

A Cross-Sectional Developmental Study of the Social Relations of Students Who Enter College Early

Paul M. Janos, Nancy M. Robinson, Christopher Carter, Audrey Chapel, Rand Cufley, Matthew Curland, Michael Daily, Meg Guiland, Mark Heinzig, Hans Kehl, Stephen Lu, Davonna Sherry, Jennifer Stoloff, Alicia Wise
University of Washington

Abstract

Sixty-three students who had entered college at age 14 or younger supplied data on the number and ages of their friends, time spent together in various activities, number of times various sensitive topics were discussed, and degree of shared intimacy. Striking differences appeared during the first and second years between the proportions of the friendship investment with agemates and older university classmates. By junior year, and thereafter, however, early entrants appeared to have established relations with older students of breadth and depth at least equivalent to those already existing with agemates. Young college graduates were pronouncedly more invested in relationships with older individuals. These findings suggest that early entrants support each other during the first and second years at the university and use these relations as a base for developing fulfilling friendships with older students as upperclasspersons and graduates.

Introduction

Early college matriculation has proved to be a reasonable educational compromise for an increasing number of 13 or 14 year olds with extraordinary cognitive abilities and high academic aspirations (Robinson & Robinson, 1982). Although it has been made available by only a minority of American colleges and universities (Fluitt & Strickland, 1984; Karnes & Chauvin, 1982), carefully chosen and well supported early entrants are more likely to complete baccalaureate degrees than other academically talented youths, and they earn higher grades and more academic honors while so doing (Daurio, 1979; Eisenberg & George, 1979; Janos, 1987; Janos & Robinson, 1985a; Keating, 1976; Pressey, 1967; Stanley, 1985; Stanley & Benbow, 1983a, 1983c; Stanley, Keating, & Fox, 1974; Terman & Oden, 1947). Moreover, early completion of advanced graduate training has been found to be associated with increased scientific and scholarly productivity (Janos et al., 1986; Stanley & Benbow, 1983b).

It would be misleading to suggest that young college students gain in the areas of personal growth and social adjustment to the same degree they do in the academic and professional domains. However, the contention that performance gains are attainable only at excessive cost in the social

and emotional spheres appears untenable. Psychological assessments, psychiatric interviews, personality inventories, and feedback from parents and faculty suggest that early entrants adapt successfully to milieus constituted largely of individuals older, on average, by up to five years (Daurio, 1979; George, Cohn, & Stanley, 1979; Janos, 1987; Janos, Robinson, & Lunneborg, 1986; Pollin, 1983; Pressey, 1949, 1967; Robinson & Janos, 1986; Stanley & Benbow, 1984; Stanley, George, & Solano, 1978; Terman & Oden, 1947).

Janos (1987), for example, compared the 19 youngest college students in Terman's longitudinal study of gifted California youngsters (mean age at college entry = 14.8 years) with a group, which although matched for age and IQ, had entered college at the usual age (mean = 17.8 years). The social adjustment of both groups was favorable from early childhood through retirement age, including the potentially stressful period surrounding early entrance to college. No differences were obtained on 1922 ratings of nervous symptoms, number of hours per week spent in play with other children, indices of social competence with other children, 1940 and 1960 ratings of mental health and general adjustment, subjects' 1977 ratings of happiness and career satisfaction, the proportions that married or the ages at which they had done so.

Janos, Robinson, & Lunneborg (1988) compared 42 early entrants (mean age of college entry = 13.9 years) with a group of equally able, but non-accelerated agemates, and two groups of regular age university students, one matched on college readiness scores, and the other consisting of National Merit Scholars. Personality measures indicated that the early entrants were indistinguishable from equally able, non-accelerated agemates. Both groups could be characterized as mature and socially effective. The early entrants were more similar to the National Merit Scholars than to regular age UW students matched to them on college readiness. Both groups of older students, however, appeared to be more confidently self-assertive than the early entrants. More specific to the issue of friendships, the Inventory of Parent and Peer Relations (Greenberg, Siegal, & Leitch, 1983), which estimates trust, communication, and alienation in relationships, suggested that the social situations of early entrants were comparable to those of the comparison groups.

