Talented Male Athletes: Exemplary Character or Questionable Characters?

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Sport's place in the development of adolescent morality is an issue that has cycled through the halls of academia for years without clear agreement. In forming a theoretical base with positive youth development and achievement goal theory, the purpose of this research was to expand the debate through examination of the relationship between ability level, achievement motivation orientations, and the morality-based outcomes of character and caring in the context of a competitive team sport. Participants in the research were 230 male adolescents attending an intercollegiate skills camp for American football at a large southeastern university in the United States. Subjects completed a web-based auestionnaire at camp registration. Significant findings included a relationship between participants who self-reported high ability level exhibiting a higher degree of character than participants with lower ability level. Further, an interaction effect was found between ability level and certain orthogonal achievement goal orientations on the measure of character. Limitations of the study are discussed in light of improving future research on the subject area. This examination of the relationship between an emerging theoretical framework in positive youth development and achievement goal theory provides an important step towards development of an applied and conceptual model for positive youth development through organized sport.

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The study of sport participation as a mechanism for positive development of youth and adolescents has centered upon the age-old debate over whether sport builds or reveals character. Examinations of sport in a developmental context have found support for enhanced physical and mental health (Steiner, McQuivey, Pavelski, Pitts, & Kraemer, 2000), psychological adjustment (Barber, Eccles, & Stone, 2001; Bartko & Eccles, 2003; Darling, Caldwell, & Smith, 2005), academic achievement (Barber et al.; Bartko & Eccles; Darling et al.; Whitley, 1999), emotional regulation (Hansen, Larson, & Dworkin, 2003; Larson, Hansen, & Moneta, 2006), and positive occupational outcomes (Barber et al.; Bartko & Eccles; Darling et al.). In contrast, additional research has pointed to aggressive and violent tendencies (Conroy, Silva, Newcomer, Walker, & Johnson, 2001; Endresen & Olweus, 2005; Rees, Howell, & Miracle, 1990; Widmeyer, Bray, Dorsch, & McGuire, 2001), increased alcohol use (Barber et al.; Bartko & Eccles; Darling et al.), problem behavior (Bartko & Eccles), negative peer and adult interaction or pressure (Hansen et al.; Larson et al.), and decreased moral reasoning (Beller and Stoll, 1995; Rees, 2001; Shields & Bredemeier, 2005; Shields, Bredemeier, & Power, 2002) as several associated costs of participation in sport. In addition, an increasing prevalence of popular press have documented what appears to be an escalation of inappropriate behaviors by athletes that suggests sport participation in and of itself should not be viewed as either a positive or negative correlate of positive development.

Wankel and Berger (1990) noted, "Sport, like most activities, is not 'a priori' good or bad but has the potential for producing both positive and negative outcomes" (p. 167). Sport has been shown to be a positive developmental context for youth if taught, organized, managed, and led in a manner consistent with sound developmental principles (e.g., Brunelle, Danish, & Forneris, 2007; Petitpas, Van Raalte, Cornelius, & Presbrey, 2004; Rutten, Stams, Biesta, Schuengel, Dirks, & Hoeksma, 2007). Although the benefits of sport participation have been of interest for some time, little research has examined the benefits of sport participation within the framework of positive youth development (Fraser-Thomas, Cote, & Deakin, 2005; Petitpas, Cornelius, Van Raalte, & Jones, 2005). Over the last decade, the collective discourse towards youth has shifted from a deficit-oriented approach where youth were viewed as problems to be fixed to a more positive mentality in which youth are viewed as resources to be developed (see Benson, Scales, Hamilton, & Sesma, 2006; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Damon, 2004; Lerner, Almerigi, Theokas, & Lerner, 2005a; Lerner, Brentano, Dowling, & Anderson, 2002; Pittman, Irby, & Ferber, 2001). This shift in thinking and the accompanying theoretical framework underlining the shift has been coined *positive youth development* (PYD).

Positive youth development is comprised of the following developmental indicators that form the conceptual basis for the theoretical perspective (known collectively as the "five C's"): connection, character, competence, confidence, caring or compassion (Lerner, Fisher, &

Weinberg, 2000; Pittman et al., 2001). Proponents of PYD view all youth to possess the potential to develop into contributing adult members of society (Benson, 2002; Benson & Pittman, 2001; Damon, 2004; Park, 2004). Based on developmental systems theory, individuals are deemed active and dynamic agents engaged in a bidirectional process with their community contexts (Lerner, 2002). Although there appears to be a consensus in the literature that youth should be viewed as resources to be developed, there is little more than speculation as to how sport can facilitate positive youth development. There is, however, some empirical support for the notion that sport programs that foster a task-oriented or mastery climate will facilitate youth that exhibit a strong work ethic, persist in the face of failures or disappointments, and foster intrinsic motivation (e.g., Petipas, Cornelius, Van Raalte, & Jones, 2005). If we accept the premise that sport is considered an achievement domain, it seems reasonable to consider achievement motivation as an important factor in establishing a conceptual understanding of the developmental processes of youth involved in sport.

