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Article in *Journal of Sport and Exercise Psychology* · June 1993

DOI: 10.1123/jsep.15.2.160

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Goal Orientations and Perceptions of the Sport Experience

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Nicholls's (1984a, 1984b, 1989) conceptual framework was used to study the relationship between two implicit goal orientations (task and ego) and achievement behaviors. This study examined the relationship between the goal orientations and (a) beliefs concerning determinants of success, (b) competition and practice strategies, (c) practice benefits, and (d) enjoyment. Subjects were 182 male and 114 female high school athletes who competed in at least one sport during the 1989-1990 school year. Factor analyses were conducted to determine the composition of the relevant factors. Ten factors emerged. Canonical analysis was employed to determine the relationship between goal orientations and the 10 subscales. The results, consistent with the hypotheses, showed that athletes with a task orientation focused on adaptive achievement strategies whereas athletes with an ego orientation focused on potentially maladaptive achievement strategies. The implications of the results to sport participation are discussed.

Key words: achievement, ego, task

To understand motivated behaviors in achievement contexts, researchers of late have adopted social-cognitive models. One model that has gained acceptance in both academic and sport contexts is the conceptual framework of Nicholls (1984a, 1984b, 1989). Nicholls is concerned with the relationship between two implicit goal orientations, task orientation and ego orientation, and subsequent achievement beliefs and behaviors. The two orientations are theorized to reflect two distinct ways in which success and failure are subjectively defined and ways in which one judges demonstrated competence.

Task orientation operates when the individual's actions are primarily motivated by personal improvement, personal mastery, or personal achievement of

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higher perceived ability. Success and failure are subjectively defined by the individual's self-referenced perception of his or her performance. Ego orientation is characterized by actions that are primarily motivated to demonstrate normative competence. Success and failure are most generally judged by comparison with the performance of others.

Nicholls (1989) states that the goal orientations are determinants of an individual's implicit theory of academic achievement that involve perceptions of the purposes of education (Nicholls, Patashnick, & Nolen, 1985), as well as beliefs about the causes of success in academic contexts. Recent research has confirmed that conceptually consistent relationships between the achievement goal orientations and the purposes of and beliefs about the educational experience operate in the classroom. For example, Nicholls et al. (1985) found that achievement goal orientations were related to "world views" about the purposes of education. A task orientation was related to education being an end in itself and focusing on learning. An ego orientation was related to education being a means to an end, that end being wealth and status.

Nicholls et al. (1985) also found a consistent relationship between goal orientations and beliefs about the academic context. An ego orientation was related to beliefs that success is the product of superior ability and of outperforming peers. A task orientation was related to beliefs that success is the product of effort, cooperation with classmates, and trying to understand classroom materials.

Recently, these conceptual arguments have been applied to sport contexts, and the research has demonstrated the relevance and pertinence of achievement goal orientations to purposes of sport and beliefs about the causes of success in sport (see Duda, 1992). Duda (1989b) demonstrated that an ego orientation was related to the perception that sport should enhance one's self-esteem and status and that a task orientation was related to the perception that sport should teach one to try one's best and to be a good citizen. Roberts, Hall, Jackson, Kimiecik, and Tonymon (1990) also found that task-oriented athletes endorsed prosocial purposes of sport, while ego-oriented athletes endorsed achieving status through sport. To date, however, few studies have investigated beliefs about the causes of success in sport contexts.

Knowledge of factors believed to contribute to success in sport helps us understand the achievement strategies of individuals. In academic contexts, ego-oriented students believe success is the exercise of superior ability over others, whereas task-oriented students believe success is the product of learning, understanding, and effort (Nicholls, Cobb, Wood, Yackel, & Patashnick, 1990; Nicholls et al., 1985; Thorkildsen, 1988). Duda, Fox, Biddle, and Armstrong (1992) found evidence that in sport task-oriented subjects believed success in sport was linked to working hard and to doing one's best. Ego-oriented subjects, on the other hand, believed that success was the possession of superior ability. Therefore, it was hypothesized that ego-oriented athletes in the present study would endorse external criteria of success, while task-oriented athletes would endorse more internal and personally controllable factors.

When considering achievement strategies in sport, most studies are limited to the competitive experience itself. But in sport, achievement strategies are also important in practice. Therefore, in this study we considered both competitive experiences and practice sessions. We hypothesized that task-oriented athletes would endorse effort and persistence as contributing to success in both practice

and competitive contexts; ego-oriented athletes, on the other hand, would endorse the demonstration of ability in competitive contexts and would endorse criteria not conducive to adaptive achievement strategies in practice. Ego-oriented athletes believe ability is the prime determinant of success, endorse normative standards of achievement, and wish to demonstrate ability. Therefore, ego-oriented athletes would not be expected to endorse effort and persistence in practice. These athletes endorse work avoidance (Duda et al., 1992) and prefer to perform where normative standards apply.

