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FlashReport

Today's misery and yesterday's happiness: Differential effects of current life-events on perceptions of past wellbeing

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ABSTRACT

Negative events – such as romantic disappointment, social rejection or academic failure – influence how we feel and what we think. Either component can influence evaluations of our past life, but in opposite ways: when sad feelings serve as a source of information, they give rise to negative evaluations; when current events serve as a standard of comparison, they give rise to positive evaluations. Because comparison requires applicability of the standard, its benefits should be limited to the domain of the event. Consistent with this rationale, three experiments showed a robust paradoxical effect: people who experienced romantic disappointment (Experiment 1), social exclusion (Experiment 2) or academic failure (Experiment 3) were *more* satisfied with their past romantic, social, or academic life, but *less* satisfied with all other domains of their past. The negative influence in unrelated domains was mediated by mood, whereas the positive influence in the event domain was not. Thus, last year's social life looks good compared to today's social rejection, but all other aspects of last year's life suffer.

Introduction

How good was your love life last year? If you were dumped back then, you might say "not great." But what if you were dumped this morning? Would you see last year differently?

Of course, nothing about last year is *actually* altered by today's circumstances. But a large literature suggests that perceptions of the past often diverge from reality, particularly perceptions of past feelings (e.g., Wilson, Meyers, & Gilbert, 2003; Wirtz, Kruger, Scollon, & Diener, 2003). This presumably reflects our inability to re-experience affective states once they dissipate (Robinson & Clore, 2002), creating an imperfect reconstruction process that is influenced by present events (Ross, 1989; Schwarz, Kahneman, & Xu, 2009).

However, today's negative events may influence perceptions of the past in different ways. On the one hand, negative events influence how we feel. They put us in negative moods (e.g., heartache), which can influence a broad range of judgments, from perceptions of our lives to perceptions of the stock market (for a review, see Schwarz & Clore, 2007). Hence, having been dumped may lead us to see our past in a generally negative light. On the other hand, negative events also influence what is on our minds and increase the accessibility of related information (e.g., thoughts about relationship partners: for a review, see Higgins, 1996). If these accessible thoughts are used in constructing a standard against which we evaluate the past, the past may look better by comparison (e.g., Strack, Schwarz, & Gschneidinger, 1985). Thus, last year's boring relationship may seem attractive in light of today's relationship disaster.

Unfortunately, the low comparison standard afforded by negative events does not benefit all perceptions of the past. To elicit a contrast effect, the standard needs to be applicable to the target of judgment (see Biernat, 2005; Bless & Schwarz, 2010), suggesting that its impact is limited to the same life domain. Similarly unfortunate, the negative influence of sad moods is less constrained and generalizes across domains (for a review, see Schwarz, 2012). These considerations predict a paradoxical effect: A current negative event may decrease satisfaction with many aspects of the past through its affective influence, but increase satisfaction with closely related aspects through its comparative influence. If so, being dumped may undermine your satisfaction with last year's academic success, while brightening your perception of last year's love life.

To test these predictions, we examined the influence of experimentally induced romantic pain (Experiment 1) and social rejection (Experiment 2) or naturally occurring academic failure (Experiment 3) on perceptions of past satisfaction across different life domains. We predicted that people who had a bad experience would report lower past satisfaction in unrelated domains, but higher past satisfaction in the same domain as the current negative event. We further predicted that participants' mood at the time of judgment would mediate the influence of events on reports of past satisfaction in unrelated domains, but not in the event's domain.

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Experiment 1: Lonely hearts used to be loved

Participants were recruited on Valentine's Day and were reminded of the holiday at the beginning or end of participation. None was in a relationship, so the reminder highlighted a negative event.

Method

Participants

130 people were recruited individually in public campus areas. After the experiment, we asked whether they were in a relationship; only those who were not were included ($N = 95$: 58.9% female, 61.1% Caucasian, $M_{age} = 20.30$).

Procedure

On Valentine's Day 2011, participants completed a survey on past experiences ostensibly to help with a class project. The questionnaire included a calendar as the first page (*Primed* condition) or last page (*Unprimed* condition), with Valentine's Day and Groundhog Day labeled. Participants were asked: "Please circle today's date so we have a record of when you participated." Valentine's Day was labeled to serve as the reminder; Groundhog Day was labeled to reduce suspicion.