Research on achievement motivation in a sport-specific domain is typically founded on the achievement goal theory (AGT; see Duda & Nicholls, 1992; Duda & Ntoumanis, 2005; McArdle & Duda, 2002; Roberts, 2001; Treasure, 2001). AGT asserts that individuals are actively pursuing goals based on orthogonal achievement goal orientations and perceived ability or competence. Achievement motivation is divided according to an individual's assessment of perceived ability or competence with either a task (i.e., personal mastery) or ego (i.e., normative ranking) orientation. Research on achievement motivation has yielded significant developmental differences between individuals displaying tendencies towards task or ego orientation (Duda & Ntoumanis, 2005; Dunn & Dunn, 1999; Ntoumanis, 2001; Roberts, 2001; Sage, Kavussanu, & Duda, 2006). Nicholls (1989) believed an explicit relationship existed between achievement goal orientation and moral values. Character has come to symbolize the embodiment of morality.

Character has been theorized as supported, particularly in an achievement context such as sports, by the dimensions of empathy, moral reasoning, motivational orientation, and ego strength (Shields et al., 2002). Based on this model of character, examining achievement motivation is not only appropriate but imperative to a conceptual understanding of the very construct of character. The presence of empathy, a core tenet of caring as conceptualized in PYD, provides added justification for highlighting this variable as a developmental construct interrelated to character. By examining the interaction of PYD constructs character and caring with the sport-specific achievement motivation variables of achievement goal orientation, an important step can be taken towards the conceptual integration of PYD with AGT.

A further review of the research associated with AGT in a sport environment reveals perception of ability or competence as a central tenet of AGT (Duda, 2005; Duda & Nicholls,

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1992). For example, individuals directed towards goals judge their personal competency in a sport with adherence to task and ego orientation (Elliot, 2005; Elliot & Dweck, 2005; Nicholls, 1989). Elliot and Dweck believed competence to be the central tenet of achievement motivation research and even proposed re-labeling achievement motivation as "competence motivation" (p. 6).

A competitive team sport context provides opportunities for participants with a higher degree of ego orientation to measure their perceived ability either against teammates, opposing team members, or even athletes in their respective sport on television. Likewise, participants with a higher degree of task orientation have many opportunities to test their personal mastery of certain tasks in practice and game situations. Yet, individuals participating in sports display varying degrees of task or ego orientation, and perceived competence in the sport domain contributes to these varying levels (Elliot; Elliot & Dweck). Perceived competence in sport contexts has most often been considered an implied aspect of research on AGT in the sport domain with the setting (e.g., contact sports) or ability level of all athletes in the sample (e.g., elite or recreational) being the frame of interest (e.g., Dunn & Dunn, 1999; Harwood, Cumming, & Fletcher, 2004) rather than individual differences. Surprisingly, both Shields and Bredemeier (2005) and Doty (2006) independently summarized research on character and sport without mention of an athlete's ability level as an independent variable when assessing character. Perceived competence is integral to the formation of an individual's goal orientation according to AGT (Duda, 2001; Nicholls, 1989). The purpose of our study was, therefore, expanded to include an assessment of sport ability level.

By examining developmental and achievement motivation variables in the context of sport, our study will begin the process of addressing questions related to the conceptual relationship between variables associated with PYD and AGT. In forming a theoretical base with positive youth development and achievement goal theory, the purpose of this research was to expand the debate through examination of the relationship between ability level, achievement motivation orientations, and the morality-based outcomes of character and caring in the context of organized American football. Positive youth development is the goal, and AGT provides a proposed pathway towards that goal. The PYD constructs of character and caring are not sport-specific but aimed towards measurement of an adolescent's developmental or moral self. By combining these measures with sport-specific achievement variables associated with achievement motivation or AGT, this research will expand the current body of knowledge and provide further insight into sport as a developmental context.

Method

Participants

Two hundred and thirty athletes attending an American football skills camp hosted by the coaches of an intercollegiate football program at a large southeastern state university in the United States were the subjects of the study. The age range of the study included middle school (under age 14) through high school-aged (14-18) adolescents. The sample was comprised predominantly of Caucasian (n = 136, 60.4%) and African-American (n = 82, 36.4%) participants. The setting or context of American football was chosen due to the sport's place as the predominant team sport in terms of participation and competition (potential high degree of achievement motivation). According to the National Federation of State High School Associations (NFHS, 2006), the number of high school males participating in organized American football topped the 1 million mark in 2005-2006. The number of high school males participating in organized football (1,071,775) nearly doubled the next closest organized sport in basketball (546,335). Subjects ranged in skill level from "blue chip" athletes highlighting their skills to their prospective college coaches to middle school-aged adolescents aspiring to become high school football players. "Blue chip" athletes are those football players considered to be the most highly rated high school football players based on numerous factors. The skills camp setting provided a unique environment to examine the relationship between achievement goal theory and measures of morality with a group of talented male athletes.

Procedures

Campers arrived on the university campus and reported to the check-in/registration site and host dorm. Following check-in/registration, research assistants directed campers to a computer lab for completion of a web-based self-administered questionnaire. The adjusted response rate for the study was over 84% based on 230 initially completed questionnaires and an approximate tally of 272 campers arriving during the set registration period. Some campers arrived after the registration period with the final number of campers being credited as 285 for a final response rate over 80%.

