

Developmental Experiences During Extracurricular Activities and Australian Adolescents' Self-Concept: Particularly Important for Youth from Disadvantaged Schools

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Abstract Extracurricular activities provide adolescents with a number of positive personal and interpersonal developmental experiences. This study investigated whether developmental experiences that occurred during extracurricular activities were linked to a more positive self-concept for Australian adolescents, and whether this link was particularly salient for youth from disadvantaged schools. Adolescents ($N = 1,504$, 56% Female) from 26 diverse high schools across Western Australia were surveyed. The findings revealed that adolescents from low socio-economic status schools who participated in extracurricular activities had a more positive general self-worth and social self-concept than adolescents from similar socio-economic schools who did not participate in any extracurricular activities. Furthermore, the positive developmental experiences that occurred during extracurricular activities predicted a more positive general self-worth and social and academic self-concept, and this link was stronger for youth from low SES schools. These findings suggest that the developmental experiences afforded by extracurricular activities may foster positive adolescent development.

Keywords Extracurricular activities · Self-concept · Experiences · Disadvantaged schools

Introduction

Extracurricular activities are a unique context in adolescents' lives, compared to school, work, or family, in that adolescents personally choose to be involved, thereby allowing for autonomy and self-directed development (Larson 2000). A substantial body of research has linked adolescents' participation in extracurricular activities to a range of positive outcomes (see Feldman and Matjasko 2005, for a review), and youth who participate in activities appear to have a more positive sense of self, which is particularly important during this period of development (Harter 1999). Although research has identified extracurricular activities as a vital context for adolescents, the particular properties of participation in extracurricular activities that are of developmental importance are less understood. The present study addresses this gap, by investigating whether or not the positive developmental experiences that occur during participation in activities are predictive of positive self-worth and self-concept in adolescence, and whether this link is particularly salient for youth who attend more disadvantaged schools.

Positive Correlates of Participation in Extracurricular Activities

A broad range of positive outcomes has been associated with adolescents' participation in extracurricular activities. For example, participating in activities has been linked to greater school attachment and sense of belonging, better academic achievement, higher academic aspirations, and less risky behaviors such as alcohol and drug use, or dropping out of school (Darling et al. 2005; Dotterer et al. 2007; Eccles and Barber 1999; Fredricks and Eccles 2008). Participation in a combination of activity types also

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appears to provide benefits above and beyond those related to participation in one type of activity (Bartko and Eccles 2003; Feldman and Matjasko 2007). Furthermore, the positive indicators associated with participation in structured extracurricular activities also extend to an adolescent's sense of identity (Barber et al. 2005; Eccles et al. 2003; Larson 2000). Activities are thought to provide adolescents with opportunities to "try on" different identities, with research showing that adolescents often describe themselves partly on the basis of what they do, such as being a "sporty" person, a "music" person, or a "brainy" person (Eccles et al. 2003; Eccles and Barber 1999). Although most of the literature in this area is based on adolescents from the United States, recent cross-cultural studies indicate that the "identity exploring" experiences of activity involvement also occur for adolescents from other countries. For example, Coatsworth et al. (2005) found the identity experiences reported during participation in activities to be relatively consistent across youth from Chile, Italy, and the United States. In addition, the type of activity most often selected as self-defining, namely sport, was consistent across adolescents from all three countries. Given the positive developmental outcomes associated with participation in activities, and their recognition as an identity-defining context for adolescents from multiple countries, a positive connection between such participation and Australian adolescents' self-concept could be expected.

Adolescents' participation in extracurricular activities has been linked to a more positive sense of self. General self-worth, which refers to a person's evaluative self-opinion (Harter 1999), is higher for adolescents who participate in extracurricular activities compared to those who do not participate (e.g., Eccles and Barber 1999; Fredericks and Eccles 2006; Gadbois and Bowker 2007). Such findings are important, given that more negative self-worth has been related to greater depressed affect and delinquency (Hay 2000; van Welzenis 1997), with more positive self-worth appearing to both protect and support healthy adolescent development (Gilman and Huebner 2006; Steinhausen and Metzke 2001). Less research has investigated the link between an adolescent's participation in extracurricular activities and the multiple dimensions of self-concept; however, a positive link does also appear to exist (Blomfield and Barber 2009; Marsh 1992a). Self-concept, defined as a collection of knowledge structures about the self, includes domains such as academic, social, behavioral conduct, and physical self-concept (Harter 1999). Each of these domains are of particular importance during adolescence, with the development of social and academic competence considered vital tasks of this period of development (Harter 1999). These separate components of self-concept jointly influence self-worth and individually

predict specific developmental indicators. Marsh's (1992a) longitudinal research found participation in extracurricular activities to be associated with increased academic and social self-concept, after controlling for background variables and initial levels of self-concept. Though research has shown a link between participating in activities and a more positive sense of self, few studies have explored why such relationships exist. The specific properties of participation in activities that are important for self-worth and self-concept are not well understood.

