



Coping with disappointing outcomes: Retroactive pessimism and motivated inhibition of counterfactuals[☆]

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Received 9 August 2003; revised 16 June 2004

Abstract

Having failed to achieve a desired goal, people may use retroactive pessimism as a defense mechanism, concluding that chances of success were not too good to begin with. To make this judgment, one must block counterfactual alternatives suggesting that success was, in fact, quite likely. Facing a bitter disappointment, the perceiver is highly motivated to inhibit upward counterfactuals, thus increasing the perceived inevitability of failure and finding solace in the acceptance of inescapable fate. Two experiments explored the hypothesized link between counterfactuals inhibition and retroactive pessimism. In the first experiment, it was found that participants experiencing grave disappointment, following a near miss, judged their chances of achieving their goal less favorably, compared to participants who had missed their goal by far. An analysis on participants' counterfactual judgments suggested that this effect was mediated by participants' perceptions of counterfactual events. The second experiment demonstrated that retroactive pessimism and counterfactual inhibition seem to be unique to situations in which the negative outcome resulted from uncontrollable rather than controllable events, thus corroborating the functional characterization of counterfactual thinking as well as the link between retroactive pessimism and disappointment.

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Keywords: Retroactive pessimism; Counterfactual thinking; Motivated inhibition; Disappointment; Regret

Faced with painful outcomes, people often become motivated to interpret events in a way that would make these outcomes easier to accept. Strong negative emotions are likely to trigger a host of defense mechanisms and mobilize cognitive resources to help the individual cope with misfortune. The use of such means, however, often requires some distortion of the objective reality.

To deal with bitter disappointment following failure, people employ a defense tactic called “Retroactive Pessimism” (Sanna & Chang, 2003; Tykocinski, 2001; Tykocinski, Pick, & Kedmi, 2002). Having failed to achieve a desired goal, people adjust their evaluations of the probability of success in a way that allows them to conclude that their chances of success were not too good to begin with, a transformation that renders the negative outcomes they face appear more predetermined and hence easier to accept. One characteristic of these disappointment driven probability shifts that sets them apart from mere hindsight is the fact that their magnitude reflects the magnitude of the disappointment that triggered them. For example, in Tykocinski (2001), participants were asked to imagine that due to a series of unforeseen events they had failed to arrive to a store before it had closed and, consequently, had missed an opportunity to benefit

[☆] This research was supported by a grant from the Israel Science Foundation to the first author. The authors wish to thank the editor for his helpful and valuable suggestions. The authors also wish to thank Gary Bornstein, Golan Shachar, and Neil Zvail, for their comments on an earlier draft, and Oshrit Oved, Maya Beck, Ela Orr, Noa Shomrony, and Einat Pollak for their help in running the experiments.

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from a discount on an item they were planning to purchase. Participants' retroactive estimates of their chances of getting to the store on time were found to be sensitive to the size of the discount that was missed. Specifically, these estimates were less optimistic if the forfeited discount was large rather than small. This pattern was absent, however, when the participants estimated the likelihood of arriving to the store on time before the outcome was known (while still on their way), or when the outcome was positive (i.e., the store was still open and the purchase was made with the expected discount). Taken as a whole, these results provided a clear indication of the link between retroactive pessimism and disappointment, and illustrated the retroactive nature of the effect.

One could argue that greater probability shifts following a greater disappointment may result from a cold process of "representative reasoning," i.e., searching for a greater cause to account for a greater loss, and having identified such a significant cause—concluding that chances of success were in fact very slim. This reasoning, however, could not account for the fact that evidence for retroactive pessimism was found in situations involving the self, but not when the unfortunate outcomes befall a friend (Tykocinski et al., 2002, Exp. 2). The "personal" nature of the effect further supported its characterization as an emotionally based defensive mechanism that is in a sense analogous to dissonance reduction (Cooper & Fazio, 1984; Festinger, 1957). But whereas dissonance reduction targets the desirability of the forgone outcomes, retroactive pessimism focuses on their perceived attainability.¹

When people estimate the likelihood of future events, they often use the simulation heuristic, relying on the ease with which they can imagine the event taking place to assess its likelihood (Kahneman & Tversky, 1982). Similarly, when judging whether events that did happen could have concluded in a different outcome, one often relies on counterfactual thoughts to assess the mutability of the events that led to the outcome. If we can easily come up with a host of counterfactual scenarios that would have led to better outcomes—"if only..."—the outcome that actually happened would now seem less predetermined.

