How Are Adolescents' Social Self-Perceptions Related to their Extracurricular Activities, Problem Behaviors, and Mental Health?

Janis E. Jacobs

Pennsylvania State University

Paper presented at the biennial meeting of the Society for Research in Child Development, April 2001, Minneapolis, MN as part of the symposium, "Does Involvement in Extracurricular Activities During Adolescence Matter? Implications for Psychopathology" Please address all correspondence to first author at Penn State University, 201 Old Main, University Park, PA 16802.

How Are Adolescents' Social Self-Perceptions Related to their Extracurricular Activities, Problem Behaviors, and Mental Health?

In recent years, researchers have begun to focus on adolescents' use of discretionary time (e.g., Larson, 2000) and their involvement in extra-curricular activities (e.g., Eccles & Barber, 1999; Mahoney & Cairns, 1997). This work has typically focused on describing how much unstructured time adolescents have, how they spend it, and the relationships between involvement in various types of activities and prosocial or anti-social outcomes. Recent research has shown that participation in school-based extracurricular activities acts as a moderator in the development of antisocial behaviors (Mahoney, 2000). In addition, other studies have emphasized the ways in which different leisure activities are experienced and the potential benefits of constructive leisure (e.g., Csikszentmihalyi, Rathunde, & Whalen, 1993. The social context of time use has been implicated in many studies, typically indicating that "hanging out" with friends in unstructured, unsupervised contexts is related to negative outcomes, while spending time with others in adult-sanctioned, structured contexts is related to positive outcomes. However, few of these studies have considered the relations between adolescents' social self perceptions and their decisions about how to spend their time. Choices about how to spend time (whether it is playing sports, watching t.v., or "hanging out") may be highly related to how teens feel about their social competence or social acceptance when they are around other teens. If the guys in the locker room don't accept you, but the ones on the street corner do, hanging out on the street corner may seem like the right way to spend time. The current study investigated the relations between social self-perceptions, time use, involvement in problem and prosocial behaviors, and mental health outcomes during middle adolescence.

Method

Data reported here were collected via questionnaires from 710 adolescents as part of the Childhood and Beyond (CAB) study, a cohort-sequential investigation of achievement and activity choices. Jacquelynne Eccles is the Principal Investigator on this longitudinal study. Children and their parents have been participants in this study since 1986, when the children were in the 1st, 2nd, or 4th grade. The sample was drawn from schools in the greater-Detroit, Michigan area and respondents' families were primarily European-American and middle to upper middle-class.

Activity and self-perception data reported here were collected from the same three cohorts during adolescence, when they were in grades 7, 8, and 10 (corresponding to ages 13, 14, and 16). Data related to involvement in problem behaviors, self-esteem, and depression were collected one year later. Adolescents' responses were given to questionnaires answered at school, during class time. *Time use* was assessed from a series of items asking how much time the respondent spent per week on various activities (e.g., sports, chores, talking on the telephone, hanging out with friends, family activities, volunteer work). *Social self-perception constructs* were assessed using four scales: 1) social self-concept; 2) social worries; 3) affect with friends; and 4) willingness to "do anything" to be popular (See Table 1). Self-reports of involvement in problem behaviors (e.g., drinking alcohol; skipping school) were used to calculate a 14-item problem behavior scale and reports of friends' involvement in problem behaviors were used to calculate a 7-item negative influence scale (see Table 2). Self-reports of involvement in prosocial behaviors (e.g., volunteering, church attendance) were used to calculate a 6-item prosocial behavior scale and reports of friends' involvement in prosocial activities were used to calculate a 7-item positive influence scale (see Table 3). Harter's Global Self-Competence Scale, containing 7 items, was

used to measure general self-esteem; and depression was measured with a 9-item self-report scale (see Table 4).

Results

Two complementary sets of analyses were conducted. The goal of the first set of analyses was to identify groups of adolescents who had diverse patterns of social self-perceptions in order to examine whether the groups used their free time differently. Four groups of adolescents were identified by conducting a cluster analysis of the four social self-perception variables (see Figure 1).

Although the groups varied on all dimensions, each group could be characterized as follows: 1) high social worries and willing to break rules for friends (labeled Desperate); 2) low social skills, but not worried (labeled Loner); 3) high social skills and high worries (labeled Anxious); and 4) high social self-perceptions across all areas (labeled Satisfied).

To facilitate comparison on the time use variables, factor analysis was used to identify similar groups of items and these were combined into three types of time use: 1) time at home (chores, homework, family, watching t.v.); 2) time with peers (sports, hanging out, talking on the phone, work for pay); and 3) time in prosocial activities (volunteer work, school clubs, religious activities). Respondents used a rating scale to estimate the number of hours they spent on each activity per week (ranging from 1=none to 8=21 or more hours).