The survey questions read: "On the whole, last year how satisfied were you with your…" *Social Life*, *General Health*, *Personal Life at Home*, *Everyday Decisions*, *Academic Performance*, *Quality of Life Overall,* and *Love Life*. Love Life is directly related to Valentine's Day, whereas the other six domains are not. Items were presented one-by-one in 3 random orders. Participants responded by drawing a slash on unlabeled 116-mm lines anchored at "Not at all" to "Extremely" satisfied, rated their current mood on the same scale ("Extremely negative" to "Extremely positive"), and provided demographic information. Finally, participants were funnel-debriefed (none indicated suspicion).

In this and all studies, mood was assessed *after* life satisfaction judgments because prior research suggests that drawing attention to mood can attenuate its influence on subsequent measures (Schwarz & Clore, 1983; see also Ellsworth & Gonzalez, 2003).

Results and discussion

In all experiments, responses were measured by distance (mm) from leftmost anchors; higher numbers indicate more positive responses. Neither demographic variables nor order influenced the results; they are not discussed.

Mood and satisfaction

Participants who were subtly reminded of Valentine's Day reported worse mood ($M = 62.71$) than those who were not ($M = 73.23$), $t(93) = 2.41$, $p = .018$, $d = 0.50$. As expected, they also reported lower past satisfaction in the 6 unrelated domains ($M = 69.63$ for the composite; all $rs > .31$) than participants not reminded of Valentine's Day ($M = 80.75$), $t(98) = 3.11$, $p = .002$, $d = 0.64$ (see Fig. 1, Panel A), replicating standard mood effects. The observed pattern was significant for each domain individually, $ts \geq 2.13$, $ps \leq .036$, $ds \geq 0.44$, except Academic Performance[1] ($p = .16$).

The *opposite* pattern was observed in the domain of the event: participants who were reminded of Valentine's Day reported *greater* satisfaction with their past Love Life ($M = 60.17$) than those who were not ($M = 47.02$), $t(93) = 2.47$, $p = .015$, $d = 0.51$. These diverging effects are reflected in a significant interaction, $F(1, 93) = 13.94$, $p < .001$, and main effects of the prime ($p < .03$) and related versus unrelated life-domain variable ($p < .001$).

[1] "*Performance*" may have implied specific grades, leading participants to think of definite markers of satisfaction, thereby diminishing mood effects. We used the more ambiguous "Academic *Life*" in Experiments 2–3.

Mediation

Regression-based mediation analyses (Baron & Kenny, 1986) of participants' satisfaction reports in the unrelated domains show that event independently predicts both satisfaction ($\beta = -.31$) and mood ($\beta = -.24$); as expected, the mood effect remains when controlling for event ($\beta = .72$), whereas the event effect is reduced to non-significance when controlling for mood ($\beta = -.13$; Sobel $= -2.36$, $p < .01$). This is *not* the case for participants' satisfaction in the event domain. Here, event again predicts satisfaction ($\beta = .25$) and mood ($\beta = -.24$); as expected, however, mood does not predict satisfaction when controlling for event ($\beta = -.17$), whereas event predicts satisfaction when controlling for mood ($\beta = .21$; Sobel $= 1.62$, $p = .05$).

In sum, reminding single people that it was Valentine's Day put them in worse moods, leading to more negative evaluations of past domains that were unrelated to the holiday. However, they reported *greater* satisfaction with their past love life, presumably because it seemed better by comparison.

Experiment 2: Outcasts used to be popular

In Experiment 2, participants were randomly assigned to feel socially excluded. We predicted that this sad experience would increase satisfaction with their past social life, but reduce satisfaction with other aspects of their past.

Method

Participants

In exchange for course credit, 126 undergraduates (49.2% female, 72.2% Caucasian, $M_{age} = 18.99$) participated in a laboratory study allegedly about imagination and self-perception.

