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THE ANALYSIS OF ADOLESCENT FRIENDSHIPS: SAME-SEX AND CROSS-SEX PATTERNS IN GRADES SEVEN, NINE, AND ELEVEN

The University of Oklahoma

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THE UNIVERSITY OF OKLAHOMA GRADUATE COLLEGE

THE ANALYSIS OF ADOLESCENT FRIENDSHIPS:

SAME-SEX AND CROSS-SEX PATTERNS

IN GRADES SEVEN, NINE, AND ELEVEN

A DISSERTATION SUBMITTED TO THE GRADUATE FACULTY in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY

By
PAMELA MANNERS
Norman, Oklahoma
1985

THE ANALYSIS OF ADOLESCENT FRIENDSHIPS: SAME-SEX AND CROSS-SEX PATTERNS IN GRADES SEVEN, NINE, AND ELEVEN A DISSERTATION APPROVED FOR THE COLLEGE OF EDUCATION

Ву

Dissertation Committee

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ABSTRACT

This research addressed the issue of developmental changes in intimacy among same-sex and cross-sex adolescent friendship dyads. Drawing on the theories of Sullivan (1953) and Selman (1971; 1980), the study was designed to compare a same-sex friend with a cross-sex friend on knowledge of and sensitivity to a third (target) person on five subscales: Academic Attitudes, Social Preferences, Individual Activities, Values, and Future Orientation. Subjects were 72 seventh graders, 60 ninth graders, and 66 eleventh graders. A 3 (grade) X 2 (sex of target) X 2 (sex of friend) multivariate analysis was performed, using a split-plot factorial design. Correlational analyses were also performed. Results indicate a developmental trend in intimacy, with older subjects having more accurate perceptions of their friends, but expected sex differences did not emerge consistently. Descriptive analyses of age and sex differences on the five subscales using a larger sample were also carried out. Discussion and interpretation of these results are included.

THE ANALYSIS OF ADOLESCENT FRIENDSHIPS: SAME-SEX AND CROSS-SEX PATTERNS IN GRADES SEVEN, NINE, AND ELEVEN

Both Sullivan (1953) and Selman (1971; 1980) have emphasized the importance of role-taking abilities in facilitating intimacy. It is the task of the researcher to explore this theoretical link. The purpose of the present study is to investigate the nature and amount of self-disclosure and intimate knowledge reported by close friends across the pre- to mid-adolescent years. Most other studies using a cross-sectional design to look for developmental change in friendships have either begun or ended with early adolescence. Consequently, there are relatively few examples of the same intimacy measure being employed on a group of subjects whose ages span the critical period described by Sullivan (1953). Similarly, there has been little direct scrutiny of different patterns of same and cross-sex intimacy between male and females in this age group (cf. Sharabany, Gershoni, & Hofman, 1981). A second aim of this research, then, is to delineate gender differences in the timing and quality of the shift to cross-sex intimacy. It has been shown (for example Elkind, 1967; Selman & Byrne, 1974) that a capacity for greater interpersonal closeness with both sexes emerges during adolescence, probably as a function of the individual's development of formal thought. For the purposes of this study, shared intimate knowledge will be defined as friends' congruence on a questionnaire measure of preferences, thoughts and feelings.

An additional goal of the present research is to look for developmental trends in subjects' attitudes toward some issues common to adolescence, with a view to building questions for future study. Thus, a section of the article is comprised of a discussion of descriptive data gathered via the friendship questionnaire from a large sample of adolescents.

Review of Literature

The picture of early adolescence that emerges from studies of adolescent friendships is one of young people becoming increasingly less dependent on family and more reliant on peers for day-to-day interpersonal sustenance (Hunter & Youniss, 1982; Montmayor, 1982). Friends become increasingly important as valued sources of social feedback, emotional support, and companionship (Berndt & Hawkins, 1984; Hunter & Youniss, 1982). There are differences, however, between boys and girls in the salience of certain aspects of friendship such as exclusivity and number of friends (Bukowski & Newcomb, 1983; Crockett, et al., 1984; Sebald & White, 1980; Spurgeon, et al., 1983).

Intimacy in Adolescent Friendships

The newly-emergent closeness between friends that is found in early adolescence is generally termed "intimacy". According to Sullivan (1953), intimacy is a feature of dyad relationships that first appears during preadolescence. In the empirically based literature, intimacy is usually defined either as intimate knowledge (friends knowing the details of one another's personal lives to a degree surpassing the superficial knowledge that acquaintances might have) or as self-disclosure (friends telling each other about their private thoughts), a line of research pioneered by Jourard (1964). These two features of friendship are difficult to operationalize and even more difficult to measure. Some authors have used open-ended questions in an attempt to

determine how subjects define friendship (Bigelow, 1977; Douvan & Adelson, 1966; Reisman & Shorr, 1978). Friends' sharing of feelings and thoughts is a prominent theme. Other researchers have employed more structured means to assess the extent of this sharing (Diaz & Berndt, 1982; La Gaipa, 1979; Sharabany, et al., 1981).

An extensive study of friendships among Soviet adolescents yielded results that differ from most U.S. findings. Kon and Losenkov (1978) found that girls' friendships were shallower and less intimate than boys', and that boys' friendships were of longer duration. Interestingly, subjects of both sexes in this study were more likely to describe an "ideal friend" as being male. In his classic comparative study of U.S. and Soviet education, Bronfenbrenner (1970) reported that girls in the USSR were far more adult-oriented than their male peers, or their American counterparts. Perhaps this feature of Soviet girlhood causes female adolescents to de-emphasize their friendships. If so, then the Kon and Losenkov results are more readily interpreted in terms of cultural differences.

Mark and Alper (1980) defined intimacy as "social penetration" through self-disclosure, and explored its relationship to sex role by means of a projective instrument. They found that women were more likely than men to write stories having intimacy imagery. The men who did write intimacy imagery stories, however, were less likely than other males to be masculine stereotyped.

Several authors have investigated self-disclosure among adolescents. Rivenbark (1971) found that girls are more disclosing than boys, especially to cross-sex friends. Both sexes, however, preferred same-sex friends over cross-sex friends as targets of self-disclosure. Although there was no significant decrease in disclosure to parents among these adolescents, there was a sharp increase in disclosure to peers between grades 8 and 10.

Davidson, Balswick, and Halverson (1980) argued that the sex differences in self-disclosure cited in the literature may be spurious, and dependent upon the types of questionnaire items used. Using a factor analytic procedure, these authors found four dimensions of self-disclosure, with sex differences related to 3 of the factors. Girls were more self-disclosing on Revealing General Information and Revealing Personal Information, while males were higher on Revealing Sexuality to Parents. No sex differences were found on Revealing Sexuality to Peers.

Peoples' expectations of appropriate dyad behavior and self-disclosure have been shown to vary with the closeness and gender of the pair (Rands & Levinger, 1979). In close relationships, cross-sex pairs were perceived as more likely to engage in self-disclosure and physical contact than were same-sex dyads. Female pairs were expected to engage in greater self-disclosure, other-enhancement, and physical contact than were male friends. Furthermore, while females were perceived as being capable of intimacy with either sex, males were expected to obtain emotional gratification primarily from cross-sex relationships and were thus thought to be more dependent than females on heterosexual attachments.

Using a young sample (grades 6-8) and a longitudinal design, Crockett, et al. (1984) found that girls were more self-disclosing than boys, although there were no sex differences in reported satisfaction with best-friend relationships. Although all subjects said they had at least one good friend, only 5% of them volunteered a cross-sex peer as being a close friend. A developmental trend did emerge with regard to cross-sex relationships over grades 6-8, however, with both genders expressing an increasing interest in the opposite sex.