Research on the generation of counterfactual thoughts has identified several factors that are likely to affect the quantity and direction of such thoughts. For example, upward counterfactual thinking is likely to be activated by the experience of negative emotions (Roese & Olson, 1997) and by close proximity to a missed goal (Meyers-Levy & Maheswaran, 1992; Roese & Olson, 1996). The content and direction of counterfactuals have been demonstrated to be affected by the normality and

controllability of antecedents (Kahneman & Tversky, 1982; Markman, Gavanski, Sherman, & McMullen, 1995; Miller, Turnbull, & McFarland, 1990; N'gbala & Branscombe, 1995), and by individual disposition (Kasimatis & Wells, 1995; Markman & Weary, 1998; Sanna, 1996). In this paper, we identify another type of factor, namely, the psychological state of the perceiver. We suggest that, having to cope with bitter disappointment, the perceiver is highly motivated to block, censor, or discount upward counterfactuals, thus increasing the perceived inevitability of failure and finding solace in accepting inescapable fate.

The goal of the current work was to examine the interplay between situational and motivational factors that affect the generation of counterfactual thoughts. In the first experiment a "near miss" scenario was used. As Kahneman and Tversky (1982) demonstrated, when a goal was just within reach, the fact that it was nevertheless missed is particularly painful. "Near miss" situations provide fertile ground for the production of alternative counterfactual scenarios that could have guaranteed success—"if only." The close proximity to the goal enhances one's ability to construct scenarios that can bridge between "what was" and "what should have been." However, the perceived distance from the goal also affects the magnitude of disappointment. Near miss situations are more painful, and with the increase in disappointment there is an increase in the need to find psychological comfort. By discarding counterfactual scenarios that could have guaranteed success, we can psychologically turn a "near miss" into a "far" one, finding comfort in the inevitability of failure.

In view of the above, it was expected that when facing disappointments that are relatively mild, retroactive evaluations of the chances of achieving the goal would reflect the objective distance from the goal. Namely, individuals experiencing a mild near miss failure will judge their chances of obtaining the goal as more favorable compared to those who had missed the goal by far. However, in the bleaker realm of grave disappointments, defense mechanisms are likely to be triggered, and estimates of the likelihood of a better outcome are no longer expected to conform to the objective reality. The higher level of psychological discomfort is expected to trigger retroactive pessimism, and judgments of counterfactual success are expected to reflect the need to find comfort, rather than the actual proximity to the goal. In fact, because near miss failures are more painful, with grave disappointments perceivers are expected to judge their retroactive chances of success as less likely in the near miss condition. Moreover, as retroactive pessimism was hypothesized to involve suppression of upward counterfactual scenarios, we also expected that in the realm of grave disappointments, the relative ease with which one can construct counterfactual alternatives to a near miss outcome will no longer be manifested.

¹ For a more extensive discussion of similarities and differences between retroactive pessimism and cognitive dissonance see Tykocinski et al. (2002).

Experiment 1

Method

Participants

One-hundred students (23 males and 77 females), from a college associated with Ben Gurion University, were asked to read and respond to one of four versions of a missed vacation scenario.

Scenario

The scenario included two levels of magnitude of loss (large vs. small). The flight that was missed was either an inexpensive domestic flight or a flight to Europe. Distance from the goal (near miss vs. far miss) was manipulated by indicating how long ago the flight had left. In the “grave loss–near miss” version the scenario read as follows (in parentheses—text for the “mild loss–far miss” conditions).²

