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Dimensions of Achievement Motivation in Schoolwork and Sport

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Both sport and academic work play large roles in school life, yet there is little comparative evidence on the nature or generality of achievement motivation across these domains. In this study, beliefs about the causes of success in school and sport of 207 high school students were found to be related in a logical fashion to their personal goals. The ego-involved goal of superiority was associated with the belief that success requires high ability, whereas task orientation (the goal of gaining knowledge) was associated with beliefs that success requires interest, effort, and collaboration with peers. These goal–belief dimensions, or theories about success, cut across sport and schoolwork. However, little cross-domain generality was found for perceptions of ability and intrinsic satisfaction. Intrinsic satisfaction in sport primarily related to perceived ability in that setting. Task orientation, not perceived ability, was the major predictor of satisfaction in schoolwork.

Both sport and schoolwork loom large in the lives of U.S. adolescents. Yet, in studies of achievement motivation, these domains are normally examined separately. We explored the possibility that the pattern of associations among measures of achievement-related individual differences would differ for sport and school and that some dimensions might be general, cutting across sport and school, whereas others might not. To frame these questions, we first review past work concerning dimensions of achievement motivation in the classroom. Second, we consider differences in these dimensions and their interrelationships that might occur in the domain of sport. Third, we address the issue of the generality of individual differences across sport and the classroom.

Theories of Success in the Classroom

In a postmodern view (Nicholls, 1989), scientific and personal theories of the way the world operates are intimately linked to the goals or purposes of those who construct the theories. This position is consistent with the ecological approach to social perception (McArthur & Baron, 1983) and the intentional approach to thought and action (Dennett, 1977), which share the assumption that people's thoughts and actions are related to their goals in a rational fashion.

In congruence with this perspective, recent research has found students' goal orientations in school to be consistent with their beliefs about how success is generally achieved in that context. Factor analytic studies have revealed at least two independent dimensions of both personal academic goals and beliefs about the causes of school success (Nicholls, Cheung, Lauer, & Patashnick, 1989; Nicholls, Cobb, Yackel, Wood, & Wheatley, 1990; Nicholls, Cobb, Wood, Yackel, & Patashnick, 1990). The first dimension, task orientation, consists of the goal of improving one's skill or gaining insight or knowledge and the beliefs that, in order to succeed, students must work hard, attempt to understand schoolwork, and collaborate with their peers. The second dimension, ego orientation, is defined by the goal of establishing one's superiority over others and the beliefs that success in school requires attempts to beat others and superior ability. In some investigations (Nicholls, Cobb, Wood, et al., 1990), a third dimension of work avoidance has been found, which entails the goal of not working hard and the belief that success is dependent on behaving "nicely" in class. (This convergence of individual differences in goals and beliefs about the causes of success parallels the effects of situational manipulations of goals on causal attributions for success and failure, Ames, 1984b; Butler, 1987; Nicholls, 1975.)

Sport Versus the Classroom

One purpose of this study was to determine whether the goal–belief dimensions revealed in previous classroom work also exist for sport. Open-ended interviews and sentence completion studies have indicated that task- and ego-oriented goals are relevant in the athletic setting (Duda, 1986, 1989). Yet, it is not clear from this research whether these goal orientations are independent and converge with beliefs about the causes of success, as they do for schoolwork.

A second purpose of the study was to compare, for school and sport, the relationships among goal orientations, perceptions of ability, and intrinsic satisfaction with the activity. Academic task orientation, ego orientation, and work avoidance are each only slightly correlated with perceived ability (Nicholls, Patashnick, & Nolen, 1985; Nicholls et al., 1989; Nicholls, Cobb, Wood, et al., 1990; Thorkildsen, 1988). Satisfaction with schoolwork does not correlate highly with perceived ability or ego orientation but is moderately highly correlated with task orientation (Nicholls et al., 1985, 1989; Thorkildsen, 1988).

Sport, more so than education, is constituted on the basis of overt competition (Coakley, 1986); competition is integral

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to sport in that it is one of the defining features of sport. On the basis of this property, one might expect a moderate association between perceived ability and ego orientation. This is because ego-oriented individuals with low perceived ability would see few opportunities to show themselves to be superior in athletic settings. That is, such persons would not expect to achieve what they construe as success and would experience a decrease in ego orientation (Klinger, 1975). Thus, only those persons who see themselves as competent are likely to have a high level of ego orientation in sport.

