980), people have a need to believe in a just world in which individuals get what they deserve. Evidence of undeserved outcomes threatens a belief in a just world and, in turn, people are motivated to resolve such threats. There is a well-established literature on the strategies people use to maintain their belief that the world is just and that rewards and punishments are distributed fairly (for reviews, see Hafer & Bègue, 2005; Jost, Banaji, & Nosek, 2004; Lerner, 1980). Much of this past research has investigated people's reactions to either dramatic cases of individuals' unjust suffering or cases of glaringly unjust intergroup inequalities (e.g., Hafer & Bègue, 2005; Jost & Kay, 2005; Kay & Jost, 2003; Kay, Jost, & Young, 2005); in doing so, it has demonstrated observers' tendency to justify these situations in a way that preserves the assumption that bad events befall bad people and bad behavior whereas good events befall good people and good behavior. Although most research on processes of justification have focused on the tendency to assign blame to victims of injustice or to generally derogate their character to preserve a belief in a just world (Hafer & Bègue, 2005), these are only two of the many different psychological strategies people may employ to satisfy the motive to view the world as just (Lerner, 1980).

In this article we present evidence for an understudied social-cognitive psychological bias that serves to rationalize the more minor unfair outcomes that people experience personally in their everyday lives—a process we have termed *compensatory rationalization*. We propose that compensatory rationalizations alter people's perceptual and recollection processes in a manner distinct from the typical pattern of victim blame or derogation because they influence their everyday social judgments.

Rationalization of Everyday Self-Relevant Undeserved Events

We suggest that undeserved events need not be glaring to pose a threat to people's belief in a just world and invoke justification processes. Even minor undeserved good and

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bad events that people experience in their everyday lives are contrary to a belief in a just world and, therefore, need to be rationalized. In any given day, people experience many minor negative events caused by seemingly random forces such as chance, happenstance, and timing; events that might be called *bad breaks* (e.g., a computer crash, rain on the weekend, a wake-up alarm malfunctioning, a bad hair day, losing a coin flip, etc.). These bad breaks appear undeserved, first, because individuals on average tend to think of themselves in a positive light (Sanitioso, Kunda, & Fong, 1990) and, therefore, as deserving of good outcomes. Aside from appearing undeserved by virtue of one's character, the events' capriciousness also makes them appear undeserved by virtue of being causally unconnected with one's behavior. That is, people assume they do not deserve bad breaks because they believe they are basically good people and that they are not responsible for the event—that is, they did not intentionally cause it (see Feather, 1999).

Good breaks (e.g., receiving a referee who is particularly lenient for an important game, finding the perfect parking spot, winning a coin flip, etc.) may also be seen as undeserved. Although people do generally think of themselves as good people who are deserving of such outcomes, good breaks are still not directly attributable to one's behavior and thus may be viewed as undeserved. Indeed, the very notion of a break implies that the event occurred via chance rather than effort, intentionality, or agency. Although everyday good and bad breaks of this ilk may seem trivial, to the extent they contradict the notion that people get what they deserve, they should incite processes of justification (Ellard & Bates, 1990; Lerner, 1980; Rubin & Peplau, 1973; Schmitt, Kilders, Möhle, & Müller, 1991).

It is important to note the nuance of our hypothesis. We propose that not only negative undeserved events need to be justified to make them consistent with the belief in a just and orderly world, but that undeserved positive ones also need to be justified. This predication supports the theoretical contention—offered by system justification (Jost & Banaji, 1994), belief in a just world (Lerner, 1980; Callan, Ellard, & Nicol, 2006), and equity (Walster, Berscheid, & Walster, 1973) theories—that people tend to engage in processes of justification for both positive and negative unfair events. Given our goal to research responses to events occurring to the self, rather than the more typical approach of examining responses to observed injustices happening to others (see Hafer & Bègue, 2005; McDonald & Hirt, 1997), a demonstration of the tendency to justify good, rather than only bad, fortune would be particularly noteworthy.

Compensatory Rationalizations

One way people may cope with frequent, everyday threats to their belief in a fair and just world is through engaging in compensatory rationalization—that is, endorsing the idea that undeserved, or seemingly chance benefits and

drawbacks can be offset, or balanced out, in the long run by negative and positive events of the opposite valence. By believing that outcomes will naturally balance out in the end any given undeserved event becomes much less threatening to the belief in a just social world.

