Attributions and Performance During Competition

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According to Weiner (1979, 1985), causal attributions for success and failure can be classified along three dimensions (internal/external, stable/unstable, controllable/uncontrollable). Weiner has also suggested that the dimensional properties of attributions affect feelings and behavior. Particularly under failure conditions, attributions to unstable, controllable factors are hypothesized to enhance positive emotions as well as the intensity, persistence, and quality of performance.

Weiner’s predictions have been tested in a variety of educational settings (Andrews & Debus, 1978; Dweck, 1975; Fowler & Peterson, 1981; Schunk, 1982). In general, these studies have shown that an emphasis on effort attributions can enhance persistence and performance quality in the face of failure. However, these findings have not been reliably replicated in sport-like contexts. As a result, sport researchers have questioned the effectiveness of effort-oriented attribution training (Roberts, 1982) and called for more research into the appropriateness of Weiner’s model for predicting behavior in sport (Rejeski & Brawley, 1983).

This study was designed to test behavioral predictions from Weiner’s (1979, 1985) model in a competitive situation. Subjects were provided with either an effort-oriented or ability-oriented instructional set for a competitive task, and practice behavior as well as performance scores were monitored across a series of trials. On the basis of Weiner’s model and findings in other settings, it was predicted that the effort orientation would lead to greater persistence in practice behavior and better performance scores, especially under failure conditions.

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Method

Design and Subjects

The design of the study was a $2 \times 2 \times 2 \times 4$ factorial with task orientation (effort, ability), outcome (win, lose), achievement tendency (high, low), and trial (1, 2, 3, 4) as independent variables. Achievement tendency was included in the design because high and low achievers typically exhibit different attributional patterns and different reactions to success and failure (Kukla, 1972; Weiner & Kukla, 1970). This factor was operationalized by administering the Mehrabian Scale (Mehrabian & Bank, 1978) to 220 male undergraduates. Individuals scoring in the upper third of the distribution were defined as high achievers, and those scoring in the bottom third of the distribution were defined as low achievers. Eighty-one individuals from these two groups were randomly assigned to experimental conditions.

Task and Procedure

The experimental task required subjects to compete against each other while throwing darts with their nonpreferred hand at a target on the floor 1.52m (5 ft) away. The targets had a diameter of 19cm with a 1-cm bull’s-eye and nine additional equidistant rings. Point values were displayed on the targets and ranged from 10 points for a bull’s-eye to 1 point for the outermost ring.

Subjects reported for the study in pairs 2 to 4 weeks after completion of the Mehrabian Scale. They were told they would be competing against each other in a best four-out-of-seven dart-tossing contest. They were then allowed a dry-run trial to familiarize themselves with the task. The dry-run trial took place with subjects in separate rooms and included a 2-minute, free-time practice period followed by six throws with the experimenter present. These six throws constituted a performance test on which points were totalled for a performance score. The number of throws made during the practice period was determined later by counting the holes in the target. The practice and performance scores on this dry-run trial were premanipulation measures on the dependent variables of interest and provided a statistical control for chance differences among the experimental groups.

An attributional manipulation was then administered by giving subjects different descriptions of the task. Half of the subjects were given an effort-oriented description and half were given an ability-oriented task description (cf. Kukla, 1972; Yukelson, Weinberg, West, & Jackson, 1981; changes in parentheses):

We are having you throw with your nonpreferred hand because we are trying to separate people on the basis of a particular factor. Since no one uses their opposite hand very much, this is a very pure task. It is pure in the sense that how well you do depends almost entirely on how much effort you put into it (on your natural eye-hand ability). Practically everyone who succeeds at this task does so because he works at it very hard (because he has the natural ability to do this sort of thing well). Failure is almost always related to a lack of effort (to a low level of natural eye-hand ability).