An appreciable correlation was also expected between task orientation and perceived ability in sport. At the high school level, relatively incompetent players are less likely to be on teams and, if on a team, more likely to be "bench warmers." Therefore, task-oriented individuals who doubt their competence would expect little chance to achieve their goal of skill improvement. In other words, we predicted that, in contrast to the classroom, task orientation in sport would be more likely among those with high perceived ability.

This suggests that, if a sport participant does not have fairly high perceived ability, she or he will probably not experience or expect much satisfaction in sport. As in the classroom, a moderate association between task orientation and intrinsic satisfaction was expected (Duda, Chi, Newton, Walling, & Catley, in press; Orgell & Duda, 1990). However, given the competitive nature of sport, the relationship between perceived ability and intrinsic satisfaction was predicted to be stronger in sport than in the classroom. This is consistent with Sansone (1986), who found that when a task was presented as a test of ability, students with low perceived competence enjoyed a task less than did those with high perceived competence. When the task presentation was less evaluative, intrinsic satisfaction and perceived competence were not associated.

Generality or Specificity?

The question of domain specificity versus cross-situational generality has long been a focus of debate. Some scholars (Mischel, 1973, 1979; Mischel & Peake, 1982) have questioned whether there is pronounced cross-situational consistency. Others, however, have argued for the existence of traits (Epstein & O'Brien, 1985; Epstein & Teraspulsky, 1986). With respect to achievement motivation, Weiner (1990) suggested that there is little generality across domains. This claim appears consistent with Coleman's (1961) and others' research (Duda, 1986; Eitzen, 1976; Thirer & Wright, 1985) indicating that among adolescents commitment to sport can exist at the expense of investment in academic work.

Mischel (1973) pointed out the diversity of person variables and argued that certain variables are situationally specific, whereas others generalize across contexts. In other words, broad statements about generality might not hold up. We expected that goal orientations and beliefs about the causes of success, more so than perceived ability and satisfaction, would generalize across sport and the classroom.

Measures of goal orientation reflect the type or quality of one's personal criteria of success. Thus, one might be task-oriented—that is, one might prefer doing one's best and gaining skill or knowledge—whenever one engages in achievement activities, even though one's preferences for particular activities differ markedly. Similarly, beliefs about the causes of success might be similar across domains, even though individuals might vary greatly in their desire for success in these different domains. Thus, we expected goals and beliefs to generalize more than satisfaction. In keeping with previous evidence (Chapman, 1988; Eccles & Harold, 1991; Harter, 1987, 1988; Marsh, Byrne, & Shavelson, 1988), we expected little generality in perceived ability.

Method

Subjects

A total of 207 high school students (99 male and 108 female) from a moderately large city in the Midwest (population of 200,000) provided informed consent to participate in this investigation. The students were in the 10th grade (6.3%) or the 11th grade (93.7%), with a mean age of 15.1 years. Seventy percent of the subjects were White, 22% were Black, 3% were Hispanic, 3% were Asian American, and 2% did not specify race/ethnic background.

The sample was roughly representative of their school and grade level in terms of race and unselected with respect to level of involvement in sport. Of the sample, 23% were presently participants on one or more interscholastic or community-based teams. Although not currently involved on such teams, an additional 59% of the subjects had been members of an interscholastic or community sport team. Only 18% reported never having played on such a team.

Procedure

In group settings, the subjects were orally administered a questionnaire by a teacher trained by Joan L. Duda. Subjects anonymously indicated their responses on a computer-scored sheet. The questionnaire took approximately 30 min to complete.

Assessments. The students' sex, age, grade in school, race/ethnicity, and past and present sport involvement were assessed at the beginning of the questionnaire. The remainder of the questionnaire included assessments of the subjects' goal orientations, beliefs about the causes of success, level of satisfaction and interest, and perceived ability in sport and the classroom. Order of presentation of the sport- and classroom-specific items was counterbalanced.

Goal orientations. The subjects' degree of task orientation, ego orientation, and orientation to work avoidance in the classroom was assessed with 19 items based on the Motivational Orientation Scales (Nicholls, 1989; Nicholls et al., 1985, 1989; Nicholls, Cobb, Wood, et al., 1990). Two additional items assessed the goal of cooperation in school (see Table 1). The introduction to the goal orientation scale–classroom asked subjects to reflect on when they personally feel most successful in their schoolwork. The stem for each item, "I feel really successful when. . ," also maintained the focus on personal criteria of success. On this and the following scales, the subjects indicated their degree of agreement with each item on a 5-point Likert-type scale ranging from *strongly agree* (1) to *strongly disagree* (5).