How do compensatory rationalizations manifest in people's day-to-day lives? Previous research has established that motivations can profoundly shape social perception and memory (see Bruner, 1957; Chiu, Morris, Hong, & Menon, 2000; Dijksterhuis, van Knippenberg, Kruglanski, & Schaper, 1996; Kunda, 1990; Plaks, Grant, & Dweck, 2005; Sanitioso et al., 1990). Moreover, recent research on the cognitive consequences of the justice motive and system justification (Hafer, 2000; Kay et al., 2005; Kay, Jimenez, & Jost, 2002), along with classic work on theories of cognitive consistency (see Festinger, 1957; Heider, 1958), has demonstrated that motivated cognitive processes can act to preserve perceptions of fairness in the social world in the face of injustice. It is plausible, then, that the experience of any undeserved event—even everyday rather mundane undeserved outcomes, such as a bad break—will instigate motivated biases in social perception and memory.

To explain away the unfairness associated with experiencing undeserved bad events, people may construe a current outcome as a better outcome or remind themselves of good events they have recently encountered. Likewise, because all undeserved events, regardless of valence, should challenge one's belief in the justness and orderliness of the world (e.g., Ellard & Bates, 1990; Rubin & Peplau, 1973), to explain away the unfairness associated with experiencing undeserved positive outcomes, people may construe a current outcome as a worse outcome or remind themselves of the negative undeserved outcomes they have recently encountered. In this way, compensatory rationalizations serve to make the social world appear fairer, insofar as undeserved good or bad events are balanced out by bad or good events, respectively; therefore, one's overall sense of fairness is maintained.

Similarly, people can make a current event appear more fair by anticipating compensatory outcomes in the future. That is, the perceived unfairness of a current event may be ameliorated to the extent that there is an opportunity to believe that an unfair event will be compensated for in the long run (Lerner, 1980; Maes, 1998). For instance, when a person perceives that an event has been unfair (e.g., a bad break), he or she may make this event appear fairer by believing that in the future events will balance out, such that any bad event now will be rectified by a good event in the future and vice versa. Thus, in addition to compensatory biases emerging in people's construal of the current and past events, they should also emerge in people's anticipation of future events.

Overview of the Studies

Across three studies we show evidence for a compensatory bias. In Study 1 we tested for a compensatory bias in

people's construal of a current outcome. Depending on the accessibility of recent good or bad breaks, we predicted that people would become more likely to perceive a current outcome as worse or better, respectively. In Study 2, we demonstrated the compensatory bias in people's self-relevant memory. We suspected that after experiencing a good or bad break people would become more likely to remember compensatory bad or good breaks from their own past, respectively. In Study 3, conducted in the context of varsity university sports teams, we tested whether people anticipate compensatory outcomes in the future, allowing them to perceive current outcomes as more fair. We also tested whether these compensatory biases are indeed tied to the underlying motive we have proposed—the motivation to view the world as just.

Study 1: The Influence of Past Undeserved Events on the Construal of Current Events

In Study 1, we sought to demonstrate that compensatory rationalizations (a) exist and (b) influence people's interpretive processes—specifically, their interpretation of current events. Participants engaged in one of four accessibility tasks in which they were asked to recall either three good or three bad breaks or deeds from their past. Afterward, they were asked to rate the desirability of a personally relevant outcome.

We expected the accessibility task to cause a biased construal of a current event. That is, we predicted people would perceive a given event as a better or worse outcome depending on which best affirms their belief in a just world. After recalling negative breaks, participants should view a current outcome in an increasingly favorable light. Conversely, after recalling positive breaks, participants should view the current outcome as increasingly less favorable.

Recall that we expected the aforementioned pattern of results to occur in these two conditions precisely because the outcomes we are asking the participants to remember (i.e., good and bad breaks) are undeserved both by virtue of being random events not intentionally caused by the participant and, in the case of bad breaks, also by virtue of mismatching one's positive view of self. If this effect is due to the motivation to view the world as just, we would not expect people to engage in these types of compensatory reactions following the recall of any type of outcome; only those that are perceived as undeserved should trigger this phenomenon. Participants asked to recall good or bad outcomes they intentionally caused, such as good and bad deeds, therefore, should not instigate compensatory rationalizations. Instead, consistent with just-world theory, recalling these types of events should influence people's perception of a current outcome in the typical deservingness direction—that is, bad intentional behaviors deserve bad outcomes and good intentional behaviors deserve good outcomes.