Developmental Experiences in Extracurricular Activities

Larson and colleagues (Larson et al. 2006; Hansen et al. 2003) suggest that activities provide adolescents with a number of personal and interpersonal developmental experiences. They have identified a variety of positive experiences that occur during participation in activities, including those related to initiative, teamwork, interpersonal relationships, and identity work (Larson et al. 2006; Hansen et al. 2003). Other researchers have focused primarily on the identity-developing experiences that occur during participation in activities. Experiences of flow (completely focused motivation), personal expressiveness (this is who I am), and goal-directed behavior have been documented in the activities that adolescents have selected as self-defining (Coatsworth et al. 2005; Sharp et al. 2007). However, the specific types of experience, and the degree to which different experiences occur, have been found to vary depending on the type of activity. For example, in Larson and colleagues' research (Hansen et al. 2003; Larson et al. 2006), participation in sports and arts activities provided adolescents with greater initiative experiences, whereas participation in faith-based groups provided more identity exploration, emotional regulation, and positive relationship experiences, when compared to other activity types. Although these positive experiences have been documented to occur during activity participation, research has yet to investigate whether these experiences underlie the association between participation in activities and positive outcomes for adolescents.

Clearly, adolescents who participate in extracurricular activities are exposed to a greater variety of developmentally facilitative experiences than are their non-participating peers. Such developmental opportunities may explain the numerous beneficial outcomes that are associated with adolescents' participation in extracurricular activities. Given that experiences in the school and classroom environment are influential factors for adolescents' self-concept (Wigfield and Eccles 2002), it is likely that experiences during participation in organized activities may also contribute to an adolescent's sense of self. Indeed, Coatsworth

et al. (2006) found that experiences of expressive identity that occurred during participation in activities significantly predicted adolescents' subjective well-being. In addition, Pedersen and Seidman's (2004) longitudinal research identified a positive relationship between experiences of success in sports during early adolescence and self-esteem in middle adolescence. These studies focused on singular types of experiences, yet extracurricular activities provide a broad array of experiences that may have varying impact on different dimensions of the self; therefore, it is important to consider the impact of different types of experiences. For example, personal experiences such as goal setting and success may be important for academic self-concept, whereas interpersonal experiences with peers may be more important to social self-concept. Because self-concept is considered to be largely a product of individuals' experiences in their interpersonal environments (Harter 1999), it is likely that the positive experiences adolescents report in extracurricular activities are linked to their strengthened self-concepts. However, research has yet to investigate whether the positive developmental experiences in activities facilitate a more positive sense of self. The current study addresses this gap.

The Impact of Socioeconomic Status

The moderating effect of socioeconomic status on the outcomes associated with participation in activities has received surprisingly little attention. A consistent criticism of the majority of studies investigating adolescents' participation in activities is that they are based primarily on middle-class youth (Fredricks and Eccles 2006; Pedersen and Seidman 2005). However, the findings of studies that have assessed the role of socioeconomic status suggest that the benefits of participation in extracurricular activities are particularly prominent for adolescents from more disadvantaged backgrounds. In Marsh's research (Marsh 1992a; Marsh and Kleitman 2002) with a nationally representative sample from the US, adolescents from disadvantaged backgrounds were often found to benefit more from extracurricular participation than did adolescents from more affluent families. For example, Marsh (1992a) found that the relationship between participation in activities and more positive academic and social self-concept were stronger for adolescents from lower socioeconomic backgrounds, and other research has identified the same effect for positive-well being (Hull et al. 2008). The protective effects associated with participation in activities also appear to be stronger for at-risk youth (Mahoney and Cairns 1997).

It should be noted, however, that not all research has found an interactive effect of socioeconomic status with the benefits of participation in activities (Fredricks and Eccles

2006). Given the documented overall differences in self-worth among youth from disadvantaged backgrounds compared to those from more economically advantaged families (Twenge and Campbell 2002), the identification of contexts that can help to reduce this gap is of particular importance. Although the benefits associated with participation in activities appear to be greater for youth from lower socioeconomic backgrounds, research has yet to investigate the mechanisms behind this assessment. It may be the case that for less advantaged youth the experiences that occur in the extracurricular environment play a particularly salient role in their development.

The Present Study

The current study addresses two focal gaps in the extracurricular literature, namely, the specific properties that underlie the relationship between participation in extracurricular activities and a positive sense of self in adolescence and the degree to which this association varies for adolescents from more or less economically advantaged contexts. More specifically, the present study investigated whether the developmental experiences in structured extracurricular activities are linked to more positive general self-worth and academic and social self-concepts for Australian adolescents. As we were investigating three broad dimensions of the self, it was important to include varied types of developmental experiences in the study, of both a personal and interpersonal nature. Three distinct types of personal experiences were selected: identity experiences, success experiences and goal setting experiences. Both identity and success experiences in extracurricular activities have been linked to higher adolescent self-esteem (Coatsworth et al. 2006; Pedersen and Seidman 2004; respectively), and both reflect abstract, self-reflective, personal experiences. Goal setting was selected to reflect a more concrete experience that is afforded through participation in extracurricular activities, and is often considered a necessary skill for academic competence. In addition to these personal experiences, it was important to include an interpersonal experience, namely peer interactions, particularly given our interest in social self-concept.