We constructed 21 parallel items specific to sport, for a goal orientation scale–sport. Subjects were requested to think of the sport they play most often and to indicate when they feel most successful in this activity. Because the classroom-specific assessment described above did not focus on a particular school subject but tapped students'

Table 1
Factor Analysis Results (Oblimin Rotation): Classroom Goal Orientation Items

Item: I feel really successful when . . .	Factor 1: Ego Orientation	Factor 2: Task Orientation	Factor 3: Work Avoidance	Factor 4: Cooperation
I know more than other people.	.79			
I have the highest test scores.	.82			
Others get things wrong and I don't.	.69			
I'm the only one who can answer questions.	.66			
I'm the smartest.	.87			
I beat others.	.75			
I can do better than my friends.	.58			
Others can't do as well as me.	.58			
I work really hard.		.58		
What I learn really makes sense.		.77		
I solve a problem by working hard.		.69		
Something I learn makes me think about things.		.78		
I get a new idea about how things work.		.69		
I do my very best.		.52		
I learn something interesting.		.92		
Something I learn makes me want to find out more.		.78		
I can goof off.			.86	
I don't have to try hard.			.69	
I don't have anything tough to do.			.80	
My friends and I help each other figure things out.				.75
My friends and I help each other.				.86
Eigenvalue	5.82	4.40	1.75	1.02
% of variance	27.7	21.0	8.3	4.9
Correlations among factors				
Factor 1	—			
Factor 2	.21	—		
Factor 3	.19	−.17	—	
Factor 4	−.11	.56	−.21	—

Note. Only factor loadings greater than .40 are presented.

overall goal orientation in school, neither the level (e.g., interscholastic or community-based) nor type (i.e., individual or team activity) of sport was specified for the students. In this way, the students' general motivational orientation in sport could be determined. Items are presented in Table 2. The stem for each item was, "I feel really successful when. . ."

Beliefs about the causes of success. Drawing from the measures of Nicholls and his colleagues (Nicholls et al., 1985, 1989; Thorkildsen, 1988), we asked students "What do you think is most likely to help students to do well or succeed in schoolwork?" and to indicate their degree of agreement with 20 causes of classroom success (see Table 3). To maintain the focus on causes of success (as opposed to personal criteria of success, as for goal orientations), we used this stem for each item on the beliefs about the causes of success scale–classroom "People succeed if. . ."

We developed 20 parallel items on beliefs about the causes of success specific to sport (see Table 4). The general question introducing this scale was, "What do you think is most likely to help people do well or succeed in the sport you play most often?" The stem for each item was, "People succeed if. . ."

Intrinsic satisfaction. Students were asked to respond to 8 items assessing their degree of intrinsic satisfaction with and interest in school and schoolwork (see Table 5; Nicholls et al., 1985, 1989). We constructed 8 parallel items for sport (see Table 6). The items comprised the intrinsic satisfaction–classroom and the intrinsic satisfaction–sport scales, respectively.

Perceived ability. We used a 4-item measure from previous work (Nicholls et al., 1985, 1989) to assess perceived academic ability (e.g., "I am one of the smartest students"; "I am less able than most other students"). Four parallel items were developed to assess perceived ability in sport (e.g., "In sport, I am one of the best athletes"; "In sport, I am one of the worst athletes"). The items formed the perceived ability–classroom and perceived ability–sport scales, respectively.

Analyses

We conducted factor analyses of the goal, belief, and satisfaction items and scale scores using the principal-components method. The number of factors retained was equivalent to the number of eigenvalues greater than one. Both Varimax and Oblimin rotations were used in each case. These rotations produced very similar results in each analysis, and consequently only the Oblimin solutions are presented.