Measures

Character. Positive youth development (PYD) is a broad and evolving theoretical perspective with a limited set of reliable and valid instrumentation designed to measure the associated concepts. King et al. (2005) cited Lerner et al. (2005b) as the only published material to date documenting empirical evidence of PYD constructs and associated instrumentation. Lerner et al. (2005b) reported data from the 4-H study of PYD, a longitudinal research study beginning in 2002 (Wave 1) with a diverse sample of 1700 fifth-grade students. Through confirmatory factor analysis, results from Wave 1 of the 4-H PYD study provided support for five first-order latent factors representing the five C's of PYD and a second-order latent factor supporting the PYD theoretical construct. This empirical evidence combined with the lack of any other published documentation of PYD instrumentation at the time of our study led to adoption of the measures associated with the 4-H Study of PYD.

The measure for character utilized in our study was derived from Wave 4 of data collection for the 4-H Study of PYD (Institute for Applied Research in Youth Development [IARYD], 2006). Wave 4 represents the fourth iteration in the process for development of measures associated with each of the five C's of PYD. Yet, the only published research to date reporting measurement data was from Wave 1 of data collection (Lerner et al., 2005b). In Wave 1, items and internal assets from the Search Institute's Profiles of Student Life - Attitudes and Behavior survey (PSL-AB; Benson, Leffert, Scales, & Blyth, 1998) were utilized to measure character. The number of items and Cronbach's alpha reliability coefficient for the respective internal assets by Lerner et al. for the character factor in Wave 1 were reported as follows: social conscience (6 items, $\alpha = .924$), interpersonal skills (3 items, $\alpha = .682$), values diversity (4 items, α =.731), and personal values (5 items, α =.888). The respective factor loadings for each of these indicators in comprising the first-order latent factor of character were .79, .67, .70, and .76. Despite the significance of empirical data from Wave 1 providing support for the first-order latent factor of character as well as a second-order latent factor of PYD representing all five C's, the data were considered cross-sectional in Wave 1, and improvements have been made in the course of subsequent iterations of data collection and model testing.

For Wave 4 of the 4-H Study of PYD, three of the four internal assets and accompanying items for measuring character were retained with behavioral conduct replacing interpersonal skills (IARYD, 2006). Several factors led to retention of the interpersonal skills items as well as inclusion of the behavioral conduct items in our study. Interpersonal skills only consisted of three items, which allowed for the flexibility in retention. At the time of our study, reliability coefficients were not available for behavioral conduct, as the changes were in the process of being implemented in the 4-H PYD study. Further, the behavioral conduct items employed an alternative response format, and the potential for confusion by participants was high considering both the transfer to a web-based questionnaire and a limited number of research assistants to assist participants. These factors combined with the presence of only three additional items for the interpersonal skills indicator led to the decision to include both indicator variables and the respective sets of items.

Caring. The measure for caring utilized in the study was derived from Wave 4 of data collection for the 4-H study of PYD (IARYD, 2006). The initial caring measure of 5 items in

Wave 1 (Lerner et al., 2005b) was derived from the Eisenberg Sympathy Scale (ESS; Eisenberg, Fabes, Murphy, Karbon, Smith, & Maszk, 1996; Eisenberg, Fabes, Shepard, Murphy, Jones, & Guthrie, 1998). Eisenberg et al. (1996, 1998) reported adequate reliability for the scale. Results from Wave 1 of the 4-H study of PYD were weakest for the caring measure with only 24% of the explained or common variance for the second-order factor of PYD being attributed to caring (Lerner et al.). In addition, correlation was weakest between caring and the other developmental constructs (five C's) of PYD. Therefore, Lerner et al. reported that efforts were already underway for modification of the caring measure, as evident by the changes to the measure seen in Wave 4 of the 4-H PYD study (IARYD, 2006).

Whereas Wave 1 of the 4-H PYD study included five items from the ESS representing sympathy only as the measure of caring, Wave 4 of the 4-H PYD study (IARYD, 2006) and our study included 7 bullying items and 9 experimental caring items. The bullying items were included in our questionnaire, as information on the reliability and validity of the "experimental" caring items were not available at the onset of the study. The experimental caring measure included five items from the ESS and four items from the empathetic concern subscale of the Interpersonal Reactivity Index (IRI; Davis as cited in IARYD, 2006). At the onset of our study, this measure was labeled "experimental," but the 4-H longitudinal study of PYD has since adopted this 9-item measure for caring due to strong internal consistency scores across several waves of data collection (personal communication, E. Phelps, May 18, 2007). Therefore, the bullying items were not included in data analysis for our study.

Achievement motivation orientation. Duda and Whitehead (1998) included the Perception of Success Questionnaire (POSQ) as one of two primary instruments measuring achievement motivation orientations. The POSQ has been adapted to include a children's version applicable for children and adolescents (Roberts, Treasure, & Balague, 1998). This adapted children's version was judged to be most appropriate for the study sample. The 12-item children's version of the Perception of Success Questionnaire (POSQ-CH; Roberts et al.) was utilized to measure the achievement goal orientations of participants. The POSQ-CH has demonstrated strong psychometric properties across numerous studies (e.g., Harwood et al., 2004; Liukkonen & Leskinen, 1999; Roberts et al.; Sage et al., 2006). Confirmatory factor analysis revealed strong support for an orthogonal two-factor structure of task and ego orientation (Liukkonen & Leskinen; Roberts et al.). Figure 1 provides a visual representation of the orthogonality of achievement goal orientations. The respective Cronbach's alpha reliability coefficients were reported as .87 (task) and .84 (ego) by Roberts et al. and .849 (task) and .871 (ego) by Liukkonen & Leskinen. Participants were asked to rate their agreement with each of the twelve items of the POSQ-CH utilizing a 5-point Likert scale (1-5; "Strongly disagree" to "Strongly agree).