The study also aimed to explore the possible moderating effect of school socioeconomic status on the association between these developmental experiences and self-worth and self-concept. Schools are differentiated in the extent to which they can provide extracurricular activities. Those with greater resources are likely to offer a broader range of activities. Further, accessing activities can be a major barrier for youth in less economically advantaged communities (Eccles and Gootman 2002). In addition to the resource limitations of schools within these communities,

families may lack resources to invest in voluntary activities such as sports or music. Those families may not have discretionary funds to cover equipment, game fees, or instrument hire (Barber et al. 2010). As youth from disadvantaged backgrounds are limited in the developmental opportunities afforded to them, the identification of contexts that are both meaningful to these youth and promote positive development is of paramount importance.

It was hypothesized that adolescents from low SES schools would be overrepresented in the *no participation* category, based on previous research indicating that higher family SES predicts greater likelihood that youth participate in activities (Dearing et al. 2009). Furthermore, as research has found the association between participation in activities and positive outcomes to be particularly salient for youth from disadvantaged backgrounds (Marsh 1992a; Marsh and Kleitman 2002), it was hypothesized that the link between participation in extracurricular activities and a more positive sense of self would be stronger for youth from more disadvantaged schools. The developmental experiences of *identity exploration and reflection*, *success*, *goal setting*, and *peer interactions* were hypothesized to be positive predictors of general self-worth, and academic and social self-concept. Finally, given the aforementioned moderating effect of SES, it was hypothesized that the association between the developmental experiences and general self-worth and academic and social self-concept would be stronger for adolescents from more disadvantaged schools compared to those from more advantaged schools.

Method

Participants and Procedure

The sample was drawn from adolescents who took part in the Youth Activity Participation Study of Western Australia (YAPS-WA), a study investigating Australian adolescents' experiences during their leisure time. Participants were recruited from 26 high schools (17 government, 9 non-government), selected to represent the four metropolitan school districts ($n = 14$) and five of the regional school districts ($n = 12$) across Western Australia. The number and type of schools (government, non-government) selected within each district was determined by the high school student enrollment rates for each district. Prior to data collection, ethical approval was obtained from the university Human Research Ethics Committee, the Education Department, and the Catholic Education Office. Active informed parent and student consent were required to participate. The questionnaire took approximately 40 min to complete, and according to each school's

preference, was administered either via laptop computers connected to a wireless intranet, or in an equivalent paper and pencil format.

The sample comprised 1,504 adolescents (56% female). Students from year 8 ($n = 924$) and year 10 ($n = 579$) participated in the study, with the mean age of participants being 13.8 years ($SD = 1.02$ years, range 12–16 years). The ethnicity of the sample was 78.7% Caucasian, 6.8% Asian, 1.3% Aboriginal and Torres Strait Islander, and 1.2% African. Apart from 7.8% who did not respond to the ethnicity question, the remaining participants (4.1%) were drawn from other ethnic groups. Just over half the participants (51.5%) were drawn from non-government high schools, which is somewhat higher than the state average (41%, Australian Bureau of Statistics [ABS] 2007). The other 48.5% of participants attended government high schools.

Measures

Participants reported their gender, age, ethnicity, and year at school, and responded to measures of participation in extracurricular activities, developmental experiences, general self-worth, and academic and social self-concept.

Participation in Extracurricular Activities

Participants were provided with a list of 30 sports (e.g., basketball, netball, swimming) and 24 non-sport structured extracurricular activities (e.g., band, school council, drama club), with space at the end of each list to add structured extracurricular activities. The lists were based on previous structured extracurricular activity research (Eccles and Barber 1999; Feldman and Matjasko 2007) and Australian pilot testing. Participants were asked to check off all the structured/organized extracurricular activities that they were involved in during the school year, outside of school hours. In order to address Hypothesis 1, adolescents' participation types were then divided into 4 categories: those who did not participate in any structured extracurricular activities (*no participation*), those who participated only in sports (*sports only*), those who participated in only non-sport structured activities (*activities only*) and those who participated in at least one sport and one non-sport structured activity (*mixed*). These categories were then collapsed into a dichotomous measure of participation in extracurricular activities (0: *no participation*, 1: *participates in any ECA*), utilized in the multilevel modeling analyses. Following the list of sports, participants were asked to record the sport in which they spent the most time. Participants were then asked to think about only this sport when responding to the series of questions which followed concerning the experiences they had in the sport. Exactly

the same procedure and instructions were presented for the non-sport structured extracurricular activities.

Developmental Experiences

In this study, we used four developmental experience measures, *identity exploration and reflection*, *success*, *goal setting*, and *peer interactions*. Descriptive statistics and correlations for each developmental experience measure, for both sports and non-sport activities, are presented in Table 1. Participants were presented with the instructions: “Based on your involvement in this sport/activity please rate whether you have had the following experiences by ticking the appropriate box.” Items were identical and presented in exactly the same order for sports and non-sport activities. Adolescents who participated in both a sport and an activity ($n = 660$) responded to the developmental experiences measures for both structured extracurricular activity types.