“You have been planning for a long time to go away on a vacation to Paris (to the north of the country). On Thursday afternoon you are getting ready to leave the house. Everything is ready, and all that is left for you to do is to close your suitcase and wait for the taxi that you ordered to take you to the airport, which is not far from your residence. While closing the suitcase, the zipper gets stuck, and your attempts to force it cause it to tear completely, leaving the suitcase wide open. Because you do not have another suitcase, you take out your backpack and it does not take you too long to quickly stuff everything inside. When at last you are in the taxi, you think to yourself that it was good idea that you allowed extra time to get to the airport. Unfortunately, a grave traffic accident causes the road to be closed for over an hour, and even after the cars are cleared away you waste additional time in the huge traffic jams that were created. You hope that your flight will be delayed, as is often the case. When you finally reach the airport, you find out that due to security alerts, the security checks are unusually extensive and time consuming. All of your requests to hurry up the process are in vain. When you eventually arrive to the counter and present your ticket, you are told by the airline representative that your flight left on schedule, 10 min ago (50 min ago). You ask to speak with the duty manager and explain what happened. After consulting his computer he says: “I’m sorry, we don’t have any more flights until next week, and as you know we do not refund unused tickets.” You are thinking to yourself “I can’t believe it, I lost the ticket, I lost 435 (30) dollars, there goes my vacation.”

² The original stimulus materials for Experiments 1 and 2 were written in Hebrew and translated into English by the first author.

Measures

Participants were asked to estimate their chances of making it to the flight on time considering all that had happened, using a scale ranging from 0 “almost zero” to 10 “very high chances.” Participants were then asked to write down any thoughts about how things could have happened differently in a way that would have allowed them to make the flight. Participants listed thoughts such as “if I had used the pre-flight service and checked in my suitcase the day before, this would not have happened,” “if I were a VIP, they would not hold me for security checks.” Participants were then asked to go over the list and rate for each thought, the probability that the event they described could have indeed taken place, on a scale ranging from 0 “not probable at all” to 10 “very probable.” These probability ratings were summed to create a “weighted counterfactuals” (WCFT) score. By summing the ratings, counterfactuals which were rated more probable received greater weight than low probability counterfactuals.

Results

Participants’ mean estimates of their chances, and the WCFT scores in each condition, are presented in Table 1.

Likelihood estimates

Analysis of variance on the likelihood estimates yielded a significant interaction $F(1, 96) = 3.79, p < .054$. As expected, when the loss was mild, participants rated their chances of arriving on time significantly higher in the near miss than the far miss condition $F(1, 96) = 4.392, p < .03$. When the stakes were high, however, this pattern disappeared, with an insignificant trend towards reversal ($F < 1$).

Weighted counterfactuals

A similar pattern was found for the WCFT score. An ANOVA yielded a significant interaction, $F(1, 85) = 4.58, p < .03$.³ When the loss was mild, participants tended to score higher in the near than the far miss condition, $F(1, 85) = 2.37, p < .12$. When the loss was grave, there was a reversal and an insignificant decline in the near vs. the far miss condition $F(1, 85) = 2.20, p < .14$.⁴

³ Perhaps because it was the last task in the experiment, 11 participants failed to complete the probability ratings. The WCFT analysis is based on responses of 89 participants.

⁴ ANOVA on the un-weighted number of counterfactuals yielded similar results. The interaction between loss and distance was significant $F(1, 96) = 6.04, p < .015$. When the loss was mild, participants generated more counterfactuals in the near than the far miss condition, $F(1, 96) = 2.069, p = .15$. When the loss was grave, there was a reversal driven by a significant decline in the number of counterfactuals generated in the near vs. the far miss condition $F(1, 96) = 4.65, p = .03$. In fact, participants in the grave, near miss condition generated the fewest counterfactuals compared to all other groups $F(1, 96) = 4.153, p = .04$.

Table 1

Mean likelihood estimates and average number of counterfactuals produced as a function of magnitude of loss, and distance from the goal

	Mild loss		Grave loss	
	Near miss	Far miss	Near miss	Far miss
Likelihood of arriving on time	5.08 (2.90)	3.68 (2.11)	4.00 (2.14)	4.44 (2.20)
No. of counterfactual thoughts	3.76 (1.47)	3.28 (1.20)	3.04 (0.93)	3.72 (1.02)
Weighted counterfactual thoughts (WCFT)	26.71 (10.10)	22.37 (9.76)	23.42 (9.00)	27.20 (6.85)

Note. Standard deviations are in parentheses.