Our general compensatory argument, therefore, is particularly subtle: We only expected compensatory rationalizations to occur following a specific type of recalled outcome (those seen as undeserved and not intentionally caused by the actor). To test this precise account, we included conditions in which participants were first asked to recall good and bad deeds they had committed before judging the positivity or negativity of a current outcome. Whereas we predicted participants would view the current outcome as better if they recalled recent bad breaks and worse if they recalled recent good breaks, we expected the opposite to occur for participants asked to recall deeds: Those asked to recall good deeds would view the current outcome more positively (e.g., "I've been good and therefore I deserve a good outcome") and those asked to recall bad deeds would view the current outcome more negatively (e.g., "I've been bad and therefore I deserve a bad outcome"). Thus, by including the deeds conditions, we hoped to demonstrate that compensatory rationalizations are only engaged when they will most effectively reaffirm the belief in a just social world.

Method

Participants and procedure. Participants were 58 introductory psychology students.¹ The experiment was presented to participants as two separate studies, one on memory and one on attitudes. In the "first" study, participants were asked to remember either three good breaks, bad breaks, good deeds, or bad deeds from the past month. Specifically, participants in the breaks conditions read the following:

Please list 3 bad [good] breaks that you experienced during the last month. They do not have to be serious (for example, your alarm doesn't go off, you have a bad hair day, etc. [for example, you find a dollar, you have a good hair day, etc]).

Participants in the deeds conditions read the following:

Please list as many bad [good] deeds that you did during the last month as you can remember. They do not have to be serious (for example, not call a friend back, not recycle, etc. [for example, help out a stranger, give money to a homeless person, etc.]).

Afterward, in the "second" study, participants were asked for their opinions toward two separate issues. One item was designed specifically so that it was not entirely clear whether the outcome was good or bad for the participants. It read as follows:

Due to recent budget changes, the Stanford University's budget for undergraduate cafeterias will change to \$7,000,000 for the 2005 spring quarter, placing the budget per student at 12th place nationally. What is your reaction to this change?



Figure 1. Mean level of satisfaction with the new food budget as a function of past good or bad deeds or breaks recalled

Responses were given on a 9-point scale from *very dissatisfied* to *very satisfied*. The second item was more negative. It read,

Due to changing ocean temperatures, the next two winters in Palo Alto are expected to receive the most precipitation in the last ten years. How unfortunate do you feel that this will happen during your time in Palo Alto?

Responses for this item were given on a 9-point scale from *very unfortunate* to *very fortunate*.

Results

Data were analyzed according to two 2×2 univariate analyses of variance (ANOVAs) in which memory type (i.e., break or deed) and memory valence (i.e., good or bad) were entered as fixed factors. In the first ANOVA, participants' responses to the ambiguous change in the cafeteria budget were entered as the dependent measure. No main effects of memory type or memory valence were obtained. The predicted interaction between these two variables, however, was significant, $F(1, 53) = 9.68, p = .01$; see Figure 1.

Participants in the deeds condition demonstrated the typical deservingness rationalization. Those asked to remember good deeds from their recent past rated the new food budget as more satisfactory ($M = 5.75$) than did those asked to remember bad deeds ($M = 4.43$), $F(1, 53) = 3.54, p = .06$. Participants in the breaks condition demonstrated the opposite, but theoretically predicted, pattern of results. Those asked to recall good breaks from their recent past rated the new food budget as less satisfactory ($M = 3.87$) than did those asked to recall bad breaks ($M = 5.61$), $F(1, 53) = 6.38, p = .01$.

Next, the same ANOVA was run using participants' reactions to the forecast as the dependent measure. Again, there were no main effects of memory type or memory valence. The predicted interaction between these two variables, however, was significant, $F(1, 54) = 11.56, p = .001$; see Figure 2. Participants in the deeds condition demonstrated

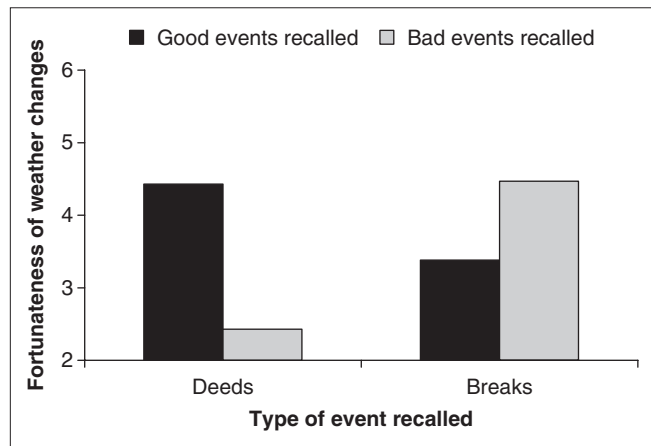


Figure 2. Mean ratings of how fortunate people perceived the weather changes to be as a function of past good or bad deeds or breaks recalled