Further support for the notion of gender differences in the importance of cross-sex relationships may be found in the work of Wright and Keple (1981). In this study, girls reported both same-sex and cross-sex peer relationships to be strong, intense, and important. Boys, however, found their greatest rewards in cross-sex friendships, with male-male dyads being least rewarding.

Diaz and Berndt (1982) studied developmental changes in children's intimate and nonintimate knowledge of a best friend. Using actual friendship pairs from grades 4 and 8, they found that knowledge of external characteristics, such as a friend's birthdate or telephone number, is distinct from intimate knowledge, and that age changes occurred only for intimate knowledge. Female dyads reported friendships of longer duration, and a greater knowledge of external characteristics. No other sex differences were found in this study.

The best predictor of both external and intimate knowledge was the frequency of contact between friends. The only predictor of intimate knowledge that showed age changes, however, was level of cognitive maturity (as measured by the Raven's Standard Progressive Matrices test). This finding, coupled with the age change in intimate knowledge, was interpreted by the authors as evidence of a cognitive component to intimacy between close friends. The Diaz and Berndt results are important to the present study because they lend support to the author's use of Selman's model of social cognition as role taking.

One of the few studies designed primarily to compare same-sex and cross-sex friendships in adolescence was conducted by Sharabany, et al. (1981). Using a large sample of Israeli students in grades 5, 7, 9, and 11, the authors looked at age and sex differences on eight dimensions of intimacy, as follows: (1) frankness and spontaneity, (2) sensitivity and knowing, (3) attachment, (4) exclusiveness, (5) giving and sharing, (6) imposing and taking, (7) common

activities, and (8) trust and loyalty. Several interesting results emerged. With regard to same-sex relationships, girls reported more intimacy than boys, although intimacy was fairly stable over time for both sexes, with only the "frankness and spontaneity" and "knowing and sensitivity" increasing with age. Also, girls were higher on "attachment", "giving and sharing", and "trust and loyalty" than were boys. Cross-sex intimacy was low for both sexes at grade 5, after which girls' scores increased more rapidly than boys'. By the upper grades, girls reported much greater "attachment" and "trust and loyalty" toward boys than vice versa. These authors concluded that same-sex intimacy is already "in process" by preadolescence, but that cross-sex intimacy is only in a very early stage. The age-related increases in "knowing and sensitivity" were interpreted as being a function of cognitive development and improved role-taking skills. A temporary drop in same-sex intimacy, observed at grade 7, may be due to the onset of cross-sex relations. Clearly, this line of research is worth pursuing further.

To summarize, the following may be concluded from the foregoing review:

- (1) Intimacy among friends increases from middle childhood to early adolescence.
- (2) Female dyads are more intimate than male dyads. The one clear exception to this (Kon & Losenkov, 1978) may be explained in terms of cultural differences.
- (3) Cross-sex intimacy occurs earlier among females than males, and develops more rapidly.
- (4) Increased intimacy across adolescence may be a function of increasing cognitive maturity.

Social Cognition

If, as has been briefly noted in the preceding section, an adolescent's capacity for intimacy is somehow related to his or her level of cognitive functioning, it becomes necessary for the researcher of intimacy to also understand the mental processes and structures associated with the adolescent years. More directly, it is essential for this research to be firmly anchored to the framework of social cognition.

Social cognition may be defined as the using of cognitive skills to understand and deal with social interactions in the real world (Muuss, 1982). More a synthesis than a theory in its own right, this area has been influenced by cognitive developmental psychology (e.g., Kohlberg, 1969; Piaget, 1932) and social psychology (e.g., Byrne, 1974; Mead, 1934). Social cognition occupies a conceptual ground between cognitive development and moral development.

Selman has advanced a model of social cognition (1971; 1980) that focuses on role taking as an attribute that increases with an individual's cognitive maturity. The model is based on a set of five stages that roughly parallel Piagetian levels of cognitive development.

In adolescence, according to Selman, individuals become increasingly able to step outside their own role in a friendship interaction and to view the dyad as a third person might. The result ought to be a clearer understanding of another's thoughts and feelings that goes beyond superficial knowledge. In other words, adolescents' maturing ability to take their friends' perspectives ought to facilitate the development of intimacy in their close personal relationships. It seems reasonable to assume, on the basis of empirical findings (Gurucharri & Selman, 1982; Kurdek & Krile, 1982), that a developmental change in cognitive

level will affect the quality of adolescent friendships. Whether or not intimacy itself increases with cognitive maturity is an issue open for study.

In sum, then, adolescence may be described as a time of considerable change in the realm of social interactions. Against a backdrop of social independence from the family, the adolescent is striving to form intimate relationships with same-sex friends, then later, with opposite sex friends. For girls, the development of intimacy seems to come earlier than for boys. Facilitating the growth of a capacity for intimacy is the adolescent's increased cognitive level, especially when manifest as ever-improving role-taking skills.

Theoretical Rationale

Sullivan (1953) wrote at length on the critical importance of developing intimacy during the preadolescent years. It is at this time, according to Sullivan, that lifelong patterns of interpersonal relating are set in motion. The preadolescent child—by means of a close "chumship" and an intricate peer network—becomes newly capable of viewing the self through other people's eyes. This awakening ability to take another's role in an interaction is similar to Selman's Stage 3, or Mutual Perspective Taking (1980).

With the onset of puberty, the child, now classified by Sullivan as an "early adolescent", begins to shift intimacy needs from an isophilic (same-sex) object to a heterophilic (cross-sex) object. In other words, the young teenager strives to duplicate the intimacy of chumship in a new relationship with an opposite sex peer, using the interpersonal skills acquired during the preadolescent years. This shift in the object of intimacy takes several years to effect, and may not be complete until early adulthood.

Hypotheses

Drawing on the literature and conceptual framework presented, the following hypotheses were tested:

- (1) At every grade level, girls will have more accurate perceptions of their friends than will boys.
- (2) There will be an increase with grade level in the accuracy of perceptions of same-sex friends.
- (3) There will be a decrease with grade level in the discrepancy between accurate perceptions of same-sex friends and accurate perceptions of cross-sex friends.
- (4) Female target subjects will be more accurately perceived by their friends of both sexes than will male target subjects.
- (4a) At every grade level, girls will have more accurate perceptions of boyfriends than boys have of girlfriends.

Method

Sample

Subjects for this investigation were all the 7th, 9th, and 11th graders in a medium sized Oklahoma town. Access to the subjects was provided by the local superintendent of schools, with the support of the principals and counselors at the junior high and high school attended by the students. Two hundred twelve seventh graders, 166 ninth graders, and 173 eleventh graders were asked to participate in the project. A subsample of 72 seventh graders, 60 ninth graders, and 66 eleventh graders was selected for the main analyses. Inclusion in the subsample was based on individuals' having close, reciprocated friendships with both sexes. To ensure the adequacy of the subsample size, a power analysis was performed using Sample Calc, a microcomputer program (Anderson, 1982) based

on the work of Cohen (1977). Results showed ten targets of each sex from the three grade levels to be a sufficient sample size, assuming the following parameters: confidence level = .95, power = .8, and effect size = .3.

Measures

Sociometric questionnaire. A one-page questionnaire, developed by the author, was given to each student in the subject pool (see Appendix B). Subjects were asked to name the three males and the three females to whom they felt closest, within their own grade level and school, and to indicate how long they have known each person listed. Data from these questionnaires were analyzed by means of a microprocessor program (Graves & Manners, 1984), which identified those persons (called "targets") who had reciprocated friendships with both a male and female classmate.

