

Extracurricular Activities and Adolescent Development



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In this article, we summarize: (a) the arguments linking participation in structured leisure activities to positive youth development, (b) our findings on the association of extracurricular activity involvement with both educational and risky behavior outcomes during adolescence and young adulthood, and (c) our findings regarding possible mediating mechanisms of these associations. Participants in most extracurricular activities achieved better educational outcomes than

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non-participants even after controlling for social class, gender, and intellectual aptitude. Participation in service and religious activities predicted lower rates of drinking and drug use. Participation on school sports teams predicted both better educational outcomes and higher rates of drinking. The mediating mechanisms we discuss relate to identity formation, peer group membership, and attachment to non-familial adults.

There is growing interest in the developmental consequences of extracurricular and after-school programs for youth, fueled, in part, by: (a) concerns about the role such activities might play in promoting school achievement and preventing school disengagement and other problems, (b) the continuing social class and ethnic group disparities in school achievement, (c) concerns about the preparation of American youth for an increasingly demanding and technical labor market, and (d) the amount of unsupervised time experienced by so many youth (e.g., Eccles & Gootman, 2002; Eccles & Templeton, 2002; Pittman, Tolman, & Yohalem, in press; Scales, 1999). Children and adolescents in the United States spend more than half of their waking hours in leisure activities (Larson & Verma, 1999). For many, much of this time is spent in either unstructured peer focused activities or in front of the television set. Both developmental scientists and youth policy advocates have suggested that this leisure time could be better spent in ways (such as participating in high quality out-of-school and after-school programs) that would both facilitate positive development and prevent the emergence of developmental problems (see Eccles & Gootman, 2002). These scholars and advocates have noted also that the availability of such programs is inequitably distributed across communities in the United States—with much lower availability in precisely those communities where the adolescents are at highest risk for poor developmental outcomes (Mahoney, Larson, & Eccles, in press; Pedersen & Seidman, in press). Interest in the developmental consequences of extracurricular and after-school programs has been stimulated also by the growing interest in positive psychology and positive youth development. Advocates for positive youth development, in particular, argue that such programs are needed to fully prepare our youth for the transition into adulthood (e.g., Pittman, Tolman, & Yohalem, in press). Again the need for such programs is especially acute for youth living in poor communities.

Developmentalists and youth advocates argue that constructive, organized activities are a good use of the adolescents' time because such activities provide opportunities (a) to acquire and practice specific social, physical, and intellectual skills that may be useful in a wide variety of settings including school; (b) to contribute to the well-being of one's community and to develop a sense of agency as a member of one's community; (c) to belong to a socially recognized and valued group; (d) to establish supportive social networks of peers and adults that can help in both the present and the future; and (e) to experience and deal with challenges. In turn, these assets are predicted to facilitate both current levels of school engagement and achievement and subsequent educational and occupational attainment and to

prevent the emergence of risky behavior patterns that can mortgage young people's future.

Support for these suggestions comes from both classic sociology studies of the relation of extracurricular activities to school achievement and the newer research in leisure studies, sports psychology, prevention science, and the interdisciplinary studies of adolescent development (see Eccles & Gootman, 2002; Eccles & Templeton, 2002 for full review). Several sociological studies in the 70s documented a strong link between adolescents' extracurricular activities and adult educational attainment, occupation, and income, even after controlling for social class and cognitive ability (see Osgood, Anderson, & Shaffer, *in press*). Some of these studies also documented a protective association between extracurricular activity participation and involvement in delinquent and other risky behaviors (Landers & Landers, 1978).

More recently, research in both leisure studies and adolescent development provides support for the benefits of participating in the kinds of constructive leisure activities associated with extracurricular activities and service learning (see Larson, 2000; Larson & Kleiber, 1993; Mahoney et al., *in press*; Youniss, McLellan, & Yates, 1999). For example, Mahoney and his colleagues have documented the link between extended participation in extracurricular activities during high school and reduced rates of school dropout and criminal offending, particularly during the early high school years and for high-risk youth (Mahoney, 2000; Mahoney & Cairns, 1997). Participation in extracurricular and service learning activities has also been linked to increases in interpersonal competence, self-concept, high school grade point average (GPA), school engagement, and educational aspirations (Elder & Conger, 2000; Marsh & Kleitman, 2002; Youniss, McLellan, & Yates, 1999), as well as to higher educational achievement, better job quality, more active participation in the political process and other types of volunteer activities, continued sport engagement, and better mental health during young adulthood (Barber, Eccles, & Stone, 2001; Glancy, Willits, & Farrell, 1986; Marsh, 1992; Youniss, McLellan, Su, & Yates, 1999). Finally, sports participation has been linked to lower likelihood of school dropout and higher rates of college attendance, particularly for low achieving and blue-collar male athletes (Gould & Weiss, 1987; Marsh & Kleitman, 2003; McNeal, 1995).

Together, these studies provide good evidence that participating in extracurricular activities is associated with both short and long term indicators of positive development including school achievement and educational attainment. Some of these relations hold even after the other obvious predictors of such outcomes are controlled—giving us some confidence that these effects do not just reflect the selection factors that lead to participation in the first place. These predictive findings, however, tell us less about the reasons for these associations. For the most part, the studies use either cross-sectional or longitudinal survey methods. These provide good evidence of an association but weak evidence for an actual causal inference and even weaker evidence regarding the actual features of the experience

that might matter. We are now at a point where we need more longitudinal studies that include appropriate controls for selection factors and are designed to evaluate specific theoretically based hypotheses about the mechanisms likely to mediate the association between activity participation and development. In addition, we need randomized, trial experimental studies that actually test our hypotheses about the mediating mechanisms.

