

# Social Interest, Connectedness, and Challenging Experiences: What Makes High School Mentors Persist?

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## Abstract

Cross-age mentoring provides young people opportunities to act on their social interest. Yet little is known about youth who volunteer to mentor or about the effects of participating as a cross-age mentor. Study 1 included 120 adolescents, 57 of whom served as adolescent mentors and 63 as a control group. Both completed the Hemingway—Measure of Adolescent Connectedness (Karcher, 1999) and Crandall's (1991/1975) Social Interest Scale. Adolescent mentors reported more conventional connectedness than did the comparison group. Study 2 included 33 adolescent mentors and 27 child mentees. Mentors with high social interest were more likely to continue as mentors for a second year, to choose to mentor more socially and academically challenging mentees, and to report declines in connectedness to school after mentoring.

Five months into the first year of a cross-age mentoring program called the Children's After-School Mentoring Program (CAMP), we solicited feedback from the mentors' parents. The mentors, those high school students who volunteered to serve as mentors to elementary school youth, had participated in two days of mentor training at the high school before starting their work as mentors. Each month the mentors met with the school staff and program coordinators to discuss their work and what they were learning by serving as mentors. We thought the students were well prepared for their work. Therefore, we were quite surprised by a phone call from the mother of one of the most dutiful, mature, and involved mentors. She explained: "I'm a teacher, and my daughter wants to be a teacher, but I'm afraid that being a mentor may discourage her from the profession. She is working with a very difficult child, and sometimes she comes home wondering if she is making any difference at all. I think that being a mentor to this particular child is too much to ask of a teenager."

This parent's comments led us to wonder how being mentors affected the high school students. Specifically, we wondered whether mentoring children with academic or social problems is a developmentally appropriate form of community service for high school students. These questions have considerable implications for high-school-level service learning and community-service

programs, like cross-age mentoring, and for teachers trying to identify developmentally appropriate outreach and volunteer activities (e.g., Yates & Youniss, 1996).

In this study, we examined the characteristics of youth who chose to participate as mentors and the effects of 6 months of mentoring on the students' senses of social interest and connectedness to school in order to understand better what makes high school mentors persist.

### **Sharing One's Own Feelings of Connectedness through Cross-Age Mentoring**

Mentoring provides youth with an outlet for social interest and an opportunity to give back to their community (Flanagan & Faison, 2001). However, little is known about how mentoring affects youth who mentor. Commonly, researchers have addressed one question about absolute efficacy: Does it work? A number of studies have examined psychosocial and attitudinal gains made by students involved in community service activities, and some positive findings have been reported (Blyth, Saito, & Berkas, 1997; Conrad & Hedlin, 1982; Yogev & Ronen, 1982). Most research has focused on the impact of service activities on students' behaviors in school, as well as their own senses of alienation, self-esteem, and civic-mindedness (Calabrese & Schumer, 1986; Hamilton & Fenzel, 1988; Switzer, Simmons, Dew, Regalski & Wang, 1995). The outcomes of the aforementioned studies highlight the importance of studying the effects of volunteer and service activities on psychosocial characteristics like connectedness.

The need to belong is profound (Baumeister & Leary, 1995) and serves as the basis for adolescent connectedness (Karcher, 2001). During adolescence, the need to feel connected to others and involved in one's larger social ecology increases dramatically (Henderson, 1998; Karcher, 1999; Roth & Brooks-Gunn, 2000). Connectedness is the adolescent extension and manifestation of attachment processes and parental bonding. It involves behavioral and affective commitments. Like attachment indicators—such as the proximity-seeking behaviors of the toddler, which are believed to reflect a sense of safety, security, and feelings of being cared for—connectedness in adolescence reflects affective bonding and proximity seeking with people and places in the larger social ecology (Karcher, 1999). Adolescent connectedness reflects how much adolescents care for the significant people in their lives (family, friends) and the degree to which they are involved in the wider social ecologies in their lives (e.g., school, neighborhood, cultural group). Research suggests that the absence of connectedness during adolescence contributes to psychological problems and risk-taking behaviors (Bonny,

Britto, Klostermann, Hornung, & Slap, 2000; Kuperminc, Blatt, & Leadbeater, 1997; Lee & Robbins, 1995). Conversely, sustained connectedness to the conventional ecologies of family and school is crucial for successful adolescent development (Cooper, Grotevant, & Condon, 1983; Jessor, 1992; van Dulmen, Dunbar, & Grotevant, 2000).