<u>Self-report inventory.</u> Each target subject was asked to complete a 25item questionnaire designed to tap five areas which pilot studies have shown to be salient to adolescents (see Appendix C). The subscales and the number and type of questionnaire items pertaining to each are as follows:

- (1) Social Preferences 10 multiple choice items covering subjects' group activities (coefficient alpha = .38).
- (2) Individual Activities 2 multiple choice items dealing with the amount and quality of time the subject spends alone. Two additional items probe the subject's likelihood to be self-disclosing about a range of personal concerns (coefficient alpha = .39).
- (3) Academic Attitudes 7 multiple choice items tapping feelings and preferences about school subject areas, purpose, and organization (coefficient alpha = .01).

- (4) Future Orientation one item consisting of a list of ten components of adult status. Subjects are asked to imagine that they are ten years older and then to rank the components in the expected order of importance to the subject at that future time (coefficient alpha = .54).
- (5) Values three items, each comprised of a dilemma vignette and several choices of action (coefficient alpha = .12).

In addition to the target subjects, those students not forming part of a friendship group identified by the sociogram completed this survey for the purpose of descriptive analyses.

Other-report. Students identified as reciprocated close friends of the targets filled out a questionnaire identical to the self-report, except that these students responded to the items as they thought their friend would respond.

Dependent measures. The outcome variable used in the main analysis was a measure of closeness derived from the number of items within each subscale answered identically by a target and a friend. On items having an ordinal rather than a nominal scale implied by their response alternatives (numbers 6, 7, 8, 9, 16, 17, 18, 20, & 21), partial credit was given for nearness of answers. On all subscales, a higher score indicates greater closeness. The totals for each of the five subscales are the five dependent measures used in the analyses.

Procedure

Data were collected through the school's regular English classes in two stages. First, all students completed the sociometric questionnaire, naming their three best male and three best female friends. Those responses were analyzed by means of a microprocessor program that generated all possible combinations of target, male friend and female friend for each grade level, as well as indicating the closeness of each set of overlapping dyads. Each person's three

male and three female choices were assigned weights of 1 to 3, with 1 being the closest friend. When the dyads were identified, the weight assigned to each dyad member's ranking of the other member were summed to provide a measure of the closeness of the relationship. Dyad weights were combined to indicate the closeness of the targets' same and cross-sex relationships. Those overlapping dyads having the lowest combined weights were selected for the subsample first, followed by those with increasingly higher weights until a minimum of 10 groups had been chosen for each sex of target at every grade. To minimize subject loss due to absence or changing friendships, selection of the subsample was completed immediately after the sociometric data were collected.

The following day, those students identified as "targets" were asked to fill out the self-report inventory. Their male and female friends completed the other-report, answering as if they were the target person named on the questionnaire. All other students completed a self-report. When all the instruments had been returned to the author, the students were debriefed. A short explanation of the purpose of the study was given, and questions raised by the students were answered.

Results

In order to present the findings from this research in the clearest possible manner, the "Results" section of this paper will be divided into two parts. First, results from the main analyses using the 3-member friendship groups will be presented, along with discussion and interpretation of the findings. Next, analyses of the descriptive data gathered from the ungrouped subjects will be covered, and suggestions for interpretation of the results will be offered. The section will conclude with a summary discussion of all findings.

Analyses of friendship groups

MANOVA. A 3 (grade) X 2 (sex of target) X 2 (sex of friend) multivariate analysis of variance was performed, using a split-plot factorial design. The dependent variables were the 5 subscales imbedded in the questionnaire: Academic Attitudes, Social Preferences, Individual Activities, Future Orientation, and Values. Preliminary analyses were conducted that included two other variables—duration of friends' acquaintance and duration of closeness of friends—as possible covariates. Neither of these variables was found to contribute significantly to the model, so they were dropped from subsequent analyses. A graphic representation of the design may be found in Appendix D. Individual comparisons were performed using the Least Squares Means procedure for unbalanced data. Table 3 contains the Least Squares Means by grade for all subscales.

Significant F-ratios emerged for two of the five subscales. A grade effect was found for the Academic Attitudes subscale (F = 5.96, p < .005). On the Future Orientation subscale, main effects were found for grade (F = 3.68, p < .05) and sex of friend (F = 22.45, p < .05) as well as two interaction effects: grade X sex of friend (F = 45.05, p < .05) and sex of friend X sex of target (F = 45.03, p < .05). No significant results emerged for Social Preferences or Individual Activities. A suggestive, though not statistically significant, trend was found on the Values subscale for the sex of friend (F = 8.92, p < .10).

Insert Tables 1, 2, & 3 about here

Discussion

Some of the most interesting findings summarized in the preceding section are the nonsignificant results for the Social Preferences and Individual Activities subscales. Although friends' knowledge about both of these areas increased with grade level (see Table 1), the lack of statistically significant F-ratios seems to indicate that patterns of self-disclosure and sensitivity about social and individual pursuits are largely set by the end of the elementary school years.

The significant main effect for grade on the Academic Attitudes subscale strongly suggests that school-related issues become increasingly more important to friends as they progress through the secondary school years. Moreover, this effect is strongest after ninth grade. In the subjects' school district, ninth grade is the last year of junior high, which may contribute to the difference between seventh and ninth graders' scores on the one hand, and eleventh graders' scores on the other. Perhaps the experience of moving into high school together enhances friends' knowledge about each other's attitudes in this area.

Analysis of the subscale for Future Orientation produced two significant main effects and two interactions. Each result will be interpreted individually, then discussed more generally in terms of the overall salience of Future Orientation to friendship dyads.

Insert Tables 4, 5, 6, & 7 about here

The grade effect on this variable seems to occur between the seventh and ninth grades (see Table 3). The most obvious explanation for this is the students' increased cognitive maturity—which facilitates their knowledge about one another—coupled with external pressure from parents and school personnel to

begin making life decisions as high school approaches. This grade effect is complicated, however, by the sex of the friend doing the reporting, as is evident from the sex of friend X grade interaction effect. Seventh grade girls are the group least sensitive to their friends' feelings about the future, with seventh grade boys scoring slightly higher (see Table 4). At grade nine, both sexes scored the same. By eleventh grade, however, females scored far higher than their male classmates, whose mean sensitivity score was trivially higher than that of ninth graders. Females were more sensitive than males across all grades on this variable, as indicated by the significant F-ratio for sex of friend (see Table 6). Although these adolescent girls were apparently more in tune with their partners than were their male peers, the sex of the partner was also important to the closeness of the relationship on this subscale. No significant main effect was found for sex of target, but a sex of friend X sex of target interaction did emerge. Same-sex dyads were closer on Future Orientation than were cross-sex pairs (see Table 7). The exception to this was for male dyads in the eleventh grade, whose closeness scores were lower than those of female dyads or crosssex pairs at the same grade level.

Tests of simple main effects for the two significant interactions were conducted. For the sex of friend X grade interaction significant F-ratios emerged for females (F (2,2) = 222, p < .01) and males (F (2,2) = 41.77, p < .05) across grades, and eleventh graders (F (1,2) = 105.14, p < .01) across sexes. For both sexes sensitivity to and knowledge of friends apparently increases up to the ninth grade. Thereafter girls' scores continue to rise, while boys' remain essentially the same (see Table 4). For the sex of friend X sex of target interaction, female friends were equally sensitive to both male and female targets (F (1,2) = .09, NS). Male friends, however, were more sensitive to male

targets than to female targets (F (1,2) = 104.86, p <.01). When rating male targets both sexes scored about the same (F (1.2) = 2.00, NS); however, when the target was female, female friends were apparently more sensitive to their future orientation than were male friends (F (1.2) = 62.57, p< .05) (see Table 5).