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Figure 1. Orthogonality of Achievement Goal Orientation

Perceived competence or ability level. Nicholls, Cobb, Wood, Yackel, and Patashnick (1990) utilized a single measure of perceived competence or ability level in the academic domain, as children assessed their own ability level in mathematics relative to their peers. Pensgaard and Roberts (2000) replicated this single-item measurement of perceived ability in the sport domain with elite Norwegian athletes. Our study examined perceived competence or ability level by asking participants completing the self-administered questionnaire to rate their ability/skill level relative to their teammates on a 5-point Likert scale (1-5; "worst player" to "best player").

Data Analysis

Descriptive statistics summarized the limited demographic data collected for the study. Preliminary data analysis included reliability analysis to test the internal consistency of measures as well as correlation analysis to test the bivariate correlation between indicators associated with PYD. A two-step cluster analysis was utilized to account for the assumption of orthogonality associated with achievement goal orientation. The primary statistical analysis employed for the study was a general linear model (GLM) with multivariate analysis of variance (MANOVA) as well as follow-up univariate analysis of variance (ANOVA). With two primary dependent variables (character and caring) in the study, the choice of utilizing GLM with MANOVA allowed for control of Type I error as well as flexibility to continue with univariate analysis and multiple comparisons when appropriate.

Results

Internal Consistency

In order to begin the process of examination of the relationship between the respective measures of achievement goal theory (AGT) and positive youth development (PYD), statistical analysis was conducted to determine the reliability coefficients of items and indicators designed to measure the respective latent constructs of achievement goal orientations, character, and caring. Table 1 summarizes this data by reporting the respective Cronbach's alpha reliability coefficients for these indicator variables along with the respective number of items and means. Task and ego goal orientation displayed exemplary internal consistency with Cronbach's alpha over 0.80 (Garson, n.d.).

Measures & Indicator		# of Items M		Chronbach's Alpha	
Achiev	ement Goal Orientation				
	Task	6	4.53	.840	
	Ego	6	3.43	.869	
Charac	ter				
	Interpersonal Skills	3	3.79	.601	
	Values diversity	4	4.08	.816	
	Social conscience	6	4.13	.885	
	Personal values	5	4.34	.855	
	Behavioral conduct	5	3.33	.194	
Caring					
-	Caring	9	3.63	.757	

 Table 1. Reliability Coefficients and Respective Means for Indicator Variables Associated

 with Measures of Achievement Goal Orientation, Character, and Caring

For indicators of character, the behavioral conduct indicator did not display adequate internal consistency. Interpersonal skills, an indicator replaced by behavioral conduct in Lerner et al. (2005b) for the subsequent waves of the 4-H PYD study that followed Wave 1, was retained in our study due to concerns about confusion with behavioral conduct's alternate response format. Interpersonal skills exhibited an internal consistency bordering the accepted cutoff point of 0.60 established as a minimum benchmark for internal consistency (Garson). With the behavioral conduct indicator omitted due to inadequate internal consistency, the

interpersonal skills indicator was retained as one of the four indicators in the study. The four remaining indicators of interpersonal skills, values diversity, social conscience, and personal values were further tested by reliability analysis and exhibited strong internal consistency when combined as an aggregated measure of character ($\alpha = .846$). The single measure of caring displayed strong internal consistency. Correlation analysis was then conducted to determine the interrelationships between the indicators of the PYD constructs of character and caring,

Correlation Analysis

A bivariate Pearson product-moment correlation analysis was conducted for the indicators of the PYD constructs of character (interpersonal skills, values diversity, social conscience, & personal values) and caring (9-item measure). The results of the analysis are displayed as a correlation matrix and included as Table 2. Results revealed positive and significant correlation between each of the indicators associated with character and caring. Preliminary analysis continued through cluster analysis for the achievement goal orientation variables.

Cluster Analysis

Based on previous research into achievement goal orientation (Duda, 2001; Duda & Ntoumanis, 2005; Liukkonen & Leskinen, 1999; Roberts et al., 1998), the associated task and ego goal orientations have been established as orthogonal with delineation within each orientation. Therefore, a two-cluster solution was chosen a priori, followed by a two-step cluster

Indicators	1	2	3	4	5	
1. Interpersonal Skills	1.00				,	
2. Values Diversity	.501**	1.00			•	
3. Social Conscience	.532**	.729**	1.00			
4. Personal Values	.467**	.567**	.630**	1.00		
5. Caring	.397**	.434**	.424**	.406**	1.00	
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Table 2. Correlation Matrix for Indicators of Character and Caring

.01 (2-tailed)

analysis. A Euclidean distance measure and Schwarz's Bayesian Criterion were utilized to form two clusters each for task and ego orientation. Based on the distinct clusters that were formed, cases were then organized into the following categorical groupings: high task/high ego (n =73), high ego/low task (n = 27), high task/low ego (n = 78), and low task/low ego (n = 52). The results indicated participants recorded an overall higher task orientation (M = 27.07) than ego orientation (M = 20.40). With preliminary analysis complete, statistical analysis of achievement goal orientation and measures of character and caring were conducted.