Although there has been little research on the topic of youth volunteerism, it is commonly believed that youth who report greater social connectedness are more likely to be involved in school activities, volunteer work, and service projects (Flanagan & Faison, 2001; Gerson, 1997). One of the motivations most often stated by volunteers, mentors, and youth involved in interpersonal forms of service learning is their goal of sharing with others their own positive experiences of connectedness (Fernandez, 2000). Indeed, the phenomenon of trying to recreate one's own positive affective experience in others appears to be central to sustained altruism (Crandall, 1991/1975; Hetterman & Jenkins, 1990; Karcher, 1997). This explanation of altruism within volunteer service activities, like cross-age mentoring, assumes that participating students are already highly connected to school and value its activities, such as reading (Allen, Kuperminc, Philliber, & Herre, 1994). However, this belief has not been empirically tested.

Another belief about mentors is that they demonstrate more social interest. Social interest reflects an "identification with humanity, a feeling of community, [and] a belonging to life" (Manaster & Corsini, 1982, p. 13). For example, it is often suggested that those youth who report greater social interest are more likely to seek out and sustain their involvement in altruistic activities (Crandall & Harris, 1976; Hetterman & Jenkins, 1990). However, empirical research on the role of social interest in adolescents' altruistic involvement in volunteer activities, like mentoring, has been quite limited. For example, do students with greater social interest sustain their involvement as mentors longer than those reporting less social interest? It has been suggested that "future research should focus on the motivations for volunteering. Specifically, are the benefits of volunteering limited solely to those adolescents who are intrinsically motivated to volunteer?" (Johnson, Beebe, Mortimer, & Snyder, 1998, p. 326). For example, how might social interest be used to predict youths' persistence in altruistic activities (e.g., Hetterman & Jenkins, 1990) or be related to the types of mentees with whom adolescent mentors choose to work?

Four general questions guided this study. Are youth who serve as mentors more connected or socially interested than their peers? Does social interest affect mentors' sustained involvement? Do adolescent mentors report changes in connectedness or social interest after mentoring? Can any changes in connectedness be explained by youths' social interest or by the characteristics of their mentees?

### **Sustained Involvement and Anticipated Gains as a Function of Students' Motivations**

There is reason to believe that social interest may lead youth to seek out challenging volunteer and service opportunities, but there is also evidence that doing so may set them up for disappointment (Blocher, 1993). Research on volunteering suggests that the degree to which service activities fulfill individuals' personal reasons for volunteering—for example, whether or not one's mentoring positively affects a child's social or academic functioning—predicts individuals' satisfaction with volunteering and their desire to sustain their involvement. In a series of studies, Clary et al. (1998) identified six motivations of volunteers, including the desire to protect others, to get ahead professionally, to feel better about themselves, and to share with others or give back to the community. When volunteers' motivations were achieved or realized, they reported greater personal gains and higher future involvement as volunteers (see Dubois & Neville, 1997). Thus, volunteerism and altruistic activities are likely to be sustained to the degree to which they facilitate achievement of those individuals' personal goals. Programs that are structured in ways that do not allow individuals to achieve their goals may adversely affect their future involvement as well as their personal benefits from participation.

From the perspective of school counselors and other coordinators of cross-age mentoring programs, it is important to understand better the characteristics of those who choose to serve as mentors and how their motivations are linked to program outcomes. For example, many school-based, cross-age mentoring programs are structured to help highly connected and successful high school students serve as role models for struggling younger students (Wright & Borland, 1992), but adolescent mentors who are unhappy or unsuccessful as mentors are not likely to benefit their mentees very much. Traditionally, researchers have asked, does cross-age mentoring help the mentees? Now researchers are starting to ask, does cross-age mentoring help the mentors? (Noll, 1997; Sawyer, 2001) But few researchers have examined *how* mentoring might *adversely* affect mentors. For example, does it similarly affect all mentors, such as those high in social interest as well as those low in social interest? Nor has research explored whether working with more challenging mentees can overwhelm high-school-age mentors, as the parent in the opening paragraph suggested it did to her daughter. Might those highly connected and socially interested youth who mentor socially or academically challenging mentees become less socially interested or less connected as a result of working with such challenging mentees? Although research on peer-group interventions for delinquent youth has revealed some negative

effects of intervention programs (see Dishion, McCord, & Poulin, 1999), there has been no research examining the situational properties that may contribute to negative outcomes among youth as a result of serving as cross-age mentors.

### **Developmental Mentoring as Learning through Service Activity**

Developmental mentoring is a cross-age approach to school-based mentoring that provides an opportunity for learning through service. Developmental mentoring is structured so that high school students work after school with elementary school mentees (Karcher, 2000; Karcher, Davis, & Powell, 2002). The format of the mentoring is structured into group activities designed to promote both the mentors' and mentees' development. In order to support interactions that are developmental for both the adolescent mentors and the mentees, the coordinator provides curricular activities that guide the high school mentors' work (Karcher, 2000). The curricula include academic and recreational activities to engage the mentor and mentee. These activities are intended to promote mentors' and mentees' connectedness to conventional contexts and people, like school, the future, and family (Jessor, 1992).