Insert Figure 1 about here

Figure 1 contains a graphic representation of the closeness of same-sex and cross-sex dyads by grade on Future Orientation. Interpretation of the figure may be summarized as follows. Among cross-sex dyads, those having a male target showed greater closeness. One reason for this might be females' greater sensitivity to and intimate knowledge of their partners. That the discrepancy between the two types of cross-sex dyads decreases steadily with age suggests that boys' sensitivity to girls develops later and more rapidly than girls' sensitivity to boys. This is consistent with the findings of Sharabany, et al. (1981), who reported that girls indicated greater intimacy with boys than boys did with girls. The present results differ from those of Sharabany, et al. with regard to same-sex dyads. Those authors found that female pairs were more intimate at all ages than were male pairs. In contrast, the Future Orientation results from the present study show boys' friendships to be much closer than girls' at the seventh grade, while by eleventh grade the girls' friendships are much closer than those of their male classmates. One reason for the difference in the two studies may be the intimacy measure used. Perhaps "Future Orientation" does not coincide with the dimensions of intimacy discussed in Sharabany, et al. A more plausible explanation, however, is that the previous study involved asking questions of only one member of a dyad. It was impossible

to know how accurate a rater's responses were in relation to a particular friend because that friend did not respond to the same questionnaire. In other words, the greater intimacy of female friendships reported in Sharabany, et al. (1981) may be a function of the one-sidedness of the instrument used. The present results, on the other hand, are derived from actual intimate knowledge shared between friends rather than on one friend's rating of the level of intimacy. On this subscale, boys begin adolescence more self-disclosing and sensitive to one another than are girls. While boys' closeness peaks at ninth grade and then drops, girls' intimacy continues to rise sharply throughout.

One problem area inherent in research of this kind is the suitability of questionnaires for measuring dyadic intimacy. A strong case for measuring intimate knowledge shared by friends was made by Diaz and Berndt (1982). They also differentiated "external" information from "internal" or "intimate" information, thus providing a basis for the present author's use of friends' knowledge of one another's thoughts and feelings as a measure of closeness or intimacy.

A correlational analysis was performed in order to assess associations among the five subscales. Although some significant correlations emerged, their values were quite low (see Table 8). It may be concluded, then, that these areas are largely unrelated to one another, and that exploration of them as distinct subscales is appropriate.

Insert Table 8 about here

Summary Discussion of Analyses of Dyad Data

To conclude this section, the hypotheses tested will be discussed individually in the order in which they were presented previously.

<u>Hypothesis I.</u> At every grade level, girls will have more accurate perceptions of their friends than will boys.

This hypothesis was not fully supported. On the one subscale showing sex differences, Future Orientation, the results were complicated by the interactions among sex of target, grade, and sex of friend.

<u>Hypothesis II.</u> There will be an increase with grade level in the accuracy of perceptions of same-sex friends.

This hypothesis found support in the grade effects on the Academic Attitudes and Future Orientation subscales. One notable result to the contrary, however, is the drop in accuracy for eleventh grade male dyads for Future Orientation.

<u>Hypothesis III.</u> There will be a decrease with grade level in the discrepancy between accurate perceptions of same-sex friends and accurate perceptions of cross-sex friends.

Again, with the exception of the 11th grade males' result on Future Orientation, this hypothesis may be said to have been supported. Furthermore, a decrease in the discrepancy between types of cross-sex dyads clearly emerged. While male-target pairs scored higher at all grades than did female-target pairs, the discrepancy became progressively smaller.

<u>Hypothesis IV.</u> Female target subjects will be more accurately perceived by their friends of both sexes than will male target subjects.

This hypothesis was not supported. In fact, it was the male subjects who were more accurately perceived, except for the 11th grade male dyads on the Future Orientation subscale.

<u>Hypothesis IVa.</u> At every grade level, girls will have more accurate perceptions of boyfriends than boys have of girlfriends.

This hypothesis received solid support from the Future Orientation subscale results. Of the two types of cross-sex dyads, those having male targets scored higher at every grade than did those having female targets, indicating more accurate perceptions by girls.

Considered collectively, the results of these analyses outline a model of adolescent friendship that is less affected by sex differences than had been previously thought. Although girls seem to be more heavily involved with their friends' thoughts and feelings, their perceptions of others are not necessarily more accurate than are those of their male classmates.

Friendships are apparently based on different issues at different ages within adolescence. As friends become older—and presumably more cognitively mature—the bases for their relationship shift from the superficial social concerns of young adolescents to the deeper, more personal issues of values and the future. The lack of a significant association between congruence and the duration of a friendship emphasizes the importance of cognitive maturity in facilitating closeness. Since scores increased at every grade level for each subscale, yet neither friends' duration of acquaintance nor their duration of closeness contributed significantly to the analyses, it must be concluded that cognitive maturity is a key component of developing intimacy. This finding is consistent with both Sullivan's and Selman's models.

Stereotypy. A post hoc analysis using a group of randomly assigned nonfriend dyads as a control was conducted. This procedure was undertaken in order to assess the extent to which congruence might occur between pairs' responses as a result of both individuals giving stereotypical answers, rather than because specific thoughts and feelings are shared. Two analyses were performed. First, the 5-factor MANOVA was repeated, substituting the non-friend sample for the close dyads. No significant F-ratios were found on any of the subscales, suggesting that the results of the first MANOVA, reported in the previous section, reflect actual age and gender differences. Second, a series of t-tests was performed comparing mean subscale scores of the real pairs to those of the non-friends at each grade level. Only three significant results emerged, indicating that the agreement among friends on the questionnaire may be largely a function of their common circumstances, rather than of actual shared knowledge. The three significant t's were on Social Preferences among ninth graders (t = 2.59, p < .05) and eleventh graders (t = 5.86, p < .05); and on Academic Attitudes for eleventh graders (t = 3.68, p < .05). Complete results are presented in Table 9. Although findings from these post hoc analyses are inconclusive, evidence for stereotypy as a confounding factor is strong enough to warrant caution in interpretation of the results reported here.

Descriptive Analyses

All students who were not assigned to the main sample of friendship groups were asked to fill out a self-report questionnaire. These data, along with those of the target subjects from the main sample, were analyzed for descriptive purposes. A total of 420 questionnaires were included in the sample. The goal was to explore adolescents' attitudes and feelings on the five subscales, with the intention of generating future research questions. Analyses were conducted for

the group as a whole, as well as by grade and sex. Crosstabulation tables for all subscales may be found in Appendix F.

Academic Attitudes

Among seventh graders, there were no sex differences on students' favorite school subjects. Math or physical education was the choice of almost 70% of the students questioned. By ninth grade, fine arts courses were the first choice for girls, with math still a close second. Boys' preferences were unchanged, although percentages of males choosing math and gym were somewhat lower than in seventh grade. In the eleventh grade, the girls abandoned math as a first choice in favor of English courses. Fine arts remained the choice of 24% of the junior girls. A somewhat disheartening result emerged for eleventh grade boys. Among these subjects, the first choice was "None", which received over 24% of the votes. Second was physical education (17.74%), and third was math (14.5%). For some reason, these boys dislike academic subjects. A future study might explore this finding in greater depth.