Experiences of Identity Exploration and Reflection Six items were used to measure experiences of identity exploration and reflection, including “this activity got me thinking about who I am.” Each item was assessed on a 4-point scale (1: *Not at all*; 2: *A little*; 3: *Quite a bit*; 4: *Yes*,

definitely). This developmental experience measure was drawn directly from the Youth Experiences Survey (YES) 2.0 (Hansen and Larson 2005).

Experiences of Success Three items were used to measure experiences of success (e.g., “I have been successful in this activity”), using a 4-point scale (1: *Not at all*; 2: *A little*; 3: *Quite a bit*; 4: *Yes, definitely*). This developmental experience measure was created for the current study.

Experiences of Goal Setting Three items were used to measure experiences of goal setting (e.g., “I set goals for myself in this activity”) using a 4-point scale (1: *Not at all*; 2: *A little*; 3: *Quite a bit*; 4: *Yes, definitely*). This developmental experience measure was drawn directly from the YES 2.0 (Hansen and Larson 2005).

Experiences of Peer Interactions Four items were used to measure experiences of peer interactions, including “worked with other people my own age on a common goal.” Each item was assessed on a 4-point scale (1: *Not at all*; 2: *A little*; 3: *Quite a bit*; 4: *Yes, definitely*). This developmental experience measure was created for the current study.

Table 1 Descriptive statistics and correlations for each measure

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. General self-worth	–													
2. Academic self-concept	.70**	–												
3. Social self-concept	.60**	.46**	–											
4. Sports identity	.25**	.17**	.16**	–										
5. Sports success	.36**	.23**	.34**	.44**	–									
6. Sports goal setting	.27**	.23**	.21**	.55**	.48**	–								
7. Sports peer interactions	.29**	.24**	.30**	.44**	.51**	.43**	–							
8. Activities identity	.13**	.17**	.03	.22**	.03	.13**	.05	–						
9. Activities success	.28**	.25**	.22**	.11**	.15**	.12**	.09*	.57**	–					
10. Activities goal setting	.15**	.16**	.16**	.10*	.09*	.19**	.07	.62**	.58**	–				
11. Activities peer interactions	.23**	.16**	.21**	.14**	.13**	.14**	.18**	.53**	.48**	.47**	–			
12. School SES	.10**	.14**	.08**	–.10**	–.02	–.07*	–.01	–.23**	.04	.01	.04	–		
13. Gender ^a	.02	–.01	–.09**	.06*	–.02	.03	–.03	–.01	–.05	–.07	–.10**	.10**	–	
14. Year at school ^b	–.05	.01	.01	–.02	–.03	.01	.01	.13**	.05	.03	.05	–.05	–.01	–
Mean	4.55	4.79	4.67	2.79	3.40	3.06	3.27	2.87	3.28	2.90	3.11	15.23	–	–
SD	0.91	0.91	0.96	0.60	0.53	0.69	0.58	0.67	0.64	0.85	0.71	7.44	–	–
Alpha	.82	.79	.75	.68	.66	.70	.65	.76	.75	.82	.74	–	–	–

Note: * $p < .05$; ** $p < .01$

^a Gender (females = 0; males = 1)

^b Year at school (year 8 = 0; year 10 = 1). Sports experiences (variables 4–7) $n = 1,230$. Activities experiences (variables 8–11) $n = 770$

General Self-Worth

The measure of general self-worth started with the stem “How true is this statement about you?” and consisted of 4 items (e.g., “A lot of things about me are good”) assessed on a 6-point Likert scale (1: *False, not like me at all*; 6: *True, this describes me very well*). Items within the measure were drawn and adapted from existing scales (Marsh 1992b, c, d), and the measure has been utilized in our previous work (Blomfield and Barber 2009). The descriptive statistics for general self-worth are presented in Table 1.

Academic and Social Self-Concept

Items within each measure started with the stem “How true is this statement about you?” and were assessed on a 6-point Likert scale (1: *False, not like me at all*; 6: *True, this describes me very well*). Items within the measures were drawn and adapted from existing scales (Marsh 1992b, c, d), and the measures have been utilized in our previous work (Blomfield and Barber 2009). The measure of academic self-concept consisted of 3 items including “I have the ability to be good at most school subjects if I try.” Social self-concept was measured with 3 items, including “I am very good at making friends.” The descriptive statistics for academic and social self-concept are presented in Table 1.

School Socio-Economic Status

To assess socio-economic status (SES), school-level data were obtained from the Department of Education and Training in Western Australia. The Department of Education and Training computes the Index of Community Socio-Educational Advantage (ICSEA) for each school in Western Australia. The ICSEA is calculated with data from the Australian Bureau of Statistics, based on the addresses of all students attending each school. The index is compiled from the education, occupation, income, ethnicity, and single parent status of each student’s household (Australian Curriculum, Assessment and Reporting Authority [ACARA] 2010). In addition, the ICSEA incorporates information regarding each school’s geographical location (if the school is in a regional or remote area), and the proportion of Indigenous students enrolled at the school. Schools are then placed on a numerical scale that indicates their comparative socio-economic advantage (ACARA 2010). The ICSEA is scaled to a mean of 1,000, with a standard deviation of 100 (ACARA 2010). Schools in the current study had ICSEA

scores ranging from 798 to 1,188 (schools were selected in order to get a range of the ICSEA distribution). From their ICSEA scores, each school was given a rank of 1–26, with 1 representing the lowest ICSEA school in the sample, and 26 representing the highest ICSEA school. This continuous ICSEA scale is used in all multilevel modeling analyses. In order to assess the distribution of adolescents across different SES schools and address hypothesis 1, a split was conducted on the ICSEA rank to create 3 SES school groups, high SES schools ($n = 6$), mid SES schools ($n = 9$), and low SES schools ($n = 11$).

