How Do You Feel? Affective Forecasting and the Impact Bias in Track Athletics

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ABSTRACT. The author examined affective forecasting and the impact bias among track athletics. Results show that athletes clearly overestimated the intensity of their experienced negative emotions, whereas they accurately predicted the intensity of their experienced positive emotions. The author discusses these findings in relation to athletes' regulation processes.

Keywords: affective forecasting, bias, emotions, regulation, track athletics

ONE OF THE ATTRACTIVE PROPERTIES OF COMPETITIVE sports is its ability to evoke strong emotions. Athletes' motivation to train hard is, at least partly, based on the prediction that success in sports will make them happy, whereas failure will bitterly disappoint them. But do victories bring the pleasure that athletes think they will? And do defeats hurt as much as athletes fear they may? Researchers have previously suggested that the answers to these questions are negative.

Many researchers of affective forecasting suggest that people are inaccurate in forecasting the intensity of their future emotions (for an overview, see Wilson & Gilbert, 2003). Numerous researchers have found that people display an impact bias; that is, they systematically overestimate the emotional impact of future events on their lives. For example, it has been shown that romantic partners overestimate how bad they would feel if their relationship were to break down (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998), college students overestimate the negativity they would feel were they to be assigned to an undesirable dormitory (Dunn, Wilson, & Gilbert, 2003), professors overestimate positive feelings they would have following a positive tenure decision (Gilbert et al.),

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people gambling with money overestimate how unhappy they feel when they lose (Kermer, Driver-Linn, Wilson, & Gilbert, 2006), and people taking their driver's license exam overestimate the disappointment they would feel if they failed the exam (Finkenauer, Gallucci, Van Dijk, & Pollmann, 2007).

A major source of the impact bias is that people fail to anticipate the extent to which they transform events psychologically in ways that ameliorate their impact. When emotional events occur, people swiftly regulate these events by rationalizing, reconstructing, or minimizing them (Wilson & Gilbert, 2003, 2005). These regulation processes, which may include positive illusions, motivated reasoning, self-affirmation, and dissonance reduction (e.g., Festinger, 1957; Kunda, 1990; Steele, 1988; Taylor, 1991; Tesser, 2000), transform emotion-producing events into more mundane ones, thereby reducing the emotional power of these events in ways that minimize their impact and speed recovery from them. However, when predicting their future emotional reactions, people usually fail to take into account how rapidly these regulation processes attenuate their emotional reactions, and consequently, people tend to overestimate the intensity of their future emotions. Although people tend to regulate both positive and negative events, they are especially motivated to regulate events that are negative and that challenge their sense of well-being. As a consequence, their regulation processes transform negative emotional events faster than they transform positive ones, and the impact bias tends to be larger for negative events than it is for positive events. That is, people tend to overestimate their negative emotions following a negative event to a greater extent than they do their positive emotions following a positive event (cf. Finkenauer et al., 2007; Kermer et al., 2006; Wilson & Gilbert, 2003).

In the present study, we investigated affective forecasting and the impact bias in the domain of track athletics. We expected that track athletes would overestimate the emotions they would experience following successful and unsuccessful goal attainment (i.e., they would display an impact bias). Moreover, we expected that this impact bias would be more pronounced for negative emotions following unsuccessful goal attainment than it would be for positive emotions following successful goal attainment. Obtaining support for our hypothesis would provide the first empirical evidence for an (asymmetrical) impact bias in the domain of active competitive sports.

Method

Participants

Participants were 34 senior male and female amateur and semiprofessional track athletes who participated in one of several track events during a Dutch athletic competition. All athletes participated on a voluntary basis and received a bottle of energy drink as appreciation for their participation.