When asked what they planned to do after graduating from high school, the largest percentage at all grade levels and of both sexes listed going to college as a first choice. Ninth graders were the most likely to pick college, with 73% of the girls and 64% of the boys choosing college over other options. Eleventh graders were least likely to be college-bound, although 30% of each sex named it as a first choice. Perhaps because these juniors were so near to graduating, they were more likely to make post-high school choices that were based on personal, social, and financial realities than were younger subjects. At any rate, 11% of the boys and 8% of the girls indicated that getting a job would be their first post-graduation plan, and marriage was the choice of 11% of the girls.

Across all three grade levels, subjects of both sexes named "getting more knowledge" as the most important thing about going to school. Among ninth grade males, "job skills" ranked a reasonable second, while "self-improvement" was important to eleventh grade girls. Even for junior boys, who previously denied liking any school subjects, gaining knowledge was the first choice, with 21% of their total.

When asked how schools should be reorganized, the consensus was for fewer rules, more elective classes, and more free time. What was notable in this section were the exceptions to this trend. Seventh grade girls wanted no change in the school rules, and were evenly divided on the issue of elective classes.

Large majorities of each group indicated they would rather be smarter than more popular, if they could choose to be one or the other. This was especially true for eleventh grade boys, 77% of whom wanted to be smarter. Again, this finding is even more interesting in light of their responses about academic classes.

The overall picture of these subjects' academic attitudes is one of seriousness and respect for the system. They want, for the most part, to be intelligent enough to gain the knowledge necessary to go to college. That they are largely indifferent to academic rigor does not, apparently, pose problems of inconsistency to them.

Social Preferences

This subscale was designed to tap into subjects' everyday peer group activities. The items included questions about social gatherings, dating, and size of friendship group.

When asked to name the things they liked to do with other people, the girls in the sample expressed a wider range of interests than did the boys. At all

grade levels, girls listed "go to the movies", "talk", "attend a party", and "go shopping" as favorite pastimes. In addition, seventh grade girls named "exercise" as a preferred group activity. Boys, on the other hand, were more restricted in their responses. All ages of boys named "go to the movies" as their first choice. Seventh graders gave "exercise" as a second activity, while ninth and eleventh graders preferred to "attend a party". Club meetings and church activities were the least popular kinds of gatherings for all grade levels, while sports events and concerts were ranked second to parties by all groups. The most preferred kind of party to attend was a dance, ranked first by both sexes at all grade levels. Asked what kind of party they would like to give, "dance" and "surprise" were the top choices. In addition, junior boys named "small" party as a first choice.

For an expensive date, boys of all ages, as well as seventh grade girls, preferred to go to a "fancy restaurant" or to a "concert". Ninth and eleventh grade girls, however, named "an exotic place" as their first choice. When money is scarce, seventh graders chose to go on a "picnic" for a date, as did ninth grade boys. Girls in the ninth and eleventh grade listed "walk in the park" as a favorite inexpensive date. Junior boys were evenly divided between "walk in the park" and "fast food restaurant" with a sizable group (24%) indicating that they would skip the date altogether if they were short of money.

All subjects reported that they spent at least an hour a day with their friends during the school week, and more than three hours a day on weekends. Eleventh graders spent the most weekday time with peers, with nearly 60% of both sexes reporting two or more hours a day with friends, just having fun. On weekends, seventh graders had the most time with friends. More than 40% of both boys and girls indicated that they spent in excess of 5 hours a day with their

friends. Most juniors (70%) reported spending over 3 hours per weekend day with friends.

In response to the question "How many people are in your crowd," seventh and ninth grade girls gave the largest numbers. Over 40% of the seventh graders and 35% of ninth graders indicated a crowd size of 7-15 people. An additional 32-36% of the girls at both ages gave an answer of 4-6 crowd members. For ninth and eleventh grade boys, as well as eleventh grade girls, the most common crowd size was 4-6 people. Surprisingly, the smallest crowds were reported by seventh grade boys. Almost 70% of this group numbered their crowd at between 2 and 6. At all grades and for both sexes, the most common number of "close friends" given was 3-5. Among junior girls, the second ranked number of friends was 1-2, with 40% of the reponses.

In sum, then, these adolescents have well-developed social lives, that include a variety of activities. Female subjects appear to have more friends than do boys, and to spend more time with them, at least through the ninth grade. Seventh grade boys seem to be the least socially mature group—not an unexpected result given the well-documented gender gap in development. The youngest boys studied here appear to be still involved with the "chumships" described by Sullivan.

Individual Activities

Items for this subscale probed subjects' solitary leisure pastimes, as well as the degree to which they kept certain aspects of their life private.

For both sexes at all grade levels, listening to music was the preferred individual activity. Among seventh graders, watching television was a popular second choice, along with "going shopping" (for girls) and "playing video games" (for boys). Patterns were similar for ninth grade subjects, except that a

moderate interest in reading (21%) was indicated by ninth grade girls, as well. Juniors of both sexes shared the younger subjects' interest in music, but also listed "thinking" as something they liked to do when alone (41% of girls and 26% of boys). Television was popular only among boys at the eleventh grade level, shopping was preferred only by girls, and neither sex expressed interest in playing video games.

Half of the seventh graders of both sexes described themselves as being "a fairly open person, with few secrets." Ninth and eleventh graders also reported being "open" more often than not. Only about 20% of the respondents at each grade level described themselves as having "a lot of things I don't tell anyone, even a close friend." These findings are consistent with the notion of adolescent friends providing emotional support for each other.

When asked to indicate potential areas of concern that they would prefer to keep private, all groups named "family matters" and "sex" as the two most personal concerns. "Money problems" ranked in the top four for each group, as did "problems with the law" for all groups except junior boys, who ranked it 6th out of 9 concerns. "Religion" and "school problems" were not considered highly personal by any group. Table 10 contains rankings of these areas by grade and sex.

Insert Table 10 about here

Two of the results reported in this section deserve extra comment. It is dismaying to discover the low value placed on reading as an individual activity by these subjects, especially in view of their previously stated desires to "get more knowledge" and be "smarter" in school. It would be worth the effort of educators

to explore ways of enhancing the importance of recreational reading, and to facilitate its integration into students' daily lives. A second, and unrelated, finding worth note is the high ranking given to sexual concerns as an area not to be discussed with friends. Popular thought has held that teenagers, especially boys, were very open with each other in talking about sex. Whether the reluctance to discuss sex reported here is a sign of greater sexual responsibility or of greater ignorance than might have been predicted is not clear.

Future Orientation

For this subscale, subjects were asked to rank "10 things about being an adult" in the order of importance they would have for the subject "ten years from now." Table 11 contains these rankings by grade and sex.

Insert Table 11 about here

Having a satisfying career was ranked first by all groups, while political activity was ranked last by all groups. "Being in love" was ranked slightly higher by girls than boys at each age, but "being married" was ranked higher by boys than girls, except in the eleventh grade. Interestingly, "having children" received its highest ranking from seventh grade boys, who placed it 5th, and its lowest ranking—8th—from seventh grade girls. The other groups gave it a rank of 6.

Briefly, these subjects may be described as having rather conventional aspirations for their young adult years. The themes of work and love are dominant, and there is little apparent interest in the larger society, as demonstrated by the low rankings given to politics, travel, and being well-known.

Values

There were three items included in this subscale, each of which consisted of a dilemma vignette and 3 or 4 possible solutions. Subjects were asked to choose one solution for each item.