ANOVAs were used to compare the ways in which four groups of adolescents spent their time. These analyses revealed that the social groups (Desperate, Loner, Anxious, Satisfied) defined earlier were significantly related to time use (Time at Home, $\underline{F}$ (3, 700) = 5.60, $\underline{p} < .001$; Time with Peers, $\underline{F}$ (3, 696) = 10.14, $\underline{p} < .001$; Time in Prosocial Activities, $\underline{F}$ (3, 697) = 5.47, $\underline{p} <$

.001). Post-hoc comparisons indicated that those in the Desperate group spent significantly less time in home based activities than those in any of the other groups.

Not surprisingly, it was the socially-adept, Satisfied group who spent the most time with peers, however those who report social worries and a willingness to break rules are not far behind them. The Satisfied group spent significantly more time in peer activities than members of any other group and the Loner group spent significantly less time in peer activities than those in any other group. Those who are in the Loner group also reported spending significantly less time than those in either the Anxious or Satisfied groups on prosocial activities, although no one was spending much time on these activities. These analyses make it clear that social self-perceptions are related to the ways in which adolescents are spending their time. Although everyone spends the most time with peers and the least time on prosocial activities, those who feel desperate to please peers and fit in and those who feel comfortable socially, spend more time with peers than the other two groups. Those who feel anxious spend more time at home and in prosocial activities than those in other groups.

Similar analyses were conducted to compare the four groups' involvement in problem behaviors and prosocial behaviors one year later. These analyses revealed that the problem behaviors, $F(3, 461) = 8.263$, $p < .001$. and the prosocial behaviors $F(3, 461) = 5.61$, $p < .001$, reported by the four social groups were significantly different one year later. Post-hoc tests indicated that those in the Desperate group reported significantly more problem behaviors than those in any other group, while those in the loner group reported significantly fewer prosocial behaviors than those in any other group.

The same analysis strategy was used to compare the four groups of adolescents one year later on two mental health outcomes – self esteem and depression. These analyses revealed that

the four groups differed on both self-esteem, F (3, 443) = 9.36, $p < .001$, and depression, F (3, 460) = 3.63, $p < .01$, one year later. Post-hoc comparisons indicated that those who were Satisfied with their social situation reported significantly higher self-esteem than any of the other groups, but members of the other groups did not differ from each other on this measure. Those in the Satisfied group also were significantly less depressed than the Desperate group. The depression scores of other groups did not differ significantly.

The goal of the second set of analyses was to investigate the role of social self-perceptions as a mediator between time use and later involvement in prosocial/problem behaviors. In these analyses, a reduced regression model was estimated (containing only the time use variables as predictors) and then the full model was estimated (containing all variables in the reduced model as well as the set of social-perception variables as potential mediators). In the second model, the social-perception scores were used rather than group membership from the cluster analysis. Parallel analyses were conducted, using Self-reported Problem Behaviors, Negative Influences from Friends, Self-reported Prosocial Behaviors, and Positive Influences from Friends as the dependent variables.

The relationships between time use and problem behaviors described earlier can again be seen in Table 5 -- time at home and time spent in prosocial activities were negatively related to self and friends' deviance a year later. In addition, all of the social variables contributed to the models. The mediation hypothesis was tested by comparing the direct and total effects in the two models (Clogg & Petkova, 1995). This test revealed that the effects of time at home and time spent with peers on later problem behaviors could be explained, in part, by adolescents' social self-perceptions. The same effect was seen when the dependent variable was the influence of friends on problem behaviors.

The relationships described earlier between time use and prosocial behaviors could be seen in the regression analyses presented on Table 6. Time spent on prosocial activities and time spent at home was positively related to involvement in prosocial activities for self and positive influence from friends a year later. For both dependent variables, only the effect of time spent on prosocial activities was mediated by the adolescents' social self-perceptions.

The same analysis strategy was used to test the relations between time use, social self-perceptions, and the mental health outcomes of self-esteem and depression. As can be seen in Table 7, the only time use variable that contributes to the reduced model is time spent on prosocial activities; however time with peers and prosocial activities both contribute to the full model, albeit in opposite directions. Social self-perception variables play the largest role in predicting self-esteem with high social self-concept and affect with friends positively related to self-esteem and social worries negatively related (those with more social worries have lower self-esteem). In this case, time spent on prosocial activities continues to contribute to the full model, but it does not mediate the effects of social self-perceptions on self-esteem.