The effects of cross-age, developmental mentoring on the mentees and the mentors remain fairly unexplored. Cross-age mentoring has received less attention than cross-age tutoring, and the effects of this service modality on the mentors have been limited to anecdotal reports. Equally important, however, is that virtually no studies have tested the developmental appropriateness of cross-age mentoring for high school students. Given that mentoring programs often include high-risk mentees who present considerable social, emotional, and academic deficits and who may overwhelm their teachers and parents, the impact on the mentors of mentoring these very challenging youth deserves study before it can be recommended as a developmentally appropriate volunteer or community-service activity in the schools.

Three hypotheses were tested in two studies. First, youth who serve as developmental mentors will report more connectedness and social interest as measured by self-report scales than their peers. Second, mentors who initially report lower social interest will be less likely to sustain their involvement. Third, changes in self-reported connectedness, particularly in the domains targeted by the developmental mentoring program (e.g., connectedness to school, reading, future, and family), will be related to the characteristics of their mentees: the more challenging the mentee, the more likely the mentor will be to experience disconnection in those domains of connectedness.

## Design

In study 1, a between-group comparison was conducted. The levels of adolescent connectedness among high school students who volunteered to serve as mentors to elementary school students were compared to those of a comparison group that was stratified by gender.

Study 2 involved pre-post, within-group, and between-group comparisons as well as correlational analyses of change scores. In the first part of study 2, we examined the levels of social interest between mentors who quit after 6 months with those who persisted into the second year. We also examined mean group differences in the levels of connectedness between the mentors (after mentoring) and the comparison group. In the second part of study 2, we examined correlations between initial social interest, mentees' risk status, and changes in connectedness among the youth mentors.

## Study 1

*Participants.* The participants in study 1 included adolescent mentors from two high schools (A & B) and a high school age comparison group drawn from School A. The sample included 120 youth from two rural schools in midwestern U.S. towns each with a population of 15 to 25 thousand. There were 88 girls and 32 boys in the sample, with equivalent numbers of boys and girls in the mentoring and comparison groups.

Mentors were drawn from two schools. The 57 mentors were in grades 8 ( $n = 6$ ), 9 ( $n = 21$ ), 10 ( $n = 11$ ), 11 ( $n = 13$ ), and 12 ( $n = 6$ ). The 63 youths in the comparison group were from grades 9 ( $n = 32$ ) and 10 ( $n = 31$ ). Mentors in School A included 33 youths, balanced across grades 8 through 12. Complete data were only available at post-test for 27 of the mentors because of absenteeism on one of the testing days, so the data are based on 27 participants. Mentors in School B included 30 mentors in grades 9 and 10. Both groups of mentors were recruited by announcements in the school and participated in 8 hours of mentoring training.

The comparison group included 63 high school students who randomly were drawn from a sample of 213 students in grades 9 and 10 in School A. Surveys were conducted on a voluntary basis in the library during a study hall period by school officials who collected the data as part of an evaluation survey. Sixty-three cases were randomly selected to create a comparison group that was stratified by grade and gender to match the mentoring group. The comparison group and mentoring group did not differ in mean age level ( $F(1, 118) = 2.91, p > .05$ ) or by gender ( $F(1, 124) = .09, p > .05$ ).

**Table 1**  
Correlations Between Connectedness Subscales and Social Interest for Mentors and the Comparison Group of Rural High School Students

	Social Interest Scale	Connectedness					
		Family	Friends	Reading	Future	School	Self
Family	-.04	—	.29*	.30*	.46****	.41****	.51****
Friends	-.10	.28*	—	.00	.26*	.15	.56****
Reading	-.15	.18	.35***	—	.32**	.78****	.15
Future	.00	.05	.14	.14	—	.52****	.55****
School	.11	.30*	.31*	.30*	.41****	—	.38***
Self	-.14	.29*	.21	.49****	.02	.25*	—

*Note.* \*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .005$ . \*\*\*\*  $p \leq .001$ . Correlations for the mentors are below the diagonal ( $n = 57$ ); correlations for the comparison group are below the diagonal ( $n = 63$ ). No Social Interest Scale assessment was available for the comparison group.