Mediation analysis

To assess the role of counterfactual judgments in mediating the retroactive pessimism effect, we conducted a series of regressions, following the mediation test outlined in Baron and Kenny (1986). The analyses included only participants with complete data on both DVs, ($N=89$). First, to obtain the unmediated parameter, likelihood estimates were used as a criterion and the two independent variables, and the interaction between them, as predictors. The parameter estimate for the interaction was significant, $\beta = .40$, $t = 2.09$, $p < .04$. The same predictors were then used to predict the possible mediator (i.e., WCFT). The parameter estimate for the interaction was significant, $\beta = .41$, $t = 2.14$, $p < .03$. In the third analysis, the first regression model was repeated, but this time the WCFT score was entered in the equation. This analysis yielded a significant parameter for WCFT, $\beta = .24$, $t = 2.28$, $p < .025$, but the parameter estimate for the interaction predicting likelihood had weakened and was no longer significant, $\beta = .30$, $t = 1.58$, $p < .12$. These results conform to Baron and Kenny's criteria for mediation, and support the idea that retroactive pessimism is mediated by suppression of counterfactual scenarios.

Discussion

The use of defense mechanisms often requires a rather liberal interpretation of objective reality. This quality was well demonstrated in the current experiment. As long as the disappointment was not overwhelming, participants' judgments of their chances reflected the objective distance from the goal. Indeed, it seems reasonable that one who had missed a flight by 10 min had a better chance of making that flight than one who had missed it by 50 min. However, when the loss was grave enough to elicit bitter disappointment, participants' retroactive judgments no longer reflected their objective distance from the goal. The number of counterfactual thoughts that participants generated, weighted by their perceived probability, yielded a similar pattern. This similarity, as well as the results of the mediation analysis is consistent with the idea that retroactive pessimism involves some form of inhibition of upward counterfactual thoughts.

The interplay between counterfactual thinking and retroactive judgments was again investigated in study 2. In this experiment, the negative outcome was varied in the extent to which one had control over the antecedent

events leading to it. The inclusion of the control variable was expected to have two effects. First, having control over events renders them more "mutable" (Davis & Lehman, 1995; Markman et al., 1995; Roese, 1997; Roese & Olson, 1995). It is easier to come up with alternative scenarios to our own actions than to mentally change events that fall in the category of "force majeure." Reflecting on ways in which the negative outcomes could have been avoided is only useful when there is indeed some action one could take to avoid such outcomes in the future.

In addition, with additional control one gains an added sense of responsibility over the outcomes, and, if the outcomes are negative, one is likely to experience regret for not having acted differently. Recently, Wrosch and Heckhausen (2002) suggested that older people, who are unable to change their outcomes, could reduce regret by making protective attributions of low internal control. The extent to which one had control over negative outcomes is a key element in attempts to differentiate between the psychological experience of regret and disappointment (Gilovich & Medvec, 1994; Zeelenberg, van Dijk, & Manstead, 1998, 2000; Zeelenberg, van Dijk, Manstead, & vanderPligt, 2000; Zeelenberg et al., 1998).

Finally, it is easier to conclude that "I never had a chance to succeed" when the negative outcomes are uncontrollable. This quality makes retroactive pessimism a defense mechanism that is more applicable in low control situations which trigger disappointment rather than regret. It was thus expected that people would be less likely to rely on retroactive pessimism when trying to cope with controllable outcomes.

Experiment 2

Method

Participants

One-hundred and eighteen Ben Gurion University students (103 females and 15 males) were asked to read and respond to one of four versions of a missed grant scenario.

Scenario

The scenario included two levels of magnitude of loss determined by the size of the grant (large vs. small), and two levels of control over antecedent events leading to the loss of the grant (high vs. low control). In the "grave

loss–low control” version, the scenario read as follows (in parentheses—text for the “mild loss–high control” conditions):