The first dilemma concerns going away to a university versus staying home to help the family business while attending a local college. Among seventh graders, 80% indicated they would go away to the university, as did 80% of juniors and almost 90% of ninth graders. There were differences, however, in the reasons given for going away. Seventh graders were more likely to go to the university for academic reasons, whereas eleventh graders gave the need for independence as a reason to leave home. Ninth graders were slightly more concerned with independence than with education as a prime factor.

The second item on this subscale deals with the conflict between personal accomplishment at a price—in this case, olympic swimming—and the need for a social life. Three options are offered: concentrate on training for the team, concentrate on building friendships, or try to find a balance. All groups indicated that they would sacrifice their social life in order for a chance to be on the olympic team. This result was strongest among juniors, with 80% of both sexes "going for the gold." The lowest percentage choosing competition was among seventh grade boys (57%). Of those subjects choosing not to concentrate on swimming, very few expressed willingness to give it up entirely.

The third item in the "Values" area asks the subjects to handle a case of conflicting loyalties. Specifically, they must decide whether to break a confidence in order to forestall a cousin's teenage elopement. On this item, only seventh graders were willing to break the cousin's confidence by telling the couple's parents of the elopement. An almost equal percentage of this group

(35%) chose to try to talk the couple out of their plan. Among ninth graders, 62% of the girls said they would try dissuading the cousin, but wouldn't tell any parents. Boys, although also favoring dissuasion, were almost as likely to take a hands-off approach to the problem, with 24% stating that the elopement was none of their business. Sixty percent of both males and females in the eleventh grade indicated that an attempt to dissuade the couple was the best response.

Taken together, the responses to these items point to a values system that emphasizes personal accomplishment and independence, as well as personal responsibility.

Conclusions

The picture of adolescence that emerges from these descriptive analyses is consistent with current developmental theory. The girls were slightly more socially mature than the boys, and seemed to regard relationships more highly. Overall, though, sex differences were not outstanding. The shift in primary allegiance from parents to peers is apparent, yet family loyalty remained strong at all ages. In short, traditional middle class values are alive and well, at least in one Oklahoma town.

These results might best be used as a springboard for future research. It would be interesting to explore the problem areas for boys highlighted by the Academic Attitudes subscale, for example. Another worthwhile study might come from the sex differences—or lack of them—in Future Orientation. These and other issues will be pursued in subsequent investigations.

Closing Remarks

Although the results of the research described here are not entirely conclusive, they lend empirical support to both Selman's and Sullivan's theories of adolescent social development. There is, clearly, an increasing ability to

understand others' thoughts and feelings that becomes obvious during adolescence. This is consistent with Selman's Mutual Perspective-Taking stage. At the same time, the convergence of intimacy scores between same-sex and cross-sex dyads over adolescence provides evidence of the isophilic to heterophilic shift described by Sullivan. This study has been worth the effort, then, in terms of clarifying theoretical links between the two models. Sex differences did not emerge as expected, in either the dyad analysis or the descriptive data. This is in line with some previous findings (cf. Berndt, 1982; Davidson, et al., 1980; Diaz & Berndt, 1982), suggesting that long-held notions of different kinds of friendship among males and females may need to be revised.

These findings must be interpreted cautiously, with two specific caveats in order. First, the internal consistency of the questionnaire items is weak enough—especially on the Values and Academic Attitudes subscales—to cast suspicion on any significant results. Fortunately, most of the significant F-ratios emerged from Future Orientation, the subscale having the highest coefficient alpha. A goal for subsequent studies will be to improve this instrument. Second, there is sufficient evidence of stereotypy to warrant caution on all subscales. Using a measure of stereotypy as a covariate might be advisable in future research of this type, a technique employed by Diaz and Berndt (1982).

In an applied sense, this investigation was valuable to educators, youth service workers, and even to those concerned with the juvenile justice system. Professionals who interact with adolescents are certainly aware of the salience of the teenage friendship system, although they may lack the specific skills and information to use their knowledge optimally. Building on this line of research, more effective interventions into troubled peer relationships may be planned. Similarly, educational strategies may be devised that more closely follow the

affective development of the students. Finally, a variety of social policy issues might be more properly addressed using results like those from this study. In short, any situation involving adolescents in groups is better understood and dealt with once the interpersonal dynamics typical of such settings have been outlined. It is hoped that the present investigation will be valuable in this regard.

References

- Anderson, R.B. (1982). SampleCalc. ABT Associates, Inc.
- Berndt, T.J. (1982). The features and effects of friendship in early adolescence. Child Development, 53, 1447-1460.
- Berndt, T.J., & Hawkins, J.A. (1984). Friendships as social supports for children during school transitions. Paper presented at the annual meeting of the American Psychological Association, Toronto, Canada.
- Bigelow, B.J. (1977). Children's friendship expectations: A cognitive developmental study. Child Development, 48, 246-253.
- Bronfenbrenner, U. (1970). <u>Two worlds of childhood: U.S. and USSR</u>. New York: Russell Sage Foundation.
- Bukowski, W.M., & Newcomb, A.F. (1983). The association between peer experiences and identity formation in early adolescence. <u>Journal of Early Adolescence</u>, 3, 265-274.
- Byrne, D.F. (1974). The development of role taking in adolescence. Dissertation Abstract, 34, No. 11, 5647B.
- Cohen, J. (1977). Statistical power analysis for the behavioral sciences. New York: Academic Press.
- Crockett, L., Losoff, M., & Peterson, A.C. (1984). Perceptions of the peer group and friendship in early adolescence. <u>Journal of Early Adolescence</u>, <u>4</u>, 155-181.
- Davidson, B., Balswick, J.O., & Halverson, C.F. (1980). Factor analysis of self-disclosure for adolescents. Adolescence, 15(60), 947-957.
- Diaz, R.M., & Berndt, T.J. (1982). Children's knowledge of best friend: Fact or fancy? <u>Developmental Psychology</u>, <u>18</u>(6), 787-794.

- Douvan, E., & Adelson, J. (1966). The adolescent experience. New York: Wiley.
- Elkind, D. (1967). Egocentrism in adolescence. Child Development, 38, 1026-1034.
- Graves, W.H., & Manners, P. (1984). Unpublished microprocessor program.
- Gurucharri, C., & Selman, R.L. (1982). The development of interpersonal understanding during childhood, preadolescence, and adolescence: A longitudinal follow-up study. Child Development, 53(4), 924-927.
- Hunter, F.T., & Youniss, J. (1982). Changes in functions of three relations during adolescence. <u>Developmental Psychology</u>, <u>18</u>(6), 806-811.
- Jourard, S.M. (1964). The transparent self. Princeton, NJ: Van Nostrand.
- Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialization. In D.A. Goslin (ed.) <u>Handbook of Socialization</u>
 Theory and Research. Chicago: Rand McNally & Co.
- Kon, J.S., & Losenkov, V.A. (1978). Friendship in adolescence: Values and behavior. <u>Journal of Marriage and the Family</u>, 40(1), 143-155.
- Kurdek, L.A., & Krile, D. (1982). A developmental analysis of the relation between peer acceptance and both interpersonal understanding and perceived social self-competence. Child Development, 53(6), 1485-1491.
- La Gaipa, J.J. (1979). A developmental study of the meaning of friendship in adolescence. Journal of Adolescence, 2, 201-213.
- Mark, E.W., & Alper, T.G. (1980). Sex differences in intimacy motivation.

 Psychology of Women Quarterly, 5, 164-169.
- Mead, G.H. (1934). Mind, self, and society. Chicago: University of Chicago Press.