*Instrument.* The Hemingway—Measure of Adolescent Connectedness (Karcher, 1999, version 2.3) includes 44 questions about connectedness (activity/involvement and attitude/affection) in the domains of self, friends, family, school, reading, and the future. Each connectedness subscale includes questions about the adolescent's degree of involvement in and affection for each of these domains of connection. Examples of involvement and attitude items in the connectedness to school subscale include "I put as *little* effort into my school work as I can" (reverse scored) and "School is a place where I feel very good about myself." A sample item for affection to reading is "I love to read." Factor analyses consistently reveal two groups of connectedness scales: conventional and unconventional (Karcher, 2001). Conventional subscales include school, reading, the future, and family, which all reflect relationships and contexts that support conventional behaviors. The unconventional scales, including the friends and the self subscales, reflect relationships, values, and experiences that do not typically reflect conventional (adult prescribed) behaviors.

**Table 2**  
Between-Group Comparisons on Connectedness Subscales: Pretest Differences

		ANOVA												
		Measures of Adolescent Connectedness												
Total		School		Reading		Future		Family		Friends		Self		
<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	
All Students	3.80*	.17	25.42**	.42	16.78**	.35	5.56*	.21	9.73**	.27	0.39	.06	17.02**	.35
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mentors	3.65	0.38	4.04	0.55	3.69	0.98	3.59	0.77	3.98	1.01	3.82	0.80	3.38	0.65
Comparison Group	3.47	0.61	3.43	0.78	2.86	1.27	3.23	0.92	3.40	1.05	3.91	0.82	3.93	0.83

Note. \* $p \leq .05$ . \*\* $p \leq .005$ . For mentors,  $n = 57$ ; for comparison group,  $n = 63$ .



The total connectedness score is the mean of the six subscale means. The measure uses a five-point interval scale from *not true* to *very true*. Internal consistency (Cronbach's alpha) estimates were computed for the mentors and comparison group separately. Reliability estimates for the mentoring group and the comparison group for specific connectedness subscales were Family = .71/.81, Friends = .67/.73, Reading = .71/.89, Future = .72/.70, School = .74/.85, and Self = .74/.79. A more recent version of this measure has good concurrent validity and estimates of subscale test-retest reliability, ranging from .72 to .91, with a mean of .86 (Karcher, 2001). No such data are available for version 2.3.

*Results.* Did the high school students who volunteered to serve as mentors differ in their conventional or unconventional connectedness? Correlations between the connectedness subscales and social interest are shown in Table 1.

The two-way MANOVA for the six connectedness scales and total connectedness score revealed significantly greater conventional connectedness for the mentors than the comparison group on the subscales of connectedness to school, reading, family and the future. The comparison group reported higher unconventional connectedness to self as indicated by the corresponding  $F$  for Wilks's lambda ( $F(6,113) = 11.96, p \leq .005, \eta^2 = .42$ ). Table 2 reports the follow-up ANOVA results. There was no effect of age or gender, and no interaction between either age or gender and group (mentor/comparison) on connectedness scores.

To judge differences between schools, we conducted a MANOVA, which produced a statistically significant  $F$  corresponding to Wilks's lambda ( $F(5,54) = 2.75, p \leq .05, \eta^2 = .27$ ). As can be seen in the ANOVA results in Table 3, the mentors from the two schools, however, differed on connectedness to school and to self, with mentors in School A reporting greater connectedness on both subscales.

## Study 2

*Participants.* The participants in study 2 included both mentors and mentees, all from School A. The mentees in School A included 27 children who participated in the mentoring program during the fall of 1999 and the spring of 2000. Teachers in grades 4 and 5 were asked to assess the risk status of their students in terms of academic risks (i.e., poor grades, frequent tardiness, absenteeism, a learning disability, and lack of interest in school) and social risks (i.e., inadequate social skills, few friends, emotional/behavioral problems, difficulty getting along with others, and problems with authority). The mean social risk status was 1.00 ( $SD = 1$ , range 0 to 3) and academic risk status was 1.81 ( $SD = 1.35$ , range 0 to 4) on a five-point scale.

**Table 3**  
Between-Group Comparisons on Connectedness Subscales: Differences by School

		ANOVA												
		Measures of Adolescent Connectedness												
Total		School		Reading		Future		Family		Friends		Self		
<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	
All Mentors	.80	.12	5.34*	.29	1.82	.17	1.19	.14	0.03	.02	0.98	.13	6.52**	.32
School A ( <i>n</i> = 27)	3.69	0.35	4.19	0.42	3.85	0.96	3.49	0.80	3.96	3.91	3.91	0.80	3.57	0.64
School B ( <i>n</i> = 30)	3.60	0.41	3.88	0.64	3.52	0.99	3.70	0.73	4.00	3.71	3.71	0.81	3.16	0.60

Note. \* $p \leq .05$ . \*\* $p \leq .01$ . For mentors,  $n = 57$ ; for comparison group,  $n = 63$ .

