Reversing downward performance spirals.


**Word Count: 2500**

Reversing Downward Performance Spirals

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Abstract

Research has typically portrayed downward performance spirals as inevitable following initial failure experiences. On the basis of social identity theorizing, we provide a prescription for reversing these spirals. In two experiments, we manipulated the source of failure feedback between successive trials on a task. Participants in each experiment initially performed the task better in the presence of an ingroup versus an outgroup member. Subsequently, performance worsened only after discouraging feedback from an ingroup member, and improved only after encouraging feedback from an ingroup member. Experiment 2 showed that motivation mediated these effects: Those who became motivated to prove the outgroup wrong and the ingroup right were most likely to recover from earlier poor performance. Therefore, downward performance spirals are not inevitable; they can be reversed by harnessing the uniquely potent combination of ingroup influence and intergroup competition.

*Keywords:* Intergroup Dynamics; Feedback; Motivation; Social Influences
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Initial performance setbacks frequently spiral into defeat. For example, the last nine baseball teams to go 2-0 down in the World Series have gone on to lose the series outright (MLB.com, 2012). Such downward performance spirals have been a source of fascination in the research literatures on learned helplessness, self-efficacy, and self-confidence (Abramson, Seligman, & Teasdale, 1978; Bandura, 1997). Similarly, the recent explosion of research on stereotype and social identity threat was triggered by Steele’s (1997) observation that people who risk confirming a negative group stereotype frequently underperform relative to past performance. Each of these influential literatures portrays downward spirals as difficult to reverse once they are initiated. But are they? And, if not, what is the most reliable way for individuals to interrupt them? A research-based answer to this question is sorely needed on both theoretical and practical grounds. We tested the idea that failure feedback can be either motivating or demotivating depending on its form and its source (ingroup vs. outgroup).

Intergroup (“us-versus-them”) dynamics are known to have a powerful impact on motivation and behavior (Ellemers, Gilder, & Haslam, 2004). We posited that intergroup dynamics play a key role both in initiating downward spirals and in determining their later trajectory. Concerning the first part of this claim, research suggests that the presence of an outgroup test administrator, experimenter, or evaluator provokes underperformance, particularly when the task is difficult and/or threatening (Baratz, 1967; Katz & Greenbaum, 1963; Marx & Goff, 2005; Rumenik, Capasso, & Hendrick, 1977). All else being equal, performance in the presence of others reflects the fact that ingroup members are sources of implicit security and outgroup members are sources of implicit threat.
To our knowledge, there is no research that addresses the second part of our claim, that intergroup dynamics can make the difference between perpetuating and reversing a downward spiral. Tajfel (1982) explicitly theorized that the nature of social alliances shapes people’s interpretation and response to feedback. When group identity is salient, ingroup members are part of our self-concept, and are thus (unlike outgroup members) perceived as qualified to inform us about social reality. Put simply, performance-related feedback is more likely to be seen as valid and useful when provider and recipient share a salient group membership (Turner, 1991). For the same reasons, we hypothesized that ongoing performance is more contingent on ingroup feedback (seen as valid) than outgroup feedback (seen as invalid), and that these effects are underpinned by emerging motivations to prove the feedback provider right or wrong.

To test our ideas, in two experiments, we assessed three rounds of performance in the presence of ingroup and/or outgroup experimenters who provided failure feedback paired with specific claims about why participants had failed and how likely they were to fail again. We expected that in the first round, prior to receiving feedback, participants would perform better in the presence of an ingroup (vs. outgroup) experimenter (consistent with the past work reviewed above); in the second round, following failure and discouraging feedback, all participants would perform poorly (reflecting a particular drop in performance among those with an ingroup evaluator); but in the third and final round, following failure and encouraging feedback, only those with an ingroup evaluator would improve. In other words, the latter two trials should demonstrate the unique power of ingroup feedback to shape the performance trajectory. Additionally, the second experiment tested our prediction that emerging motivation to resist versus accept the feedback would underpin late-stage performance.
Experiment 1

Method

High-performing university athletes (19 men and 21 women aged 18-23) completed three trials of a task in which they threw three darts blindfolded at a modified dartboard from 5ft. away. In each trial, it was possible to score up to 10 points per dart, for a total score of 0-30 points. Participants’ objective was to score as many points as they could. As no significant main or interaction effects involving gender emerged in analyses, we do not discuss demographic factors further.

Between the three trials, participants received two rounds of bogus failure feedback, paired each time with a different causal attribution (first discouraging and then encouraging; adapted from Försterling, 1988). After the first trial, participants were informed that they had achieved a total score of just six points and that the cause of their “failure” was beyond their control and unlikely to change. This feedback was reinforced by inserting participants’ initials and score on a bogus results sheet where the range 0-10 had been labeled “failure,” 11-20 “average,” and 21-30 “good.” The sheet also contained 41 prior “results” ranging from 13 to 24 with a mean of 17.41 ($SD = 2.79$). After the second trial, participants were informed that they had achieved a score of just three points (i.e., had again failed), but that, contrary to what they had previously been told, the cause of their “failure” was within their control and likely to change.