Some of this more rigorous work is beginning to emerge in the fields of developmental and prevention science and sport psychology. For example, Mahoney has suggested that participation in voluntary, school-based, extracurricular activities increases school participation and achievement because it facilitates: (a) the acquisition of interpersonal skills and positive social norms, (b) membership in prosocial peer groups, and (c) stronger emotional and social connections to one's school. In turn, these assets should increase mental health, school engagement, school achievement, and long-term educational outcomes and should decrease participation in problem behaviors, provided that problem behaviors are not endorsed by the peer cultures that emerge in these activities (Mahoney et al., in press). In the next section, we summarize both our work on possible mediating mechanism and the related work of others.

The Michigan Study of Adolescent Life Transitions

The Michigan Study of Adolescent Life Transitions (MSALT) is a longitudinal study that began with a cohort of sixth graders drawn from 10 school districts in southeastern Michigan in 1983. The vast majority of the sample is White and comes from working- and middle-class families living in primarily middle-class and working-class communities based in small industrial cities around Detroit. We have followed approximately 1800 of these youth through eight waves of data collection: two while they were in the sixth grade (1983–84), two while they were in the seventh grade (1984–85), one while they were in tenth grade (spring, 1988), one while they were in 12th grade (spring, 1990), one in 1992–3 when most were 21–22 years old, and one in 1996–1997 when most were 25–26 years old. The analyses presented here focus on the 1259 respondents who completed the tenth grade survey items about activity involvement. At each wave, the adolescents were administered an extensive interview with items tapping a wide range of constructs. The specific constructs used for this article are summarized below. All results summarized are significant at the $p < .05$ level or better.

Activity Involvement

In the tenth grade, we collected detailed information on the adolescents' involvement in a wide variety of activities in and out of school. Adolescents were provided with a list of 16 sports and 30 school and community clubs and organizations. They checked off all of their activities. We aggregated the extracurricular

activities into five categories: prosocial activities—church attendance and/or volunteer and community service type activities; performance activities—school band, drama, and/or dance; team sports—one or more school teams; school involvement—student government, pep club, and/or cheerleading; and academic clubs—debate, foreign language, math, or chess clubs, science fair, or tutoring in academic subjects.

On average, the adolescents in the study participated in between one and two activities and/or clubs—with girls participating in more total activities and in a wider range of activities than boys. In fact, girls participated more than boys in all types of activities except sports, where boys participated more than girls. Finally, 31% of the sample did not participate in any activities or clubs and 45% did not participate on any school athletic team (Eccles & Barber, 1999).

Risk Behaviors

During grades 10 and 12, age 21–22, and age 25–26, we asked our participants how often in the last six months they had drunk alcohol, gotten drunk, or used drugs. During grade 12, we asked them, also, how often they had skipped school.

Educational Outcomes

During both grades 10 and 12, we asked participants how much they liked school and we collected information on academic performance and assessment test scores from each participant's school files. We used participants' cumulative GPA at grade 12. Also, we used their 9th grade verbal and numerical ability subscores on the Differential Aptitude Test (DAT) (The Psychological Corporation, 1981) as control variables in most of our regression analyses in order to control for intellectual aptitude. During ages 21–22 and 25–26, we assessed college enrollment and total number of years of tertiary education.

Job Characteristics

We measured job characteristics at ages 25–26. The job with a future scale assessed the extent to which the participants considered themselves in a career path job; the job autonomy scale assessed the degree to which participants could make important decisions about what they did at work, had the opportunity to use their ideas and imagination in their job, and were their own boss.

Family Characteristics

We included mother's education as a measure of family social economic status as a control variable in all of our multiple regression analyses. Forty-six percent

of the mothers had no more than high school diploma; 38% had some college; and 16% had a Bachelor's degree or more.

Association of Participation with Other Indicators of Development

How did activity participation relate to other indicators of healthy development? We focused on educational and occupational outcomes as well as on involvement in risky behaviors. These results are drawn primarily from two articles: Eccles and Barber, 1999 and Barber, Eccles, and Stone, 2001. New results are presented in more detail.

Prosocial Activities

Adolescents involved in prosocial activities in 10th grade reported less involvement in risky behaviors at all three subsequent waves of data collection: During 12th grade, youth involved in prosocial activities reported lower rates of drinking alcohol, getting drunk, using drugs, and of skipping school than non-participants. At ages 21–22, they reported lower rates of drinking alcohol, getting drunk, using drugs and of both driving while alcohol impaired and riding with an alcohol impaired driver. Interestingly, although rates of drinking were no longer lower at age 25–26, differences in drug use, driving while impaired, and driving with an impaired driver were still lower than those of non-participants.

We next ran a series of longitudinal regression analyses on the 12th grade outcome data. In each equation, we entered the 10th grade level of the risky behavior in order to get an estimate of the extent to which each of the other predictors predicted change in frequency of engaging in the particular risky behaviors. Using this strategy also controls for those selection characteristics that predict involvement in risky behavior at 10th grade, thus reducing substantially the possible confounding role of unmeasured variables in accounting for our findings. We also entered gender, mother's educational level, and two intellectual aptitude variables (performance on the differential aptitude tests for verbal and mathematical abilities) as controls because these constructs have emerged in other studies as predictors of both academic achievement and involvement in risky behaviors. Finally, we entered 10th grade prosocial activity involvement. As one would expect, the strongest predictor was the 10th grade level of involvement in the risky behavior—suggesting considerable stability in the individual differences in these behaviors over the high school years. Nonetheless, involvement in prosocial activities predicted change in this engagement in a protective direction—that is, the students who were involved in activities like attending church and doing volunteer work showed less of an increase in these risky behaviors over the high school years than their non-involved peers. Involvement in prosocial activities at 10th grade also predicted greater enjoyment of school at 10th grade, a higher GPA at 12th grade,

greater likelihood of attending college full time at age 21, graduating from college by age 25–26, and more total years of tertiary education at age 25–26. However, only the relation to 12th grade GPA remained significant in the multiple regression analyses.