Ability Level and PYD (Character & Caring)

Self-reported ability level was measured by asking subjects to assess their ability level in football relative to other players on their respective teams. A 5-point Likert scale was utilized for self-reported ability level (1 = worst; 2 = below average; 3 = average; 4 = above average; 5 = best). An uneven distribution was found for this variable with the following number of respective participants in each category: worst (n = 1), below average (n = 2), average (n = 75), above average (n = 123), and best (n = 27). Due to this uneven distribution, the data were recoded into a lower (n = 78); included worst, below average, and average) and a higher (n = 150); above average and best) ability level category. These recoded categories were utilized as ordinal data for the purposes of statistical analysis.

To examine the relationship between self-reported ability level and measures of character and caring, a GLM was utilized with a MANOVA to compare the mean scores for character and caring across the two levels of self-reported ability (high and low). Character and caring were analyzed as dependent variables in the GLM. The descriptive statistics for the mean scores on measures of character and caring for each level of self-reported ability are summarized in Table 3.

n	М	SD	
78	3.93	.628	
149	4.21	.596	
78	3.53	.639	
149	3.69	.704	
	n 78 149 78 149	n M 78 3.93 149 4.21 78 3.53 149 3.69	n M SD 78 3.93 .628 149 4.21 .596 78 3.53 .639 149 3.69 .704

 Table 3. Mean Scores on Measures of Character and Caring by Self-Reported Ability Level

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Results from the analysis revealed a significant main effect for ability level, $F(2, 224) = 5.47, p < .01, \eta^2 = .047$. A follow-up univariate ANOVA was performed and revealed significantly higher mean scores for ability level on character only ($F[1, 225] = 10.98, p < .01, \eta^2 = .047$). The ANOVA did not reveal significant differences for ability level on caring. To address the relatively low effect size of 4.7% for character, a statistical control for age was implemented in an effort to determine whether age contributed as a covariate. The data were parsed to reflect middle school (under 14) and high school-aged (14 and over) subjects. In controlling for age utilizing a multivariate analysis of covariance (MANCOVA) and univariate analysis of covariance (ANCOVA), age was not determined to be a significant covariate in testing age as a statistical control.

Achievement Goal Orientation and PYD (Character & Caring)

To examine the relationship between a participant's achievement goal orientation and measures of character and caring, a GLM was utilized with multivariate analysis to compare the mean scores for character and caring across the four categorical variables developed through cluster analysis for achievement goal orientation. The descriptive statistics for the mean scores on measures of character and caring across each category of achievement goal orientation are summarized in Table 4.

Goal Orientation	n	М	SD	
Character				
High Ego/High Task	72	4.37	.641	
High Ego/Low Task	27	3.76	.569	
High Task/Low Ego	78	4.24	.527	
Low Ego/Low Task	52	3.79	.620	
Caring				
High Ego/High Task	72	3.78	.740	
High Ego/Low Task	27	3.38	.606	
High Task/Low Ego	78	3.70	.665	
Low Ego/Low Task	52	3.47	.618	

Table 4. Mean Scores on Measures of Character and Caring by Achievement Goal Orientation

Results from the analysis revealed a significant main effect for goal orientation according to Pillai's Trace criterion, F(6, 450) = 7.05, p < .01, $\eta^2 = .086$. With unequal sample sizes, Pillai's Trace is the accepted criterion due to an addition of robustness (Tabachnick & Fidell, 2001). A follow-up univariate ANOVA was performed and revealed significant differences across the goal orientation categories for both character (F[3, 225] = 15.42, p < .01, $\eta^2 = .170$) and caring (F[3, 225] = 3.66, p < .05, $\eta^2 = .047$). Results indicated a higher percentage of variance explained by character (17%) than caring (4.7%), as evident by the respective effect sizes. Age was not determined to be a significant covariate in testing age as a statistical control.

With four categories of goal orientations, Bonferroni post hoc tests were conducted to examine the multiple comparisons across the goal orientations for character and caring. Table 5 summarizes the multiple comparisons in reporting the mean difference and standard error for each goal orientation category according to mean scores of character.

The results were indicative of a significant relationship between a participant's achievement goal orientation and measures of character, with participants grouped into the high task/ low ego and high ego/high task categories exhibiting significantly higher measures of character than participants grouped into the high ego/low task and low ego/low task categories. No significant differences were found in the multiple comparisons for caring. A significant difference was found in the ANOVA assessing the differences in caring across the goal orientation

Multiple Comparisons	Mean Difference	SE	
High Ego/High Task versus High Ego/Low Task	.610*	.128	
High Ego/High Task versus High Task/Low Ego	.122	.092	
High Ego/High Task versus Low Ego/Low Task	.580*	.103	
High Task/Low Ego versus High Ego/Low Task	.487*	.127	
Low Ego/Low Task versus High Ego/Low Task	.030	.128	
High Task/Low Ego versus Low Ego/Low Task	.457*	.102	

Table 5. Bonferroni Post Hoc Tests of Multiple Comparisons Between Achievemen	t Goal
Orientation and Character	

* *p* < .05

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categories, but significant differences were not found when decomposing through individual comparisons.