We examined the relationships between the motivational variables of interest with Pearson product–moment correlations and factor analysis. The elements of interest in the resulting correlation matrix were compared with the general framework expressed in Steiger's

Table 2
Factor Analysis Results (Oblimin Rotation): Sport Goal Orientation Items

Item: I feel really successful when . . .	Factor 1: Task Orientation	Factor 2: Ego Orientation	Factor 3: Cooperation	Factor 4: Work Avoidance
I can keep practicing hard.	.81			
I work really hard.	.70			
I learn a new skill by trying hard.	.74			
Something I learn makes me want to practice more.	.79			
I get the knack of doing a new skill.	.90			
A skill I learn really feels right.	.72			
I do something I couldn't do before.	.57			
I do my very best.	.52			
Others can't do as well as me.		.83		
I do better than my friends.		.82		
I beat the others.		.76		
I'm more skilled than other people.		.75		
Others mess up and I don't.		.60		
I'm the only one who can do the skill.		.71		
I'm the best.		.48		
I have the highest score.		.45		
My friends and I help each other do our best.			.80	
My friends and I help each other improve.			.96	
I can goof off.				.82
I don't have to try.				.75
I don't have anything tough to do.				.70
Eigenvalue	5.65	4.18	1.63	1.08
% of variance	26.9	19.9	7.9	5.1
Correlations among factors				
Factor 1	—			
Factor 2	−.09	—		
Factor 3	.55	−.13	—	
Factor 4	−.23	.12	−.22	—

Note. Only factor loadings greater than .40 are presented.

(1980) Equation 16 (p. 247) and the test statistic given in his Equation 21 (p. 248).

Results

Preliminary Analyses of Scales

Goal orientations. As can be seen in Table 1, factor analysis of the 21 goal orientation scale–classroom items indicated four factors, namely, Ego Orientation, Task Orientation, Work Avoidance, and Cooperation. The respective alphas of the corresponding scales were .89, .89, .73, and .71.

As shown in Table 2, factor analysis of the 21 goal orientation scale–sport items revealed four comparable factors. Respective alphas were .86, .89, .66, and .66.

Beliefs about the causes of success. Factor analysis of the classroom belief items revealed four dimensions (see Table 3). The four factors were labeled Deception, Motivation/Effort, Ability, and External Factors. The respective alphas were .77, .86, .63, and .83. Comparable results were obtained for the sport items (see Table 4). Respective alphas were .76, .87, .67, and .79.

Intrinsic satisfaction. Factor analyses of the schoolwork satisfaction items revealed two factors. As can be seen in Table 5, the three items that loaded on Factor 1 reflected boredom with schoolwork. Five items loaded on Factor 2, which was labeled Satisfaction/Enjoyment. The alpha coefficients for the boredom and satisfaction/enjoyment scales in school were .71 and .82, respectively.

Factor analyses of intrinsic satisfaction in sport items revealed two similar factors (see Table 6). The first (5 items) was labeled Satisfaction/Enjoyment; the second factor was named Boredom. Alphas for these factors were .94 and .83, respectively.

Perceived ability. The coefficient alphas for academic- and sport-specific measures of perceived ability were .86 and .89, respectively.

Goal-Belief Dimensions: Theories of Success in Sport and the Classroom

To examine the dimensions of goals and beliefs in sport and the classroom, we conducted a factor analysis on all

Table 3
Factor Analysis Results (Oblimin Rotation): Classroom Belief Items

Item: People succeed if . . .	Factor 1: Deception	Factor 2: Motivation/Effort	Factor 3: Ability	Factor 4: External Factors
They are attractive and have the right clothes.	.83			
They know how to impress the teacher.	.80			
They know how to make themselves look better than they are.	.81			
They pretend they like the teacher.	.81			
They know how to cheat.	.65			
They work really hard.		.75		
They always do their best.		.73		
They are interested in learning.		.81		
They help each other learn.		.69		
They try to figure things out.		.71		
They try to understand instead of just memorizing things.		.73		
They like to think about school subjects.		.71		
They are smarter than others.			.84	
They are born naturally intelligent.			.82	
They are better than others at taking tests.			.76	
They try to beat others.			.59	
Teachers think they will do well.				.73
They are just lucky.				.43
They just take the subjects they are really good at.				.42
Eigenvalue	5.54	3.76	1.41	1.22
% of variance	27.7	18.8	7.1	6.1
Correlations among factors				
Factor 1	—			
Factor 2	−.32	—		
Factor 3	.51	−.08	—	
Factor 4	.18	.24	.25	—

Note. Only factor loadings greater than .40 are presented.

personal goal and belief scale scores (Table 7). Four factors emerged, none of which was domain-specific. The first factor indicated a cross-domain dimension defined by task orientation, the goal of cooperation, and the beliefs that success is due to effort and collaboration. The beliefs that both academic and athletic success result from external factors and deceptive tactics defined the second factor. Factor 3 revealed a cross-domain dimension of ego orientation and the beliefs that success requires both superior ability and attempts to defeat others. Factor 4 indicated that alienation in the classroom was closely linked to alienation in sport. In summary, conceptually similar achievement goals and beliefs were fairly closely associated, and the dimensions cut clearly across the two achievement settings.

