



INDIVIDUAL PRESENTATION PROPOSAL
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- 1. Title of presentation:** Performance Feedback Moderators: Distance from the goal, velocity, and acceleration
First index term: 34 Industrial/Organizational
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- 4. Accommodation request:** None
- 5. Preferred mode of presentation:** Poster Session
- 6. Special equipment will be used in presentation:** None
- 7. Summary to be posted on the APA Web site:** No
- 8. Division to submit this proposal:** 14 - Industrial and Organizational

Performance Feedback Moderators: Distance from the goal, velocity, and acceleration

The feedback literature has often been interested in assessing how a single feedback message affects performance, mood, and other related constructs. In doing so, feedback sign has typically been dichotomously categorized as either positive or negative. However, in actual work situations employees are usually given a series of feedback messages in which they can track improvement or decline. Might this type of feedback be interpreted differently than a single feedback message? A second related issue is the relationship between the feedback message and the distance to the goal. Negative feedback that is close to the goal might be interpreted differently than a message indicating that performance was not even close to the goal. The present studies examined how differences in feedback sign, velocity, acceleration, and distance to the goal differentially impact performance, satisfaction, mood, and motivation.

Several studies have found evidence for increased effort and performance with negative feedback (Anderson & Rodin, 1989; Kernan & Lord, 1991; Podsakoff and Farh, 1989). Other research, however, has shown that negative feedback may lead to rejection of the feedback message and thus no differences in performance (e.g., Ilgen et. al, 1979).

Several studies have examined feedback that indicated the rate of discrepancy reduction, also known as velocity. Velocity direction has been linked to performance satisfaction (e.g., Hsee et. al, 1994).

Numerous studies have stated the importance of setting goals on performance (see Locke & Latham, 1990, for review). Goal-setting theory states that for employees to be motivated, goals must be clear, specific, attainable, and, whenever possible, quantified (Riggio, 1996). The distance away from a set goal may effect how attainable the employee perceives the goal.

Recent studies (e.g., Hsee et al., 1991) have suggested that velocity (rate of performance-goal discrepancy reduction) may play a critical role in understanding the impact of negative feedback on performance. However, what if most of the improvement (positive velocity) occurs early in the task process? What if improvement occurs towards the end? Study 1 explored the impact of the rate of improvement on performance, motivation, and mood.

Study 1

Method

Participants were 199 undergraduate students recruited from introductory psychology classes for partial fulfillment of a course requirement. The results of 20 participants were discarded due to computer related malfunctions.

Task. Participants entered six-digit number strands into the computer. Participants entered as many strands as possible within each four-minute session.

Procedure. After a brief introduction and cover story, participants were then allowed a four-minute practice trial to ensure that they understood the instructions. After the brief practice trial, participants were told they would complete six trials, each lasting 4 minutes. Participants were told that their goal was to attain the 80th percentile and if they achieved their goal, they would be entered in a drawing to receive one of three cash prizes.

After completing the sixth and final trial, participants were then asked to answer several post-task questionnaire items designed to assess mood, satisfaction, motivation, and other relevant

constructs.

Feedback Sign. After completing each trial, participants in all but the no feedback control condition were given a false feedback message via their computer monitor. Participants were either given a) positive feedback, which indicated that they had reached the goal of the 80th percentile, b) negative feedback, or c) no feedback.

Velocity. Participants receiving negative feedback were randomly assigned to one of three levels of rapidly increasing velocity (RIV). All participants were initially told that they were at the 30th percentile. The last feedback message indicated that they had reached the 70th percentile for an overall velocity of 40%. However, the rate of increase varied by condition. Participants received feedback indicating either a) early RIV, b) constant RIV, or c) late RIV.

Results and Discussion

Consistent with prior research (see Kluger and DeNisi, 1996, for discussion) participants who received negative feedback outperformed those who received either no feedback or positive feedback, $F(4, 173) = 2.7, p < .05$. Although performance was not affected, participants who received late RIV feedback messages showed higher levels of satisfaction, motivation, encouragement, happiness, and confidence ($ps < .05$).

Study 2 examined how differences in the distance to the goal affected performance, mood, satisfaction, and motivation. Participants in the negative feedback conditions were told they were either far from (45th percentile) or close to (65th percentile) the goal.

Study 2

Method

Participants. The method and procedure for study 2 were nearly identical to the previous study. Participants were 172 undergraduate students (30 were discarded) recruited from introductory psychology classes for partial fulfillment of a course requirement.

Task. Participants completed a data entry task identical to the one performed in study 1. Participants were told that their goal was to reach the 80th percentile.

Feedback Sign. Participants were randomly assigned to one of four feedback sign conditions: positive, negative far from the goal (45th percentile), negative close to the goal (65th percentile), or no feedback. Participants received the feedback message after each trial.

Velocity. The negative feedback message, both close to and far from the goal, varied on the rate of improvement (velocity) in the message. Participants in these conditions were either given a) a constant velocity message b) a velocity of 20% (i.e., the percentile rank increased 20 points from the first message to the last, but averaged either 45% or 65%) or c) a velocity of 45%.

Results and Discussion

Analyses revealed that negative feedback tended to increase performance only when participants

believed that they were close to the goal, $F(3, 141) = 2.4, p = .07$. Participants who received negative feedback far from the goal actually had the lowest performance.

Participants in the high velocity condition indicated that they were happier and more satisfied with their performance compared to participants in the zero velocity condition ($p < .05$).

The results of the two studies indicate that negative feedback can lead to increased performance, but this effect appears to be moderated by the distance from the goal. Although velocity did not appear to affect performance, participants who had a higher velocity or later RIV, showed greater motivation, positive affect, and increased satisfaction.

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