the typical deservingness rationalization. Those asked to remember recent bad deeds rated the bad weather forecast as (marginally) more unfortunate ($M = 2.43$) than did those asked to remember good deeds ($M = 4.43$), $F(1, 54) = 3.38, p = .07$. Again, participants in the breaks condition, however, demonstrated a compensatory rationalization. Those asked to remember bad breaks rated the bad forecast budget as significantly less unfortunate ($M = 4.47$) than did those asked to remember good breaks ($M = 3.07$), $F(1, 54) = 6.06, p = .02$.

Discussion

Thus, the results of Study 1 suggest that a compensatory construal bias exists, a phenomenon which, to our knowledge, has yet to be empirically demonstrated. The increased accessibility of good breaks led participants to perceive a current outcome as less favorable, and the increased accessibility of bad breaks led participants to perceive a current outcome as more favorable. In addition, the pattern of data obtained in the conditions in which participants were asked to recall good and bad deeds, rather than breaks, indicates that this process was specific to the undeserved nature of the outcomes recalled.

The pattern of data obtained for deeds also helps to rule out certain alternative explanations. First, participants reminded of their own past breaks were not simply balancing out bad events with good events and vice versa. If they were, they would also have balanced a bad deed by perceiving the cafeteria or weather event as relatively less unfortunate and the good deed by perceiving the cafeteria or weather event as relatively more unfortunate. Instead, the opposite pattern was found. Second, although the breaks were seemingly random occurrences and could, thus, pose a threat to one's sense of control rather than one's sense of justice, we can think of no way to explain our entire pattern of results in terms of attempts to preserve a belief in control. The most obvious and parsimonious explanation is that participants, in both the

breaks and the deeds conditions, were driven by a justice motive to maintain a belief that the world is a just place in which individuals get what they deserve.

Study 2: The Influence of Current Undeserved Events on Memory for Past Events

In Study 2, we sought to conceptually replicate the compensatory effect, expand the phenomena to another spectrum of motivated cognition (selective memory), and introduce a manipulation that forces the participants to actually experience a good or bad break (rather than simply relying on them to generate their own). To this end, participants were made to experience a minor and seemingly random good or bad break and then, in an ostensibly separate study, complete one of two memory tasks asking them to remember good or bad breaks from their past. To the extent that people are motivated to maintain a belief in a just world, and sometimes do so via compensatory means, we hypothesized that when people experience a good or bad break they would demonstrate a compensatory memory bias, recalling a greater amount of good breaks from their recent past after experiencing a bad break and a greater amount of bad breaks from their recent past after experiencing a good break.

Method

Participants and procedure. Sixty psychology students completed our materials. During class, participants were given a package of questionnaires to complete. Participants were told that the purpose of this packet was to preselect individuals for various different experiments, a subset of which all students were required to complete for course credit.

Manipulation of good or bad break. Embedded in this packet was our manipulation of good and bad breaks. Specifically, participants read the following:

Later this quarter, we will be running a very unique experiment that because of its nature and rewards has traditionally resulted in more sign ups than we can accommodate. So we have decided to randomly narrow down eligible participants as follows: If the last three digits of your PID (participant ID number) sum to an **even** number, you are eligible. If the last three digits of your PID sum to an **odd** number, you are unfortunately not eligible. (For example, if the last three digits are 026, you add $0 + 2 + 6 = 8$, and thus you are eligible.)

Participants were then asked to check the appropriate box, indicating whether they were or were not eligible. This served as our manipulation of a random good or bad break. A manipulation check verified that participants who were ineligible felt significantly more “unfortunate” on a 9-point

scale than those who were eligible, $F(1, 58) = 24.52, p = .001$ ($M_s = 5.62$ and 3.04 , respectively).

Measure of good and bad breaks recalled. On the following page, which was designed to look like an unrelated set of pretesting criteria (participants were told that each page represented a different experiment, and there were approximately 60 different pages in the packet), participants were asked to recall breaks from their recent past. Participants read,

Please list as many bad [good] breaks that you experienced during the last month as you can remember. They do not have to be serious (for example, your alarm doesn't go off, you have a bad hair day, etc. [for example, you find a dollar, you have a good hair day, etc]).

The total number of good and bad breaks recalled was then computed for each participant.