The mentors in School A included 33 youths roughly balanced across grades 8 through 12. There were 12 male mentors and 21 female mentors. Complete data were only available at post-test for 27 of the mentors because of absenteeism on one of the testing days, so the change score data are based on 27 cases. Mentors worked with mentees twice a week after school for 6 months, and participated in 2 hours of school-based supervision monthly. Mentors earned a half credit for participating in the mentoring and the supervision classes.

*Hemingway—Measure of Adolescent Connectedness* (Karcher, 1999, version 2.3). The same scale described in study 1 was employed in this study.

*Social Interest Scale* (Crandall, 1991/1975). The Social Interest Scale lists 24 paired words, from which the individual selects "which traits in that pair [the participant] would rather possess as [his or her] own characteristics" (Crandall, p. 108). An example is "helpful—quick-witted." There are 9 imposter pairs or "buffer items," such that the highest score one can achieve is 15. Crandall reported split-half reliability of .77 and test-retest reliability of .82 over a 5-week period. The norm for adults in Crandall's study of adults was 8.43 ( $SD = 3.57$ ), but to our knowledge no such norms are available for youth. The scale is one of the most commonly used measures of social interest, and it has been found to correlate negatively with hostility and positively with altruism, empathy, and cooperation (Crandall, 1981, 1991/1975; Bass, Curlette, Kern, & McWilliams, 2002). Bass et al. report that the SIS typically generates effect sizes much smaller (i.e.,  $r = .17$ ) than other measures of social interest (i.e.,  $r = .30$ ). This may be because it measures one's concern for the welfare of others (Crandall, 1981) and because it is more situation specific, whereas other measures are better predictors of general psychological constructs and general lifestyle approaches (Bass et al.).

*Attrition.* Continuation in the program was scored yes or no in terms of which mentors decided to participate in the program for a second year (excluding graduated seniors).

*Mentor-mentee matching.* Mentees and mentors selected each other after a 6-hour Saturday orientation, with 90% of both mentors and mentees receiving their first or second choice. Because the study was conducted in a small town with youth who attend physically adjoining schools, the high school mentors knew most of the elementary school children in the program prior to selecting a mentee.

*Mentoring Program Description.* High school mentors were asked to make an initial 1-year commitment. Mentoring was conducted in a group format twice weekly after school for 2 hours in the library, gym, or cafeteria of a middle school (which included grades 4 through 8). Although mentors and mentees were paired for most of the meeting time, the group format allowed children whose mentors could not attend to participate in group activities.

**Table 4**  
Between-Group Comparisons on Connectedness Subscales: Differences After Mentoring

	ANOVA													
	Measures of Adolescent Connectedness													
	Total		School		Reading		Future		Family		Friends		Self	
<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	<i>F</i>	<i>Eta</i>	
All Students	1.31	.12	9.69**	.32	7.10*	.28	1.16	.12	0.70	.09	0.00	.00	7.66*	.29
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mentors	3.63	0.37	4.00	0.62	3.68	1.19	3.45	0.55	3.60	0.67	3.91	0.73	3.37	0.75
Comparison Group (pretest)	3.47	0.61	3.43	0.78	2.86	1.27	3.23	0.92	3.40	1.05	3.91	0.82	3.93	0.83

Note. \* $p \leq .01$ . \*\* $p \leq .005$ . For mentors,  $n = 57$ ; for comparison group,  $n = 63$ .

The developmental mentoring program provides four essential elements of service learning (Fertman, 1994): service, learning, reflection, and preparation/celebration. It provides students with an opportunity to address an unmet need in their community (Bullard & Mahoney, 1997). It integrates service with learning opportunities. Mentors are taught ways to manage children's misbehavior; they learn a variety of curricular programs (e.g., substance abuse prevention, social skills); and they are taught to be attentive, empathic, and firm with children. Monthly they are provided with structured reflection opportunities, supervision/reflection meetings, and ongoing, on-site assistance in their work with the younger students. Finally, the curricula activities are planned in advance, so that the high school students know the curricula that will be used and can participate in the curriculum development (Fertman; Giles & Eyler, 1994).

The curricula predetermined the content of the mentoring to include social skills coaching, parental involvement in monthly Saturday meetings, substance abuse prevention activities, and academic skills training. The two main connectedness activities during the first 6 months of this study were teacher interviews and reading moral dilemma books that were designed to facilitate age-appropriate perspective taking and connectedness to school and reading. The teacher interviews (which took 2 months to complete) included planning the interview, rehearsing it with their mentors, conducting it with the teachers, discussing it with their mentors, developing a poster and story about the teachers, and presenting it to their peers. The connectedness to reading activity allowed mentors and mentees to read eight short children's books together and then to role-play alternative outcome scenarios in a peer group format.