Pollin (1983) analyzed the California Personality Inventory (CPI) and other questionnaire responses supplied by 21 males

associated with the Study of Mathematically Precocious Youth (SMPY) who had, at some point, been academically accelerated by three or more years. Also participating were a "non-accelerated" comparison group essentially matched on age and ability. Pollin concluded that, at age 13, both groups were "best described as solid, well adjusted, socially mature, and interpersonally effective individuals who are rather cautious and introverted. Both groups also seem to prefer academic/intellectual pursuits to social ones" (p. 172). Five years later, the early entrants reported that their association with SMPY, and hence presumably their early entrance into college, had positively influenced their social and emotional development.

None of the available data suggests that exchanging the social experience of high school for that of college, *ipso facto*, yields adults who are markedly compromised in their social adjustment. Highly intelligent youngsters, especially those who elect an accelerative educational option may, of course, possess different social skills and values prior to college entry (Janos & Robinson, 1985b), and the effects of these differences on later social development are probably worth investigating. In any case, adjustment must be considered in the context of normal development. Few, if any, adolescents achieve maturity in social relations without taking risks and experiencing setbacks. The studies reviewed below suggest that the challenges surmounted by early entrants are no different in kind from those faced by youngsters in high school and that the pace of social demands is not overwhelming. The studies emphasize that, where problems in social adaptation are experienced, they tend to be relatively minor and overcome within a few years.

Keys' (1938) study indicated that a greater proportion of the 238 students who had entered the University of California at Berkeley at 16½ or younger "considered their undergraduate social relations as unsatisfactory" (p. 263) than did a group of comparison students age 17 or older at entry. Keys suggested, however, that differences related more to intelligence than to age. Terman & Oden (1947), too, reported that, for males at least, the number who reported only disadvantages of acceleration was higher among those most accelerated in high school, but they concluded "our data indicate that in a majority of subjects maladjustment consists of a temporary feeling of inferiority which is later overcome" (p. 275).

Two reports of moderately accelerated students supported during the 1950s by the Ford Foundation stressed the transitory nature of the social discomfort associated with early entry to college. The Fund for the Advancement of Education (1957) noted that accelerants "encountered more initial difficulties in adjusting to campus life than older comparison students, but most of the difficulties were minor and were soon overcome" (p. 10). Pressey (1967), following up the same students 10 years later, again observed that males may have experienced more social difficulties than females, but that, "at all three institutions, reports from the early entrants indicated acceleration to have been harmful for a few, to have

presented problems soon largely resolved for a good many, but 10 years after to have been viewed on balance as desirable by most" (p. 79).

Although the empirical literature about entering college early is, on the whole, consistently positive, it must be acknowledged that social challenges are interlocked with intellectual ones. Empirical studies of changes in social adaptation during early entrants' college years have not, however, been published. Such studies might demarcate with greater precision the boundaries of the period of their feeling most socially out of place and illuminate the means by which it is overcome. With these questions in mind, data were collected during the 1984-1985 academic year from the students participating in the University of Washington's Early Entrance Program (EEP).

The Early Entrance Program opens the door to college for young adolescents by means of its Transition School, a year of preparatory education and social "bonding" among the approximately 15 early entrants admitted each year; subsequently, students enroll full time at the University of Washington (Robinson, 1983; Robinson & Robinson, 1982). The Program also provides a center for ongoing social contact among the nearly 75 early entrants "at large" on the UW campus, and offers psychological support which encourages students to strike a personal balance among intellectual, affective, and social growth.

Method

Invited to participate in the present study were the 77 students who had, between 1977 and 1985, become full-time university students through the EEP. In brief, applicants no older than 14 were considered for admission. Successful candidates presented evidence of previous academic achievement, high scores on the Washington State college admissions test (WPCT) (Noeth, 1978), personal maturity, convincing motivation for undertaking university level studies, and parental support for their choice.