Ability Level, Achievement Goal Orientation, and PYD (Character & Caring)

To examine the interaction between a participant's self-reported ability level and achievement goal orientation on measures of character and caring, a GLM was utilized with a two-byfour MANOVA to compare the mean scores for character and caring across the two levels of self-reported ability and the four categories of achievement goal orientation. The descriptive statistics for the mean scores on measures of character and caring across each level of ability and each category of achievement goal orientation are summarized in Table 6.

Dependent	Goal Orientation	Ability	М	SD	
Character	High Ego/High Task	Lower	4.20	.806	<u> </u>
		Higher	4.41	.596	
	High Ego/Low Task	Lower	3.28	.564	
		Higher	3.89	.503	
	High Task/Low Ego	Lower	4.06	.568	
		Higher	4.36	.454	
	Low Ego/Low Task	Lower	3.79	.475	
	_	Higher	3.77	.577	
Caring	High Ego/High Task	Lower	3.86	.628	
		Higher	3.76	.769	
	High Ego/Low Task	Lower	3.06	.695	
		Higher	3.47	.564	
	High Task/Low Ego	Lower	3.46	.625	
		Higher	3.88	.634	
	Low Ego/Low Task	Lower	3.54	.590	
		Higher	3.37	.649	

Table 6. Mean Scores on Measures of Character and Caring by Ability Level and Achievement Goal Orientation

Consistent with the previously administered GLMs, results from the MANOVA revealed significant main effects for ability level (F[2, 218] = 4.55, p < .05, $\eta^{2=}$.040) and goal orientation (F[6, 438) = 6.36, p < .01, $\eta^{2} = .080$) according to Pillai's Trace criterion. However, an interaction effect was not found for the overall model. Follow-up univariate ANOVAs for each of the dependent variables revealed the following significant main effects: ability level for character (F[1, 219] = 9.13, p < .01, $\eta^{2} = .040$), goal orientation for character (F[3, 219] = 13.47, p < .01, $\eta^{2} = .040$), goal orientation for character (F[3, 219] = 13.47, p < .01, $\eta^{2} = .156$), and goal orientation for caring (F[3, 219] = 4.20, p < .01, $\eta^{2} = .054$). These main effects supported previously conducted models. A significant interaction effect between ability level and goal orientation was found for caring (F[3, 219] = 2.86, p < .05, $\eta^{2} = .038$) but not for character. With the two-by-four model design, further analysis in decomposing the interaction between the independent variables allowed for multiple comparisons. These comparisons allowed for the main effect of ability level to be examined at different levels of the other main effect of goal orientation for both character and caring.

Utilizing Bonferroni adjustment to control for Type I error or alpha inflation, multiple comparisons were conducted to further examine the differences. These comparisons tested simple effects utilizing ANOVA and pairwise comparisons. These Bonferroni post hoc tests revealed significant differences for the dependent variable of character based on the interaction between ability level and goal orientation. The multiple comparisons of goal orientation categories divided by ability level for the measure of character are summarized in Table 7.

The results are indicative of a significant relationship for the interaction between selfreported ability level and achievement goal orientations for the dependent variable of character. Despite the interaction effect found for caring in the univariate analysis, the only significant mean difference found for caring in the Bonferroni post-hoc tests of multiple comparisons was with higher ability level and the comparison between high task/low ego versus low ego/ low task (p < .05). The final Bonferroni post-hoc tests of multiple comparisons decomposed the interaction for ability level across the categories of goal orientation for both character and caring.

Univariate ANOVAs revealed simple effects for high task/low ego orientation with significantly higher character (F[1, 219] = 5.50, p < .05), and caring (F[1, 219] = 7.78, p < .05) measures for participants with higher ability compared to participants with lower ability level. The only significant difference found when decomposing the interaction was a significantly higher character (F[1, 219] = 5.71, p < .05) measure for high ego/low task when comparing participants with higher ability level to participants with lower ability level. These mean scores were summarized previously in Table 6. Age was again not determined to be a significant covariate.

Comparisons	Mean Difference	SE
Lower Ability		
High Ego/High Task versus High Ego/Low Task	.922*	.272
High Ego/High Task versus High Task/Low Ego	.141	.179
High Ego/High Task versus Low Ego/Low Task	.411	.185
High Task/Low Ego versus High Ego/Low Task	.780*	.248
High Task/Low Ego versus Low Ego/Low Task	.270	.147
Low Ego/Low Task versus High Ego/Low Task	.511	.252
Higher Ability		
High Ego/High Task versus High Ego/Low Task	.515*	.142
High Ego/High Task versus High Task/Low Ego	.048	.111
High Ego/High Task versus Low Ego/Low Task	.638*	.133
High Task/Low Ego versus High Ego/Low Task	.466*	.147
High Task/Low Ego versus Low Ego/Low Task	.589*	.139
Low Ego/Low Task versus High Ego/Low Task	123	.165

Table 7. Multiple Comparisons of Goal Orientation Categories Divided by Ability

 Level for the Measure of Character

* *p* < .05

Discussion

By grounding our research in the relatively new theoretical framework of positive youth development (PYD) and examining the constructs of character and caring in an achievementbased context, our study examined character and caring in a manner that has not been largely studied in the sport domain (Fraser-Thomas et al., 2005). With a competitive team sport like American football that receives a great deal of media and community attention at all levels of competition, the failures of high profile intercollegiate and professional athletes have garnered media attention and led to a perception that highly talented male athletes do not possess the same moral fortitude as their less talented counterparts. Despite limitations for our study, the

data did not support this perception for participants with higher ability level and actually supported the converse. Our research findings revealed support for participants with higher ability level exhibiting higher degrees of character when controlling for age. Yet, when achievement orientation variables were considered along with ability level, different results emerged relative to the degree of a subject's character. These interactions represented the findings of most significance for the wider of body knowledge.