Sport Versus the Classroom: Correlates of Perceived Ability and Satisfaction

Goal orientations and beliefs did not correlate highly with perceived ability in either achievement context (Table 8). Contrary to our hypothesis, there were no significant differences, as a function of domain, between the correlations of (a) perceived ability and task orientation and (b) perceived ability and ego orientation.

As hypothesized, the correspondence between personal goals and intrinsic satisfaction did not differ significantly across the two domains. In the classroom and in sport, satisfaction/enjoyment was moderately associated with task orientation and cooperation and negatively correlated with work avoidance. Boredom was inversely related to task orientation and the emphasis placed on cooperative goals and positively correlated with work avoidance in both achievement settings.

In accordance with predictions, there was a significantly greater relationship of perceived ability to satisfaction/enjoyment and boredom in sport than in the classroom ($p < .001$; see Table 8). Scores on the intrinsic satisfaction scale scores were predicted largely by perceived ability in sport and by task orientation in schoolwork.

To further examine this expected situational difference, we conducted a series of multiple regressions separately by domain, with satisfaction/enjoyment and boredom ratings as dependent variables and goal orientations, beliefs, and perceived ability as the independent variables. As can be seen in Table 9, satisfaction/enjoyment and boredom in sport were

Table 4
Factor Analysis Results (Oblimin Rotation): Sport Belief Items

Item: People succeed if . . .	Factor 1: Motivation/ Effort	Factor 2: Deception	Factor 3: Ability	Factor 4: External Factors
They like improving.	.80			
They always do their best.	.90			
They work really hard.	.81			
They like to practice.	.73			
They help each other learn.	.80			
They like to learn new skills.	.48			
They try things they can't do.	.48			
They pretend they like the coach.		.87		
They know how to impress the coach.		.80		
They know how to cheat.		.67		
They know how to make themselves look better than they are.		.68		
They are better than others at tough competition.			.67	
They are better athletes than the others.			.63	
They always try to beat others.			.81	
They are born natural athletes.			.48	
They have the right clothes and equipment.				.70
They are just lucky.				.56
Coaches think they will do well.				.48
Eigenvalue	5.04	3.70	1.47	1.16
% of variance	25.2	18.5	7.4	5.8
Correlations among factors				
Factor 1	—			
Factor 2	.23	—		
Factor 3	.25	−.32	—	
Factor 4	.26	.23	.25	—

Note. Only factor loadings greater than .40 are presented.

Table 5
Factor Analysis (Oblimin Rotation): Classroom Satisfaction Items

Item	Factor 1: Boredom	Factor 2: Satisfaction/ Enjoyment
I often daydream instead of thinking about schoolwork.	.92	
At school, I am usually bored.	.77	
I usually wish school would end quickly.	.58	
I usually have fun doing schoolwork.		.85
I usually enjoy learning at school.		.84
I usually find school interesting.		.83
I usually get involved in learning.		.77
In school, I usually find time flies.		.56
Eigenvalue	3.96	1.01
% of variance	49.5	12.7
Correlations among factors		
Factor 1	—	
Factor 2	−.55	—

Note. Only factor loadings greater than .40 are presented.

strongly predicted by students' perceptions of ability in that context (R^2s = .39 and .24, respectively). Personal goals and beliefs accounted for only 6% of the variance in scores on both satisfaction/enjoyment and boredom items in sport.

However, goal orientations were the major predictors of intrinsic satisfaction in the classroom context. Satisfaction/enjoyment in the classroom related significantly to task orientation and work avoidance (R^2s = .20 and .12, respectively). Work avoidance emerged as a strong predictor of boredom experienced in the academic setting (R^2 = .22). Perceived ability accounted for only 3% of the variance in classroom satisfaction/enjoyment and did not significantly predict boredom. Satisfaction and boredom in school did not significantly relate to beliefs about the causes of success.

Generality or Specificity?