Each year the University distributes student grants covering 50% (10%) of tuition fees to students who meet the required criteria. You are eligible for this grant, and you have already submitted the application and the required documents. You arrive home after school and find a note from one of your neighbors. Apparently, a letter addressed to you was placed in his mailbox by mistake, and he asks that you will stop by to pick it up. You immediately walk over to the neighbor’s house, but unfortunately there is no one at home, and only three days later you manage to find your neighbor at home. (Being preoccupied with other things, you forget about the note and only remember to go over to your neighbor’s house 3 days later.) Your neighbor gives you the letter saying that he hopes it is nothing urgent. The letter is from the University grant office notifying that unless you supply them with an original income report from the Central Tax Department in Tel Aviv, your grant application will not be processed. Tomorrow is the deadline for submission of all documents, and it is emphasized in the letter that after this date the application process will be closed and late submissions will not be accepted. You have no choice but to go to the Tax Department in Tel-Aviv the very next day. Because you have an important job interview the next morning, an appointment that could not be rescheduled (because you have already made plans to meet with your friend the next morning), you end up leaving Beer Sheva rather late. Near Kiryat Gat you are stopped in a police security checks roadblock. Going through the roadblock and having your documentation checked by the police takes quite a while and because of this unexpected delay it is already rush hour by the time you approach Tel Aviv, and the traffic is very slow. (Near Kiryat Gat you are stopped by the police for having used your mobile phone while driving. You argue with the police officer for a long time and eventually the officer agree to let you off but, because of this delay, it is already rush hour by the time you approach Tel Aviv, and the traffic is very slow.) Eventually you arrive at the Central Tax Department, obtain the document you need and rush back to Beer Sheva. When you get to the University grant office you see that it has already closed for the day. Looking at the shut

doors you think to yourself, that’s it, no chance of getting the grant now, I just lost 5000 (1000) shekels.

Measures

Participants estimated their chances of reaching the University’s grant office before it had closed considering all that had happened, on a scale ranging from 0 “almost zero” to 10 “very high chances.” Participants were then asked to write down any thoughts they had about how things could have happened differently in a way that would have allowed them to arrive to the grant office on time. Participants listed thoughts such as “If I had taken the train to Tel Aviv, I would not have been stopped by the police,” “if the secretary had to come back to the office to take something she forgot, I could have given her the forms.” Next, participants rated each thought they listed according to its probability on a scale ranging from 0 “not probable at all” to 10 “very probable.” These ratings were summed to create the weighted counterfactuals (WCFT) score.

Finally, participants rated the extent to which they “regretted their actions,” “felt disappointed for losing the grant,” “felt guilty about what happened,” and “felt responsible for what had happened,” on scales ranging from 0 “not at all” to 10 “very much.”

Results

Participants’ mean estimates of their chances and WCFT scores in each condition are presented in Table 2.

Likelihood estimates

ANOVA on the likelihood estimates yielded a significant interaction $F(1, 114) = 5.35, p < .022$. When participants had greater control over the events leading to the loss of the grant they tended to rate their chances of arriving on time lower in the mild, than in the grave loss condition (although this trend was not statistically significant), $F(1, 114) = 1.71, p = .19$. In contrast, when participants had no control, they showed the retroactive pessimism effect and the pattern was reversed, with lower likelihood estimates in the grave, than in the mild loss condition, $F(1, 114) = 3.87, p = .051$. In fact, likelihood estimates of the participants in the low control—grave loss group were the lowest compared to all other groups, $F(1, 114) = 8.52, p < .004$.

Table 2

Mean likelihood estimates, and average number of counterfactual thoughts as a function of magnitude of loss and degree of control over antecedent events

	Low control		High control	
	Mild loss	Grave loss	Mild loss	Grave loss
Likelihood of arriving on time	5.06 (2.68)	3.68 (2.40)	5.06 (2.93)	6.00 (2.76)
No. of counterfactual thoughts	4.83 (1.29)	4.10 (1.51)	4.86 (1.66)	4.65 (1.34)
Weighted counterfactual thoughts (WCFT)	31.96 (10.07)	23.31 (9.36)	36.78 (9.94)	33.30 (11.33)

Note. Standard deviations are in parentheses.

Weighted counterfactual thoughts

ANOVA on WCFT scores yielded a significant main effect for control.⁵ Participants in the low control condition scored lower compared to participants in the high control condition, $F(1,109) = 14.91, p < .0001$. A significant main effect was also found for the magnitude of loss. Participants in the mild loss condition scored higher on WCFT than participants in the grave loss condition $F(1,109) = 10.04, p < .002$. Although the interaction was insignificant, $F(1,109) = 1.81, p < .18$, these main effects seem to reflect a drop in the WCFT scores of participants in the low control-grave loss cell. Indeed, in simple comparisons we found that the magnitude of loss had no effect on the scores of participants in the high control condition $F(1,109) = 1.61, p < .20$. However, for the low-control groups, participants scored significantly lower in the grave than in the mild loss condition $F(1,109) = 10.47, p < .001$. In fact, the low control-grave loss group had the lowest WCFT score compared to all other groups, $F(1,109) = 23.81, p < .00001$.⁶