*Data Collection.* Pretest data were collected at the second supervision meeting in the fall of 1999, and posttest data were collected at the second to last supervision meeting in the spring of 2000. There were 6 months of mentoring between these assessments.

*Results.* Were there differences in self-reported social interest between the mentors who continued and the mentors who left after 6 months? Mentors who left after 6 months were 2.52 points lower in social interest at pretest ( $F(1, 30) = 10.31, p < .005; \eta^2 = .68$ ). The mean score on social interest at the start of mentoring for the 20 mentors who continued for a second year was 10.52 ( $SD = 2.13$ ) and for the 10 who quit was 8 ( $SD = 1.82$ ). After 6 months of mentoring, those who quit reported lower social interest ( $M = 6.00, SD = 2.00$ ) than at pretest, but those who continued reported no differences between posttest ( $M = 10.50, SD = 2.45$ ) and pretest scores. Given this within-group variation and the small sample size, the overall difference in all mentors' social interest before and after mentoring was not statistically significant at the .05 level ( $F(1,25) = 3.13, p > .05, \eta^2 = .39$ ).

Did mentoring affect the mentors' self-reported conventional connectedness? To understand better the impact of mentoring on the mentors, we looked at the changes in conventional connectedness after mentoring. Given that the content of the program curricula focused on promoting mentees' connectedness to school and to reading and because it involved parents in monthly Saturday events, we asked if mentors also would experience gains in these domains of conventional connectedness as a result of their participation in the program. To estimate the statistical significance of changes reported by the mentors, we conducted within-group *t*-tests comparing pretest and posttest scores on the mentors' connectedness as measured by the school, reading, and family subscale connectedness scores. To adjust for the number of independent significance tests, a Bonferroni adjustment was made to reduce type one error ( $.05 / 3 = .017$ ). Using this more conservative significance level, paired sample *t*-tests for the 27 youths who completed both pretest and posttest revealed no significant mean differences in connectedness to reading ( $t = .72, p > .017$ ) or parents ( $t = -.95, p > .017$ ). The mean difference between mentors' connectedness to school before mentoring ( $M = 4.19, SD = .42$ ) and after 6 months of mentoring ( $M = 4.00, SD = .62$ ) was statistically significant ( $t(1, 25) = -2.98, p < .017$ ). This result indicates that the mentors' connectedness to school declined during the period of mentoring. Other declines occurred as well, but they were not significant at the .017 level.

Were the mentors still more connected than the comparison group after mentoring? To determine if the mentors' mean scores on the conventional connectedness subscales after mentoring remained higher than the comparison group, a 2 (group) X 7 (scales) MANOVA was computed, resulting in the following *F* corresponding to Wilks's lambda ( $F(6,80) = 4.58, p \leq .005, \eta^2 = .29$ ). The mean scores on all six connectedness subscales and the total connectedness scale were compared between the mentors' (after mentoring scores) and the comparison group (initial scores). Table 4 shows that after mentoring, the mentors' mean scores on the conventional subscales of connectedness to future and family were no longer significantly greater than the comparison group's initial scores. Yet, despite the mentors' declines in connectedness to school after 6 months of mentoring, they remained significantly more connected to school than the comparison group.

Did social interest relate to changes in mentors' connectedness to reading and to school as a result of mentoring? Zero-order correlations (bottom of Table 5) revealed that mentors' reporting higher initial social interest demonstrated larger decreases in connectedness to school and to reading after 6 months. Table 5 also illustrates the positive relationships between both mentee's academic and social risk status and the mentors' initial social interest. Mentors with higher social interest chose to work with mentees who

**Table 5**  
Mentee Risk Status, Mentor's Social Interest, and Mentor's  
Changes in Connectedness

	Mentee Risk Status			Change in Mentor's Connectedness	
	Academic	Social	SIS	to Reading	to School
Social Risk	.05	—	.65***	-.69*	-.41
Mentor Initial SIS	.41*	.62***	—	-.31	-.35
Change in Mentor's Connectedness to Reading	-.68**	-.47†	-.48*	—	.48†
Change in Mentor's Connectedness to School	-.53*	-.37	-.49*	.64***	—

*Note.* SIS: Social Interest Scale (Crandall, 1991). Change in mentor's connectedness measured over a 6-month period. Zero-order correlations are in bottom left of table; partial correlations (with variance due to mentees' academic risk removed) are in top right of table. † $p \leq .10$ . \* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

were at greater social and academic risk and who therefore were the most challenging children to mentor.