Team Sports

On the one hand, unlike prosocial activities, participation in team sports predicted greater involvement in risky behaviors: At grade 12, both male and female athletes drank and got drunk more often than non-athletes. In addition, being involved with team sports predicted significant increases in alcohol use and getting drunk over the high school years after controlling for mother's education, student gender, and intellectual aptitude. These differences were less marked at ages 21–22 and 25–26 because of the increase in drinking during the college years for all youth. On the other hand, involvement in team sports was a promotive factor for academic outcomes. Sport participants liked school better than non-participants at both the 10th and 12th grade levels. They were, also, more likely to attend college full time at age 21 and to have graduated from college by age 25–26. In addition, team sports participation predicted an increase in liking school between the 10th and 12th grades, a higher than expected 12th grade GPA, and more total years of tertiary education by age 25–26 even after gender, maternal education, and 9th grade DAT scores were controlled. Finally, team sports participation predicted having a job with a future and a job with autonomy at age 24.

Performing Arts

Those adolescents who were involved in performing arts at grade 10 were less frequently engaged in risky behaviors at both grades 10 and 12 than those who were not involved in performing arts. This was particularly true for alcohol-related behaviors. However, when we controlled for prior levels of drinking in the longitudinal regression analyses, there was no evidence that 10th grade involvement in performing arts predicted the magnitude of change or direction in drinking behavior over the high school years. In addition, participation in performing arts was not related to drinking behavior in either of the two young adult waves of data. Participation in performing arts was related also to greater enjoyment of school at both 10th and 12th grade levels, higher 12th grade GPA, greater likelihood of attending college full time at age 21–22, and greater likelihood of graduating from college by age 25–26. In the longitudinal regression analyses, however, this promotive role was significant for only 12th grade GPA. Finally, we found it interesting that performing arts was the only activity domain with consistent evidence of a gender by activity involvement interaction: Both the protective and promotive roles of being involved were more significant for boys than for girls. This was particularly

true for total years of education by age 25–26. Participating in performing arts at 10th grade predicted more total education for males but not for females.

School-Involvement Activities

Participation in student government and school spirit types of activities was not related consistently to engagement in risky behaviors. In contrast, it was positively related to enjoying school at grade 10 and to both 12th grade GPA and the likelihood of attending college full-time at age 21. By and large, these patterns were confirmed in the longitudinal regression analyses. Participating in these kinds of school-related activities predicted better than expected 12th grade GPA, greater likelihood of attending college full-time at age 21, and more total years of tertiary education by age 25–26 even when the set of family and DAT controls were included.

Academic Clubs

Participation in academic clubs was related only to educational and occupational outcomes. According to both the bivariate and longitudinal, multivariate analyses, adolescents who participated in academic clubs enjoyed school more in 10th grade, had higher than expected high school GPAs and were more likely to be enrolled in college at 21 than their non-involved peers.

Summary

Consistent with other studies, we found clear evidence that participation in extracurricular activities during the high school years provides a protective context in terms of involvement in risky behaviors and a promotive context in terms of academic performance. Participation in all five types of extracurricular activities predicted better than expected educational outcomes including high school GPA, college attendance, and college graduation. Participation in sports, school-based leadership and spirit activities, and academic clubs predicted increased likelihood of being enrolled full-time in college at age 21. Also, involvement in sports predicted increases in school attachment over the high school years. Participation in prosocial activities predicted lower rates of increase in alcohol and drug use, as well as lower levels at both grades 10 and 12; participation in performing arts served this same function for boys. Furthermore, each of these results held true when social class, gender, and academic aptitude were controlled. The patterns for sport participation were more mixed. On the one hand, participation in sports was linked to increases in use of alcohol. On the other hand, participation in sports was strongly linked to positive educational and occupational outcomes.

What can we conclude? Our findings are mostly consistent with the conclusion reached in recent reviews. However, the patterns were not as simple as one might

expect. Both the magnitude and the direction of the relations depended on the outcome being considered and, to some extent, on the gender of the adolescent. For example, although participation in team sports was related to increased GPA and increased probability of attending and completing college, it was related also to such risky behaviors as drinking alcohol and getting drunk. Similarly, although being involved in school spirit and leadership clubs neither increased nor reduced the frequency of such risky behaviors as using drugs, drinking alcohol, or skipping school, it was related in a positive direction to academic success. Only involvement in prosocial activities (in this case primarily church attendance) was protective against increases in alcohol and drug use and increases in skipping school.

Other investigators also report mixed patterns for the correlates of activity participation. For example, both Stattin and his colleagues and Dishion and his colleagues have suggested that the negative effects of participating in some activities result in the fact that participation in some types of less structured leisure activities increases the likelihood of being recruited into a risky peer group (Dishion, McCord, & Poulin, 1999; Stattin, Kerr, Mahoney, Persson, & Magnusson, *in press*). Finally, intervention programs do not always produce any significant effects (Eccles & Gootman, 2002). Clearly, both program and individual characteristics influence the nature of the impact of participation on individuals' development.

Several investigators have suggested specific characteristics as key mediators of both the positive and negative effects of program participation. For example, in 1969 Rehberg suggested five possible mediators for the positive effects of sports participation: association with academically-oriented peers, exposure to academic values, enhanced self-esteem, generalization of a high sense of personal efficacy, and superior career guidance and encouragement. More recently, investigators have focused on the links between peer group formation, identity formation and activity involvement. For example, Fine (1987) stressed how participation in something like little league shapes both the child's definition of himself as a "jock" and the child's most salient peer group. In turn, these characteristics (one's identity and one's peer group) influence subsequent activity choices—creating a synergistic system that marks out a clear pathway into a particular kind of adolescence. Similarly, Eckert (1989) has explored the link between the peer group identity formation and activity involvement. As individuals move into and through adolescence, they become identified with particular groups of friends or crowds (see also Brown, Mory, & Kinney, 1994). Being a member of one of these crowds helps structure both what one does with one's time and the kinds of values and norms to which one is exposed. The coalescence of one's personal identity, one's peer group, and the kinds of activities one participates in as a consequence of both one's identity and one's peer group should shape the nature of one's pathway through adolescence (Erikson, 1968; Youniss & Yates, 1997).