Mediation analysis

To assess the role of counterfactual judgments in mediating the retroactive pessimism effect, we conducted a series of regressions similar to those conducted for Experiment 1. Because the strongest effect for both measures involved the contrast between the low control-grave loss group and all other groups, we tested possible mediation for this specific effect, using only participants with complete data on both DV's ($N = 113$). We first created a dummy variable capturing the contrast. A regression of the likelihood estimates on this dummy variable yielded significant parameter estimate of $\beta = -0.26, t = -2.85, p < .005$. The dummy variable was then used to predict the possible mediator (i.e., WCFT), $\beta = -0.417, t = -4.84, p < .000$. In the third analysis, the first regression model was repeated, but this time "WCFT" scores were included in the equation. This analysis yielded an insignificant parameter for WCFT $\beta = .066, t = .65, p < .5$, and a significant parameter estimates for likelihood, $\beta = -.234, t = -2.31, p < .02$. Although the inclusion of WCFT had slightly weakened the parameter estimate for likelihood, the results are inconclusive because a reliable link between the possible mediator and the dependent variable was not established.

⁵ Five participants failed to complete the probability ratings. The WCFT analysis is based on responses of 113 participants.

⁶ ANOVA on the un-weighted number of counterfactuals yielded a similar pattern. Simple contrasts conducted separately for the two control conditions revealed that in the low control condition participants listed fewer thoughts following a grave loss than a mild loss $F(1,114) = 3.8, p = .053$, whereas magnitude of loss had no significant effect in the high control condition ($F < 1$).

Emotions

Table 3 shows mean ratings for disappointment, regret, guilt, and responsibility. Analysis on responsibility ratings yielded a significant main effect for control $F(1,114) = 30.35, p = .0001$, which lends support to the effectiveness of the control manipulation. Participants in the high control condition clearly felt more responsible for the unfortunate outcomes than the low control groups (M_s 7.57 vs. 4.75). A similar pattern emerged for guilt (M_s 7.62 vs. 4.68, $F(1,114) = 32.76, p = .0001$) and regret (M_s 8.02 vs. 5.32, $F(1,114) = 27.94, p = .0001$). In addition, although disappointment ratings tended to be rather high, they were not significantly different in the four groups ($F < 1$).

Discussion

Disappointment and regret have a lot in common, yet they seem to be different in important ways in antecedents and phenomenology (Zeelenberg, van Dijk, & Manstead, 2000). Although the outcomes were the same, having had control over the events leading to the unfortunate outcome was associated with an increased sense of responsibility, greater regret, and a sense of guilt.

Interestingly, the groups were not different in the extent to which they felt disappointed. Although the low control-grave loss group rated themselves as more disappointed compared to all other groups, these differences were small and insignificant. We should, however, keep in mind that the disappointment measure was completed after participants judged their chances of success. If retroactive pessimism defense was employed at that stage, it is likely to have taken the edge off the bitter disappointment resulting from an uncontrollable grave loss.

Experiment 2 illustrated that in dealing with regret and disappointment we may rely on deferent defense mechanisms. Evidence for retroactive pessimism was found following uncontrollable failure, but not when the same negative outcomes resulted from wrong choices and poor judgment. It seems then that retroactive pessimism, as a defense mechanism, is unique to disappointment. If indeed the use of retroactive pessimism involves suppression of counterfactuals, one could argue that the use of such a mechanism would

Table 3

Mean emotion ratings as a function of magnitude of loss and degree of control over antecedent events

	Low control		High control	
	Mild loss	Grave loss	Mild loss	Grave loss
Responsibility	4.97 (3.40)	4.52 (2.91)	7.55 (2.41)	7.59 (2.21)
Regret	5.26 (3.28)	5.38 (3.04)	7.83 (2.42)	8.21 (2.16)
Guilt	4.97 (3.50)	4.38 (2.78)	7.41 (2.49)	7.83 (2.19)
Disappointment	8.16 (2.03)	8.86 (1.88)	8.24 (1.57)	8.41 (2.03)

Note. Standard deviations are in parentheses.

indeed be unwise in situations where we have control over our outcomes. Suppressing upward counterfactuals may be counterproductive because one is forfeiting an opportunity to learn from one's mistakes. If, however, failure was the result of uncontrollable events there is less of a lesson to be learned. It is useful to learn not to use a mobile phone while driving, but a counterfactual such as "if I was not stopped by the police for security checks I would have made it on time" could be suppressed without losing a golden opportunity for self-improvement.