Time spent at home and with peers are both related to depression a year later, with time spent at home negatively related and time spent with peers positively related to this outcome. Those effects continue to hold after the social self-perception variables are added to the model. The only social self-perception variable that contributes significantly to the full model is affect with friends, with lower affect related to higher depression. The time use variables continue to contribute to the explanatory power of the full model, but do not act as mediators of social self-perceptions for depression. In addition, it should be noted that a relatively small proportion of the variance in depression can be explained by this set of predictors.

Conclusions

Not surprisingly, this study found the same relationship reported in other studies between time spent with peers and problem behaviors. However, the goal here was to go beyond that relationship to try to examine the role that adolescents' social self-perceptions might play in the way they spend their time and in their mental health outcomes. We hypothesized that those who feel inadequate socially may be spending their time differently than those who feel socially adept. We found that adolescents' social self-perceptions do play a role in their decisions about how to spend time, with those who feel socially anxious spending more time at home and those who feel anxious but willing to break rules to keep friends (called desperate here), spending less time at home and more time oriented toward peers. In addition, social perceptions contribute to our predictions about adolescents' behaviors and mental health a year later, contributing to the models in all cases, but acting as mediators only between time use and involvement in prosocial and problem behaviors.

These findings highlight the importance of considering adolescents' social self-perceptions when studying involvement in extracurricular activities. Number of after-school activities or amount of time spent on extracurricular pursuits may not tell the whole story; it may not even be enough to know if they are involved in sports, the arts, or community service. If we want to really understand how time use and extracurricular activities shape adolescents' lives, we may need to look more closely at the *meaning* of extracurricular involvement for the teens themselves, including their perceptions of the social world and how they fit within it.

References

Clogg & Petkova, 1995

Csikszentmihalyi, M., Rathunde, K., & Whalen, S. (1993). *Talented teenagers: The roots of success and failure.* Cambridge, England: Cambridge University Press.

Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist, 55*, 170-183.

Eccles, J. S. & Barber, B. L. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research, 14*, 10-43.

Mahoney, J. L. (2000). Participation in school extracurricular activities as a moderator in the development of antisocial patterns. *Child Development, 71*, 502-516.

Mahoney, J. L. & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? *Developmental Psychology, 33*, 241-253.

Table 1

Social Self-Concept	.80
How popular are you with boys?	
How popular are you with girls?	
How good are you at making friends?	
From best to worst in your class, how good are you at making friends?	
Social Worries	.79
Worry that boys dislike	
Worry that girls dislike	
Worry not good looking	
Worry what other kids think	
Deviance for Popularity	.79
Act dumb to be popular	
Let work slip to be popular	
Not try in school to be popular	
Break rules to keep friends	
Affect Around Friends	.66
How often do you feel good about yourself while you are hanging out with friends?	
How often do you wish you were doing Something else while you are hanging Out with friends? (R)	
How often do you feel left out when you are with your friends? (R)	

Table 2

Problem Behaviors Number of times in past 6 months you have	.87
Skipped School	
Done something dangerous for the thrill of it	
Had contact with the police	
Damaged property	
Got drunk	
Been Suspended from school	
Disobey parents	
Been involved in risky actitivies	
Lied to parents	
Been in a fistfight with another kid	
Drunk Alcohol	
Cheated on homework	
Been sent to the principal's office	
Negative Influences - friends	.84
My friends encourage me to disobey parents.	
My friends encourage me to do dangerous things	
How many of your friends get in trouble in School?	
How many of your friends get in fights with Other kids?	
How many of your friends are likely to skip School a lot?	
How many of your friends get drunk at least Once a week?	
How many of your friends have been suspended from school?	

Table 3

Prosocial Behaviors - Self	.74
Help a friend with homework	
Provide volunteer or community services	
Help your parents do something important to to them	
Help other adults handle their problems	
Help parents handle their problems	
Help a friend with a personal problem	

Positive Influences – Friends	.76
My friends encourage me to do my best in school	
How many of your friends regularly attend Religious services?	
How many of your friends work out or exercise regularly?	
How many of your friends think that school Work is important?	
How many of your friends think it is important To do volunteer work in the community?	
How many of your friends are involved in Student government or other school clubs?	
How many of your friends play sports?	