Sage et al. (2006) stated, "Even though goal orientations are assumed to be orthogonal, interaction effects in relation to moral variables in sport have rarely been examined" (p. 457). In utilizing two-step cluster analysis in forming orthogonal goal orientation categories, our study investigated the interaction effect of goal orientations on the moral variables of character and caring. Results only partially supported previous research examining this interaction in finding significantly higher measures of character for high ego/high task and high task/low ego participants when compared to low ego/low task and high ego/low task participants. Dunn and Dunn (1999) examined elite level ice hockey players and found support for high task/low ego as the most positive interaction and high ego/low task as the most detrimental interaction for goal orientation on sportspersonship. Similarly, Kavussanu and Ntoumanis (2003) found a mediating effect in the relationship between participation in contact sports and low levels of moral functioning. Sage et al. did not find a main effect for task orientation on prosocial behavior in adult soccer players and believed the interaction of high ego orientation to offset high task orientation.

Our research did not support the finding by Sage et al. (2006), as high ego/high task participants displayed the highest measures of both character and caring (despite lack of significantly higher differences). Once the interaction between ability level and goal orientation was decomposed to examine the individual differences, the high task/low ego goal orientation for participants with higher ability level was shown to be the interaction exhibiting the highest degrees of character. Sage et al. found support for high ego orientation as predictive of antisocial functioning and more pronounced for semi-professional soccer players when compared to recreational players. Although high ego/low task participants in our study exhibited significantly lower character measures than participants with high task/low ego or high ego/ high task, the higher ability level interaction was not found to be detrimental to measures of character in a PYD theoretical framework.

As mentioned, our findings showed players with higher ability level, particularly when paired with higher task orientation, exhibited a significantly higher character measure than players with lower ability level and lower task orientation. Further, these players also exhibited a higher caring measure. This seemingly ideal scenario of high ability level and high task/low ego orientation resulting in high character and caring outcomes was interrupted by similar

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results from highly talented athletes exhibiting high ego/high task orientation. Our findings suggest an elevated degree of ego orientation is only detrimental when paired with low task orientation. This finding does not diminish efforts by advocates promoting more of a task-involved sport climate, as results clearly point to the benefits of high task orientation. Whether or not the characterizations of athletes in our study are more prevalent in competitive team sports than sport scholars and critics have realized is beyond the scope of our research, but the findings do suggest that further research is needed to explore the specifics relative to a high ego/high task orientation. Players exhibiting these characteristics may be looked to as leaders on their teams to play a mentor role to players with lower ability level. The inevitable question that then arises concerns players who represent the opposite of these ideal characterizations.

When athletes with higher ability level exhibited higher ego orientation and lower task orientation, the character and caring measures were lower. The dilemma that arises involves the perception of the egos of some elite athletes, ones that may be characterized in terms of achievement motivation as falling into the high ego/low task orientation. In sport environments where an emphasis on winning is amplified like American football, these "high ability/ high ego" athletes often receive a great deal of attention and sometimes preferential treatment either consciously or subconsciously is given by sport administrators, coaches, fans, parents, peers, and even teammates. Results from our study provide insight into the characterizations of participants based on ability level and achievement goal orientation, but further research is needed to explore whether preferential treatment for certain athletes helps to create a "perfect storm" in promoting even higher degrees of ego orientation through sport. Our results suggest that those athletes with an accompanying high task orientation may be able to handle these elements, but those athletes void or lacking that task orientation may not. The overall lower caring measures found across the sample relative to the character measures provided some cause for concern.

Findings revealed lower overall caring scores across all goal orientation and ability levels when compared to character. Despite the limitations associated with the caring measure, these findings warrant additional research. In a contact sport like American football, the orientation is toward viewing the opponent as the enemy, as players aim to "crush" the opposition. Shields and Bredemeier (1996) established the connection between sport and militarism in detailing this "opponent as enemy" orientation. This orientation combined with media exposure of character issues for professional and intercollegiate athletes has promoted sensitivity among some athletes towards being labeled a "bad guy" in terms of character. If a social acceptability element did filter into our study, the expectation would hold that the caring measure would follow in a similar fashion. Yet, this expectation did not result, as caring mea-

sures were lower overall than character measures. American football players may view the exhibition of strong character as noble and expected, whereas showing caring or compassion in the context of a highly masculine and aggressive sport like American football may have been viewed as socially unacceptable. This factor may indeed have played a role, but the findings were consistent with previous research by Benson (1997) on adolescents in general. Benson found support for decreased caring measures for high school students. Although limitations do exist for our research, the results provide insight suggesting further examination of these variables is warranted.