One question arose post-hoc: Were mentors' declines in connectedness to school a function of their mentees' risk status? It appears, from the partial correlations, reported in the top right of Table 5, that when the mentees' academic risk-status is accounted for, the relationship between mentors' initial social interest and their declines in connectedness to school and to reading after mentoring is no longer significant. This suggests that the link between social interest and disconnectedness to school may be a function of their mentees' academic risk status.

## **Discussion**

Developmental mentoring enlists high school students as mentors to elementary youth. The goal is to promote mentors' as well as mentees' connectedness to the conventional worlds of school, family, reading, and the

future. In study 1, we sought to identify whether self-reported connectedness was different for those who voluntarily participated in this form of after-school community service as compared to those high school students who did not volunteer to participate. Results suggested the former group was more connected to their schools, families, reading, and their futures than were their classmates. Study 2 focused on the impact of service learning on the mentors' connectedness, social interest, and desire to continue in the program after 6 months. Mentors reported a small decline in connectedness to school after participating, and this decline appeared to reflect the fact that those youth with greater social interest were more likely to decide to mentor the more challenging youth. However, those mentors reporting greater social interest also were the most likely to continue serving as a mentor for the second year despite their experiences working with challenging mentees.

It appears that youth who voluntarily enter into service programs that are interpersonally challenging are different from their peers. In study 1, mean scores on six dimensions of adolescent connectedness were examined for high school youth who volunteered to serve as mentors and a comparison group of students in their schools. The findings suggest that the mentors were much more connected to the conventional worlds of family, school, and reading than their peers. Conversely, their peers in the comparison group only reported higher connectedness to self, a present-focused dimension of self-esteem. Perhaps the comparison group reported an inflated sense of themselves or a type of self-esteem that is not derived from a need to serve others. Clearly, however, it appears that youth who volunteer to serve as adolescent mentors to younger children tend to be more connected to their conventional social ecology than their peers. Therefore, they may serve better as role models of school connectedness than their peers.

In study 2, the effects of serving as a mentor were examined, and the role of social interest on mentors' persistence was tested. The results indicated that youth who stopped mentoring after the first 6 months reported lower initial social interest, in general, as well as declines in social interest after 6 months of participation. Conversely, the data suggest that the youth who reported greater social interest were more likely to sustain their involvement for a second year and were less likely to report declines in social interest after 6 months of mentoring. Similar to other research, it appears that less socially interested volunteers may benefit less from challenging experiences like being a cross-age mentor (also see Allen et al., 1994).

An unexpected pattern appeared in the social interest data which suggested three related phenomena. First, mentors reporting higher social interest were more likely to choose to work with the more academically and socially at-risk youths. This finding is congruent with the way social interest is presented within Individual Psychology (Manaster & Corsini, 1982) and with prior research (Crandall, 1981; Hetterman & Jenkins, 1990), suggesting that



social interest provides motivation for sustained altruism in the face of challenge. Second, those mentors with the highest social interest also reported the greatest declines in their connectedness to school. Third, for the mentors as a whole, there were significant declines in their connectedness to school after 6 months of mentoring, despite the fact that nearly two thirds of the mentors decided to continue their participation as mentors into the following year. It is possible that these changes in connectedness simply reflect regression to the mean effects. Yet it is equally likely that this study underestimated the relationship between social interest and these other constructs, because Crandall's social interest scale tends to reveal smaller correlations with psychological constructs than do other measures of social interest (Bass et al., 2002).

One direct interpretation of these data is that youth who report high social interest tend to be caring and concerned and tend to want to change the world. Clearly they want to have a positive, significant impact on their mentees. The youth reporting high social interest choose to work with more challenging mentees. Subsequently, their attempts to promote school connectedness with these more academically at-risk mentees may have adversely affected their own connectedness to school. But their social interest was relatively unaffected by this challenging experience. Perhaps the at-risk youth were interesting, fun, and attractive to work with in ways that did not undermine their mentors' social interest. Yet it appeared that facilitating the academically focused activities was frustrating for these mentors. Feedback from mentors' in the monthly reflection meetings suggested that many mentors deliberately choose to work with challenging youths both in order to alleviate the children's academic and social risk status and to improve their mentees' connectedness to school. These mentors hoped to make a difference in the area of academic connectedness, and perhaps when they felt they could not, they discounted the importance of connectedness to school in their own lives.