Procedure

Participants first played the computer game Cyberball with three partners who were ostensibly in other rooms. All partners were actually computerized. In Cyberball, they tossed a ball to other players who either returned it regularly (*Included* condition) or ignored the participant after a few moves (*Excluded* condition). This is a well-validated manipulation of social exclusion (Williams, Cheung, & Choi, 2000).

Next, participants completed the questions from Experiment 1 and 4 manipulation checks (from Eisenberg, Lieberman, & Williams, 2003): to what extent the game made them feel liked, rejected, invisible, and powerful, from 0 (*not at all*) to 10 (*extremely*). Finally, they were funnel-debriefed. One participant who was familiar with Cyberball was dropped ($N = 125$).

Results and discussion

Mood and satisfaction

Excluded participants felt less liked, more rejected, more invisible, and less powerful ($ps < .001$), and were in worse moods ($M = 62.95$) than Included participants ($M = 73.95$), $t(123) = 3.25$, $p < .001$, $d = 0.58$.

In turn, this sad experience influenced their perception of the past (see Fig. 1, Panel B). Excluded participants reported lower past satisfaction in the 6 unrelated domains ($M = 66.80$ for the composite; all $rs > .29$) than Included participants ($M = 76.46$), $t(123) = 3.36$, $p = .001$, $d = 0.60$, replicating standard mood effects. This pattern was significant for each domain individually, $ts > 2.24$, $ps < .03$, $ds > 0.40$, except the somewhat related domain Love Life ($p = .25$).

As expected, the *opposite* pattern was observed for the event domain: Excluded participants reported *greater* satisfaction with their past Social Life ($M = 86.69$) than Included participants ($M = 73.19$), $t(123) = -3.89$, $p < .001$, $d = 0.70$. These diverging effects are

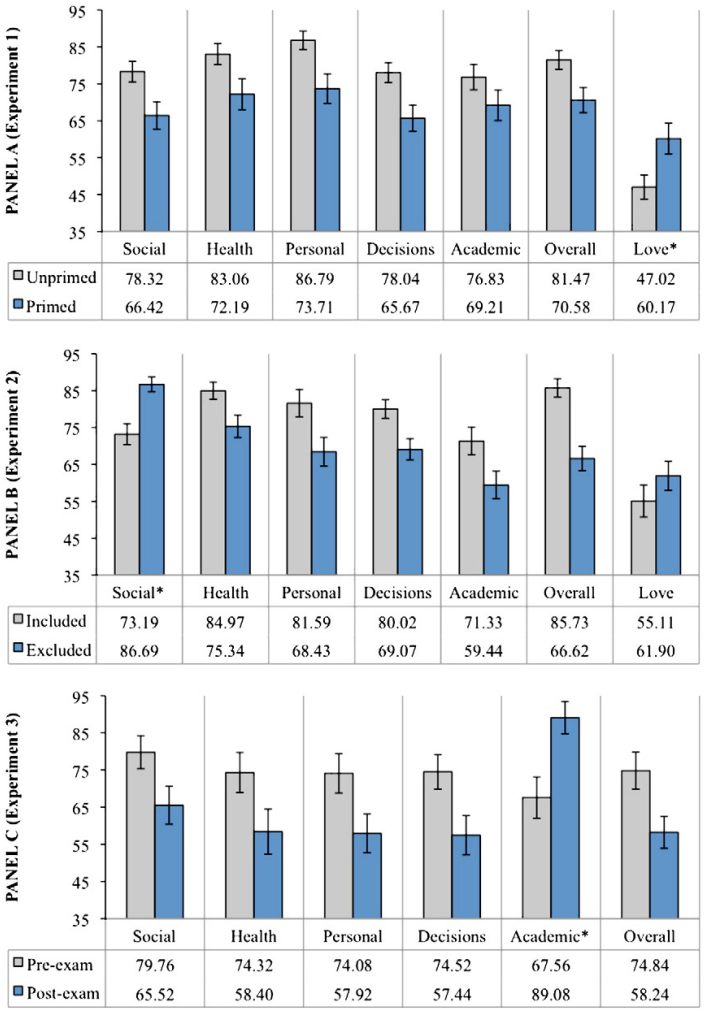

Fig. 1. Mean satisfaction (Y axis) for each life domain (X axis). Higher bars represent more positive ratings. Domains marked with * are the related domains. Error bars ±1 SE.

reflected in a significant interaction, $F(1, 123) = 23.17$, $p < .001$, and main effects of exclusion ($p = .01$) and the related versus unrelated life-domain variable ($p < .01$).