Another possible influential source contributing to an athlete's achievement strategy is satisfaction derived from participation. For instance, if an athlete derives satisfaction from mastery (i.e., learning and doing one's best), then the athlete should endorse effort and persistence as achievement strategies. If an athlete derives satisfaction from demonstrating superior performance to others (i.e., to normative comparisons), then the athlete should focus on outcome and normative comparisons and exert less effort in practice. It was hypothesized that task-oriented athletes would derive satisfaction from self-referenced assessments and that ego-oriented athletes would derive satisfaction from normative comparison assessments.

Method

Subjects

The participants in this study were 182 male and 114 female high school students, all athletic participants in the 1989–1990 school calendar year in three Midwest communities. The age range for students was 13 to 18 with the mean ages 16.1 and 15.7 for males and females, respectively. The participants included freshmen (29.7%), sophomores (30.4%), juniors (22.0%), and seniors (17.9%) in the following variety of interscholastic sports: football, basketball, track and field, volleyball, baseball, softball, wrestling, golf, swimming, cheerleading, and gymnastics.

Questionnaire Development

To measure perceived causes of success, competition strategies, practice strategies, practice benefits, and competition satisfaction, 33 items were developed by reviewing the achievement and sport-competition literature and by adapting items from questionnaires relevant to the investigation (Duda, 1989b; Nicholls et al., 1985; Roberts et al., 1990). The items for each of the 5 subscales of the questionnaire (Perceived Causes of Success, Competition Strategies, Practice Strategies, Practice Benefits, and Competition Satisfaction) were subjected to a principal-component factor analysis followed with an oblique rotation. The number of factors for each construct was determined by a minimum eigenvalue of one, the scree plot, and by a minimum of 5% of variance accounted for by each factor. In addition, for a specific item to load on a factor, a minimum factor weight of .4 was required.

Measures

Task and Ego Orientation in Sport Questionnaire (TEOSQ). This questionnaire, developed by Duda and Nicholls (1989), measures individual differences in task and ego goal perspectives in the sport context. The athlete thinks

of a successful sport experience and responds to 13 items reflecting task- and ego-referenced criteria. Responses to items "I really work hard" and "I'm the best" are indicated on a 5-point Likert scale ranging from *strongly disagree* (A) to *strongly agree* (E).

The orthogonal stability of the TEOSQ has been previously demonstrated (Boyd, 1990; Duda, 1989b; Duda & Nicholls, 1989). In addition, the research by Duda and her colleagues (Duda & Nicholls, 1989; Duda, Olson, & Templin, 1991; White, Duda, & Sullivan, 1991) has demonstrated the high internal consistency of the Sports Task Orientation and Sports Ego Orientation scales ($\alpha = .81$ to $.86$ and $.79$ to $.90$, respectively). For the present study, a principal-component analysis with orthogonal rotation was conducted. The results demonstrated the stability of the factor structure and supported Duda's results. The Cronbach's alpha coefficients for the present study were $.82$ and $.79$ for task and ego orientations, respectively.

Perceived Causes of Success. This measure contained 13 items relating possible causes of success in competitive sport. These 13 items were preceded by the following stem: "While engaged in competition, there are many factors that help athletes and/or their team succeed. What factors do you believe are most likely to help athletes and/or their team to succeed?" Responses were indicated on a 6-point Likert scale ranging from *strongly disagree* (A) to *strongly agree* (F). The factor analysis revealed three factors (see Figure 1). Factor 1, labeled Team Effort/Ability, reflected those items indicating that the team's effort and ability is a determinant of success. The second factor, Chance, was comprised of a variety of items emphasizing the importance of factors not completely under athlete control. Factor 3, Social Approval, consisted of items underscoring the importance of athletes following aspects of competition that coaches generally perceive as important. The reliability and percentage of variance accounted for were $.57$ and 16.7% , $.66$ and 42.9% , $.50$ and 10.2% , respectively, for the subscales of Chance, Team Effort/Ability, and Social Approval.

Competition Strategies. This measure contained five items that assessed behavioral intensity, persistence, and coach compliance while competing in sport. Responses were indicated on a 6-point Likert scale ranging from *strongly disagree* (A) to *strongly agree* (F). The results of the factor analysis for the questions pertaining to competition strategies revealed just one factor, labeled Coach Approval/Effort. The factor is comprised of strategies reflecting coach compliance and effort (see Figure 1). The reliability coefficient and percentage of variance accounted for were $.68$ and 43.2% , respectively.