Table 4

Self Esteem	.77
Which is more like you?	
Some kids feel like they would like to change a lot of things about themselves but others would like to stay the same …	
Some kids are happy being the way they are and some kids wish they were different	
Some kids aren't happy with the way they do things but others think the way they do things is fine	
Some kids are sure of themselves but others are not very sure of themselves …	
Some kids feel good about the way they act but other kids wish they acted differently …	
Some kids are sure what they do is right but other kids aren't so sure whether they do the right thing …	
Some kids think that they are not a very good person but others are pretty sure they are a good person …	

Depression	.89
During the last month how often have you felt …	
-so angry that you wanted to smash or break something?	
-felt hopeless?	
-felt that you couldn't control your temper?	
-felt like you don't care anymore?	
-felt very sad?	
-felt depressed?	
-felt so upset that you wanted to hit or hurt someone?	
-had thoughts of ending your life?	
-felt really unhappy because it seemed like nobody wanted you as a friend?	

Table 5

	Negative Influence		Problem Behaviors	
Time at Home	-.26***	-.20***	-.21***	-.16**
Time w/Peers	.34***	.28***	.36***	.29***
Time on Prosocial	-.13**	-.15**	-.05	-.06
Social Self-concept		.10*		.11*
Social worries		-.14*		-.06
Affect w/friends		-.13**		-.06
Dev. For popularity		.22***		.19***
R^2	.16	.23	.13	.18
Adj. R^2	.15	.22	.13	.17

Table 6

	Positive Influence		Prosocial Behaviors	
Time at Home	.12*	.11*	.16**	.16**
Time w/Peers	-.09	-.13*	.06	.01
Time on Prosocial	.30***	.27***	.26***	.22***
Social Self-concept		.18***		.19***
Social worries		.11*		.11*
Affect w/friends		.08		-.06
Dev. For popularity		-.17***		-.07
R^2	.11	.18	.12	.16
Adj. R^2	.11	.17	.12	.15

Table 7

	Self-esteem		Depression	
Time at Home	.03	.05	-.13**	-.13**
Time w/Peers	-.04	-.12*	.12*	.15**
Time on Prosocial	.16**	.16**	-.03	-.04
Social Self-concept		.15***		.02
Social worries		-.20***		.09*
Affect w/friends		.18***		-.19***
Dev. For popularity		-.16		.05
R^2	.03	.19	.03	.09
Adj. R^2	.02	.17	.02	.08