Mediation

As in Study 1, event predicts participants' satisfaction in the unrelated domains ($\beta = -.32$) and their mood ($\beta = -.28$); the mood effect remains when controlling for event ($\beta = .76$), whereas the event effect is reduced to non-significance when controlling for mood ($\beta = -.11$; Sobel $= -3.16$, $p = .001$). Again, this is *not* the case for satisfaction with the event domain. Event again predicts satisfaction ($\beta = .33$) and mood ($\beta = -.28$); however, mood does not predict satisfaction when controlling for event ($\beta = -.09$), whereas event predicts satisfaction when controlling for mood ($\beta = .31$; Sobel $= 1.67$, $p = .05$).

This extends Experiment 1 to controlled laboratory settings. Participants who were randomly assigned to feel socially excluded reported worse moods, leading to more negative past satisfaction in every domain of life except social life, which became more positive by comparison.

Experiment 3: When failing an exam makes you smarter

The final experiment extends our analysis to within-subject changes over time by focusing on a real event with real consequences: receiving a disappointing grade.

Method

Participants

37 undergraduates in a psychology class (51.4% female; 64.9% Caucasian; $M_{age} = 20.46$) participated in pre-exam and post-exam sessions.

Procedure

At the beginning of the semester, participants completed the questions from Experiments 1–2 under the guise of a study on survey design.[2] Three months later, they completed the same questions about

[2] Love Life was not included in Experiment 3.

48 h after receiving their midterm grades. Finally, they reported whether they were satisfied with their grade (*Yes*/*No*/*Unsure*) and were funnel-debriefed (none indicated suspicion).

Results and discussion

25 participants were unsatisfied, 11 were satisfied, and 1 was unsure. We included only unsatisfied participants ($N = 25$).

Mood and satisfaction

Participants reported worse mood after the exam ($M = 55.56$) than they did before ($M = 73.68$), $t(24) = 3.42$, $p = .001$, $d = 0.97$. As expected, they also reported *lower* past satisfaction in all unrelated domains after the exam ($M = 59.50$, composite; all $rs > .33$) than they did before ($M = 75.50$), $t(24) = 3.61$, $p = .001$, $d = 1.02$ (see Fig. 1, Panel C), replicating standard mood effects. The observed pattern was significant for each domain individually, $ts > 1.97$, $ps < .055$, $ds > 0.56$.

Again, however, the *opposite* pattern emerged in the event domain. Participants who were dissatisfied with their grade reported *higher* satisfaction with their past Academic Life after the exam ($M = 89.08$) than they did before ($M = 67.56$), $t(24) = -3.06$, $p = .004$, $d = 0.87$. These diverging effects are reflected in a significant interaction, $F(1, 24) = 25.31$, $p < .001$, and main effects of time ($p < .03$) and the related versus unrelated life-domain variable ($p < .01$).

Mediation

As in Studies 1 and 2, event predicts participants' satisfaction in the unrelated domains ($\beta = -.33$) and mood ($\beta = -.44$); the mood effect remains when controlling for event ($\beta = .30$), whereas the event effect is reduced to non-significance when controlling for mood ($\beta = -.19$; Sobel $= -2.22$, $p < .02$). Again, this is not the case for satisfaction with the event domain. Here, event predicts satisfaction ($\beta = .46$) and mood ($\beta = -.44$); however, mood does not predict satisfaction when controlling for event ($\beta = -.13$), whereas event predicts satisfaction when controlling for mood ($\beta = .40$; Sobel $= 1.83$, $p < .04$).

Study 3 extends our analysis to actual changes over time. Students who earned poor grades were in worse moods, leading them to perceive their pasts more negatively than usual. However, they reported *greater* satisfaction with their past academic life. This observation may capture the familiar reaction of angry undergraduates who complain that they have "always been A students" — but only *after* receiving a poor grade.