Importantly, the feedback came from experimenters who were wearing a sweatshirt emblazoned with the name of the students’ own university (an ingroup member) or that of a rival university (an outgroup member). In the United Kingdom, the outgroup is recognized as the best university for sport and sport science; the ingroup is consistently ranked in the top three
universities. In pilot testing with an independent sample of ingroup peers, 19 of 23 participants (significantly more than chance: $z = 3.13, p < .002$) agreed that “[the outgroup university] has a higher status in sport and sport science than [the ingroup university].” Using a fully crossed 2 (first experimenter’s affiliation) $\times$ 2 (second experimenter’s affiliation) between-participants factorial design, we randomly assigned participants to receive feedback from either the ingroup or the outgroup on the first occasion and then the same or the opposite source on the second occasion. We explained the presence of the outgroup experimenter, where applicable, by claiming that the ingroup university was the location for part of another research project involving the outgroup university.

**Results and Discussion**

The pattern of results was in line with our predictions. Prior to receiving feedback, participants performed better in the presence of an ingroup ($M = 11.35, SE = 1.36$) than an outgroup experimenter ($M = 6.20, SE = 1.35$), $t(38) = 2.69, p = .011, d = .85$ (see Figure 1, left panel). Following failure paired with discouraging feedback, all participants performed equally poorly in a second trial, $t(38) = 1.12, p = .27, d = .35$. However, only participants who received this feedback from an ingroup experimenter showed a significant drop in performance (Trial 2: $M = 6.25, SE = 1.10$), $t(19) = 3.41, p < .01, d = .77$. Participants who received the initial feedback from an outgroup experimenter did not have reliably worse performance (Trial 2: $M = 4.50, SE = 1.11$), $t(19) = 1.87, p = .08, d = .43$.

Following further failure paired with encouraging feedback, participants performed better in the presence of an ingroup experimenter (combined $M = 10.85, SE = 1.16$) than an outgroup experimenter (combined $M = 4.95, SE = 1.00$), $t(38) = 3.85, p < .01, d = 1.22$. Moreover, performance in the third trial only improved when the feedback was provided by an ingroup
experimenter. This improvement occurred regardless of whether the participants had initially been with an ingroup experimenter (from Trial 2: $M = 6.00$, $SE = 1.55$ to Trial 3: $M = 11.80$, $SE = 1.26$), $t(9) = 5.63$, $p < .01$, $d = 1.85$, or had initially been with an outgroup experimenter (from Trial 2: $M = 4.20$, $SE = 1.40$ to Trial 3: $M = 9.90$, $SE = 1.97$), $t(9) = 4.71$, $p < .01$, $d = 1.66$.

Performance of those in the other two conditions did not change significantly (outgroup experimenter throughout, Trial 2: $M = 4.80$, $SE = 1.86$ to Trial 3: $M = 2.80$, $SE = 1.20$, $t(9) = 1.84$, $p = .10$, $d = .67$; ingroup then outgroup experimenter, Trial 2: $M = 6.50$, $SE = 1.64$ to Trial 3: $M = 7.10$, $SE = 1.33$, $t(9) = .37$, $p = .72$, $d = .12$).

To summarize, it seems impossible to interpret the findings of Experiment 1 without reference to intergroup dynamics, which operated both implicitly (in shaping performance at Trial 1) and explicitly (in shaping performances at Trials 2 and 3). Feedback in the latter trials was only effective in changing performance when it was delivered by the ingroup experimenter. These effects are of both statistical and practical significance and were moderate to large in size. Nonetheless, a replication of the key findings was in order. In Experiment 2, a replication and extension, we sought to directly assess whether emerging intergroup motivations underpin these effects.

**Experiment 2**

**Method**

We recruited a new set of 40 high-performance athletes (all male; aged 18–22) from the same university (and using the same ingroup/outgroup categorizations) as in Experiment 1. We simplified the design by including only the two key conditions in which the experimenter changed (from ingroup to outgroup or vice versa). To investigate the role that intergroup motivations may have played in stimulating performance improvements, once participants had
completed the final trial (and been informed of their score) we presented them with four motivations they might have felt: to prove the ingroup right, to prove the ingroup wrong, to prove the outgroup right, and to prove the outgroup wrong. Participants were asked to indicate the extent to which those responses corresponded to their own motivations by placing one or more check marks, corresponding to the intensity of their endorsement, next to each motivation they had felt.