Practice Strategies. This measure contained five items that assessed perceptions about the necessity of practicing sport skills. Responses were indicated on a 6-point Likert scale ranging from *strongly disagree* (A) and *strongly agree* (F). The factor analysis revealed two factors that formed the subscales for practice strategies (see Figure 1). Factor 1, labeled Practice Avoidance, reflects the belief that practice is not necessary for competition preparation. The second factor, Practice Mastery, comprised items that reflect the need for practice. The reliability coefficients and percentage of variance accounted for each factor were $.70$ and 42.8% , $.58$ and 23.4% , respectively.

Practice Benefits. This measure contained four items that assessed perceptions about the benefits of practice. Responses were indicated on a 6-point Likert scale ranging from *strongly disagree* (A) to *strongly agree* (F). The factor analysis

Beliefs about success

Factor 1—Team effort/ability (eigenvalue = 2.14, % variance = 42.9, Cronbach alpha = .66)

- .722 They give their best effort (do their best).
- .696 They work as a team.
- .687 They are proficient (good) at their sport.
- .587 They have a love for the game.
- .567 They are “naturally” athletic.

Factor 2—Chance (eigenvalue = 2.18, % variance = 16.7, Cronbach alpha = .57)

- .754 They get lucky often (get all the bounces).
- .745 The officials are on their side.
- .527 They win.
- .415 They wear/use the most expensive uniforms and equipment.

Factor 3—Social approval (eigenvalue = 1.32, % variance = 10.2, Cronbach alpha = .50)

- .799 Their coach expects success.
- .583 They try to beat others.
- .584 They impress the coach.
- .434 They are good sports (follow the rules).

Competition strategies

Factor 1—Coach approval/effort (eigenvalue = 2.16, % variance = 43.2, Cronbach alpha = .68)

- .817 I pay attention to the coach.
- .801 I do as I am told by the coach.
- .667 I do not quit until the final buzzer sounds.
- .502 When new skills are not working well, I keep trying them.

Practice strategies

Factor 1—Practice avoidance (eigenvalue = 2.14, % variance = 42.8, Cronbach alpha = .70)

- .811 I do not need to practice because I am a natural athlete and skills come easy to me.
- .785 I do not need to practice very often because playing the game/performing is what keeps me sharp.
- .759 I am bored in practice because I am better than most people that I perform against.

Factor 2—Practice mastery (eigenvalue = 1.17, % variance = 23.4, Cronbach alpha = .58)

- .833 I often practice on my own.
- .832 I enjoy practice because I want to improve.

Figure 1 — Pattern matrix coefficients for sport and enjoyment factors. (continued)

Practice benefits

Factor 1—Skill/learning (eigenvalue = 1.73, % variance = 43.3, Cronbach alpha = .63)

.815 I can learn new skills.

.793 It helps me become a better team player.

-.656 There are no benefits to practice.

Factor 2—Demonstrate ability (eigenvalue = 1.11, % variance = 27.8)

.927 I can demonstrate how good I am.

Satisfaction from competition

Factor 1—Personal satisfaction (eigenvalue = 2.59, % variance = 43.2, Cronbach alpha = .75)

.871 I achieved my personal goal standards.

.853 I know that I've done my best.

.715 I just feel great/proud of myself.

.539 I (my team) won the game.

Factor 2—Normative ability satisfaction (eigenvalue = 1.32, % variance = 22.1, Cronbach alpha = .71)

.878 I showed everyone (coaches, fans, and opponents) my superior ability.

.847 I "showed up" my opponent.

Figure 1 — (continued)

revealed two factors pertaining to the questions reflecting benefits of practice (see Figure 1). Factor 1, Skill/Learning, consists of items reflecting that practice can improve athletes' skills and team cohesion. In addition, a global item, which rejected the belief that practice is not beneficial, loaded on this factor. The second factor consisted of just one item that reflects the demonstration of ability in practice. The reliability coefficients and percentage of variance accounted for skill/learning were .63 and 43.4%. The Demonstrate Ability subscale was a one-item factor. Therefore, a reliability coefficient could not be computed. The percentage of variance accounted for was 27.7%.