Of the 77 EEP students eligible for participation, 63 (82%), 28 females and 35 males, cooperated by filling out a four-part questionnaire. Their mean age at completion of a first university course had been 13.81 years (*s.d.* = 1.06). At the time of completing questionnaires, the mean age for males was 16.17 years (*s.d.* = 2.1), and for females 17.58 years (*s.d.* = 2.2), a difference approaching statistical significance ($F = 3.257$; $df = 1,62$; $p = .08$).

The first part of the questionnaire devised for this study requested information about the age of each early entrant's best friend and the ages of up to five additional friends. The balance of the questionnaire separately requested information about relationships with friends of two ages, those less than three years older than the early entrant ("agemates") and those at least three years older ("elders"). Information about relationships was organized into three sets. The items on the first set of scales, which were called "Time with Agemates"

and "Time with Elders," requested estimates of the number of hours that were, in the past week, spent in social interaction (e.g. studying, dating, talking, eating, recreating, "hanging out,") with friends in each of the two age groups. The items on the second set of scales, which were called "Sensitive Communication with Agemates" and "Sensitive Communication with Elders," requested the number of times in the past week that early entrants had talked to friends in either age group about 10 potentially sensitive topics (relationships with parents, things that made them happy, things that troubled them, specific values, physical appearance, plans for life, others' perceptions of them, their attraction to another person, relationships with friends, sharing of deep feelings). The third set of items was devised by listing the characteristics of highly developed interpersonal intimacy identified in a review of the literature (Levinger, 1980). Students were asked to rate, on an eight-point scale, separately for agemates and for friends three or more years older: the duration of and their dedication to a relationship, degrees of trust and affection, freedom to communicate criticism or hostility, ability to synchronize goals and actions, ability to develop unique norms, and the ability to equate the other's interests with their own.

Seven years of working with early entrants had suggested several hypotheses. One was that they would exhibit strong patterns of attachment among themselves, characterized by considerable time, communication, and intimacy with agemates. It seemed important to document this, because fears that early college entrants are deprived of a satisfying network of adolescents still constitute one of the primary obstacles to their pursuing optimal levels of academic challenges. As early entrants progressed toward college graduation, they were also expected to accord older students a greater proportion of their time, disclosures, and intimacy. Last, it was expected that females would, in general, become earlier integrated into the interpersonal world of the university.

Analyses and Results

Early entrants were grouped as freshmen, sophomores, juniors/seniors, and graduates, by the number of credits listed in transcripts for Winter Quarter, 1985. Juniors and seniors were pooled to constitute a group of size comparable to the three other groups. Group X Sex ANOVAs were used to make cross-sectional comparisons reflecting, by inference, developmental changes occurring over the college years. Correlations between age, number of credits, and the relationship variables were also examined. Paired *t*-tests were used to test the significance of within-in subjects differences (e.g. differences between the ages of early entrants and their best friends.)

It was obvious from inspection of the questionnaires that the early entrants, as a group, were socially well situated. The existence of a "best friend" was reported by 92%. Regarding the size of their friendship circles, using a reasonably string-

ent criterion, 68% identified at least five additional friends whom they considered to be close. Still higher percentages listed circles of at least four (73%), three (86%), two (90%) and one (95%) close friend(s) in addition to the best friend. Only three (5%), all male, did not list any best or close friends.

Differences between the early entrants' ages and the ages reported for their best friends ranged broadly and were not normally distributed. Overall, however, many early entrants' best friends (mean age = 19.482; *s.d.* = 6.974) were older (paired *t* = 3.24; *df* = 57; *p* = .002). Thirty-eight percent had best friends within a year of their own age; about 5% had friends more than a year younger; 57% had best friends more than two years older. "Close" friends' ages averaged 18.72 years (*s.d.* = 3.40)—again about two years older than the early entrants (paired *t* = 5.28; *df* = 42; *p* < .001), whose average age was 16.83 (*s.d.* = 2.21) at the time of filling out the questionnaires. These age differences were not, however, observed among freshmen. Sex differences were significant (*F* = 7.211; *df* = 1/42; *p* = .011). Females' close friends were almost three years older on average, while males' close friends averaged only about three-quarters of a year older.