As predicted, the highest cross-domain associations were found among personal goals and beliefs about the causes of success. These ranged from .51 to .67 (see Table 10) and were all significantly higher than the cross-domain association for perceived ability (r = .32, $p < .001$). Also significantly lower

Table 6
Factor Analysis (Oblimin Rotation): Sport Satisfaction Items

Item	Factor 1: Satisfaction/ Enjoyment	Factor 2: Boredom
I usually find playing sports interesting.	.90	
I usually have fun doing sports.	.90	
I usually get involved when I am doing sports.	.87	
I usually enjoy playing sports.	.85	
I usually find time flies when I am doing sports.	.82	
When playing sports, I am usually bored.		.85
When playing sports, I usually wish the game would end quickly.		.82
In sport, I often daydream instead of thinking about what I'm doing.		.61
Eigenvalue	3.96	1.01
% of variance	49.5	12.7
Correlations among factors		
Factor 1	—	
Factor 2	−.51	—

Note. Only factor loadings greater than .40 are presented.

than the cross-domain correlations for goals and beliefs were the associations for satisfaction/enjoyment ($r = .15$, $p < .001$) and boredom ($r = .01$, $p < .001$).

Discussion

The dimensions of personal goals and conceptually related beliefs about the world extended broadly across the two domains. The strength of the combined sport and academic dimensions of goals and beliefs is sufficiently marked that the possibility that it is an artifact of our method might reasonably be raised. A method effect, deriving from the fact that students were asked similar questions about the two domains, could have led to the observed convergence of answers. However, this possibility appears to be ruled out by the significantly lower cross-domain associations for perceived ability, satisfaction, and boredom, all of which were assessed with similarly worded items for sport and academe. Indeed, the similarity of items across domains, if anything, is higher for the boredom and satisfaction/enjoyment items than for the other items. Furthermore, the fact that the satisfaction and boredom scales

Table 7
Factor Analysis of Classroom and Sport Goal Orientation and Beliefs About Success Scales

Scale	Factor 1	Factor 2	Factor 3	Factor 4
Task Orientation				
Classroom	.80			
Sport	.81			
Motivation/Effort Belief				
Classroom	.80			
Sport	.73			
Cooperation				
Classroom	.73			
Sport	.72			
External Factors Belief				
Classroom		.79		
Sport		.78		
Deception Belief				
Classroom		.78		
Sport		.66		
Ego Orientation				
Classroom			.84	
Sport			.87	
Ability Belief				
Classroom			.64	
Sport			.57	
Work Avoidance				
Classroom				.88
Sport				.84
Eigenvalue	4.62	3.22	1.40	1.25
% of variance	28.90	20.20	9.80	7.80
Correlations among factors				
Factor 1	—			
Factor 2	−.10	—		
Factor 3	−.05	.36	—	
Factor 4	−.23	.28	.23	—

Note. Only factor loadings greater than .40 are presented.

Table 8
Correlates of Perceived Ability, Satisfaction/Enjoyment, and Boredom in the Classroom and Sport

Target scale	Goal Scale				Belief Scale			Perception Scale	
	Task Orientation	Ego Orientation	Work Avoidance	Cooperation	Motivation/ Effort	Ability	Deception	External Factors	Context-Specific Perceived Ability	Context-Specific Satisfaction/Enjoyment
Classroom										
Perceived Ability	.14*	.22*	−.15*	.01	.06	−.02	−.07	.03	—	—
Satisfaction/Enjoyment	.46***	−.01	−.41***	.36**	.35**	−.16*	−.22*	−.14*	.28**	—
Boredom	−.23*	.14*	.44***	−.21*	−.18*	.20*	.25*	.23*	−.16*	−.58***
Sport										
Perceived Ability	.28**	.29**	−.14*	.15*	.08	.23*	.12	.15*	—	—
Satisfaction/Enjoyment	.34**	.05	−.20*	.28**	.16*	.14*	−.04	−.00	.62***	—
Boredom	−.28**	−.00	.18*	−.20*	−.11	−.03	.15*	.10	−.48***	−.73***

* $p < .05$. ** $p < .01$. *** $p < .001$.

are comparable in reliability to the other scales means that the lack of generality of these dimensions is not attributable to lower scale reliability, a factor often implicated in failure to find evidence of traits (Epstein & O'Brien, 1985).

These very different patterns of cross-domain association suggest the inappropriateness of broad statements about the generality versus situational specificity of individual differences in achievement motivation (Mischel, 1973). There was considerable generality for goal orientations and beliefs about the causes of success, slight generality for perceived ability, and virtually no generality for satisfaction or boredom across the two types of activity.