Results

To examine the effects of experiencing good and bad fortune on memory for good and bad breaks, a 2 (experiencing a good break vs. bad break) \times 2 (memory for good breaks vs. memory for bad breaks) ANOVA was conducted on the number of breaks recalled. No main effects reached significance. However, the crucial interaction between type of break experienced and type of break recalled emerged, $F(1, 56) = 11.30, p = .001$.

As can be seen in Figure 3, evidence for a compensatory memory bias emerged. Participants who experienced the good break and were then asked to recall bad breaks listed significantly more bad breaks ($M = 6.15$) than did those who were asked to recall good breaks ($M = 2.17$) from the past month, $F(1, 56) = 9.11, p = .01$. Participants who experienced the bad break and were then asked to recall good breaks listed more good breaks ($M = 5.88$) than did those asked to recall bad breaks ($M = 4.06$) from the past month, but the difference was not statistically significant, $F(1, 56) = 2.68, p = .10$.

In addition, amongst those participants asked to recall good breaks, those who previously experienced a bad break evidenced a higher rate of recall than did those who previously experienced a good break, $F(1, 56) = 8.92, p = .01$. Among those participants asked to recall bad breaks, the reverse occurred: Participants evidenced a (marginally) higher rate of recall if they had previously experienced a good break rather than a bad break, $F(1, 56) = 3.05, p = .09$.

Discussion

Consistent with our predictions, after experiencing good or bad breaks (i.e., undeserved outcomes) participants became more likely to remember compensating bad and good breaks, respectively. It would seem, therefore, that compensatory biases manifest themselves not only in processes of construal of current events but also in processes of selective memory.



Figure 3. Mean number of good or bad breaks recalled as a function of previously experiencing a good or bad break

Importantly, these effects were not likely because of an attempt at mood repair. Mood repair would only be a viable explanation for the finding that those who experienced the bad break subsequently recalled more good breaks; it could not reasonably explain the opposite finding—that those who experienced the good break subsequently recalled more bad breaks (which, incidentally, was the stronger effect).

Study 3: Anticipated Compensatory Events and the Construal of Current Events

In our final study, we investigated whether people have a general tendency to presume that minor undeserved events will be compensated for in the future (e.g., by undeserved events in the opposite direction), thus creating fairness in the long run. Furthermore, we propose that this general tendency to anticipate compensatory events might lead one to construe a current undeserved event as less undeserved and, therefore, less unjust. Study 3 also expands on Studies 1 and 2 by offering evidence that the compensatory mechanisms are the result of people's need to believe in a just world.

In this study, athletes were asked about the perceived fairness of officials' calls at midseason and shortly before the season's end. We reasoned that, at midseason, there is still time for undeserved or unjust calls to be compensated for by undeserved calls in the opposite direction, that is, for current minor injustices to be compensated in the long run. Such is not the case near the end of the season when there is little "long term" left: Any injustices experienced at this point are less likely to be balanced out by future compensatory events. Thus, we predicted that athletes would claim that officials' calls would balance out to be fair more at midseason than near the season's end (Hypothesis 1). One potential ironic effect of anticipated compensatory events is that the perceived fairness of current events might be ameliorated to the extent that there

is an opportunity to believe that undeserved (i.e., unfair) events will be compensated for in the long run. We also predicted, therefore, that officials' calls would seem more fair at midseason than at late season (Hypothesis 2), presumably because there is less opportunity as the season progresses for undeserved calls to be compensated for by later decisions.

To test the notion that compensatory biases are motivated by the need to believe in a just world, we measured the extent to which the athletes believed that the world is just. Although the meaning of just-world scale scores is somewhat controversial (Hafer & Bègue, 2005), people who score high on just-world scales are often thought not only to hold a stronger belief that the world is just compared to low scorers but also to be more motivated to engage in strategies for preserving that belief. Therefore, we hypothesized that the predicted pattern for balance and for perceived fairness would be moderated by individual differences in belief in a just world, such that the patterns would be stronger with the athletes' greater belief in a just world (Hypothesis 3). Finally, our reasoning suggests that individual differences in belief in a just world will be positively correlated with perceived fairness at midseason (but not at late season) and that this relationship will be mediated by a compensatory bias with respect to the future, specifically, by the tendency to believe that officials' calls will balance out to be fair in the long run (Hypothesis 4).

Method

Participants and procedure. Fifty-two participants completed our materials. Six participants did not have complete data on the dependent measures for both time periods and were deleted from the final sample. The final sample included 46 athletes (8 from women's basketball, 14 from men's basketball, and 24 from men's ice hockey).