Table 1 presents, for groups of early entrants sorted by class status, average ages at the time of questionnaire completion and scores on the three sets of relationships measures. The Time scales are in hours and the Sensitive Communication scales are in frequencies of occurrence. The ratings summarized on the Intimacy scales, which referenced perceptions, were transformed to *z*-scores. Without comparison groups, it is difficult to determine what amounts of time or frequencies of conversation represent "a little" or "a lot." Although early entrants at every undergraduate class level spent many hours with agemates outside of class, the classes differed significantly (*F* = .7256; *df* = 3/60; *p* < .001). Sophomores reported the most contact; freshmen and juniors/seniors averaged a bit less; and graduates, many of them at other universities and without a readily available peer group such as that constituted by the EEP at the UW, reported spending considerably less time with agemates.

The complementary perspective on social contact was provided by data regarding time spent with those three or more years older ("elders"). Cross-sectional developmental changes, evidenced by differences between the classes, were highly significant (*F* = 14.975; *df* = 3/60; *p* < .001). Freshmen reported spending a minuscule amount of time with elders, slightly over an hour a week. Sophomores socialized with elders considerably more than did freshmen, but at a level less than a quarter of that spent with agemates. By junior/senior year, relative proportions had reversed, although the difference was not significant. Graduates, however, spent twice as much time with elders as with agemates. Although comparable to males during the freshmen and sophomore years, junior/senior and graduate females spent considerably more time with elders (*F* = 4.100; *df* = 1/60; *p* = .048).

As one might expect, the pattern of differences on the Sensitive Communication scales were similar. Class differences

TABLE 1
Descriptive Statistics for Age and Relationships Variables

Sex	N	Age (years)	Time with Agemates (hours p/week)	Time with elders (hours p/week)	Communication with Agemates (times p/week)	Communication with Elders (times p/week)	Intimacy with Agemates (z score)	Intimacy with Elders (z score)
		mean (s.d.)	mean (s.d.)	mean (s.d.)	mean (s.d.)	mean (s.d.)	mean (s.d.)	mean (s.d.)
Freshmen:								
Male	10	14.8 (.77)	9.70 (5.3)	.70 (1.9)	7.30 (6.5)	1.50 (4.4)	-.13 (.9)	-1.10 (.7)
Female	14	15.3 (.87)	12.25 (4.3)	.75 (.78)	32.00 (20.3)	1.0 (.97)	.21 (.5)	-.68 (.7)
Total	24	14.9 (.80)	11.08 (5.4)	.67 (1.6)	15.53 (13.8)	1.40 (3.7)	.08 (.9)	-.85 (.8)
Sophomores:								
Male	10	15.8 (.92)	19.00 (6.63)	5.10 (9.5)	23.20 (16.79)	5.80 (11.78)	.11 (.93)	-.50 (.72)
Female	6	15.8 (.39)	19.00 (8.94)	4.33 (5.68)	39.84 (23.42)	10.83 (8.64)	.70 (.62)	-.19 (.83)
Total	16	15.8 (.75)	19.00 (7.29)	4.81 (8.09)	29.44 (20.71)	7.69 (10.70)	.33 (.86)	-.38 (.75)
Juniors/Seniors:								
Male	8	16.9 (1.14)	15.63 (8.54)	12.86 (10.63)	20.6 (23.00)	19.50 (17.46)	.64 (.56)	.39 (.71)
Female	8	17.2 (1.43)	10.50 (7.64)	22.38 (7.62)	22.63 (33.28)	40.50 (34.29)	-.79 (1.35)	.47 (1.12)
Total	16	17.1 (.23)	13.06 (8.26)	17.63 (10.19)	21.63 (27.65)	30.00 (28.43)	-.07 (1.24)	.38 (.91)
Graduates:								
Male	7	17.9 (3.37)	4.83 (1.17)	11.17 (5.04)	4.83 (1.17)	11.2 (5.04)	-.66 (.48)	.63 (.70)
Female	10	19.9 (1.25)	9.00 (9.51)	17.00 (8.25)	19.44 (29.44)	39.00 (20.37)	-.14 (1.16)	.90 (.68)
Total	17	19.2 (2.49)	8.31 (8.26)	15.13 (7.5)	11.63 (23.40)	26.38 (2.40)	-.33 (.96)	.75 (.70)

