Review

A meta-analytic review of the approach-avoidance achievement goals and performance relationships in the sport psychology literature

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Abstract

Purpose: To summarize the approach-avoidance achievement goal and performance in the sport psychology literature.

Methods: A total of 17 published studies, two of which provided two samples, were located. Accepted meta-analytic procedures were used with Hedges *g* as the effect size metric. From the 17 studies, 73 effect sizes were calculated.

Results: Results based on a random effects model indicated that the performance goal contrast had the largest facilitative impact on performance followed by the mastery and performance approach goals. Both of the avoidance goals performance and mastery had small non-significant and detrimental effects on performance. The homogeneity statistics revealed significant heterogeneity for the approach and avoidance performance goals. Categorical moderator variables were examined for study sex composition (male, female, or mixed), mean age of sample (<18 years or ≥18 years), study setting (lab or naturalistic), and nature of performance variable (objective or subjective).

Conclusion: The performance goal contrast holds value for sport performance research. Contrary to approach-avoidance predictions, the mastery-approach goal and performance effect size was significant and of equal magnitude as the performance approach goal and performance effect size. Thus, future research should closely test the efficacy of both the mastery- and performance contrasts in impacting performance of sport tasks. Last, the significant effect sizes reported in this review are in stark contrast to contemporary meta-analytic findings in education. Differences in the approach-avoidance goals in sport and education relative to performance should be researched further.

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1. Introduction

Understanding predictors of sport performance, in a variety of contexts and under a variety of conditions, is undoubtedly a goal of sport psychology research. A number of sport psychology interventions such as goal setting[1] and constructs such mood states[2] have been extensively examined as to their impact on performance of a wide range of tasks in competitive sport and physical activity (PA) settings. In addition to these

and many other sport psychology interventions and constructs, achievement motivation is a sport psychology topic of great interest. Performance may be seen as the "gold standard" outcome of achievement motivation research.[3] Performance certainly is widely accepted as the "gold standard" outcome in achievement centered within sport and PA contexts. The achievement goal approach[4] has for decades been a dominant motivational framework. This framework has accounted for hundreds of competitive sport, leisure time exercise, and physical education invesatigations.[5] For decades the dichotomous achievement goal approach has been the framework of choice. This framework is concerned with an individual's subjective interpretation of success corresponding to the task or mastery and ego or performance achievement goals. But, since Elliot and colleagues[6–9] proposed and introduced

measures for approach-avoidance goal dimension to the dichotomous goal framework, a number of studies in sport psychology[10] have appeared let alone hundreds of studies in other broad domains such as education[11] and organizational psychology.[12]

Though only approximately 50 published approach-avoidance studies in sport and exercise psychology were reported by Stevenson,[10] a number of approach-avoidance articles have appeared in the sport and exercise psychology literature since her review such that in a variety of contexts with a wide array of antecedents and consequences surrounding Elliot's approach-avoidance goals.[13–16] One specific area that has gained attention within the approach-avoidance achievement goal literature is the relationship of Elliot and colleagues' approach-avoidance goals to performance of tasks that were clearly presented as an outcome of importance and performed in front of others (i.e., the researchers or within a group setting) in sport and physical education contexts.[3,17–32] Given the different types of measures combined with different settings (e.g., true golf score[17,27] to laboratory golf putting[22]) to the vast array of study participants (e.g., university students[22,25,26] to elite athletes[17,20,31]), no one consensus statement of the relationship exists between the approach-avoidance achievement goals exits. Thus, the purpose of the present quantitative investigation was to summarize the approach-avoidance achievement goal and performance literature within normally considered psychology of sport and PA settings. Based on the results, a secondary purpose was to provide recommendations for future research.

1.1. Elliot's approach-avoidance achievement goals

Stemming from the dichotomous achievement goal framework[4] there are two orientations by which achievement motivation is influenced, task and ego, and thereby how personal competency is judged. Individuals endorsing a task or mastery orientation are primarily motivated by personal mastery or improvement. Thus, these individuals reflect a self-referenced standard of personal achievement to gauge their personal competency for a desired behavior. Conversely, an ego oriented person strives to win and is motivated to attain high normative standards of ability. Ego-oriented individuals judge success and failure on other-referenced standards and are motivationally "fragile" when they doubt their own competence.[33] While the dichotomous task and ego distinction relates to how competence is defined, the approach-avoidance dimension relates to how competence is valenced. This approach-avoidance dimension is the contribution of Elliot and colleagues.[7,8]

An approach valence indicates a behavior that is initiated by a positive or desirable event or possibility. In contrast, an avoidance valence indicates a behavior which is initiated by a negative or undesirable event or possibility.[7,8] Thus, approach goals focus on attaining competence, whereas avoidance goals focus on avoiding incompetence. Initially, Elliot and colleagues[6,8,9] proposed a trichotomous framework with the mastery, performance approach, and performance avoidance

goals. These three goals were the focus of the hierarchical model of achievement motivation.[8] The trichotomous model was then expanded with bifurcation of the mastery goal into the mastery approach and mastery avoidance goals.[7,34–36] With this 2×2 achievement goal framework, competence based on the mastery-approach goal is defined by a focus on task-based attainment such as improving upon one's past personal record in a 100-m dash, whereas competence based on the mastery-avoidance goal is defined by a focus on avoiding a worsening of task-based attainment such avoiding not improving upon one's personal record in the 100-m dash. From the performance goal perspective, the performance-approach goal defines competence based on normative achievements such as the star running back on a football team focusing on rushing for more yards than the opponent's star running back, whereas the performance-avoidance goal defines competence based on avoiding displays of normative incompetence such as not rushing for more yards than the opponent's star running back.

1.2. Purpose and hypotheses

The aim of the present research was to clarify the approach-avoidance achievement goal and sport performance literature by conducting a meta-analytic review of Elliot defined approach-avoidance goals and performance studies to determine the impact of each goal as well as the performance goal contrast on performance. With regards to hypotheses, historically only the performance goals have been hypothesized to impact or be related to performance standards. But, recently Huang[11] in an extremely comprehensive meta-analysis of the dichotomous, trichotomous, and 2×2 achievement goal frameworks found that the mastery and performance approach goals were nearly equal in effect size magnitude and direction to the academic performance (means $r = 0.10$ and 0.13, respectively for the mastery and performance approach goals and academic achievement). Also of interest were the low albeit statistically significant magnitudes of these mean correlations as well as the nearly identical mean correlations with the avoidance goals and academic achievement (means $r = -0.11$ and -0.13 for the mastery and performance avoidance goals, respectively). Last, the notion that the performance goal contrast was a better predictor of performance has emerged in the sport psychology literature.[3,19,28] In addition, in the exercise psychology domain, Lochbaum and colleagues[37] demonstrated that both the performance and mastery goal contrasts were significantly different along a continuum of exercise participation stages in a theoretically coherent pattern with the positive contrast scores greater in the longer adhering exercise stages compared to the less adhering and non-exercising stages.

Hence, in generating hypotheses based on both the sport and education literature would suggest that all of the achievement goals would be related to sport performance with the mastery, mastery approach, and performance approach goals being facilitative and the two avoidance goals being