The above notwithstanding, caution is called for in interpreting the current findings. Although the pattern of the data, as well as the conceptual analyses of the function of counterfactuals are consistent with the idea that a process of counterfactual inhibition is involved in the retroactive pessimism the mediation analysis for the second experiment did not provide conclusive support for this interpretation.

General discussion

The functional nature of counterfactual thinking has received much theoretical attention. Upward counterfactual thoughts triggered by a negative experience draw our attention to imagined alternatives, illustrate how events could have evolved differently and thus, potentially, make us better prepared to meet similar challenges in the future. For this training we pay "tuition fees" in the form of negative emotions nurtured by dwelling on a loss. In some situations, however, painful thoughts about how things could have been different have little or no potential in promoting understanding or insight. Sometimes there really was nothing we could have done to prevent a grave loss, and dwelling on things we might have said or done differently, could only produce more pain and paralyzing self-blame. Thus, in order for counterfactual thoughts to be adaptive, one must be able to inhibit unwanted counterfactual thoughts once they exhausted their functional purpose and produce nothing but self torment. Although it has been suggested that the ability to inhibit unwanted counterfactual thoughts is essential for healthy functioning (Roese, 1997; Roese & Olson, 1997), to the best of our knowledge there is no direct empirical evidence for such a process. Nevertheless, motivated suppression processes have been demonstrated in other domains. Kunda and Sinclair (1999), for example, used word-fragment completion task to demonstrate motivated inhibition of racial stereotypes. Evidence of this kind will be hard to obtain for counterfactual thoughts because of their elaborate linguistic nature. In the current paper, we offer suggestive, yet indirect, evidence for a counterfactual inhibition process.

The ability to inhibit counterfactual thoughts is needed if one is to rely on retroactive pessimism to find

solace following a disappointment. Counterfactual thoughts suggesting that success was very likely interfere with one's ability to conclude that one never had a chance to succeed. The findings of the two experiments reported here are generally consistent with this assumption. The similarity between the patterns of the likelihood estimates and the counterfactual measures, as well as the mediation analysis in experiment 1 implicate some form of contractual suppression in the retroactive pessimism effect. At this stage, however, the exact nature of this process is unclear. Are these thoughts suppressed? Inhibited? Discounted? Further research is needed to explore these possibilities.

Experiment 2 demonstrated that both retroactive pessimism and counterfactual inhibition are more likely to follow uncontrollable than controllable events, a finding that strengthens the link between retroactive pessimism and disappointment, and is consistent with the functional characterization of counterfactual thinking. In disappointment situations, where we had no control over the events that led to the negative outcomes, counterfactual scenarios could be blocked without forfeiting an opportunity to learn from a mistake, whereas learning from bitter experience in situations where the negative outcomes could have been avoided seems crucial to save us future regrets.

Whereas it may seem "rational" to block upward counterfactuals if these cannot serve any preparatory function, "rationality" is of course not the guiding principle of defense mechanisms. In fact, the use of such mechanisms often requires a rather flexible approach to objective reality. As was demonstrated in the first experiment, if the disappointment is grave enough, a distance of 10 min may seem as unbridgeable as a distance five times greater. The use of defense mechanisms requires that one will be willing to forfeit some "objectivity" in return for some "peace of mind." It may seem unnatural that people would seek solace in self-disempowerment, or find comfort in perceptions of predetermination and inevitability. Nevertheless, it is probably easier to come to terms with the inevitable than to battle with fate and embrace uncertainty. Several lines of research are consistent with this characterization of the human nature. For example, it was demonstrated that having too many options to choose from, may trigger stress and discontent (Schwartz, 2000), and having the opportunity to change your mind regarding choices you have already made may make people less satisfied with their outcomes (Gilbert & Ebert, 2002).

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