Procedure

A research assistant met with the athletes prior to the start of their race and asked them to indicate their track event goal for their upcoming race (in terms of running time, specified to one-hundredth of a second). Subsequently, athletes' forecasted negative and positive emotions were assessed on 9-point Likert-type scales ranging from 1 (*not at all*) to 9 (*very much*). We assessed negative emotions by asking athletes to rate the disappointment, negative feelings, and frustration they would feel should they fail to reach their goal (Cronbach's α = .74). We assessed positive emotions by asking athletes to rate the happiness, positive feelings, and satisfaction they would feel should they succeed at reaching their goal (α = .86). Immediately after their race, athletes' negative and positive emotions were assessed on 9-point Likert-type scales ranging from 1 (*not at all*) to 9 (*very much*). We assessed negative emotions by asking athletes to rate the disappointment, negative feelings, and frustration they felt at that moment (α = .86). We assessed positive emotions by asking athletes to rate the happiness, positive feelings, and satisfaction they felt at that moment (α = .91).

Results

Successful and unsuccessful goal attainment. Of the total of 34 athletes, 10 succeeded in attaining their goals, and 24 failed.[1] A multivariate analysis of data, with forecasted positive and negative emotions and felt positive and negative emotions as dependent variables and goal attainment as independent variable, yielded a significant multivariate result, $F(4, 29) = 2.80$, $p < .05$. Follow-up univariate analyses showed that successful and unsuccessful athletes did not differ in their forecasted emotions, Fs < 1. However, they did differ in the intensity of the

TABLE 1. Means and Standard Deviations for Forecasted and Felt Negative Emotions After Unsuccessful Goal Attainment, and Forecasted and Felt Positive Emotions After Successful Goal Attainment

	Goal attainment			
	Successful (*n* = 10)		Unsuccessful (*n* = 24)	
Measure	*M*	*SD*	*M*	*SD*
Forecasted positive emotions	7.93	0.63	7.78	0.66
Forecasted negative emotions	5.50	1.53	5.17	1.65
Felt positive emotions[a]	7.70	1.54	5.47	1.83
Felt negative emotions[a]	1.87	1.22	3.54	1.82

[a]Represents significant differences between means within a row.

emotions they felt. Successful athletes felt more intense positive emotions than did unsuccessful athletes ($M = 7.70$, $SD = 1.54$ vs. $M = 5.47$, $SD = 1.83$), $F(1, 32) = 11.38$, $p < .01$, whereas unsuccessful athletes felt more intense negative emotions than did successful athletes ($M = 3.54$, $SD = 1.82$ vs. $M = 1.87$, $SD = 1.22$), $F(1, 32) = 7.06$, $p < .01$ (see Table 1).[2]

The impact bias in track athletics. The impact bias implies that successful athletes overestimate the intensity of their positive emotions, whereas unsuccessful athletes overestimate the intensity of their negative emotions. To investigate athletes' impact bias, we conducted a mixed analysis of variance with focal emotions (i.e., forecasted and felt positive emotions for successful athletes and forecasted and felt negative emotions for unsuccessful athletes, respectively) with repeated measures and goal attainment as independent variables.[3]

These analyses showed the following effects: A significant main effect of *goal attainment*, $F(1, 32) = 54.60$, $p < .01$, indicated that across the forecasted and felt emotions, successful athletes rated their positive emotions as more intense than unsuccessful athletes rated their negative emotions. A significant effect of focal emotions, $F(1, 32) = 6.02$, $p < .05$, indicated that across positive and negative emotions, athletes predicted more intense emotions than they actually felt. This effect indicates that, as hypothesized, athletes display an impact bias. A marginal significant interaction effect of *goal attainment* and *focal emotions*, $F(1, 32) = 3.38$, $p < .10$, suggests that the impact bias differs for positive and negative emotions. Follow-up analyses with planned comparisons showed that successful athletes felt approximately equally intense positive emotions ($M = 7.70$, $SD = 1.54$), which they had predicted ($M = 7.93$, $SD = 0.62$), $F < 1$. In contrast, unsuccessful athletes felt less intense negative emotions ($M = 3.54$, $SD = 1.82$) than they had predicted ($M = 5.17$, $SD = 1.65$), $F(1, 23) = 13.01$, $p < .01$. As hypothesized, these findings indicate that the impact bias is more pronounced for negative emotions following unsuccessful goal attainment than it is for positive emotions following successful goal attainment.