We collected data at three points over the course of the sporting season. At all three points, participants were run in small groups after team practices in a nearby classroom. Time 1 occurred at the very beginning of the season before any games had been played. At Time 1, participants provided demographic information and completed a measure of individual differences in the strength of their belief in a just world. These items were part of a large booklet containing measures for unrelated studies on issues specific to sports.

Time 2 occurred at midseason, approximately 2 months after Time 1. At Time 2, we again assessed participants' belief in a just world. In addition, we measured the perceived fairness of officials' calls, perceptions that calls would balance out by the end of the season, and level of investment in the sport (a potential confounding variable). Time 3 occurred near the season's end, approximately 2 months after Time 2. Measures used at Time 3 were identical to those for Time 2.

Measures. To measure anticipated compensatory events, participants indicated the extent to which they thought calls would balance out to be fair by the end of the season, such that there would be an equal number of unfair calls for and

against their team (1 = *not at all likely*, 7 = *very likely*). The perceived fairness of officials' calls was assessed by asking participants how fair they thought officials' calls had been up to that point in the season (1 = *not at all fair*, 7 = *totally fair*).²

To help rule out the alternative explanation that athletes might perceive officials' calls as less fair over the course of the season because of their increased investment in the team, we had participants respond, both at midseason and at late season, to three items assessing their psychological and physical investment in the team: how much time they spent thinking about the team, how much effort they put into training, and the importance of their involvement with the team (1 = *low levels of the construct*, 7 = *high levels*). These items were averaged to create a composite measures of investment (average $\alpha = .84$).

Finally, we administered Lipkus's (1991) Global Belief in a Just World Scale to assess the strength of participants' belief in a just world. Participants who missed an item on the scale were assigned a value on that item equivalent to their scale mean (average $\alpha = .83$).

Results

Scores on the Global Belief in a Just World Scale did not change as a function of time of the sports season, $F(2, 90) = 1.14, p = .33$; thus, we used the just-world scores from the initial session ($\alpha = .88$) for all tests of hypotheses involving belief in a just world. All t tests used to test hypotheses are one-tailed.

Tests of hypotheses. Dependent samples t tests showed that perceived balance (i.e., anticipated compensatory events) did not change from midseason ($M = 3.85$) to late season ($M = 3.91$), $t(45) = -.28, p = .39$, although the perceived fairness of officials' calls did decrease as the season progressed (midseason, $M = 3.99$; late season, $M = 3.49$), $t(45) = 2.52, p = .01$. Thus, Hypothesis 2 was supported but Hypothesis 1 was not.

More importantly, there was evidence that individual differences in belief in a just world interacted with time of season to predict both perceived balance and perceived fairness, as predicted in Hypothesis 3. Following Judd, Kenny, and McClelland (2001), we first regressed perceived fairness at midseason and at late season onto the continuous belief in a just world scale scores. Belief in a just world was significantly related to perceived fairness at midseason, $\beta = .25, t(44) = 1.74, p = .04$, but not at late season, $\beta = -.18, t(44) = -1.23, p = .11$ (see Figure 4). Similar findings were obtained with perceived balance of officials' calls, midseason, $\beta = .27, t(44) = 1.86, p = .04$; late season, $\beta = -.15, t(44) = -.97, p = .17$ (see Figure 5). We then conducted two analyses in which we regressed the difference between the midseason and late season fairness or balance ratings onto belief in a just world scores (which were centered prior to analysis). For both dependent variables, the slope for belief in a just world was significantly different from zero, fairness, $\beta = .35, t(44) = 2.47, p = .01$; balance, $\beta = .35, t(44) = 2.49, p = .01$. These findings indicate that belief in a just world moderated midseason versus late season differences in the dependent variables as expected.

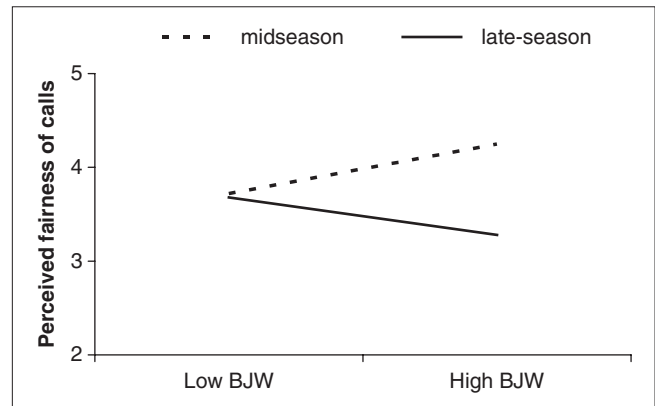


Figure 4. Perceived fairness of officials' calls as a function of belief in a just world (BJW) and time of sports season