Competition Satisfaction. This measure consisted of six possible internal or external sources from which athletes derive satisfaction after having just competed in a sport contest. Responses were indicated on a 6-point Likert scale ranging from *strongly disagree* (A) to *strongly agree* (F). The results of the factor analysis for the satisfaction from competition section revealed two factors (see Figure 1). The first factor, Personal Satisfaction, reflects satisfaction derived from personal mastery achievement that is most under an athlete's control. However, winning also loaded on the factor. The second factor, Normative Ability Satisfaction, reflects satisfaction derived from demonstrating that one's ability is superior to normative others. The reliability coefficients and percentage of variance accounted for were .75 and 22.1%, .70 and 53.8%, respectively.

Procedure

School participation was enlisted by calling each school's athletic director, who granted permission to administer the questionnaire in either an activity period or a physical education class already incorporated in the school's schedule. Normal informed consent procedures were adopted. At the appointed time, athletes were invited to participate, and athletes were told that their participation was voluntary, that their responses would be confidential, and that their questions concerning any confusions would be answered. The procedure and questionnaire completion took approximately 20 minutes.

Results

The relationships between perceptions of causes of success, competition and practice strategies, practice benefits, and satisfaction from competition with the goal orientations were investigated.

Relationships Between Goal Orientations, Sport Beliefs, and Enjoyment

Correlations for all participants were computed between the means of the task- and ego-orientations subscales and the mean scores of the 10 competitive sport-factors subscales. As shown in Table 1, consistent patterns emerged for the relationships between the goal orientations and the beliefs and enjoyment

Table 1
Correlations Between Goal Orientation and Sport Beliefs and Enjoyment Factors

	Task	Ego
Competition factors		
Beliefs about success		
Team effort/ability	.26**	.02
Chance	-.12	.30**
Social approval	.05	.16
Competition strategies		
Coach approval/effort	.46**	-.14
Practice strategies		
Practice avoidance	-.38**	.28**
Practice mastery	.50**	-.12
Practice benefits		
Skill/learning	.55**	-.24
Demonstrate ability	.14	.20*
Satisfaction from competition		
Personal	.44**	.08
Normative ability	-.02	.44**

* $p < .01$. ** $p < .001$.

factors. Task orientation was positively and strongly related with coach approval/effort, practice mastery, skill/learning benefits or practice, and personal satisfaction. Moderate correlations were observed for team effort/ability as contributors to success and for practice avoidance. The correlation between practice avoidance and a task orientation was negative, implying that practice is necessary.

Ego orientation was moderately and positively correlated with practice avoidance, normative ability satisfaction, and with the belief that chance contributes to success. Moderate, negative correlations were observed for coach approval/effort as a competitive strategy and skill/learning as a benefit of practice.

To further examine the relationship between the goal orientations and the sport beliefs and enjoyment factors, a canonical correlation analysis was conducted. Two significant canonical functions emerged (Wilks's $\lambda = .316$; canonical correlations were .76 and .50 and canonical redundancy values were .23 and .23 for Functions 1 and 2, respectively). As seen in Table 2, there was a high, positive loading for task orientation on Function 1 and a moderately high negative loading for an ego orientation on Function 1. To be considered significant, the item must load at least .30 on any one factor (Tabachnick & Fidell, 1983). The task-goal perspective was positively related to coach approval/effort, practice mastery, skill/team enhancement, and personal satisfaction from competition; it

Table 2

Canonical Loadings: Goal Orientations and Sport Beliefs and Enjoyment for All Subjects

	Function 1	Function 2
Criterion variables		
Goal perspectives		
Task orientation	.9390	.3438
Ego orientation	-.4078	.9131
Predictor variables		
Competition factors		
Beliefs about success		
Team effort/ability	.2773	.3072
Chance	-.3248	.4308
Social approval	-.0481	.3409
Competition strategies		
Coach approval/effort	.6287	.0684
Practice strategies		
Practice avoidance	-.6005	.2175
Practice mastery	.6633	.2012
Practice benefits		
Skill/team enhancement	.7798	.0119
Social demonstration	.0836	.4651
Satisfaction from competition		
Personal	.5314	.5333
Normative ability	-.2176	.8187

was negatively related to practice avoidance and chance as a contributor of success.

In the case of Function 2, the canonical loadings indicated that both ego orientation and task orientation contributed significantly to this function, but ego orientation clearly dominated. The ego orientation related positively to satisfaction in normative ability demonstration, personal satisfaction, and the social demonstration benefits of practice. Ego orientation also related positively to chance, social approval, and team effort/ability as a contributor to success.

Discussion

This study revealed that both task and ego orientations are related to perceptions and beliefs about success, competition and practice strategies, practice benefits, and satisfaction in a conceptually coherent manner. Specifically, those athletes who were task oriented endorsed beliefs of success that were adaptive—they believed success was the result of effort and persistence. Ego oriented athletes, on the other hand, endorsed normative criteria of defining success and achievement.