Of concern to practitioners is that typically the most difficult children are the hardest to handle, the least likely to show immediate gains from intervention, and often the most unwilling to cooperate with staff. Mentoring these children may frustrate their mentors in at least two ways. First, the mentors may be less likely to achieve their personal goals of making significant, demonstrable impacts on such youth. Mentors of challenging youth may not achieve their goals as quickly, if ever. Second, the mentors may become frustrated in their attempts to facilitate activities that target connectedness to reading, school, and teachers when these are the domains in which the at-risk children have been least successful in the past. Mentors may feel overwhelmed by their socially and academically challenged mentees despite the training, supervision, and structure they receive within the mentoring program. Indeed, when the effects of academic risk status were partialled out of

the negative relationship between mentor's initial social interest and their declines in connectedness to school and to reading after mentoring, there no longer was a significant negative relationship between social interest and declines in mentors' connectedness. This suggests that highly motivated, socially interested mentors, when working with less academically at-risk youth, are less likely to experience disconnection from school as a result of their work.

In general, it appears that youth who volunteer to serve as adolescent mentors describe themselves more modestly (e.g., less connectedness to self or self-esteem) and report greater conventional connectedness to school, family, and reading than their peers. They seem to want to share their positive feelings of conventional connectedness with younger children through serving as a mentor. However, working as a mentor on a weekly basis is a challenging task, and it may be a developmentally inappropriate one for youth who report less initial social interest. In fact, for youth with less inherent social interest, even mentoring less challenging youth may adversely affect their social interest. For instance, those reporting less social interest were more likely to terminate their involvement in the program. This does not appear to be the case for those reporting higher levels of social interest. Those reporting greater initial social interest not only chose to work with the more challenging youth, but also seem to have suffered some degree of disconnection from school as a result. Yet their social interest remained intact and they persisted as mentors despite the challenges. The differential changes in social interest suggest these changes are not simply due to regression. Teachers and service-learning program developers would do well to heed the words of that parent who suggested such activities might be too much for some youth to handle. These findings suggest that it is important to ensure that the community service and volunteer activities that are provided to youth are developmentally matched to the students' motivation levels.

Future research may attempt to determine if short-term challenges contribute to long-term gains in connectedness, social interest, or other indicators of positive youth development. It may be that working with challenging mentees is a deflating experience, but only initially. It may be that this sort of challenge is just what ambitious, exuberant high school youth need to further their understanding of the world and to develop more realistic expectations of their likely impact on it. While short-term declines in connectedness are concerning, such adversity may make youth stronger. The fact that most of the mentors with high-risk mentees returned to be mentors for a second year suggests that this hypothesis warrants further study. Indeed, much of psychological theory, from Piaget to Erikson, suggests that growth comes through conflict, struggle, and disequilibrium. Understanding these indirect benefits of challenging service activities also may contribute to the effectiveness of future programs.

Program coordinators must ensure that programs have realistic goals, that the youth involved are equipped for their tasks, and that they are provided ample opportunities to process, reflect on, and grow through both the good times and the challenges that mentoring presents. In response to these findings, the developmental mentoring program was modified from two days a week to one. We increased the amount of training we provided the mentors in behavioral techniques to manage the children's misbehavior and off-task behaviors. Finally, we reduced the number of high-risk youth who entered the program from half to about a third so that the overall climate of the program was less challenging for the mentors and the program coordinators.

It is important to note the limitations of this study. One limitation is the lack of a comparison group in study 2. Although the mentors' connectedness to school declined over the six month period in which they participated as mentors, and we argued that this was partly a function of the challenging children they served, it is important to consider that the post-assessment was conducted in late spring. Late spring is a time when many youth may be tired of school. Had a comparison group been assessed, they might have reported declines as well. Another important comparison group for future studies would be youth who participated in less interpersonally challenging forms of volunteer service or extracurricular activities.

Future researchers also would do well to examine the effects of mentoring and different volunteer activities on boys and girls, as these differences have begun to emerge in the literature (Hamilton & Fenzel, 1988; Switzer et al., 1995). Unfortunately, the samples in this study were too small to test for differential effects for boys and girls.

Finally, future research should focus on groups of adolescents who differ on measures of motivation other than social interest. For example, some youth may choose to participate in service activities to be with peers, to achieve some self-growth or enhancement, or to test out activities they see as linked to different careers (Clary et al., 1998). Linking these variations in motivation to other developmental outcomes may help future programmers target the kinds of personal goals that youth present by providing specific types of volunteer service activities.

Developmental mentoring appears to be an appropriate service-learning activity for many high schoolers, but caution should be taken to ensure that the mentoring experience does not overwhelm the adolescent mentors. While some strength and resilience may be gained through the challenges that youth can face while engaged in developmental mentoring, it is the program coordinator's role to monitor carefully students' progress, to help them process the setbacks, and to be realistic about what they can achieve. Indeed, sometimes what youth may need most during adolescence is to learn the limits of their competence and when to say, "I need help."

## Endnote

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