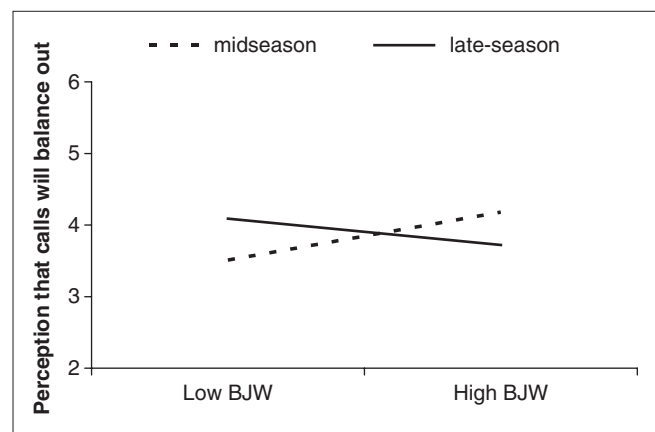


Figure 5. Perceived balance as a function of belief in a just world (BJW) and time of sports season

Hypothesis 4 also received some support. As noted earlier in this section, a stronger belief in a just world was associated at midseason (but not at late season) with greater perceived fairness of officials' calls and also with greater perceived balance. The perceived balance measure at midseason also significantly predicted perceived fairness, $\beta = .59, t(44) = 4.79, p = .001$. Furthermore, when perceived fairness was regressed onto both individual differences in belief in a just world and perceived balance, belief in a just world no longer predicted fairness, $\beta = .10, t(43) = .81, p = .21$, whereas balance continued to be a significant predictor, $\beta = .56, t(43) = 4.38, p = .001$. A Sobel test suggested that the indirect path between belief in a just world and perceived fairness through perceived balance was marginally significant, $z = 1.75, p = .08$. Thus, there was some evidence that the midseason relationship between belief in a just world and the perceived fairness of officials' calls was mediated by a belief that officials' calls would balance out to be fair in the long run.

Ancillary analysis. Investment in the team showed a marginally significant tendency to increase as the season progressed (midseason, $M = 5.52$; late season, $M = 5.67$), $t(45) = -1.96, p = .06$ (two-tailed). However, neither the

midseason nor late season investment scores were significantly or marginally related to our belief in a just world measure or to the perceived balance or perceived fairness measures (for midseason investment, average $|r| = .07$; for late season investment, average $|r| = .04$). Thus, investment in the team could not have accounted for any of the hypothesized relations found in our data.

Discussion

Results of Study 3 suggest that a compensatory bias extends to people's assumptions about future events and that this bias is motivated by a desire to maintain a belief in a just world. The more athletes believed in a just world, the more they also believed at midseason versus late season that officials' calls would balance out to be fair in the long run, presumably because there was more time at midseason for unfair calls (bad breaks) to be compensated for by future calls.

Ironically, the tendency to anticipate future compensatory events might have influenced the construal of current events. As for perceived balance, the more athletes believed in a just world, the more they also perceived at midseason versus late season that officials' calls were fair. Furthermore, at midseason (when there was more time for unfair calls to be compensated for by future events), the stronger athletes' belief in a just world, the more fair they perceived officials' calls to be, and this relationship was marginally mediated by a tendency to anticipate future compensatory events.

Note that the results of the current study are correlational. Thus, any inferences about the causal direction of variables should be made with caution. Nonetheless, this study extends Studies 1 and 2 to the anticipation of future compensatory events, and it more explicitly links compensatory reasoning to the need to believe in a just world. Unlike Studies 1 and 2, this study also investigated a compensatory bias outside of a laboratory setting.

General Discussion

Taken together, the results of these three studies demonstrate the existence of a compensatory bias that serves to preserve people's belief in a fair social world. Study 1 demonstrated a compensatory bias in people's construal of current outcomes. In response to reminders of past undeserved good and bad outcomes, participants subsequently rated current outcomes less versus more favorably, respectively. Study 2 conceptually replicated the results of Study 1 in the context of self-relevant memory. After experiencing a current positive or negative undeserved event participants subsequently brought to mind a greater number of past bad undeserved events and fewer positive undeserved events, respectively. Last, Study 3 demonstrated that people have a natural tendency to presume that events will balance out to be fair in the future and that this tendency is tied to their motivation to believe in a just world in which people get what they deserve.