Task orientation was related to adaptive achievement strategies. Task-involved athletes endorsed persistence as a competitive strategy, meaning that one must practice to optimize performance, that practice is important for enhancing skill, and that satisfaction is derived from personal mastery attempts in competition. These athletes did not endorse chance as an element of success or normative ability demonstration as a source of success. Task-involved athletes generally endorse adaptive achievement strategies. These athletes exert effort, persist, consider their own performance important, and work hard in practice to enhance their skills. Thus, task-oriented athletes are likely to engage in mastery strategies in competition and practice.

Ego orientation was not related to the adaptive achievement strategies, as was the goal of task involvement. Ego-involved athletes, instead, endorsed chance and social approval as causes of athletic success, practice as important for demonstrating superior athletic ability, and satisfaction as derived from both mastery experiences and normative ability assessments. Normative-ability assessments were very strongly endorsed. These athletes appear to avoid the exertion of effort and persistence as achievement strategies, focusing more upon normative ability assessments and external sources of success.

The evidence presented here confirms that the goal orientations of athletes affect their perception of the sport experience and their perception of the achievement behaviors and strategies necessary to achieve success. Task-involved athletes endorse mastery strategies and focus upon self-referenced criteria for determining success. They also believe in working hard in practice and in enhancing skill development. Further, task-involved athletes ignore normative-ability assessments with their peers. These strategies are consistent with adaptive achievement striving; in the face of difficulty or failure, these athletes are more likely to persist and demonstrate desirable achievement strategies.

Ego-involved athletes, on the other hand, focus upon external criteria for determining success. They believe that chance and their response to social expectations are important success criteria. Further, they believe demonstrating norma-

tive ability is an important achievement strategy. These strategies are consistent with maladaptive achievement striving; in the face of difficulty or failure, these athletes are less likely to persist and demonstrate motivation.

This was especially true in the practice context. Similar to the students in Duda et al.'s (1992) research, ego-involved athletes "avoid work" in practice, preferring instead to utilize normative criteria even in practice. Such beliefs are not conducive to desirable achievement strategies. It must be recognized, however, that if the ego-oriented athletes perceive themselves as high in ability, they may persist and show high levels of motivation (Duda, 1992). But, as Dweck and Leggett (1988) pointed out, the motivation of ego-involved athletes is potentially fragile in the face of continued failure or difficulty because these occurrences give ego-involved athletes negative normative ability assessments, leading to maladaptive achievement striving.

In summary, these findings confirm that high school adolescents have goal orientations that parallel their beliefs about causes of success, competition and practice strategies, practice benefits, and enjoyment in sport. Similar to the children in the Duda et al. (1992) study, the adolescents here reveal that two goal orientations are extant and are related to perceptions about the achievement strategies necessary to realize success. These findings are consistent with previous research in academic settings where dispositions or situation-induced goal orientations have been investigated (Ames & Archer, 1988; Butler, 1987; Duda & Nicholls, 1992) and with sport research where disposition goal orientations have been investigated (Duda et al., 1992; Duda & Nicholls, 1992; Roberts et al., 1990).

It would appear desirable that we attempt to imbue all athletes with task-involved criteria for assessing success or failure. When an individual holds a task-involving orientation toward success and failure, the achievement strategies are assumed to be under one's personal control. We would then expect the athletes to exert effort and be persistent in achievement contexts. This orientation lends itself to motivated behavior and satisfaction with the sport experience.

In contrast, when an individual holds an ego-involved orientation toward success and failure, the achievement strategies are assumed to be dependent upon how one fares compared to others. The athlete focuses upon the outcome of his or her efforts and is dependent upon the assessment of others. Thus, athletes dependent upon external criteria of assessing success and failure are more likely to question their own commitment and motivation to engage in sport, especially if they have questions of their own competence. This immediately suggests that, were we to propose an intervention with coaches, we would recommend that coaches attempt to link social approval with task-involving criteria of success and failure. Were this the case, we may see more striving for achievement on the part of athletes, because they may be more likely to base their behaviors upon task-involvement criteria.

Though this study did not ascertain how an athlete becomes ego or task involved, researchers have demonstrated that when task involvement is emphasized (Ames, 1992; Ames & Archer, 1990; Lloyd & Fox, 1992) or perceived by students (Ames & Maehr, 1989; Powell, 1990), then students have engaged in more adaptive achievement strategies. The present study implies that task-involved criteria of determining success and failure are important if we wish athletes to demonstrate adaptive achievement strategies.

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Manuscript submitted: July 7, 1992

Revision received: February 10, 1993

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