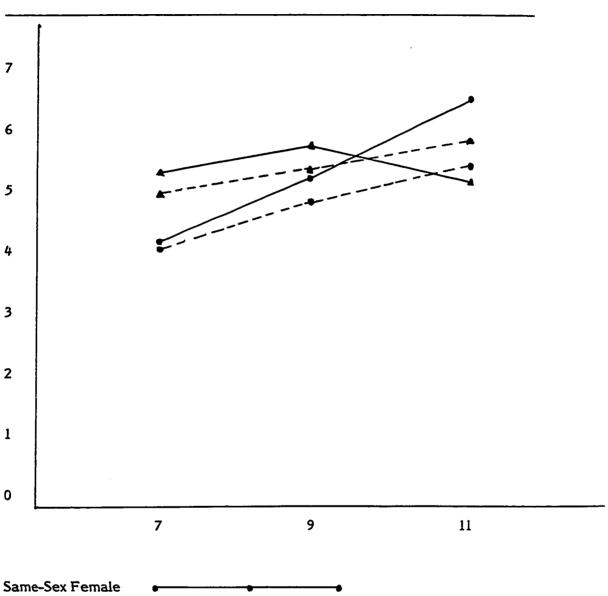
- Montmayor, R. (1982). The relationship between parent-adolescent conflict and the amount of time adolescents spend alone and with parents and peers. Child Development, 53(6), 1512-1519.
- Muuss, R.E. (1982). Theories of adolescence. New York: Random House.
- Piaget, J. (1932). The moral judgment of the child. London: Kegan Paul.
- Rands, M., & Levinger, G. (1979). Implicit theories of relationship: An intergenerational study. <u>Journal of Personality and Social Psychology</u>, <u>37</u>(5), 645-661.
- Reisman, J.M., & Shorr, S.I. (1978). Friendship claims and expectations among children and adults. Child Development, 49, 913-916.
- Rivenbark, W.H. (1971). Self-disclosure patterns among adolescents.

 Psychological Reports, 28(1), 35-42.
- Sebald, H., & White, B. (1980). Teenagers' divided reference groups: Uneven alignment with parents and peers. Adolescence, 15(60), 979-984.
- Selman, R.L. (1971). Taking another's perspective: Role-taking development in early childhood. Child Development, 42, 1721–1734.
- Selman, R.L. (1980). The growth of interpersonal understanding:

 Developmental and clinical analyses. New York: Academic Press.
- Selman, R.L., & Byrne, D.F. (1974). A structural-developmental analysis of levels of role taking in middle childhood. Child Development, 45, 803-806.
- Sharabany, R., Gershoni, R., & Hofman, J.E. (1981). Girlfriend, boyfriend: Age and sex differences in intimate friendships. <u>Developmental Psychology</u>, <u>17(6)</u>, 800-808.
- Spurgeon, P., Hicks, C., & Terry, R. (1983). A preliminary investigation into sex differences in reported friendship determinants amongst a group of early adolescents. <u>British Journal of Social Psychology</u>, 22(1), 63-64.

- Sullivan, H.S. (1953). The interpersonal theory of psychiatry. New York: W.W. Norton and Company, Inc.
- Wright, P.H., & Keple, T.W. (1981). Friends and parents of a sample of high school juniors: An exploratory study of relationship intensity and interpersonal rewards. <u>Journal of Marriage and the Family</u>, <u>43</u>(3), 559-570.





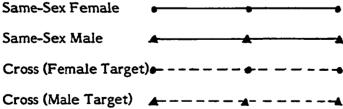


Table 1

Means for all Subscales

x̄ (SD)	Academic Attitudes	Social Preferences	Individual Activities	Values	Future Orientation
7th	3.48	7.89	7.48	1.23	4.71
grade	(1.06)	(1.78)	(2.08)	(.86)	(1.70)
9th	3.74	8.57	8.06	1.30	5.35
grade	(1.03)	(1.86)	(1.72)	(.82)	(1.72)
11th	4-28	8.88	8.20	1.36	5.86
grade	(1.08)	(2.25)	(2.20)	(.97)	(1.76)

Table 2 F-Ratios for ail Subscales

		Acade Attitu		Socia Prefer		Individ		Value	es	Future Orienta		
Source	df	SS	F	SS	F	SS	F	SS	F	SS	F	
Grade	2	15.32	5.96**	23.47	2.30	13.58	1.21	.42	.23	30.86	3.68*	_
Sex of Target	1	1.37	1.07	3.9	.76	6.36	1.13	1.38	1.52	4.01	.96	ά
Grade X Sex												
of Target	2	1.55	.60	12.07	1.18	.78	.07	1.83	1.01	12.41	1.48	
Sex of Friend [†]	1	.04	.04	2.16	3.51	1.43	.22	2.18	8.92	1.55	22.45*	
Sex of Friend X †												
Grade	2	.51	.23	6.50	5.28	10.14	.78	.10	.19	6.21	45.05*	
Sex of Friend X $^{+}$												
Sex of Target	1	.0002	.00	7.82	12.70	5.86	.91	.20	.82	3.10	45.03*	

[†] These tests used Type III MS for Sex of Friend X Grade X Sex of Target as an error term.

^{*} p < .05 **p < .01

Table 3

Least Squares Means by Grade

		Least Squares	Standard
	Grade	Means	Error
Academic Attitudes	7	3.48	.15
	9	3.74	.16
	11	4-28	.15
Social Preferences	7	7. 89	.24
	9	8 . <i>5</i> 7	.26
	11	8.88	.25
Individual Activities	7	7.48	.23
	9	8.06	.25
	11	8.20	.24
Values	7	1.23	.12
	9	1.30	.13
	11	1.36	.12
Future Orientation	7	4.70	.19
	9	5.3 5	.21
	11	5. 86	.20

Table 4

Means for Future Orientation by Sex of Friend and Grade

	Female	Friends	Male Friends		
	x	S.D.	x	S.D.	
7th Grade	4.63	1.72	4.80	1.57	
9th Grade	5.35	1.77	5.35	1.69	
11th Grade	6.28	1.78	5.46	1.72	

Table 5

Means for Future Orientation by Sex of Friend and Sex of Target

	x	Sex of '	Sex of Target			
	(SD)	Female	Male			
Friend	Female	5.4 (1.71)	5.44 (1.8)			
Sex of	Male	4.87 (1.82)	5.53 (1.51)			

Table 6

Means for Future Orientation by Sex of Friend

	x	S.D.
Female Friends	5.42	1.76
Male Friends	5.20	1.66

Table 7

Means for Future Orientation: Same-Sex and Cross-Sex Dyads

	x	S.D.
Same-Sex Dyads	5.41	1.61
Cross-Sex Dyads	5.15	1.81

Table 8

Correlations Among Subscales

Academic Attitudes	Social Preferences	Individual Activities	Values	Future Orientation
				
.25*				
·				
. 27*	.19*			
.06	25*	.04		
. 20*	. 09	.03	.184 *	
	.25* .27*	.25* .27* .19*	.25* .27* .19* .0625* .04	Attitudes Preferences Activities Values .25* .27* .19* .06 25* .04

^{*}p < .05

Table 9

Friendship Dyads vs. Non-friend Pairs: t-tests by Grade

	t	7th grade	9th grade	11th grade
Academic Attitudes		1.53	45	3.68*
Social Preferences		1.48	2.59*	5 . 86*
Individual Activities		.22	.33	1.4
Values		.17	95	.45
Future Orientation		•34	. 65	1.22