Consistent with these perspectives, we are interested in how activity participation is linked to both peer group and identity formation. We are interested, also, in

the ways in which activity participation increases the number of key adults one can turn to for advice and support, as well as the ways in which activity participation influences individuals' social and cultural capital. We assume that activity choices are a part of a larger system of psychological and social forces that influence development—forces linked to peer group affiliation and identity formation, as well as to attachment to such normative social institutions as school and connection to the adults in such institutions. Knowing what an adolescent is doing often tells us a lot about who the adolescent is with and which adults the adolescent can turn to for advice.

Many of the activities we study take up considerable amounts of the adolescents' time and are done with other adolescents. Thus it is likely that participation in some of these activities directly affects adolescents' peer groups precisely because such participation structures a substantial amount of peer group interaction. One's co-participants become one's peer crowd. Such peer crowds often develop an activity based "culture," providing adolescents with the opportunity to identify with a group having a shared sense of "style."

The activities we study involve, also, interacting with adult leaders and mentors. Many activities are done at school with a teacher, counselor, coach, or leader. Most activities involve public participation that may help adults recognize and support the students who occupy such roles. This notion is supported by the Brown et al. (1994) finding that students viewed as "brains," athletes, and popular students are more well-liked by teachers than students not identified with institutional activities. Thus, it is likely that participation in these kinds of activities influences the kinds of relationships adolescents form with adults as well as with their school as an institution.

Finally, the kinds of activities we study should help adolescents clarify their personal identity while maintaining relationships with specific sets of peers and adults. Involvement in a school organization or sport links an adolescent to a set of similar peers, provides shared experiences and goals, and can reinforce friendships between peers and relationships with adults, particularly school personnel. Thus, extracurricular activities can facilitate adolescents' developmental need for social relatedness, and can contribute to one's identity as an important and valued member of the school community. In addition, because participation also influences peer group formation, participation feeds into the type of synergistic system described above. We explore these ideas in the next sections of this article, using MSALT data.

Activities as Peer Contexts

Activities link adolescents to certain types of peers. To the extent that one spends a lot of time in these activity settings with the other participants, it is likely that one's friends will be drawn from among the other participants. It is likely,

also, that the collective behaviors of this peer group will influence the behaviors of each member. To the extent that this is true, some of the behavioral differences associated with activity participation may be a consequence of the behavioral differences of the peer groups and of the peer cultures associated with these different activity clusters. For example, adolescents who play on the same teams or work together on projects or performances are likely to spend considerable amounts of “down-time” together, developing new friendships; sharing experiences; discussing values, goals, and aspirations; and co-constructing activity-based peer cultures and identities. Adolescent friends are likely, also, to “go out for” activities together.

To test these ideas, we examined the link between activity participation and the characteristics of one’s high school friends. In the 10th and 12th grades, participants were asked what proportion of their friends regularly drank alcohol, used drugs, and skipped school and what proportion of their friends planned to go to college and were doing well in school. Response options ranged from 1, “none” to 5, “all.”

At 10th and, particularly, 12th grades, the peer group characteristics were consistent with the outcomes reported earlier: Consistent with the positive association of activity group membership with academic outcomes, the peer groups for participants in each of the activities except team sports were characterized by a higher proportion of friends who planned to attend college and were doing well in school than the peer groups of non-participants. Consistent with the protective association of prosocial activities with drug and alcohol use, adolescents involved in prosocial activities had fewer friends who used alcohol and drugs and who skipped school than their peers. Finally, consistent with the association of team sports with increased drinking, adolescents who participated in team sports had a higher proportion of friends who drank than their peers.

We next classified participants as being in a relatively more risky or less risky peer context for each grade compared to mean proportion for that grade and then assessed the differential distribution of these peer context categories across our five activity types. Because the same adolescent can participate in more than one activity type, we ran separate chi-square analyses for each activity type. We then assessed the relation of peer contexts to our indicators of adolescent functioning in order to determine whether the characteristics of peer contexts were consistent with the types of outcomes associated with activity participation and activity-based social identities. Because these are new analyses, we provide more detailed statistical information along with the findings. We follow this procedure whenever we are reporting new findings.

Risky Peers

The distribution of having a relatively risky high school peer context differed significantly in ways consistent with the patterns reported earlier for activity group

differences in risky behaviors in two activity types for everyone (prosocial activities [$\chi^2 = 19.86$ ($p < .001$)] and performing arts [$\chi^2 = 10.69$ ($p < .01$)] and in one for girls (academic clubs [$\chi^2 = 4.05$ ($p < .05$)]). In each case, the activity participants reported fewer risky peers than would be expected by chance.

Academic Peers

Having a relatively more academically-oriented group of friends was predicted, also, by activity participation: participants in prosocial activities ($\chi^2 = 13.97$ [$p < .01$]), team sports ($\chi^2 = 28.02$ [$p < .001$]), performing arts ($\chi^2 = 4.97$ [$p < .05$]), school promotion activities ($\chi^2 = 14.43$ [$p < .001$]), and academic clubs ($\chi^2 = 10.674$ [$p < .01$]) had a higher proportion of academic friends than expected by chance. In contrast, non participants in each of these activities had fewer academic friends than expected by chance. These patterns were true for both females and males with one exception: sports. Although female athletes were more likely than expected to have high proportions of academically-oriented friends ($\chi^2 = 49.997$ [$p < .001$]), male athletes were not ($\chi^2 = 1.15$). Thus, as predicted, the nature of one's friends did vary in the predicted directions across the five activity types. These findings are consistent with the work being done by others reported earlier (e.g., Eckert, 1989; Stattin et al., in press). Similar to these other studies, we find that activity settings can be linked to both risky and academic peer groups in ways that map nicely onto the association of activity involvement with both risky and positive behavioral outcomes. In the future, we will assess the extent to which the characteristics of one's peer group are one of the mediators of the relation between activity participation and other developmental outcomes.