General discussion

People spend many moments mentally traveling in time, engaged in experiences beyond the here-and-now — especially past experiences (Trope & Liberman, 2003; Tulving, 2002). We examined how this journey is influenced by negative events in the present.

We found that, despite creating general malaise, negative events do not always darken perceptions of one's past and can even create bright spots. Counter-intuitively, participants who experienced romantic pain reported *better* past love lives (Experiment 1); participants who experienced social rejection reported *better* past social lives (Experiment 2); and participants who received disappointing grades reported *better* past academic lives (Experiment 3).

These diverging effects appear to be driven by two different processes. On the one hand, negative events provide a standard of comparison relative to which one's average experience in a domain appears more favorable (Bless & Schwarz, 2010; Strack et al., 1985). This benefit, however, can only be reaped when the standard applies to the target of judgment — that is, within the same domain. On the other hand, negative events make us feel bad and this feeling itself can serve as a source of information, resulting in more negative evaluations across a broad range of targets (Schwarz & Clore, 2007). As a result, current negative events diminish our satisfaction with unrelated aspects of our past life, but increase our satisfaction with the past in the very domain in which we now suffer. The observation that mood at the time of judgment mediated the obtained assimilation effects in unrelated domains – but not the obtained contrast effects in the event domain – is consistent with this analysis.

These observations extend prior work by showing that (1) perceptions of *past* wellbeing, like perceptions of *present* wellbeing (Schwarz & Strack, 1999), are highly malleable; (2) the same event can influence satisfaction in different domains differentially, even producing opposite effects in related and unrelated life domains; and (3) these differential effects are mediated by different processes that draw on the person's current feelings versus attributes of the event as crucial inputs.

While these findings are compatible with general judgment models, some readers may wonder how much they reflect a motivated defense of positive self-perceptions (e.g., see Walker, Skowronski, & Thompson, 2003). We consider this possibility unlikely. In our studies, people would have defended their positive self-perception in the event domain while hurting their positive self-perception in all other domains, essentially saying: "Yes, my past love life (social life or academic life) was great, but not anymore — and nothing else about me has ever been very good, all along." The ineffectiveness of this strategy as motivated defense, and the consistency of our findings with research into mood (Schwarz & Clore, 2007) and contrast effects (Bless & Schwarz, 2010), seems to render an analysis in terms of basic judgment processes more promising.

Implications and future directions

As numerous studies show, perceptions of our past affective states guide present decisions and future plans, from vacation choices (e.g., Mitchell, Thompson, Peterson, & Cronk, 1997) to medical decisions (e.g., Ubel, Loewenstein, Schwarz, & Smith, 2005; for a review, see Schwarz et al., 2009). Hence, misconstruals of the past may have important behavioral implications for the future. People may yearn for former flames, hometown life, or previous editors — but only after experiencing a romantic breakup, an unfamiliar city, or a rejected manuscript. In turn, they may renew relationships or move home because "things used to be better," unaware that their present misery may be the main source of their perception of the "good old days." Unfortunately, these moves may lose their appeal when current misery fades. Future research may fruitfully explore this implication.

Future research may also address whether *positive* events lead people to perceive past satisfaction more *negatively*. Quoidbach, Dunn, Petrides, and Mikolajczak's (2010) observation that exceptionally positive events decrease savoring of other positive events is compatible with this possibility. Moreover, given the parallels between thinking about the past and future (Buckner & Carroll, 2006), it is also worth exploring whether negative events create similar changes in *anticipated* satisfaction (Buehler, McFarland, Spyropoulos, & Lam, 2007).

Finally, our studies extend the analysis of the cognitive and communicative processes underlying judgments of well-being, which typically focuses on *current* life satisfaction (for a review, see Schwarz & Strack, 1999). Our findings converge with earlier work in highlighting that reported life-satisfaction does not reflect stable inner states, in contrast to what the pioneers of wellbeing research hoped for (e.g., Campbell, 1981). Nor do good (or bad) events necessarily elicit high (or low) satisfaction. Instead, the relationship between life-events and life-evaluations depends on the judgment strategy that a person brings to bear at a given time, allowing today's misery to be a source of both negative *and* positive perceptions of yesterday.

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