Discussion

In the present research, we examined affective forecasting using a field study among track athletes. Our findings demonstrated that athletes overestimated the emotions they would experience following the outcome of a track race; that is, they displayed an impact bias. This impact bias was only found for negative emotions following unsuccessful goal attainment, indicating that athletes' impact bias was larger for negative events than it was for positive events. These findings are the first empirical evidence for an asymmetrical impact bias in the domain of active competitive sports.

Because the marginally significant interaction effect was found between goal attainment and focal emotions, the previously mentioned conclusion should be treated with some caution. For example, one may argue that the sample size

for successful goal attainment was too small to detect meaningful differences. However, there are also reasons to suggest that this conclusion concerning an asymmetrical impact bias is indeed valid. First, several studies in other domains than active competitive sports have shown that the impact bias is typically more pronounced for negative events than it is for positive events. Second, in a recent follow-up study, Van Dijk, Finkenauer, and Pollmann (2008) replicated the interaction effect between goal attainment and focal emotions, using a large sample size for successful goal attainment. Both these reasons support the present conclusion that the impact bias tends to be more pronounced for negative events than it is for positive events.

A possible reason why athletes grossly overestimated the intensity of their negative emotions toward failing to reach their goals may be that athletes fail to recognize how rapidly they regulate their negative experiences. Regulation processes such as coping, psychological defenses, and rationalization may not be necessarily conscious, and that may be one of the reasons why athletes fail to take them into account when predicting their future emotional reactions. The present research also shows that these regulation processes may result in the counterintuitive finding that unsuccessful goal attainment can actually evoke more positive feelings than negative feelings.

An important possible limitation of the present research is that our study was a nonexperimental field study. Successful and unsuccessful goal attainments were not randomly assigned to participants, and this lack of experimental control prevents the possibility of making any causal statements. This means that the results obtained could also be attributed to specific a priori characteristics of the athletes, thereby representing a limitation of this research. Future research could aim at experimentally inducing the (non)attainment of goals, making causal statements about specific relations possible. Follow-up studies could also combine multiple assessments of forecasted and experienced emotions before and after the focal event has taken place, enabling the examination of possible dynamic changes in emotions (cf. Finkenauer et al., 2007). Moreover, future studies could focus in more depth on the specific regulation processes that individuals use after failing to attain their goals.

Concluding Remarks

The implications of the present study lead us to question why track athletes overestimate their future negative emotions. Would it not be better if athletes could accurately predict how much defeat will hurt? A possible answer may be that the exaggeration of the impact of emotional events serves a motivating function (Wilson & Gilbert, 2005). For example, the impact bias could make athletes work hard to obtain successes that they predict will have large positive consequences and avoid defeats they predict will have large negative consequences. However, the downside of this process may be that overestimating the negative impact of defeats creates (unnecessary) anxiety about future performances.

NOTES

1. Successful athletes ran 1.03% ($SD = 0.48\%$) faster than the goal they set prior to the race, whereas unsuccessful athletes ran 2.63% ($SD = 2.90\%$) slower than their set goal.

2. An additional analysis showed that successful and unsuccessful athletes did not differ in their goals (in terms of running time), $t(32) = 1.55$, *ns.*

3. Athletes were asked to predict their positive emotions after successful goal attainment and their negative emotions after unsuccessful goal attainment. Neither athletes' forecasted negative emotions after successful goal attainment nor their forecasted positive emotions after unsuccessful goal attainment were assessed. Therefore we did not conduct an overall mixed analysis of variance with focal emotions as repeated measures and goal attainment (successful vs. unsuccessful) and valence of emotions (positive vs. negative) as independent variables.

AUTHOR NOTE

Wilco W. Van Dijk is an associate professor in the Department of Social Psychology at VU University Amsterdam. His main research interests are emotions and interpersonal processes.

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