Analysis Strategy

First a descriptive analysis was conducted to investigate the distribution of adolescents across participation in activity categories for the three SES school groups. Second, the bivariate correlations between study constructs were examined. Finally, a series of multilevel models were estimated. Given the hierarchically nested structure of the data (students nested within schools), and our hypotheses concerning the main and interactive effects of school SES (a group-level variable) on individual-level relationships, a multilevel analytic strategy was appropriate. Multilevel analysis controls for the non-independence among the variables of interest that are a result of participants sharing the same school context (Raudenbush and Bryk 2002). The multilevel analyses were conducted with the Mplus 5.21 program (Muthén and Muthén 1998–2009).

In order to test the links between individual characteristics (participation in ECAs, developmental experiences), group characteristics (school SES), and interactions (school SES by participation in ECAs, school SES by developmental experiences) and general self-worth and social and academic self-concept, a series of two-level models were estimated. The within-person associations were modeled at Level 1, with separate models estimated for each of the within-person independent variables. Gender and year at school were included in all models as covariates. The between-person variable, school SES, was modeled at Level 2. Following the estimation of general self-worth and social and academic self-concept by the within-person and between-person variables, cross-level interactions were investigated. Cross-level interactions are present if the group level variable is related to the variability of the within-person slopes (Hox 2002). Therefore, a significant cross-level interaction would indicate that the association between the within-person independent variable (e.g., *experiences of success in sports*) and the dependent variable (e.g., *general self-worth*) significantly varied by the between-person group variable (school SES).

Results

Participation in Activities

The percentage of adolescents in each of the different participation categories (no participation, sports-only, activities-only, mixed participation) was examined across school SES groups (Table 2). Chi-squared analyses revealed that participation category was distributed significantly differently by school SES group ($\chi^2(6, 1,486) = 123.45, p < .001$). As hypothesized, adolescents who were in the low school SES group were overrepresented in the no participation category. Adolescents in the high school SES group were least likely to be in this category. Adolescents in the low school SES group were also overrepresented in the sports-only category, with adolescents in the high school SES group least likely to be in this category. Furthermore, adolescents in the high school SES group were more likely to be in the mixed participation category, whereas adolescents in the low school SES group were least likely to be in this category. Correlations among self-concepts, school SES, and the developmental experiences in sports and in non-sport activities are presented in Table 1.

Self-Worth and Self-Concepts by Participation in ECAs and School SES

Multilevel modeling was used to investigate hypothesis 2, that the link between participation in extracurricular activities and a more positive sense of self would be stronger for youth from more disadvantaged schools. Level 1 analyses showed that participation in extracurricular activities was significantly associated with general self-worth and academic and social self-concept (see Table 3). Adolescents who participated in ECAs showed a more positive sense of self than their peers who did not participate in any ECAs. Level 2 analyses showed that adolescent general self-worth and academic self-concept varied as a function of school SES. Specifically, higher school SES was associated with higher general self-worth and academic self-concept. There was no significant association between school SES and adolescents' social self-concept. The interaction between participation in ECAs and school

SES approached significance for general self-worth. This trend indicated that as school SES increased the effect of participation in ECAs on general self-worth decreased. Thus, the positive link between participating in ECAs and general self-worth was marginally stronger for youth from low SES schools. Academic self-concept was significantly predicted by the interaction between participation in ECAs and school SES. As school SES increased the link between participation in ECAs and academic self-concept decreased, indicating that the positive link between participation in ECAs and academic self-concept was stronger for adolescents from lower SES schools. The interaction between participation in ECAs and school SES was not significant for social self-concept.

Developmental Experiences Predicting Self-Worth and Self-Concepts

To investigate the third hypothesis, hierarchical linear models were conducted to test the within-person effects of the developmental experiences *identity exploration and reflection, success, goal setting, and peer interactions* on general self-worth and academic and social self-concept. The fourth hypothesis was tested by investigating whether there was a cross-level interaction between the four developmental experiences at Level 1, and school SES at Level 2. Analyses were run separately for each of the experiences in sport (see Table 4) and in non-sport activities (see Table 5). As the relationship between the Level 2 school SES variable and general self-worth and academic and social self-concept were reported in the previous section, these results are not repeated.

General Self-Worth

In support of hypothesis 3, all four developmental experiences in both sports (see Table 4) and activities (see Table 5) were found to be significant predictors of general self-worth. *Experiences of identity exploration and reflection* in sports and in activities positively predicted an adolescent's general self-worth. Similar results were found for *experiences of success* in sports and activities, *experiences of goal setting* in sports and activities, and *experiences of peer interactions* in sports and activities.