on Sensitive Communication with Agemates did not quite attain statistical significance ($F = 2.435$; $df = 3/60$; $p = .075$), but females communicated more with agemates than did males ($F = 6.472$; $df = 1/60$; $p = .014$). Class differences in Sensitive Communication with Elders were highly significant ($F = 7.542$; $df = 3/60$; $p < .001$), and evidenced a pattern highly similar to that seen in the analyses of time spent with elders. Females communicated with elders more than males did, a difference detectable as early as the sophomore year.

The Intimacy scales were different from the two sets previously discussed in that they were not anchored in frequencies of occurrence. They appeared to reflect perceptions or evaluations of the subjects' relationships, internal rather than external events. The classes did not differ perceptibly on Intimacy with Agemates, but again there were marked differences in Intimacy with Elders ($F = 12.002$; $df = 3/59$; $p < .001$). On this variable, differences appeared to be a direct function of class status, evidencing consistent increases from freshmen to graduates. In contrast to the other sets of varia-

bles, no sex differences were manifest.

Paired *t*-tests within each class confirmed the appearance of substantial differences in patterns of relating to agemates and individuals three or more years older. For freshmen and sophomores, differences in Time, Sensitive Communication, and Intimacy favored agemates, and all were significant beyond the .001 level of significance. For juniors/seniors, none of the differences was significant, but mean scores for elders had finally exceeded those for agemates on all three scales. For graduates, the reversals were pronounced, all being significant well beyond the .003 level.

Chi-squares were computed on 4 X 4 tables for dates with agemates and dates with elders, classes representing one dimension and number of dates the other, classified by frequencies of 0, 1, 2, and 3 or more. There were no differences, by class, in the proportion of early entrants dating agemates, but higher proportions of juniors/seniors (56.4%) and graduates (43.9%) than freshmen (0%) and sophomores (0%) dated individuals three or more years older (chi

square = 17.96; *df* = 9/62; *p* = .03). There were no sex differences in dating agemates, but a considerably higher proportion of females (44.4%) than males (14.4%) reported dating elders (chi square = 11.57; *df* = 3/61; *p* = .009).

Table 2 presents the correlation matrix of age, credits, and the relationships variables. Age was correlated with most of the other variables. Of most interest were its negative correlations with Time with Agemates, Sensitive Communication with Agemates, and Intimacy with Agemates and the positive correlations with Time with Elders, Sensitive Communication with Elders, and Intimacy with Elders. Number of credits exhibited the same pattern of correlations, and the correlations with the variables tapping relationships with elders were in every case considerably stronger. Time with Agemates, Sensitive Communication with Agemates, and Intimacy with Agemates exhibited high intercorrelations, as did these scales applied to elders, but the correlations of the scales when referenced to different age groups were generally low and insignificant.