Activities as Identity Formation Contexts

Like Erikson (1963) and Youniss & Yates (1997), we believe that voluntary participation in discretionary activities stimulates assessment of one's talents, values, interests, and place in the social structure. To the extent that more rigidly structured arenas of participation such as school and work provide less freedom to explore and express identity options than discretionary activities, adolescents should find more personal development opportunities, including experiences related to reflection and exploration, in youth activities than in academic settings. In support of this suggestion, Hanson and colleagues found that adolescents were more likely to say that the youth development activities (particularly faith-based, service-related, and sports) "got me thinking about who I am" or "doing new things" than academic classes did, and that those experiences differed, depending on the type of activity (Hansen, Larson, & Dworkin, 2003).

Also, activities provide a forum in which to express and refine one's identity (Barber, Stone, Hunt, & Eccles, in press; Eccles, 1987; Eccles & Barber, 1999).

We refer to this aspect of activities as attainment value—the value of an activity to demonstrate to oneself and to others that one is the kind of person one most hopes to be. Eccles (1987), for example, argued that gender-role identity influences activity participation because activities vary in the extent to which they provide the opportunity to explore one's masculine or feminine self. Participating in team sports provides a very good example of these processes. Engaging in sports allows one to demonstrate that one is an athlete or a "jock" and to explore whether being an athlete or a "jock" is a comfortable identity. The decision to engage in sports should be influenced by the extent to which one places high value on being athletic or being a "jock." Engaging in sports should also facilitate the internalization of an identity as an athlete or a "jock." To the extent that one both develops a "jock" identity and engages in sports, one is likely to pick up other characteristics associated with the athletic peer culture in one's social world. We explored these hypotheses with data from (MSALT).

At the 10th grade level, we asked the participants to make a prototype judgment regarding their identity. Because the movie *The Breakfast Club* was quite popular at the time, we asked the participants to indicate which of the five characters (*princess*, *jock*, *brain*, *basket-case*, or *criminal*) they were most like, after ignoring the sex of the character. Less than 5% left the question blank. Nine percent selected the *criminal*; 11% the *basket-case*; 12% the *brain*; 28% the *jock*; and 40% the *princess*. Although there was a gender stereotypic distribution, there were sufficient numbers of each sex in each of the five identity groups to allow for analyses.

As expected, the distribution of the identity types across our five activities groups differed with team sports being most clearly related to the identity types: 87% of the *jocks* played on a school sports team. However, not all athletes (particularly the female athletes) saw themselves as *jocks*: 69% of the male athletes identified themselves as *jocks*. This was especially true for those who played basketball (82%), football (78%), baseball (78%), ice hockey (73%), and wrestling (73%). Also, these five sports had the fewest participants who self-identified as *brains*. Overall, male athletes were unlikely to label themselves as *brains* (14% compared to 20% in the male population), with golf (24%), tennis (23%), and swimming (19%) being the only sports with substantial participation by *brains*. There was, also, substantial stability in sports participation among the male *jocks*, with 70% still playing sports in 12th grade.

The pattern was very different for the females. Similar to their female non-athlete peers, female athletes often self identified as *princesses* (e.g., 58% of gymnasts and 55% of swimmers) rather than *jocks* (8% and 16% respectively). The vast majority of cheerleaders saw themselves as *princesses* (71%) rather than *jocks* (12%). Overall, 22% of female athletes considered themselves to be *jocks*, compared to only 13% of the general female population. The highest proportion of female athletes who self-identified as *jocks* participated in basketball (38%),

softball (35%), soccer (42%), volleyball (30%), and track (29%). Finally, 90% of the female *jocks* were still playing sports two years later, in grade 12.

The evidence for activity-based identities is less clear for the other four identities, primarily due to the high proportion of adolescents in all identity groups who participated in at least one team sport during their 10th grade school year. The *princesses* were over-represented in both performing arts and school-involved activities, and the *brains* are over-represented in prosocial activities. The *criminals* were characterized by either very low or relatively low participation in all activity groups except team sports (47% of the *criminals* participated in team sports) and the *basket-cases* were characterized by relatively low participation in all groups except the performing arts.

We believe that some of the activity group differences on the outcomes identified earlier reflect behavioral differences associated with these different identity categories. As one would expect, the *criminals* reported the highest levels of risky behaviors and the *brains* reported the lowest at both 10th and 12th grade levels. Also consistent with the results reported earlier, linking team sport involvement with high levels of drinking, the *jocks* reported relatively high levels of alcohol use in grade 12. This finding is especially interesting given the stability of group differences across the two-year gap between self-identification as a *criminal* or *jock* and engagement in risky behaviors. Interestingly, the *princesses* reported, also, rather high levels of alcohol use in grade 12.

The expected pattern of results occurred, also, for the academic measures: The *brains* had the highest high school GPAs and the highest rates of college attendance and completion, followed closely, however, by the *princesses* and the *jocks*; the *criminals* had the lowest educational outcomes. *Princesses*, *jocks*, and *brains* reported also enjoying school the most at both 10th and 12th grade levels.

These preliminary results suggest that there is a link between identity, patterns of activity involvement, and other indicators of successful and risky adolescent development. This is most evident in the contrast between the *jock* and the *criminal*. These two groups were equally involved in alcohol consumption in grade 12. What distinguished them? The *jock* had a school-based activity identity while the *criminal* did not. It is not that all *criminals* were not involved in sports—in fact; 47% of the *criminals* participated in school team sports in the 10th grade. Unfortunately their rate of participation dropped dramatically between 10th and 12th grade. Consistent with the findings of Larson (1994), 70% of these sports-participating *criminals* dropped out of sports by grade 12. This decline represents the largest activity dropout rate of all five identity types. Eckert (1989) suggested that one of the key distinguishing characteristics of the burnouts in her study (a group much like the groups who labeled themselves as the *criminal* or the *basket-case* in this study) was the lack of a school-based identity. Over time, this group became increasingly detached from school, leading in many cases to dropping out of high school prior to graduation. A similar process may be going on for our

criminal group. They appeared, also, to be disconnecting from school and school-based activities over their high school years and were least likely to graduate from high school and to be attending college at age 21.

