COMMENTARY

The Costs of Optimism and the Benefits of Pessimism

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Research suggests that optimism feels good. However, does it always feel good? We suggest that the benefits (and costs) of optimism and pessimism depend on their timing. A study of exam score estimates revealed that, after controlling for actual exam performance, optimistic expectations are unrelated to how people feel immediately before feedback, in contrast to the common wisdom that optimism "feels good." Furthermore, optimism has costs after feedback—participants who predicted higher scores before feedback felt worse after learning their scores. Finally, people seem to be aware of the potential costs of optimism—participants who predicted higher scores before feedback also anticipated experiencing greater disappointment should they perform poorly. These findings suggest that people may proactively manage their expectations to avoid the costs of optimism.

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Researchers have long championed the benefits of optimism, proclaiming that positive expectations can foster mental health and well being (see Shepperd, Carroll, & Sweeny, 2008, for a review). One apparent benefit of optimism is that it prompts positive affect. Intuitively, it would seem that expecting a rosy future feels good, whereas expecting a dire future feels bad. Thus, it is not surprising that people typically recommend optimism for forthcoming outcomes (Armor, Massey, & Sackett, 2008). Recent theorizing on bracing for bad news, however, suggests that the affective benefits of optimism may be limited. In the face of impending feedback, optimism is risky because it can be quickly disconfirmed. Should outcomes fall short of expectations, the downstream costs of optimism are negative affect and disappointment (Carroll, Sweeny, & Shepperd, 2006). In fact, people may be aware of this trade-off: when feedback is imminent, people are far less likely to perceive optimism to be the most beneficial outlook, recommending pessimism instead (Sackett & Armor, 2009).

Several studies have examined the immediate and downstream consequences of *dispositional* optimism (Sanna, 1996; Sanna & Chang, 2003) and optimistic *goals* before performance (Galinsky, Mussweiler, & Medvec, 2002; Garland, 1983; Mento, Locke, & Klein, 1992). However, we know of only one paper that has attempted to explore simultaneously the upstream and downstream costs and benefits of optimism versus pessimism by examining people's expectations at the moment of truth and the comparison between these expectations and actual performance. Specifically, Golub, Gilbert, and Wilson (2009) examined in a series of studies

how expectations influence how people feel before and after receiving positive versus negative feedback. In Studies 1a and 1b, participants completed a personality test then received positive, negative, or no information (Time 1) about their personality from a computer program designed to provide feedback that mimics the reliable and valid scoring of a trained psychologists. The information was intended to vary expectations about the forthcoming personality feedback from a trained psychologist. A few minutes later participants received negative (Study 1a) or positive (Study 1b) feedback from the psychologist (Time 2). Not surprisingly, participants felt worse at Time 1 when they received negative information than when they received positive information from the computer. The surprise was at Time 2. Participants who received negative feedback at Time 2 (Study 1a) did not differ in their reported affect regardless of the expectation manipulation. Likewise, participants who received positive feedback at Time 2 (Study 1b) did not differ in their reported affect regardless of the expectation manipulation.

In Study 2, students reported their affect and expectations 3 days before receiving feedback about a midterm exam, then reported their affect again 24 hr after receiving their midterm exam grade. Before the exam, affect and expectations were correlated such that more negative expectations corresponded to more negative affect. After the exam, preexam expectations (controlling for exam grades) were unrelated to postexam affect. Golub et al. conclude that (a) lowering expectations at the moment of truth feels worse than maintaining optimism, and (b) these lowered expectations have no benefits in terms of protecting people from disappointment after feedback.

The second conclusion is surprising because it runs counter to prior studies showing that outcomes feel good when they exceed expectations yet feel bad when they fall short of expectations (Mellers, Schwartz, Ho, & Ritov, 1997; Shepperd & McNulty, 2002). A careful reading of the Golub et al. paper suggests several features that may account for their surprising finding. First, re-

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garding Studies 1a and 1b, the initial information from the computer program was intended to manipulate expectations. However, it seems more accurate to view it as a feedback manipulation. The authors conclude that at Time 1 participants with negative "expectations" felt worse than did participants with positive "expectations," but it seems more plausible to say that participants simply felt worse when they received bad news versus good news. It is hard to know what to conclude about the absence of differences in affect at Time 2 of these first two studies because participants were induced to have different affective experiences at Time 1. In short, Studies 1a and 1b appear not to be studies about whether or how expectations influence affect, but rather studies about how feedback influences affect.

Second, Golub et al. found in Study 2 that affect and expectations before feedback were correlated. This finding is in line with intuition that positive expectations feel better than negative expectations. However, their expectations manipulation included an affect item ("How worried are you about your grade on the exam?"), which may account for their correlation. More importantly, they did not control for actual exam score when correlating affect and expectations before feedback. It seems reasonable that the correlation between affect and expectations before the exam was because of the performance of participants with high expectations and not just because of their expectations. Finally, Golub et al. found no difference between preexam expectations and postexam affect (measured 24 hr later) after controlling for exam performance. We regard this finding as important but not particularly problematic for the assumption that expectations have downstream consequences. We agree with Golub et al.'s speculation that the effects of expectations on feelings about outcomes are likely brief-expectations likely influence how people feel immediately after feedback but not much after that, and certainly not 24 hr later when Golub et al. measured postexam affect.