Table 2 Participation rates (%) in each extracurricular activity category by school SES group

Subsample (<i>n</i>)	No participation	Sports-only	Activities-only	Mixed participation
Low school SES (489)	15.1	49.1	7.0	28.8
Mid school SES (502)	8.2	40.0	8.4	43.4
High school SES (495)	4.8	25.3	9.7	60.2
Total (<i>N</i> = 1,486)	9.4	38.1	8.3	44.2

Table 3 Results of 2-level hierarchical liner models testing the link between participation in ECAs and general self-worth and academic and social self-concept, school SES and general self-worth and academic and social self-concept, and cross-level interactions

	General self-worth		Academic self-concept		Social self-concept	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Level 1: within person						
Intercept	4.36***	.07	4.52***	.07	4.51***	.06
Participates in ECAs	.44***	.10	.31**	.11	.32**	.11
Level 2: between person						
School SES	.03*	.01	.04***	.01	.02	.01
Participates in ECAs × School SES (slope)	−.02 ⁺	.01	−.03*	.01	−.01	.01

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; ⁺ $p < .10$

Table 4 Results of 2-level hierarchical liner models testing the link between developmental experiences in sports and general self-worth and academic and social self-concept, and cross-level interactions

	General self-worth		Academic self-concept		Social self-concept	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Level 1: within person						
Intercept	4.51***	.06	4.61***	.09	4.64***	.07
Success in sports	.61***	.05	.38***	.05	.60***	.05
Level 2: between person						
School SES	.01*	.00	.02**	.01	.01	.01
Success in sports × school SES (slope)	−.03*	.01	−.02***	.01	−.01	.01
Level 1: within person						
Intercept	4.51***	.06	4.64**	.08	4.64***	.07
Goal setting in sports	.34***	.03	.28***	.03	.27***	.04
Level 2: between person						
School SES	.01*	.00	.02**	.01	.01	.00
Goal setting in sports × school SES (slope)	−.01	.01	−.01	.01	−.00	.01
Level 1: within person						
Intercept	4.51***	.06	4.61***	.09	4.65***	.08
Peer interactions in sports	.43***	.05	.36***	.05	.48***	.06
Level 2: between person						
School SES	.01	.71	.014***	.00	.01	.01
Peer interactions in sports × school SES (slope)	−.02*	.01	−.02***	.00	−.01	.01
Level 1: within person						
Intercept	4.52***	0.6	4.62***	.09	4.65***	.07
Identity exploration and reflection in sports	.38***	.04	.26***	.05	.26***	.04
Level 2: between person						
School SES	.01*	.01	.02**	.01	.01	.01
Identity exploration and reflection in sports × school SES (slope)	−.01**	.00	−.01 ⁺	.01	−.01*	.00

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; ⁺ $p < .10$

Academic Self-Concept

Adolescents’ academic self-concept was also significantly predicted by the four developmental experiences in sports (see Table 4) and in activities (see Table 5). Having greater *experiences of identity exploration and reflection* in sports and activities predicted higher academic self-concept, as did *experiences of success* in sports and activities,

goal setting in sports and activities, and *peer interactions* in sports and activities.

Social Self-Concept

Social self-concept was significantly predicted by all four developmental experiences in sports (see Table 4) and by

Table 5 Results of 2-level hierarchical liner models testing the link between developmental experiences in activities and general self-worth and academic and social self-concept, and cross-level interactions

	General self-worth		Academic self-concept		Social self-concept	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Level 1: within person						
Intercept	4.49***	.09	4.79***	.07	4.60***	.11
Success in activities	.38***	.06	.34***	.06	.32***	.04
Level 2: between person						
School SES	.01 ⁺	.01	.01*	.00	.01	.01
Success in activities × school SES (slope)	−.01	.01	−.01	.01	−.01	.01
Level 1: within person						
Intercept	4.49***	.09	4.78***	.06	4.59***	.11
Goal setting in activities	.15***	.04	.16***	.04	.17***	.04
Level 2: between person						
School SES	.01*	.01	.01**	.00	.01	.01
Goal setting in activities × school SES (slope)	−.01	.01	−.01	.00	−.01	.01
Level 1: within person						
Intercept	4.49***	.10	4.78***	.07	4.58***	.12
Peer interactions in activities	.27***	.05	.18**	.05	.28***	.05
Level 2: between person						
School SES	.01 ⁺	.01	.01**	.00	.01	.01
Peer interactions in activities × school SES (slope)	−.02*	.01	−.01**	.00	−.01	.02
Level 1: within person						
Intercept	4.51***	.10	4.74***	.06	4.62***	.11
Identity exploration and reflection in activities	.15**	.06	.17***	.05	.05	.05
Level 2: between person						
School SES	.01	.01	.01***	.00	.01	.01
Identity exploration and reflection in activities × school SES (slope)	−.01	.01	−.01	.01	−.01	.02

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; ⁺ $p < .10$

three of the four experiences in activities (see Table 5). *Experiences of identity exploration and reflection* in sports, but not in activities, positively predicted adolescents' social self-concept. *Experiences of success, goal setting, and peer interactions*, in both sports and activities, also predicted higher social self-concept.