As noted earlier, it is also likely that the nature of the peers one hangs out with as result of one's identity and of one's activity patterns is a primary mediator of this link. We tested this possibility. Both the *criminals* and the *brains* had consistent profiles of friends. On the one hand, the *criminals* stood out as having the lowest proportion of friends who were doing well academically and planning to attend college, and the highest proportion of friends engaged in risky behaviors. Consequently, it is not a surprise that this group had the worst results on both of these sets of outcomes. On the other hand, the *brains* had the highest proportion of friends with high academic outcomes and low risky behaviors. Consequently, it is not surprising that these youth had the most consistently positive set of outcomes.

In contrast, the *jocks* and *princesses* had a more mixed pattern of friends in terms of risks and protective factors. On the one hand, the proportion of their friends with good academic outcomes was about the same as the *brains'* peer network. On the other hand, the proportion of their friends who drank and skipped school was higher than the *brains*. This pattern is consistent with the *jocks'* and *princesses'* own behavior patterns.

In summary, in Eccles & Barber (1999), we found that the patterns of developmental outcomes differed depending on the type of activity adolescents were involved in and their social identity group. Both involvement in prosocial activities and having a *brain* identity were associated with low alcohol and drug use and more positive academic outcomes. Also, these adolescents had the most academically-oriented peer group and the fewest friends who drank or used drugs. The *jocks* were most involved in sports; the *princesses* reported the highest rates of involvement in school spirit and governance activities. Both involvements in sports and school spirit activities and having a *jock* or a *princess* social identity were associated with a mixed pattern of outcomes: positive academic outcomes and higher alcohol use. Not surprisingly, a relatively high proportion of these adolescents' friends was both academically-oriented and regularly drank alcohol. The *criminals* were not generally engaged in organized extracurricular activities, were involved in risky behaviors such as alcohol and drug use, and had the highest proportion of friends who both drank and used drugs. The *criminals* most common activity was sports.

Negative Consequences of Dropping Out of Sports for the Jocks

What are the consequences of dropping out of a highly valued activity such as sports that is also central to one's identity? Among our 10th grade athletes, those who discontinued sport participation by 12th grade started lower and declined in their sports ability self-concepts, while those who continued to play had higher sports ability self-concepts at 10th grade, which got even higher by the 12th grade

(Hunt, 2002). These results suggest there is an identity-affirming role of continued sports play in the domain of sports competence.

To further examine the value of sport to one's identity, we tested the convergence of sports play, activity participation, and jock identity: The three-way interaction was significant for depressed mood (Barber et al., in press). As one would expect within our framework, those youth who saw themselves as *jocks* in the 10th grade and were no longer playing sports at 12th grade reported among the highest levels of depressed mood. Interestingly, the other group that showed relatively high levels of depressed mood was the group of students who did not consider themselves to be jocks in grade 10 and were involved only in sports at grade 12. These two groups share a poor identity-activity fit: They are either not doing what is most consistent with their prior activity-identity or they are doing something that is not consistent with their prior activity-based identity. Equally interestingly, the group of students who had considered themselves as *jocks* at grade 10 and who were involved in other activities but not sports at grade 12 looked quite good on this aspect of mental health. Perhaps these youth had found an alternative to sports once participating in competitive high school sports was no longer an option.

Dropping out of sports may also undermine attachment to school. Though a sense of belonging at school can result from a number of personal and social contextual factors, extracurricular activities are an especially likely path to school attachment, particularly for those youth who do not excel academically. Participation in extracurricular activities like sports can facilitate connections in the school context that satisfy adolescents' developmental need for social relatedness, and competence. Activities also contribute to one's identity as a valued member of the school community. In turn, a strong attachment to one's school can facilitate the internalization of other aspects of the schools' agenda—such as those related to academics. If this is true, then participating in extracurricular activities should predict better academic achievement, higher educational aspirations and reduced likelihood of dropping out of school.

Several researchers, including us, have documented this relation (e.g., Barber et al., 2001; Eccles & Barber, 1999; Mahoney and Cairns, 1997; Mahoney, Cairns, & Farmer, in press; Marsh, 1993; Marsh & Kleitman, 2002). Furthermore, some studies suggest that the relation is especially true for sports and for youth who are at risk. For example, in the nationally representative National Education Longitudinal Study (NELS) data set, athletic participation was related to numerous positive academic indicators, including educational aspirations, time on homework, and level of post-secondary education (Marsh & Kleitman, 2003). These effects were particularly pronounced for extramural sports compared to intramural, and for team sports compared to individual sports. Additionally, in MSALT, the relation of high school sport participation to educational attainment at age 24 was particularly strong for those males who reported having the highest proportion of friends who engaged in risky behavior.

