Effects of Achievement Standards and Choice on a Basketball Skill

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Bandura (1977), within the context of social learning theory, has defined self-reinforcement as a process where ‘individuals regulate their behavior by making self-reward conditional upon matching self-prescribed standards of performance’ (pp. 115-116). Bandura and Perloff (1967) have also stressed that “there are two important elements within a self-reinforcing event whose independent effects must be assessed before persistence of self-reinforced behavior can be meaningfully interpreted” (p. 113): self-administration of reward and self-imposition of an achievement standard. Much research (e.g., see Thoresen & Mahoney, 1974) has been conducted on the reward component of self-reinforcement. Only a paucity of research designed to study the effects of choice of achievement standards on performance has been performed, however. This research is deemed important because Thoresen and Mahoney (1974) have reviewed evidence that choice may influence performance.

Several laboratory studies have assessed the independent effects of choice and achievement standards in conditions where no tangible rewards were present. Research (Mizes & Schuldt, 1980, 1981; Schuldt & Bonge, 1979) has demonstrated that subjects performed more in conditions where achievement standards were present than in conditions where no standards were present, although there was no significant relationship (Mizes & Schuldt, 1980) between the magnitude of standards and number of responses. Moreover, there is evidence that choice of achievement standards influences performance; research (Mizes & Schuldt, 1981; Schuldt & Bonge, 1979) has demonstrated that subjects performed more when they chose their own standards than when such standards were explicitly imposed by an experimenter.

In the studies cited, the dependent variable was a motor task—manual wheel turning—taking place in a laboratory setting. The present study was designed to assess if achievement standards and choice had similar effects on a sports task involving motor skills—basketball shooting—taking place on a basketball court. It was hypothesized that (a) subjects will take more shots and will shoot more accurately in conditions where achievement standards are present than in conditions where no

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standards are present, and (b) subjects will shoot more shots and shoot more accurately in a condition where they choose achievement standards than in a condition where achievement standards are explicitly imposed by an experimenter.

Method

Subjects

Volunteer undergraduate students ($N = 84$), enrolled in a general psychology course, participated as subjects. Due to a matching procedure, described below, scores of 6 females and 12 males were discarded. Thus, the final sample consisted of 33 males and 33 females.

Procedure

Subjects were randomly assigned to one of three conditions: a base-rate control condition, a self-selected achievement standard condition, or an experimenter-imposed achievement standard condition. The base-rate condition was included to assess basketball shooting performance of subjects in the absence of achievement standards. In this condition, subjects were initially asked to rate their basketball shooting ability on a 5-point scale anchored by “very poor” and “excellent.” They were then instructed to take basketball shots from any of five markers placed 15 ft. (4.57 m) around the perimeter of the basket; that is, they were asked to take a shot, rebound, move to the nearest marker, and take another shot. They were instructed to shoot continuously for 4 min, at which time the experimenter told them to stop.

Subjects in the self-selected achievement standard condition completed the scale and were given instructions similar to the base-rate group. In addition, they were asked to select a goal for themselves; that is, they were instructed to choose a goal of either 5, 10, or 15 shots. Subjects were also told that they might reach their goal more than once during the 4-min period, and that a whistle would be blown by the experimenter when they reached their goal.

Subjects in the experimenter-imposed achievement standard condition performed the same task and were given instructions similar to those for subjects in the self-selected standard condition. They did not select their achievement standard, however. Rather, they were explicitly informed that the experimenter had selected their goal.

The achievement standards imposed by the experimenter were yoked to standards selected by subjects in the self-selection condition to ensure equity of achievement standards between experimental conditions. Following data collection, subjects were matched across conditions by sex according to achievement standards to ensure comparability between all conditions. The scores of nonmatching subjects were discarded.

Results

A $3 \times 2$ (standard condition $\times$ sex) analysis of variance was conducted on the subjects’ ratings of their shooting ability to determine if subjects assigned to various conditions differed in perceived shooting ability. No significant effect was found for