The present study reexamined the questions addressed in the Golub et al. (2009) paper: (a) Do negative expectations feel worse than optimistic expectations before feedback? and (b) Do positive expectations have greater costs than negative expectations after feedback? We explored these questions in a naturalistic setting (during a course exam) akin the Golub et al.'s Study 2, thereby avoiding the ambiguity of Golub et al.'s Study 1 in which their manipulation of expectations may have been a manipulation of feedback. In our study, we measured specific expectations (i.e., exam grade predictions) just before feedback and examined their relationship with prefeedback affect. We also measured affect immediately after feedback to assess the potential costs of optimism in the initial moments after learning good or bad news. We asked one additional question in our study: are people aware of any costs of optimism? Research by Sackett and colleagues (2009) provides strong evidence that people are aware of the costs of optimism in hypothetical scenarios. We examined people's expectations of the costs of optimism in a real life situation.

Method

To examine these questions, we chose an event for which we could examine both expectations and objective outcomes. Specifically, students in a psychology class (N = 77) estimated their first exam performance moments before learning their exam score. Before feedback participants also responded to five items measur-

ing negative affect (distressed, upset, scared, nervous, and afraid; Cronbach's $\alpha = .85$)¹ and estimated how disappointed they would feel *if* they received a poor exam score (1 = *not at all disappointed*, 9 = *very disappointed*). Immediately after learning their exam score, participants again completed the measure of negative affect ($\alpha = .93$) and indicated how disappointed they were with their exam score.

Results

Do Negative Expectations Feel Bad Before Feedback?

To test our first question, we first correlated performance estimates with negative affect just before feedback. Consistent with Golub et al., participants who made higher estimates reported less negative affect, r(72) = -.32, p < .01, suggesting that negative expectations feel bad. However, as we noted earlier it is possible that the relationship between prefeedback estimates and prefeedback affect could be accounted for by actual exam performance. That is, perhaps some people who estimated that they performed well felt good because they did, in fact, perform well and knew it. We thus conducted a simultaneous multiple regression in which both prefeedback estimates and actual exam scores were entered (after centering) as predictors of prefeedback affect. When entered simultaneously, neither exam scores ($\beta = -.09$, p = .52), nor prefeedback estimates predicted prefeedback affect ($\beta = -.22$, p = .11). Thus, it seems that the relationship between estimates and prefeedback affect can be explained by actual exam performance, not optimism per se.

Do Positive Expectations Have Costs After Feedback?

We tested our second question using simultaneous multiple regression in which prefeedback affect, exam scores, and prefeedback performance estimates were entered (after centering) as predictors of postfeedback affect. Not surprisingly, both prefeedback affect ($\beta = .28, p < .001$) and exam scores ($\beta = -.82, p < .0001$) predicted postfeedback affect. However, unlike Golub et al., prefeedback performance estimates also predicted postfeedback affect ($\beta = .40, p < .0001$). Higher estimates before feedback predicted greater negative affect after feedback, above and beyond the effects of baseline affect and exam performance.

For illustration purposes, we next separated participants into three groups based on how their exam estimate compared with their exam score (see Figure 1). Multivariate analyses revealed that optimists (i.e., participants who overestimated their score) displayed a significant increase in negative affect after receiving their exam score, F(1, 73) = 6.18, p = .02, d = 0.58, whereas pessimists (i.e., participants who underestimated their score) displayed

¹ Although we were most interested in the relationship between expectations and negative affect, we also measured positive affect (excited, enthusiastic, alert, inspired, determined) both before and after feedback. We anticipated that negative expectations would serve to reduce negative affect after feedback, not to enhance positive affect, and thus we did not hypothesize any effects for positive affect. As expected, positive affect was unrelated to expectations before feedback, r(77) = .14, *ns*. Furthermore, after feedback expectations did not predict positive affect after controlling for prefeedback positive affect and actual exam scores, $\beta = -.17$, *ns*.



Figure 1. Pre- and post-feedback affect of optimists, realists, and pessimists.

a significant decrease, F(1, 73) = 34.38, p < .0001, d = 1.36. Realists (i.e., participants who estimated their score accurately) also displayed a significant decrease in negative affect after receiving their score, F(1, 73) = 5.36, p = .02, d = 0.54.