TABLE 2
Correlations Among Age and Relationship Variables

	Credits	Age of Best Friend	Time w with Agemates	Time w with Elders	Communi-cation with Agemates	Communi-cation with Elders	Intimacy with Agemates	Intimacy with Elders
Age (months)	<i>r</i> = .67 N = 64 <i>p</i> = .00	<i>r</i> = .47 N = 58 <i>p</i> = .00	<i>r</i> = -.21 N = 63 <i>p</i> = .05	<i>r</i> = .43 N = 63 <i>p</i> = .00	<i>r</i> = -.18 N = 63 <i>p</i> = .07	<i>r</i> = .25 N = 63 <i>p</i> = .02	<i>r</i> = -.30 N = 62 <i>p</i> = .01	<i>r</i> = .25 N = 62 <i>p</i> = .03
Credits		<i>r</i> = .44 N = 58 <i>p</i> = .00	<i>r</i> = .24 N = 62 <i>p</i> = .03	<i>r</i> = .61 N = 62 <i>p</i> = .00	<i>r</i> = -.13 N = 62 <i>p</i> = .44	<i>r</i> = .47 N = 62 <i>p</i> = .00	<i>r</i> = -.17 N = 61 <i>p</i> = .09	<i>r</i> = .63 N = 61 <i>p</i> = .00
Age of best friend			<i>r</i> = -.13 N = 57 <i>p</i> = .17	<i>r</i> = .25 N = 57 <i>p</i> = .03	<i>r</i> = -.02 N = 57 <i>p</i> = .44	<i>r</i> = .18 N = 57 <i>p</i> = .09	<i>r</i> = -.16 N = 58 <i>p</i> = .11	<i>r</i> = .29 N = 58 <i>p</i> = .01
Time with agemates				<i>r</i> = -.12 N = 63 <i>p</i> = .18	<i>r</i> = .62 N = 63 <i>p</i> = .00	<i>r</i> = -.07 N = 63 <i>p</i> = .30	<i>r</i> = .59 N = 61 <i>p</i> = .00	<i>r</i> = -.07 N = 61 <i>p</i> = .30
Time with elders					<i>r</i> = -.03 N = 63 <i>p</i> = .40	<i>r</i> = .73 N = 63 <i>p</i> = .00	<i>r</i> = -.16 N = 61 <i>p</i> = .10	<i>r</i> = .56 N = 61 <i>p</i> = .00
Communication with agemates						<i>r</i> = .34 N = 63 <i>p</i> = .00	<i>r</i> = .58 N = 61 <i>p</i> = .00	<i>r</i> = .16 N = 61 <i>p</i> = .11
Communication with elders							<i>r</i> = .07 N = 61 <i>p</i> = .29	<i>r</i> = .69 N = 61 <i>p</i> = .00
Intimacy with agemates								<i>r</i> = .13 N = 62 <i>p</i> = .16

Discussion

The data reported above add detail to the general consensus of active social engagement among early college entrants. The overwhelming majority of early entrants reported a vital social life, consisting both of intimates and larger circles of close friends. They spent many hours a week with other teenagers, engaged in "typical" adolescent activities. They exhibited the freedom to talk about topics that are highly personal, and they exercised it frequently with their peers and others. They portrayed themselves as intimate with others on ratings of sharing and caring.

The study suggests that, when provisions are made for regular contact with intellectually comparable agemates, early entrants prefer, at first, to develop relationships with each other rather than with college students of regular age, who were readily available as alternative object choices. After roughly the beginning of a third year at the university, there appears to be a marked expansion in the range of ages represented among friends. Presumably, factors such as the sharing of common interests centered on college majors and the desire for friends with specific constellations of attributes begin to supplant affiliations grounded in age and the familiarity persisting from the Transition School year. The data suggest that dating regular-age college students is largely deferred, by both sexes, for at least two years after matriculation. Nevertheless, it would be misleading to conclude that freshman or sophomore early entrants never date older students, for such has occurred in the past and appeared normal in most respects.

Social development along the lines outlined above cannot, of course, unfold with robust similitude in settings without many early entrants. The smaller number of students who entered the Early Entrance Program in its initial years have described moderate levels of distress preceding eventual adaptation. These pioneers, driven by their need for intellectual stimulation to enroll at a university, eventually thrived, but provision of a peer group in the college setting appears, *ceteris paribus*, more desirable.

The graduates of the EEP may face a number of unique challenges. Almost all attend graduate or professional school, where their classmates are virtually all considerably older and more occupied with issues of marriage and parenting than evolving a strong personal identity and questioning career commitments. Informal conversations have suggested that graduates often offer more social support than they receive.

While many significant differences between males and females were obtained in this study, the general findings applied well to both sexes. Females, however, made headway sooner and achieved higher levels of interaction and intimacy with the older university students. Our investigation of sex differences was at best preliminary, and more focused research in this area is warranted. Likewise, the cross-sectional study reported above barely scratches the surface and needs substantiation by longitudinal investigations of the process by which social development occurs in both early entrants and average-age university students.

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