The convergence between beliefs about what individuals must do to succeed and the nature of the individuals' goals indicates that interpretations of what works reflect individual differences in what is important. These constellations of beliefs about what works and personal goals suggest that when, for example, a student advises another that the way to do well is to collaborate with one's peers, she or he is also advising the other regarding what definition of success should be adopted or what one's priorities should be. The fact that these constellations cut across the domains of sport and schoolwork indicates that they are theories in the larger sense of world views. A person's theory of success might not predict his or her level of involvement across a diverse range of activities. Nevertheless, it might be important for understanding their activities. As James (1907) argued, the most practical and important thing to know about a person is his or her philosophy or theory of the world. Our data suggest that people do have such encompassing theories about the world of achievement.

In the present work, satisfaction and boredom in the classroom were primarily predicted by personal goal orientations. Consistent with previous classroom research, task orientation positively related to satisfaction with schoolwork and negatively correlated with boredom. In sport, satisfaction and boredom were more intimately linked to perceptions of ability. Sport seems structured for showcasing athletic prowess and weeding out those with less talent. Consequently, it is not surprising that perceived ability was so closely tied with intrinsic satisfaction in sport.

The present findings suggest that although the classroom is often characterized as ego involving in climate, it may be more likely than sport to foster intrinsic involvement, regardless of the students' perceptions of competence. In the case of school, inherent satisfaction with work is maximized among those who adopt a task orientation, and low perceived ability appears to be less of a handicap. These results might suggest caution to those who seek to raise the importance of academic work by giving it more of the trappings of competitive sport. On the other hand, such findings reinforce the position of classroom theorists who argue for the motivational beliefs of cooperative, mastery-oriented environments in the educational domain (Ames, 1984a, 1984b; Covington, 1984; Johnson & Johnson, 1985).

The observed similarities and differences in the domains of school and sport suggest that more comparisons of these achievement contexts are warranted. Such comparative work can highlight the nature of the motivation to achieve in each

Table 9
Multiple Regression Analyses Predicting Satisfaction/Enjoyment and Boredom in the Classroom and Sport From Goals, Beliefs, and Perceived Ability

Dimension/variable	Partial R^2	Model R^2	β	F	p
Classroom satisfaction/enjoyment					
Task orientation	.20	.20	.341	47.2	.001
Work avoidance	.12	.31	−.294	34.6	.001
Perceived ability	.03	.35	.243	9.2	.01
Classroom boredom					
Work avoidance	.22	.22	.370	53.4	.001
Cooperation	.02	.24	−.159	5.5	.05
Sport satisfaction/enjoyment					
Perceived ability	.39	.39	.885	119.3	.001
Cooperation	.05	.44	.202	15.1	.001
Ego orientation	.01	.45	−.135	4.2	.05
Sport boredom					
Perceived ability	.24	.24	−.735	58.8	.001
Task orientation	.03	.27	−.243	8.2	.01
Ego orientation	.02	.29	.165	5.1	.05
External factors belief	.01	.30	.170	3.8	.05

Table 10
Generality of Motivational Dimensions Across the Classroom and Sport

Dimension/scale	Correlation (r) with corresponding classroom scale	Classroom		Sport	
		M	SD	M	SD
Sport goals					
Task orientation	.67***	1.9	0.65	1.8	0.69
Ego orientation	.62***	2.6	0.83	2.7	0.83
Work avoidance	.63***	3.1	0.91	3.3	0.87
Cooperation	.57***	1.9	0.78	1.8	0.81
Sport beliefs					
Motivation/effort	.65***	2.0	0.65	1.9	0.68
Ability	.51***	3.1	0.86	3.1	0.88
Deception	.67***	3.8	0.87	3.8	0.89
External factors	.58***	3.2	0.83	3.3	0.77
Sport perceptions					
Perceived ability	.32**	2.5	0.64	2.4	0.69
Satisfaction/enjoyment	.15*	3.0	0.83	2.1	1.00
Boredom	.01	2.5	0.80	3.7	1.00

Note. Classroom and sport variables were rated on a scale ranging from *strongly agree* (1) to *strongly disagree* (5).
* $p < .05$. ** $p < .01$. *** $p < .001$.

context (Nicholls, 1992). Given the prominence of both intellectual and athletic skills for adolescents (Duda, 1986), such comparisons also may have social relevance.

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