Finally, we entered exam scores, prefeedback performance estimates, and prefeedback affect (after centering) in a simultaneous multiple regression analysis of postfeedback disappointment. Once again, exam scores predicted disappointment ($\beta = -.85$, p <.0001). More importantly, prefeedback estimates also predicted disappointment above and beyond exam scores ($\beta = .33$, p =.001). That is, after controlling for exam performance, higher estimates before feedback predicted greater disappointment. Prefeedback affect did not predict postfeedback disappointment $(\beta = .14, p = .09)$. Looked at another way, pessimists (M = 3.28, SD = 2.43) and realists (M = 4.18, SD = 2.79) experienced significantly less disappointment over their scores than did optimists (M = 7.39, SD = 2.18), F(1, 72) = 46.44 and 14.18, respectively, ps < .001, d = 1.58 and .88. As with negative affect, pessimists and realists did not differ in disappointment, F(2, 72) =1.20, p = .28, d = .26.

Are People Aware of the Costs of Optimism?

To test our third question, we correlated performance estimates before feedback with anticipated disappointment over a poor score. As expected, participants who made higher estimates also anticipated that they would experience greater disappointment if they received a poor score, r(72) = .30, p = .01.

Discussion

Our study simultaneously examined the upstream and downstream costs and benefits of optimism and pessimism and yielded findings that help clarify the conclusions of Golub et al. (2009). We found that, at the moment of truth, the affective costs of positive expectations outweighed their benefits. In the moments before feedback, positive expectations felt no better than negative expectations once we controlled for actual exam performance. Furthermore, optimism comes with a price tag after feedback, whereas pessimism can pay dividends. Immediately after feedback, participants who were initially pessimistic reported lower negative affect and disappointment, whereas participants who were initially optimistic reported greater negative affect and disappointment. Moreover, these downstream costs and benefits held even after controlling for the outcome (i.e., the exam score) and initial affect.

Our findings should not be interpreted as evidence that all forms of optimism are detrimental. To the contrary, numerous studies find that dispositional optimism has many physical, mental, and emotional benefits (e.g., Nes & Segerstrom, 2006; Shepperd, Morato, & Pbert, 1996). However, dispositional optimism represents an enduring tendency to expect a positive future rather than a prediction about a specific outcome or event. Moreover, the benefits of dispositional optimism likely are tied to persistence and sustained goal-directed behavior in situations where outcomes remain modifiable (Rasmussen, Wrosch, Scheier, & Carver, 2006). In our study, any opportunity to influence the outcome had already past; participants merely awaited news of what occurred. Our conclusions regarding the costs and benefits of optimism are limited to expectations immediately before and after outcome feedback.

Golub et al. (2009) present data that challenge the benefits of bracing by offering the finding that lowered expectations have no benefit in terms of protecting people from disappointment after feedback. Moreover, Golub et al. go one step further by proposing that negative expectations immediately before feedback do more harm than good. The take-home message is clear: bracing is a foolish strategy that offers no benefits, only harm. Our data argue otherwise and suggest that the conclusions of Golub et al. arise from unique aspects of their methodology or from data analysis decisions. For example, Golub et al. concluded that positive expectations feel better than negative expectations before feedback. Their strongest evidence comes from a correlation before feedback between performance expectations and prefeedback affect. We found the exact same correlation. However, this effect disappeared once we controlled for actual exam scores, suggesting that it may be positive outcomes rather than expectations that produce joyful anticipation. Put another way, some students did well on the exam and knew they did well, and other students did poorly and knew they did poorly. The students who did well and knew it felt good as they anticipated their exam grades, and the students who did poorly and knew it felt bad as they anticipated their grades. Golub et al. concluded that negative expectations per se feel bad before feedback, but our findings suggest that this relationship is likely driven by actual performance, not expectations.

With that said, we believe that there is truth in some of the findings of the Golub et al. (2009) study that should not be ignored. For instance, Golub et al. concluded that expectations do not influence how people feel 24 hr after feedback. In contrast, we found that expectations do influence how people feel immediately after feedback. When viewed side-by-side, these two findings suggest that the negative affect people experience as a result of disconfirmed expectations dissipates rather quickly.

It is noteworthy that the downstream experiences of accurate versus pessimistic participants did not differ. This finding is consistent with prospect theory, which proposes that people are more sensitive to losses than to gains (Kahneman & Tversky, 1984). Specifically, disconfirmed positive expectations (an unexpected

loss) feel far worse than disconfirmed negative expectations (an unexpected gain) feel good.

Finally, participants seemed aware of the downstream costs of optimistic expectations. The higher their expectations before feedback, the more participants anticipated feeling disappointed by a poor score. Although this finding is correlational and thus subject to alternative explanations, it is entirely consistent with the finding that people recommend optimism in hypothetical situations only when feedback is far in the future, and instead recommend pessimism at the moment of truth (Sackett & Armor, 2009). Obviously, managing one's expectations can be adaptive. We suspect that the awareness of the expectations/affect link can prompt people to proactively manage their expectations to avoid the downstream costs of optimism. In fact, this study sheds light on the finding that people often lower their expectations as feedback draws near (see Carroll et al., 2006, for a review). Shifting expectations downward at the moment of truth is a uniquely effective strategy to maximize the benefits of optimism before feedback and yet minimize the affective costs.

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