Assessing the Interactive Effect of School SES

In order to investigate hypothesis 4, the interactive effect of school SES on the relationship between the developmental experiences and general self-worth and academic and social self-concept were examined. As the prior analysis indicated that social self-concept did not significantly vary by school SES, significant interactions would not be expected for social self-concept, and therefore these results are not discussed (but are supplied in Tables 4 and 5).

General Self-Worth

There was a significant interaction between experiences of *success* in sports and school SES in the model predicting general self-worth (see Table 4). The association between *experiences of success* in sports and general self-worth was stronger for youth from lower SES schools. This interaction is illustrated in Fig. 1. The interactions between *experiences of peer interactions* in sports (see Table 4) and in activities (see Table 5) and school SES, in the models predicting general self-worth, were also significant. Consistent with the previous finding, the relationship between *experiences of peer interactions* in sports and in activities was stronger for youth from lower SES schools. Graphic representations of these two interactions resulted in a similar pattern to that of Fig. 1. Finally, general self-worth was also predicted by the interaction between *experiences of identity exploration and reflection* in sports and school SES (see Table 4). The association between *experiences of*

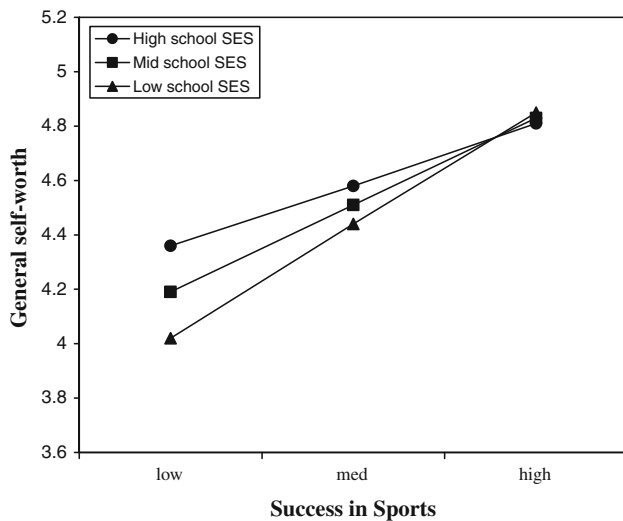


Fig. 1 The interaction between experiences of success in sports and school SES in the model predicting general self-worth

identity exploration and reflection in sports and general self-worth was stronger for adolescents from low SES schools.

Academic Self-Concept

The interaction between experiences of success in sports (see Table 4) and school SES was significant in the model predicting academic self-concept. The relationship between experiences of success in sport and academic self-concept was stronger for youth from lower SES schools. Experiences of peer interactions in both sports (see Table 4) and activities (see Table 5) interacted with school SES in the models predicting academic self-concept. As with the previous significant interactions, the link between experiences of peer interactions in sports and in activities was stronger for adolescents from low SES schools. The interaction between experiences of peer interactions in sports and school SES in the model predicting academic self-concept is illustrated in Fig. 2.

Discussion

Participation in extracurricular activities is a productive use of leisure time for adolescents, providing diverse opportunities for development and growth (Larson 2000). A broad range of positive developmental experiences has been documented during participation in activities (Hansen et al. 2003; Larson et al. 2006), and it is theorized that these positive experiences may contribute to an adolescent’s sense of self. As participation in activities appears to be particularly beneficial for adolescents from more economically

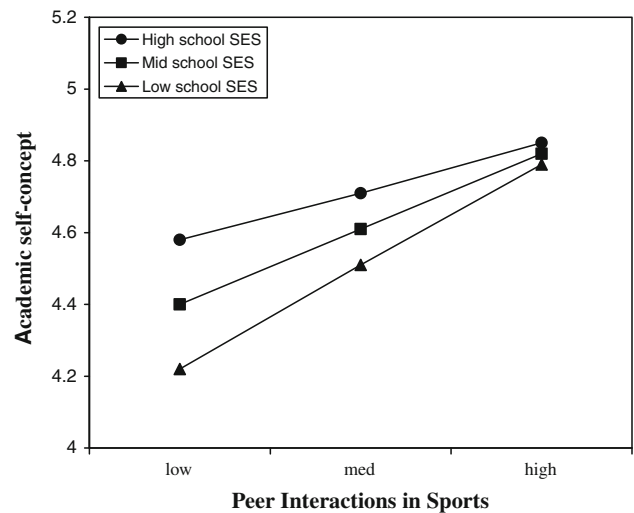


Fig. 2 The interaction between experiences of peer interactions in sports and school SES in the model predicting academic self-concept

disadvantaged backgrounds (Marsh 1992a; Marsh and Kleitman 2002), the link between the positive experiences afforded by participation in activities and sense of self was expected to be stronger for these youth, who may have limited opportunities for such experiences in other contexts of their lives. Therefore, in the present study we had two major goals: to examine whether the developmental experiences that occur during structured extracurricular activities were linked to a more positive self-concept for adolescents, and to investigate whether this link was particularly salient for adolescents from more disadvantaged schools.