Limitations & Recommendations for Future Research

The limitations of our research are primarily methodological concerns related to research design and the measures utilized for the study. As noted by Marsh and Kleitman (2003), research on athletic participation is most often characterized as cross-sectional, small scale, and convenience samples. Our study was not an exception to this characterization. These aggregated factors require that the research be considered contextual in nature with the findings applicable only to the skills camp setting in which the study was conducted. Further, our research was confined to male American football players. Future studies should address these shortcomings and examine male and female athletes across varied contexts including team, dual, and individual sports. Observational and/or quasi-experimental research, similar to a recent study conducted on youth basketball and sportspersonship (Wells, Ellis, Paisley, & Arthur-Banning, 2005), would provide treatment and control groups by which to more closely examine the constructs through programming. Further, the 4-H study of PYD (Lerner et al., 2005b) provides an example of the benefits of longitudinal research and multiple waves of data collection serving to enhance the knowledge base. Research on the relationship between AGT and PYD has not been examined extensively, especially the interaction with ability level.

Our findings do, however, provide insight to contribute to the knowledge base and expansion of this line of research will enhance our conceptual and applied understanding of the theories and practice. Another limitation related to the convenience sample was the actual setting of the study.

As mentioned previously, some participants in intercollegiate football skills camps are either being recruited by the football program or would like to be recruited in the future. This aspect presented the potential for evaluation apprehension from participants, as participants feel compelled to answer questions in a socially acceptable manner (Garson, n. d.). Respondents were assured of the anonymity of their responses for the questionnaire, but the potential for answers to reflect social acceptability cannot be discounted. Several studies centered on morality and achievement motivation have utilized a social desirability scale to control for this aspect (Ntoumanis, 2001; Sage et al., 2006), yet our study did not employ this strategy. An increasing amount of pressure and attention is placed in American society on earning collegiate athletic scholarships, particularly a high-profile sport like American football. Therefore, research in similar competitive sport settings with adolescents should employ social acceptability measures to guard against the possibility of biased responses. The measures utilized in the study provided additional limitations and possibilities for future research.

The theoretical model and latent constructs associated with PYD have not been tested extensively. At the onset of our study, the measures and indicators being tested and validated by the longitudinal 4-H PYD study (Lerner et al., 2005b) represented the only published data comprehensively examining the constructs associated with PYD. The indicators utilized in measuring the latent constructs of character and caring in a PYD theoretical framework have not been extensively tested for reliability and validity across a number of developmental settings. The construct validity for character and caring as operationalized through PYD and the indicators will potentially grow stronger but only through time and the amalgamation of published research supporting the development of the construct. The convergent validity of character as manifested through measures of internal consistency was relatively strong in our study but affected by the difficulties with the behavioral conduct and interpersonal skills indicators, respectively. Construct validity for the caring measure utilized in our study, although adopted in recent waves of data collection in the longitudinal 4-H PYD study, has not been verified in published work. With the relatively unique amalgamation of variables, structural equation modeling might be employed to examine the myriad of latent and manifest constructs associated with these theoretical perspectives. Our research only examined a portion of the constructs associated with AGT and PYD.

Self-reported ability level was measured with a single item in our study. Future studies should examine ability level with either an accepted scale with multiple items or through multiple measures (e.g., reports by coaches, peers, or potentially athletic statistics). Further, Li and Xiang (2007) reviewed measures associated with conceptions of ability and recommended that measures be sport or ability-specific rather than general. Ability conception and motivational climate are two interrelated constructs developed concurrently through AGT research and most notably by Nicholls (1989) and Ames (1992a), respectively.

Motivational climate, in particular, has relevance for future research examining interactions between PYD and AGT. Ames (1992a) stated, "The adult shapes or structures the home, classroom, or sport setting and, in so doing, establishes a motivational climate that conveys certain goals to children" (p. 163). Fry (2001) expanded on this notion and believed that youth sport coaches or physical educators could unduly influence young children by forming overtly competitive environments capable of "tremendous potential harm" (p. 52). Examination of

motivational climate, specifically research centered upon creating more of a task-involved climate in sport (e.g., Li, Solmon, Lee, Purvis, & Chu, 2007), combined with our current line of research will enhance our knowledge in this area of study.

Conclusion

Sport settings for youth are omnipresent in American society. Yet, as a whole, research on sport as a positive developmental context for youth has been equivocal (e.g., Beller & Stoll, 1995; Rees, 2001; Shields & Bredemeier, 2005; Shields et al., 2002; Steiner et al., 2000; Whitley, 1999). The popular majority contends that sport builds character in youth, yet academic research has countered that notion and said, "Not so fast, not necessarily." Many questions related to sport's place in teaching children to be productive citizens have yet to be answered. Our study supported the notion that more highly talented American football players, especially those players exhibiting high task orientation, exhibit significantly higher degrees of character than their less talented counterparts. Yet, limitations aside, we know better than to draw conclusions as to whether sport builds or reveals character. Youth do not develop in a vacuum. Sport may be an important developmental context with the potential to be a positive influence on children and adolescents. Our findings support the value of future research on sport as a developmental context. The key to unlocking sport's potential may very well involve a combination of fostering a task-oriented achievement setting and enhancing the positive youth development ethic taught through sport at all levels.

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