Across these three studies, therefore, we have provided evidence that the experience of everyday mundane events is sufficient to engage social cognitive processes of rationalization that transform these reminders of unfairness into affirmations of justice. Just as people have been shown to engage in selective memory and perceptual processes to meet goals such as viewing oneself in a positive light (Kunda, 1990; Sanitioso et al., 1990), we have demonstrated, in a novel way, that people also appear to engage in selective memory and perceptual processes that portray the social world as just.

Implications for Theories of Motivated Justifications and Rationalizations

Our findings contribute to the literature in several important ways. First, our data provide evidence that the justice motive may be profoundly relevant to everyday, normative, and self-relevant psychological functioning. Much like general theories of rationalization, such as cognitive dissonance theory (Festinger, 1957) and balance theory (Heider, 1958), the original formulations of both just-world (Lerner, 1980) and system-justification theories (Jost & Banaji, 1994) suggest that the justice motive should influence everyday, low-level psychological experience. Unlike the classic research on theories of cognitive consistency, however, the majority of empirical research within the social justice tradition has focused primarily on (a) clear or dramatic acts of injustices and (b) the consequences of observing or considering these acts on conscious attributions of the self or others. This empirical focus has, in turn, led to the unwarranted perception that processes of justification and rationalization are only enacted in limited contexts, are only relevant to special instances of psychological functioning, only manifest themselves in cases of conscious attribution, and generally involve attributions directly tied to the specific observed injustice. What the current set of studies suggests, however, is that everyday reminders of unfairness instigate biased processing of and recall for subsequent and objectively unrelated, self-relevant social stimuli, a finding that suggests that normative psychological functioning may be more colored by the justice motive than is often believed to be the case. Although much more work needs to be done in this area, we believe the current set of studies provides an important step towards these goals.

Limitations of This Work and Future Directions

One limitation is that, in Study 2, the compensatory rationalization effect was larger for good rather than bad breaks. This result is counter to the intuitive notion that bad breaks may be more threatening than good breaks because bad breaks are counter to people's perception that they are generally good people (and are deserving of such breaks) and are causally unconnected with one's behavior (similar to good breaks). Admittedly, it is difficult to determine from

these studies precisely why a larger compensatory effect for good rather than bad breaks emerged. It seems that the degree to which the undeserved event is consistent with one's positive self-concept does little to influence whether it is rationalized; rather, the difficulty in making causal connections between the event and individual's behavior—a difficulty that is common to both good and bad breaks—may be the critical ingredient for inciting a compensatory process (see Kay et al., 2005, 2007).

A second limitation is also worth noting. Although the pattern of data obtained in Studies 1 and 2 is consistent with our theoretical predictions, those studies did not provide any evidence tying the observed pattern of data directly to the underlying motive we believe drove those effects—in particular, the motive to view the world as just. Study 3 does provide this evidence, albeit in a slightly different context. Although it is difficult to conceive of a more parsimonious explanation for the findings from all three studies, future research should provide more direct evidence of the underlying mechanism.

Given that there are several ways in which people can justify instances of unfairness (e.g., derogation and compensatory rationalizations), an important next step is to determine when and for whom a specific strategy will be employed (see Hafer & Gosse, in press, for an in-depth discussion of this issue). The findings of Study 1 suggest that when deeds are made salient the typical just deserts effect will prevail. When outcomes cannot be easily attributed to individuals' behavior, however, compensatory rationalizations will likely be employed.

Conclusion

Although justice research has focused primarily on victim blame, Lerner in his influential book (1980) suggested there are many different ways people can preserve their belief in a just world. In this article, we present evidence for one novel means—compensatory rationalizations—and show how it manifests in everyday social cognition. Ultimately, this set of studies highlights both the pervasiveness of the justice motive and the power of the justice motive to influence people's construal of their social worlds.

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Notes

1. One participant only answered one of our two dependent measures. Therefore, the analyses for one dependent measure includes one fewer participant than did analyses for the other.
2. We originally intended to have a 2-item measure of perceived fairness, consisting of the perceived fairness item and an item asking participants how biased they believed officials to be. At midseason, bias was unrelated to perceived fairness. We noted, in retrospect, that the bias item asked how biased officials were perceived to be in general rather than asking explicitly about current events (as did the fairness item). Thus, we excluded bias from the fairness measure in our analyses.

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