Figure 1
Social Self-Perception Groups

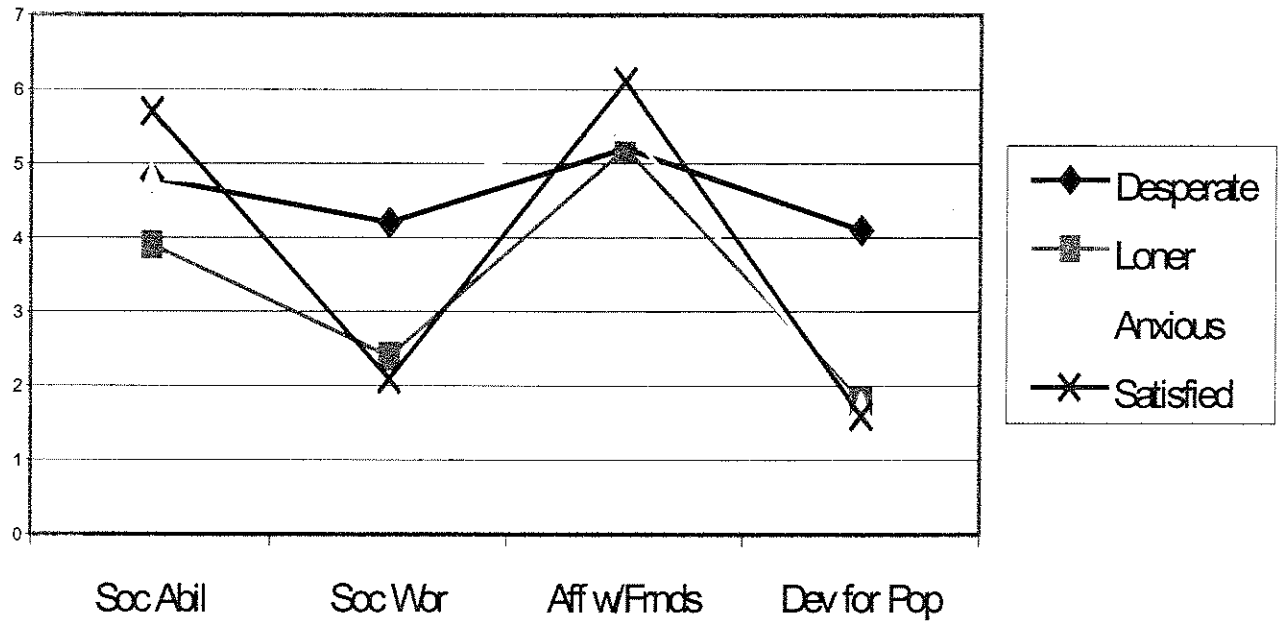

Figure 2
Time Use Activities

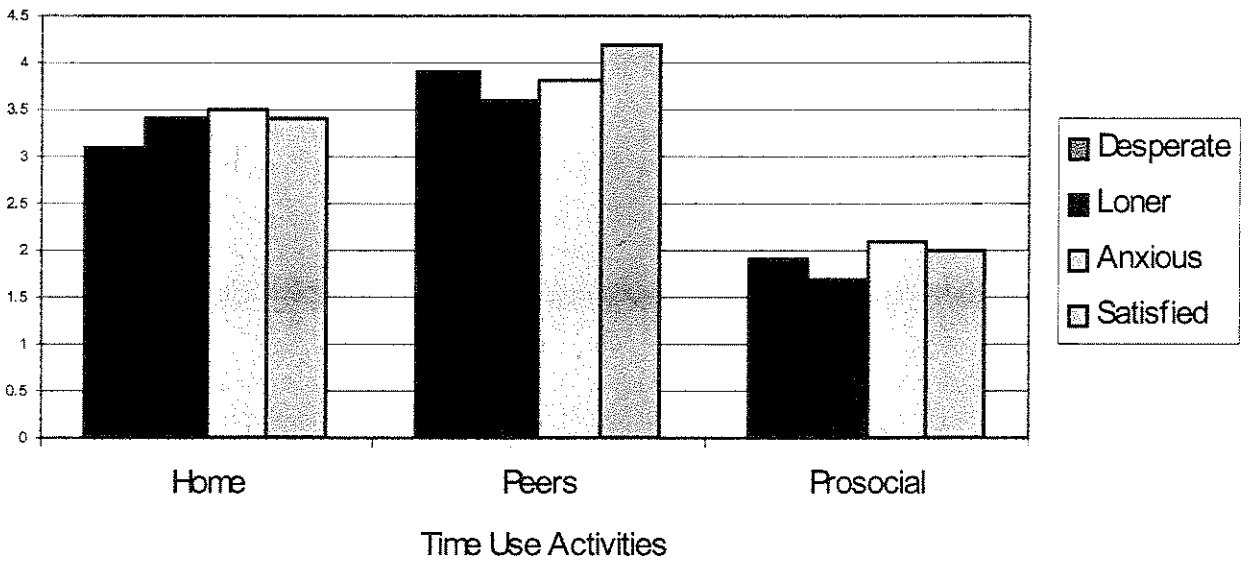

Figure 3
Problem and Prosocial Behaviors

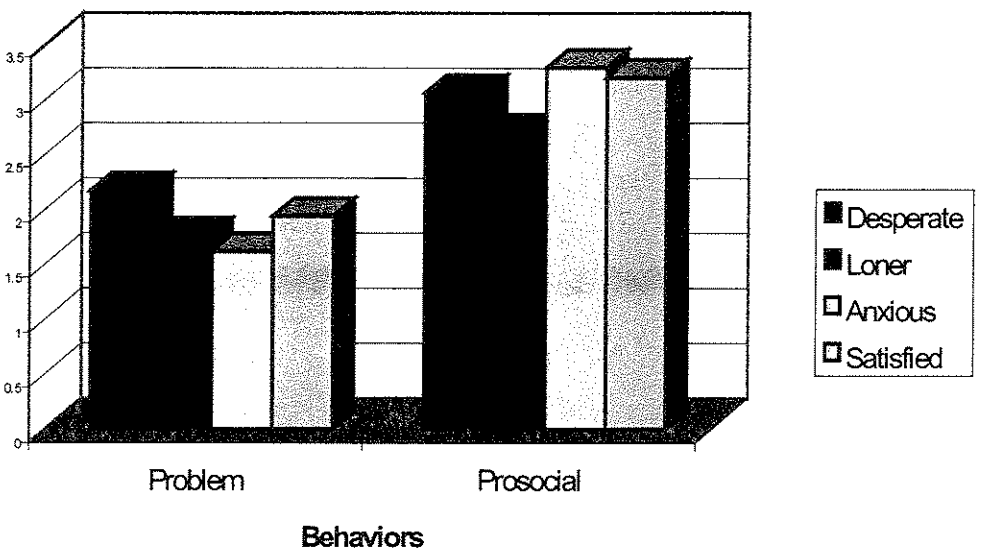

Figure 4
Mental Health