**Results**

The pattern of results (and the size of the effects) was essentially identical to that obtained in Experiment 1. Prior to receiving feedback, participants performed better in the presence of an ingroup ($M = 13.60, SE = 1.08$) than an outgroup experimenter ($M = 7.90, SE = 1.31$), $t(38) = 3.36, p < .01, d = 1.07$ (see Figure 1, right panel). Following failure and discouraging feedback, all participants performed poorly in a second trial, $t(38) = .24, p = .82, d = .07$. However, only participants who received this feedback from an ingroup experimenter showed a significant drop in performance (Trial 2: $M = 8.20, SE = 1.19$), $t(19) = 5.59, p < .001, d = 1.25$; participants who received the initial feedback from an outgroup experimenter did not have reliably worse performance (Trial 2: $M = 8.60, SE = 1.24$), $t(19) = .52, p = .61, d = .12$.

Following further failure and encouraging feedback, participants performed better in the presence of an ingroup ($M = 11.90, SE = 1.12$) than an outgroup ($M = 6.65, SE = 1.51$) experimenter, $t(38) = 2.79, p < .01, d = .89$. Moreover, performance in the third trial only improved when the feedback was provided by an ingroup experimenter, $t(19) = 3.19, p < .01, d = .72$; there was no significant change in performance for participants with an outgroup experimenter, $t(19) = 1.34, p = .20, d = 31$. 
Next, we tested our prediction that motivations to resist identity-threatening feedback could plausibly have mediated late-stage performance improvements. Motivations to “prove the ingroup wrong” and “prove the outgroup right” were endorsed by only 3 of the 20 participants in the ingroup-outgroup condition and 0 of the 20 participants in the outgroup-ingroup condition. Because so few people endorsed these motivations, and they were skewed (both 4.98) and leptokurtic (both 25.61), we removed them from any further analysis. Motivations to “prove the ingroup right” and “prove the outgroup wrong” were endorsed by 19 of the 20 participants in the outgroup-ingroup condition, and 7 of the 20 participants in the ingroup-outgroup condition, with acceptable values for skewness (1.10, 1.21) and kurtosis (.56, .78). However, because these latter two motivations were highly correlated ($r = .73, p < .001$) (with considerable conceptual overlap), we combined them into one indicator of motivation.

We used the procedure and SPSS macro developed by Preacher and Hayes (2008) to compute percentile bootstrap confidence intervals (as recommended by Fritz, Taylor, & MacKinnon, 2012) for the indirect effect via motivation. The independent variable was contrast coded (outgroup experimenter first = +.5; ingroup experimenter first = -.5). The indirect effect was significant (3.71, 95% percentile bootstrap CI 1.57 to 6.44), with a large effect size (.29: Preacher & Kelley, 2011). Significant paths from independent variable to mediator ($p < .0001$) and mediator to dependent variable ($p < .01$) support the result of the bootstrapping procedure. Furthermore, the significant path from independent variable to dependent variable ($p < .01$) became non-significant when the mediator was included in the model ($p = .48$), implying that motivation fully mediated the performance effect.
Discussion

Downward performance spirals have been noted in a number of different domains of practice and research. However, these literatures have failed to account for the ways that individuals and groups sometimes “snap out of” them. Our data strongly indicate that the usual portrayal of downward spirals as inevitable once begun is too pessimistic. Thus, as well as recognizing the liabilities associated with group identities, our theories about performance need also to recognize their equally strong potential as a psychological resource.

Both the constructive and the deconstructive sides of shared group membership are illustrated by our data. First, shared group membership functions as an implicit performance booster: consistent with past work, participants whose first experimenter was an outgroup member performed significantly worse than those whose first experimenter was an ingroup member. Second, explicit performance feedback—whether encouraging or discouraging—is more impactful when it comes from an ingroup member: in our two experiments, discouraging feedback (after Trial 1) only impaired future performance, and encouraging feedback (after Trial 2) only improved it, when that feedback was provided by an ingroup member. These results thus provide an empirical demonstration of Tajfel’s (1982) hypotheses about the unique potency of ingroup feedback in shaping performance.

The indirect effect analysis in Experiment 2 also demonstrated that those who indicated a resistance to the outgroup’s view of reality and an adherence to the ingroup’s view instead were most likely to recover from earlier poor performance by capitalizing on that motivation. Thus, our data suggest that an extremely important stimulus for recovering from initial setbacks is the provision of encouraging feedback that fits with performers’ unfolding understanding of intergroup dynamics. The importance of these intergroup dynamics has, to date, gone largely
unrecognized. A potential avenue for future research is to ask whether individual differences in group identification might moderate these effects.

The ability to turn in a good performance ‘when the chips are down’ has long been considered the hallmark of a champion. Our research shows that people can snap out of downward performance spirals when they become motivated by an emerging desire to prove the outgroup wrong and the ingroup right. Downward performance spirals are not inevitable; they can be reversed by harnessing a combination of ingroup influence and intergroup competition—by not only willing us to be right, but also them to be wrong.
References


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Figure 1. Performance across trials in Experiment 1 (left panel) and Experiment 2 (right panel).

Error bars indicate standard errors.