As hypothesized, adolescents from low SES schools were overrepresented among youth who participated in no structured extracurricular activities. Our second hypothesis was also largely supported, as the association between participation in activities and sense of self was stronger for youth from more disadvantaged schools. Previous studies investigating the interactive effect of socioeconomic status with participation have been mixed (e.g., Fredricks and Eccles 2006; Hull et al. 2008; Marsh 1992a; Marsh and Kleitman 2002). These results further our understanding of the moderating relationship of school SES on participation in activities by showing that participation in extracurricular activities may be of particular significance to adolescents from low SES schools. Furthermore, this finding is important because, as was shown in previous research (Twenge and Campbell 2002), the adolescents from low SES schools in our study had significantly lower general self-worth and academic self-concept than did the youth from more economically advantaged schools. Thus, special attention needs to be paid to providing opportunities to youth at economically disadvantaged schools.

The third hypothesis was largely supported, as having experiences of *identity exploration and reflection, success,*

goal setting, and *peer interactions* during participation in structured extracurricular activities positively predicted adolescents' general self-worth as well as social and academic self-concept. Experiences in both sports and non-sport activities generally predicted a more positive sense of self. This finding is not surprising, as research consistently indicates that participation in a variety of activity types is linked to positive developmental outcomes (Eccles and Barber 1999; Fredricks and Eccles 2008). The research of Larson and colleagues (Larson et al. 2006; Hansen et al. 2003) has shown variations in the degree to which different structured extracurricular activities provide developmental experiences, and our results suggest these differences may have an impact on the outcomes linked to adolescents' participation in activities. However, this relationship appears to be contingent on certain situations, since our results indicated that the link between the developmental experiences and a positive sense of self was moderated by school SES. We found a number of significant interactions between school SES and the developmental experiences, indicating that, as hypothesized, the link between the developmental experiences during participation in activities and self-concept was stronger for adolescents from low SES schools. For adolescents at low SES schools, having experiences of success or identity exploration and reflection during sports participation was strongly associated with a more positive sense of self, whereas for adolescents from more advantaged schools this association was significantly weaker. It is possible that the positive developmental experiences afforded by participation in activities play a particularly salient role when there is a deficit. That is, such experiences are of a greater importance for adolescents at low SES schools, as other contexts in their lives may be less developmentally optimal in comparison to adolescents from more economically advantaged schools. It may be that for youth at lower SES schools there are fewer opportunities to experience success, and less time and emphasis spent on encouraging identity related endeavors (e.g., thinking about and exploring possible future educational and occupational pursuits). Such limitations are likely a product of resource-stretched and stressed environments. Therefore, the provision of such experiences during participation in extracurricular activities is likely to be particularly important for youth from less advantaged schools who may not be having these experiences elsewhere.

There are methodological limitations that should be considered when interpreting the results of the present study. As the analyses are cross-sectional, it is not possible to determine the direction of effects between participation in activities and adolescents' sense of self. It is possible that adolescents from lower SES schools who choose to participate in structured extracurricular activities start with

a more positive sense of self. However, as previous longitudinal research has found participation in extracurricular activities to predict a more positive self-concept, particularly for low SES adolescents (Marsh 1992a), it is plausible to suggest that such a relationship exists in the current study. Furthermore, our focus on the specific experiences occurring during participation in extracurricular activities that predict adolescents' self-concept offers an explanatory mechanism, and is a prominent strength of the study. Nonetheless, it is still possible that adolescents with a more positive self-concept perceive that their extracurricular activities provide more positive developmental experiences than do adolescents with a less positive self-concept. This conclusion, however, finds less support when the interactive effect of school SES is taken into account. For adolescents from more economically advantaged schools, having a higher self-concept was not always associated with higher levels of developmental experiences; however, for adolescents attending lower SES schools there was a consistent positive relationship between the level of developmental experiences and self-concept. Although longitudinal research is required in order to draw firm conclusions regarding the direction of this association, our study provides an important contribution towards understanding the processes by which involvement in activities may influence positive development.

Much of the research on structured extracurricular activities has been concerned with the outcomes or effects of participation. Although we now have a good understanding of the range of positive outcomes associated with participating in activities, less is known about the mechanisms responsible for these effects. We consider the positive developmental experiences that occur during structured extracurricular activities to be one of the mechanisms by which participation in activities facilitates positive adolescent development, and the current findings support this proposition. Structured extracurricular activities provide youth with a broad array of experiences, and for some youth, particularly those from less advantaged backgrounds, these experiences may not be present in other contexts of their lives, making the experiences in extracurricular activities of even greater importance. In addition to the identity-related experiences being associated with a positive sense of self, a finding that is consistent with previous research (Coatsworth et al. 2006), three other diverse developmental experiences were also identified as significant predictors of positive self-concept, and it is highly likely that other experiences in activities are also linked to adolescents' sense of self. Together with the growing knowledge base surrounding the contextual benefits that are afforded by participation in activities, such as a prosocial peer group, and contact with positive non-familial adults, the personal and interpersonal assets

elicited by activities and identified in this study offer a psychological mechanism whereby participation in activities facilitates positive youth development.

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