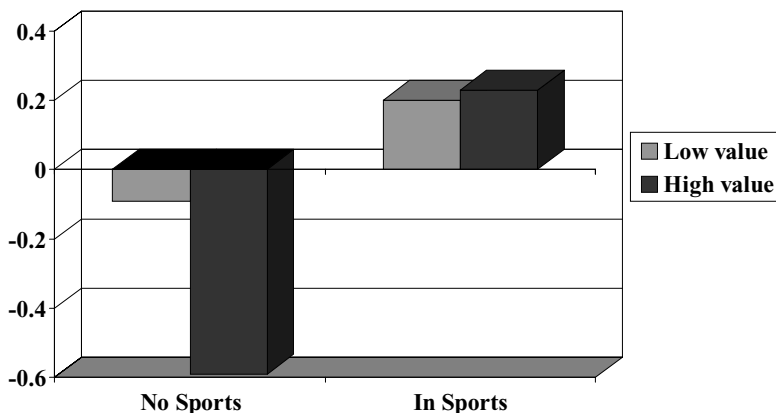


Fig. 1. Change in School Attachment (10th–12th grades) by Sport Participation and Sport Value

But what are the consequences of dropping out of team sports in the MSALT population? Consistent with our theoretical perspective, the association of discontinuing team sports participation was most negative for those athletes who highly valued sports (Barber, Jacobson, Horn, & Jacobs, 1997). For example, those students who placed a high value on sports in 10th grade and were no longer involved in sports in the 12th grade suffered the most dramatic decline in attachment to school from grade 10 to grade 12. Those athletes who had not placed high value on sports in 10th grade and were no longer involved in sports in 12th grade did not experience this decline in school attachment (see Figure 1).

Taken together, these findings on activities as identity contexts suggest that one mechanism through which organized activities have a positive influence is through their validation of identity. When activities confirm or support one’s self-concept, they are also likely to promote psychological well-being and attachment to the institutional settings that provide the participation opportunities. When opportunities are withdrawn, or are unavailable to those who desire them, or are a bad match to the interests of the adolescents, such support for identity exploration and affirmation is likely to be lacking.

Activity Participation and Connections with Non-Familial Adults

Another mechanism through which activities can influence positive development is through the social networks created through participation. Structured out of school and extracurricular activities provide adolescents with access to caring non-familial adults. Coaches, club advisors, and other involved adults often invest a great deal of time and attention in these young people—acting as teachers, mentors, friends, gate keepers, and problem solvers (e.g., Cooper, Denner, & Lopez,

1999; Elder & Conger, 2000; Youniss & Yates, 1997). With the right adults, such contact is likely to have positive effects on development particularly during adolescence. For example, Mahoney and Stattin (2002) found that participation in after-school activities is linked to lower levels of depressed affect primarily for those youth who perceived high social support from their activity leader. Similarly, the evaluation work on mentoring has documented the positive power of a good mentor in the lives of adolescents living in risky neighborhoods (Rhodes & Spencer, in press).

But, like peers, adults can have both positive and negative effects. Work in sports psychology provides some of the most compelling evidence of the importance of the characteristics of the adult supervisors in structured youth activities. In general, these studies show that youth develop better mental health, motivation, and values in sports programs that emphasize skill acquisition and mastery motivation rather than social comparison and winning (e.g., Duda & Ntoumanis, in press; Roberts & Treasure, 1992) and that stress the importance of coaches providing strong emotional support (e.g., Smoll, Smith, Barnett, & Everett, 1993). Furthermore, using an experimental design, Smoll and colleagues demonstrated that youth who work with a coach who has had a three-hour training program focused on emotional support show greater increases in their self-esteem than youth working with coaches who have not had this training.

In this section, we describe our initial efforts to investigate the link between participation in team sports and school involvement activities and connection to non-familial adults. In addition to the simple yes/no participation dichotomy for team sport participation, we examined which students had continued with sports and which ones had dropped out by the time of the 12th grade data collection and created a second sports variable with three categories: non-participants, participants who discontinued play, and participants who continued their affiliation with teams through 12th grade.

In the 12th grade, we asked participants several questions regarding their experience in accessing adults in their schools for advice about future plans and personal problems. For example, we asked participants how often (from 1 = "never" to 7 = "a lot") they discussed future job and educational plans with their teachers and counselors. Also, we asked them to rate, from 1–7, the usefulness of these discussions ("Talks with my teachers (counselors) have helped me to make plans for education after high school."). Those who spoke to teachers or counselors often found the talks helpful, so the two items were averaged for each category of school-based adult (alphas = .90 and .93 for teacher connection and counselor connection respectively). Finally, we asked them whether they had "someone else to talk to about personal problems and plans besides your parents or friends?" They answered yes or no and then were asked to check "yes" or "no" for possibilities such as "teacher or coach."

Using chi-squared analyses, we assessed the distribution patterns of adult resource use in 12th grade for the participants in team sports and school involvement activities. If students reported any access to teacher advice, they were coded as having teacher access. Although most students reported having talked at least once with teachers and counselors about future job or educational plans, youth who participated in sports or school involvement activities reported higher than expected rates of accessing teachers and counselors for discussion of academic and occupational plans (see Table 1). Moreover, there was a clear linear trend for sports participation such that stable participation was linked to the increasing likelihood of having support from school adults. Athletes who played sports in both 10th and 12th grades had markedly more access to teachers or coaches for discussing personal problems than those who had not played sports.

We aggregated across these three measures to create an index representing the number of school-based adult resource options each participant reported using, with scores ranging from 0 to 3, and performed a series of ANOVAs for the index of school-adult access, frequency of teacher resource usage, and frequency of counselor resource usage, with sports involvement, sports continuation status, and school involvement, as well as gender, as predictors. The predicted pattern of differences emerged for all of our dependent variables (see Table 2).

Both sport and school involvement participants had a broader range of adults to talk with at school than their non-involved peers. In addition, the participants in both team sports and school involvement reported more frequent educational and occupational advice from teachers and counselors. Again, the greatest amount of advice was reported by those still competing in sports in 12th grade. Thus, although many students reported talking to teachers or counselors about their educational or occupational futures, many fewer had school-based adult support for personal problems, or a diverse network of adults to consult for advice. Those athletes who participated in team sports throughout high school were especially privileged on these dimensions. Such adult investment, at a critical developmental time for future job and education decision-making, may be a partial explanation for the advantages in educational attainment and job quality evidenced in young adulthood by these athletes (Barber, et al., 2001).

Summary and Discussion of Next Steps and Policy Implications

In summary, there is converging evidence from several different types of studies suggesting that involvement in constructive, non-academic activities both at school and in the community facilitates continued school engagement and academic achievement as well as other aspects of positive development during adolescence and into the early adulthood years. There are a few studies that provide evidence about which particular aspects of these extracurricular and

Table 1. Percentage Accessing Adult Resource in Twelfth Grade by Participation Category with Chi-Square Statistics

	10th Grade		Continuation in Sports Team Play				10th Grade School Involvement			
	Sports Teams		No 10th or 12th Grade Play		10th Grade Only		Continued Play			
	No	Yes	chi-square	No	Yes	chi-square	No	Yes		
Teacher Support—Education, Occupation	77	86	8.850**	76	83	80	14.643**	80	89	5.965**
Counselor Support—Education, Occupation	70	77	7.481**	68	73	80	7.304*	69	83	9.584**
Teacher or Coach Support—Personal Problems	14	27	8.948**	14	15	41	28.705**	19	27	1.896

Note. Bold print highlights cells with percentages higher than would be expected by chance; italics highlights cells with lower percentages than expected. Single degree of freedom chi-square statistics reported. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2. Mean Levels of Adult Resource Access (with Standard Errors below) in Twelfth Grade by Participation Category

	Sports Teams		Continuation in Sports Team Play				School Involvement		
	No		No 10th or 12th Grade Play		10th Grade Only		Continued Play		
	No	Yes	No	Yes	No	Yes	No	Yes	
Index of School Adult Contact	1.6	1.9***	1.6 ^a	.04	1.7 ^a	.05	2.0 ^b ***	1.7	1.9*
Frequency of Accessing Teacher Support	3.2	3.0***	3.1 ^a	.11	3.5 ^{ab}	.12	3.9 ^b ***	3.4	3.8*
Frequency of Accessing Counselor Support	2.9	3.4**	2.9 ^a	.12	3.3 ^{ab}	.14	3.5 ^b ***	3.1	3.6*

Note. Scores for the Index of School Adult Contact ranged from 0 (discussions with no school adult reported) to 3 (discussions reported regarding future with both teacher and counselor and discussion reported regarding personal problems with teacher or coach). Scores on the scales for Frequency and Usefulness of Accessing Teacher and Counselor Support ranged from 1 to 7. Means in the same row with different superscripts are significantly different ($p < .005$). * $p < .05$. ** $p < .01$. *** $p < .001$.

community-based activities might account for these associations. These include the provision of opportunities to engage in challenging tasks that promote learning of valued skills, the provision of opportunities to form strong social bonds with non-familial adults and prosocial peers, and the provision of opportunities to develop and confirm positive identities.

These studies show, also, that specific characteristics of these activities matter. For example, our findings, as well as the work by Stattin and colleagues (in press) and by Dishion and colleagues (1999), demonstrate that the peer group one is exposed to in such activities can have either a positive or a negative effect on development depending on the culture and make up of that peer group. Similarly, the work in sport psychology demonstrates the power of both coaches and parents to facilitate the acquisition of a mastery motivational orientation versus a performance motivational orientation (Duda & Ntoumanis, in press).

More work is needed on identifying the specific mechanisms through which participation in structured activities influence children's and adolescents' development. Such work is particularly important if we hope to use such activity settings as positive socialization contexts for our children. As noted at the beginning of this article, many people are interested in the potential of such contexts for facilitating positive youth development and preventing problematic youth development. Both governmental agencies and private foundations are investing substantial amounts of money on such programs in the hope that they will promote positive youth development particularly for youth living in poor communities (Eccles & Gootman, 2002). It is critical that these investments be directed towards programs that work. Do we know enough to help policy makers and financial supporters pick the right programs to support? Yes and no. In a recent committee report from the National Research Council and Institute of Medicine, the committee concluded that we do know quite a bit and that many excellent programs have been designed and evaluated (see Eccles & Gootman, 2002).

However, although general characteristics of effective programs have been identified, we still know very little about the specific mechanisms through which these programs work. The existence of such programs and the increasing call for more programs provide social scientists with a unique opportunity to work with program developers and program evaluators to design evaluations that will let us study these mechanisms (Lerner & Galambos, 1998). The research reviewed in the article provides examples of what can be done using longitudinal designs guided by strong theory. We are at a point in the field of positive youth development to do more such longitudinal studies as well as to do experimental studies designed to test specific theoretical hypotheses about the mediating mechanisms.

Much more research is needed also on the role of participant characteristics. For example, we do not know enough about the extent to which the "effects" of participation are attributable to the characteristics of the youth who sign up for and stay in the programs, or to the characteristics of the programs, or to some

interaction between personal characteristics and experiences in the programs. One of the major challenges to those studying programs for positive youth development is the issue of “selection effects” on both entry into and continued participation in programs. Do some youth development programs differentially attract and retain young people with certain skills, interests, and backgrounds? How much of a program’s success is attributable to the young people who join and persist? Furthermore, in experimental studies of youth program effects, little is known about the threats to randomization resulting from differential attrition. How are characteristics that are likely to predict program attrition related to characteristics that are likely to predict an individual’s positive outcome? To what extent are program outcomes dependent on the attributes of the participants and the person-environment fit afforded by the program? What characteristics of youth interact with program components to produce differences in program impact?

In conclusion, we now know enough about the kinds of programs likely to have positive effects on children’s and adolescents’ development. We need to know more about the specific mechanism that explain these effects and we need to know more about which programs work for which youth—that is, we need to know more about the interaction between the participants’ and the programs’ characteristics in determining the effectiveness of specific program characteristics for specific individuals. We believe that this type of work will contribute to our fundamental understanding of the impact of social experiences on human development. The growing interest in designing effective structured activity-based programs for youth provides a unique opportunity to do high quality, theoretically-driven naturalistic studies. We hope that psychologists, social scientists, and developmental scientists will take advantage of this opportunity.

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