^{*}p <.05

Table 10

Areas of Privacy Ranked by Grade and Sex

Rank

•	7th Grade		9th Gra	ade	11th Grade	
Area of Concern	Females	Males	Females	Males	Females	Males
Social life	6	6	7	3	7	5
Money problems	3	4	3	4	4	4
Family matters	1	1	1	1	2	1
School problems	7	8	9	6-7	9	9
Personal hygiene/						
health	5	7	5	6-7	5	3
Feelings toward						
others	8	5	6	8	6	7
Sex	2	2	2	2	1	2
Religion	9	9	8	9	8	8
Problems with						
the law	4	3	4	5	3	6

Table 11

Future Orientation: Rankings by Grade and Sex

Rank

	7th Grade		9th Gra	ade	11th Grade	
Issue	Females	Males	Females	Males	Females	Males
A satisfying career	1	1	1	1	1	1
Earning a lot more						
money	2	2	3	2	4	2
Having children	8	5	6	6	6	6
Being active in						
politics	10	10	10	10	10	10
Being married	4	3	5	4	3	4
Doing volunteer						
work in the						
community	7	8	9	9	9	9
Travelling to other						
countries	9	9	8	8	7	8
Being well-known	6	7	7	7	8	7
Spending time						
with friends	5	6	4	5	5	5
Being in love	3	4	2	3	2	3

APPENDIX A PROSPECTUS

THE ANALYSIS OF ADOLESCENT FRIENDSHIPS: SAME-SEX AND CROSS-SEX PATTERNS IN GRADES SEVEN, NINE, AND ELEVEN

One of the most enduring themes of adolescence—among both popular and scholarly writers—is the shift in interpersonal relationships from the same-sex clique of late childhood to the intimate cross-sex dyad of adulthood. Although it is commonly agreed that such a transition occurs, there has been surprisingly little scientific scrutiny of the processes involved. Dunphy (1963) described changing friendship patterns across adolescence in his classic cliques—and—crowds study, but the interpersonal and intrapersonal factors behind the behaviors he reported were not explored.

The move to cross-sex intimacy during adolescence may be related to other physiological and psychological changes. It is reasonable to assume, for instance, that one's awakening sexuality would contribute to a desire for companionship with peers of the opposite gender. There is more at work, however, than merely increased sexual attraction. It has been shown (for example Elkind, 1967; Selman & Byrne, 1974) that a capacity for greater interpersonal closeness with both sexes emerges during adolescence, probably as a function of the individual's development of formal thought.

It is the purpose of this research to explore the world of adolescent peer relationships from a social cognitive perspective. More narrowly, the goal is to determine whether there are developmental differences among same-sex and cross-sex friendship dyads in friends' sensitivity and self-disclosure to one another. Stated concretely, does an individual's same-sex friend know him or her as well as a cross-sex friend does? Do same-sex and cross-sex friends know different things about a person? Are there changes at different ages in the patterns of the ways friends know about each other?

In the following chapters, two relevant theory bases will be discussed. Specifically, Sullivan's (1953) theory of preadolescent chumships and the subsequent shift to heterosexual intimacy will be addressed, followed by an overview of Selman's (1971; 1980) model of adolescent role taking. Supporting empirical literature will also be reviewed. Then, a proposed study will be described that seeks to answer the questions listed above.

Review of Literature

For the purposes of this review, literature pertaining to the present area of investigation will be discussed under three headings. First, a summary of research dealing with adolescent friendships in general will be presented. This section of the review is intended to provide a broad context for the present study, as well as a firm conceptual anchor for the remainder of the related literature. Features and functions of close peer relations will be emphasized, and a brief overview of the most frequently studied variables will be offered. In support of Sullivan's theory, the next section will include a more extensive review of research and theory relating to intimacy in friendships, including age and sex differences. In the final section, Selman's model of role taking will be presented, along with a representative sampling from the social cognition literature.

Adolescent Friendships

Early adolescence is characterized by major affectional shifts away from parents and to the peer group (Montmayor, 1982), with some sex differences in the pattern of the shifts apparent. O'Donnell (1979) found that 8th grade males had greater positive affect toward parents than for friends, but that lith grade subjects showed the same affection for parents and peers. All subjects—8th and lith grade males and females—reported more positive affect for their female friends than for their male friends, even though their male and female parents were regarded approximately equally.

Hunter and Youniss (1982) found that intimacy between friends was lower than in parent-child relationships at 4th grade, but had surpassed it by 10th grade. These authors further reported that nurturance increased between friends with age, and that female friendships are more intimate than male.

Crockett, Losoff, and Peterson (1984) conducted one of the few longitudinal studies of school peer groups and individual friendships over grades 6-8. Findings were that cliques develop during the 7th grade, with popularity being the most salient dimension of clique membership. The authors found no sex differences in the relative frequency of friendship dyads to cliques. In an investigation of adolescents' orientation to parents and peers across a range of topics, Sebald and White (1980) found that females were more parent-oriented than males, especially in areas concerning opposite-sex relationships. Both sexes were likely to consult their parents about long-term concerns (e.g., college, careers), but to follow their friends' advice when the issue was one of more immediate importance (e.g., hobbies, social activities, casual dating).

A number of authors have studied the role of friendship in other aspects of adolescent development. Bukowski and Newcomb (1983) investigated the

multidimensional nature of self-concept and the role of peer relations in identity formation in early adolescence. They found perceived social competence to be the best predictor of self-worth, with some gender differences. For boys there was a strong association between self-perceptions of social and physical competence, a finding that may explain the play-based, group oriented friendship patterns typical of young teenage males. For girls, the strongest link was between perceived social competence and actual popularity, suggesting that girls are more sensitive and have a more realistic notion of their social skills.

Youniss (1982) argued in a position paper that friendship is an important vehicle for enhancing moral development. According to Youniss, the egalitarian nature of the relationship (as compared to parent-child interactions) fosters respect and consideration of others' feelings, opinions, and rights. In a similar vein, Wright and Keple (1981) defined friendship as "a relationship characterized by voluntary interdependence in which the individuals respond to one another personalistically or as persons-qua-persons" (p. 560). These authors also delineated four values of friendship: (1) ego-support value, (2) self-affirmation value, (3) stimulation value, and (4) utility value.

In a content analysis of children's descriptions of peers, Honess (1980) found that 13-year-olds (the oldest group studied) were more likely to include self-references when describing peers. Rather than interpreting this finding as evidence of increased self-centeredness, Honess concluded that it provided empirical support for Sullivan's notion of a "preadolescent" period of development when chumships hinge on collaboration in satisfying each child's needs.

Spurgeon, Hicks, and Terry (1983) looked at sex differences in the determinants of friendships among 11 and 12-year-olds. Their findings further

strengthen the idea that girls' peer relations are closer and more exclusive, while boys are oriented more to shared group activities. Furthermore, girls perceived their very best friends differently from their second and third best friends, while boys perceived all three levels of friendship as the same. In a similar connection, boys cited equal numbers of internal/psychological and contractual reasons for friendship, whereas girls cited many more internal/psychological bases for their close same-sex relationships.

In a study of the effects of having a close friendship on adjustment to a new school, Berndt and Hawkins (1984) found that for both sexes, the transition to junior high school was easier for subjects who had a close same-sex relationship. In this study, "adjustment" was operationalized as self-esteem and positive attitudes toward the new school. The results were reported as correlations, with the usual caveats about causality. Nevertheless, the authors pointed to their findings as further substantiating the notion of early adolescent friendships as an important source of emotional support.

In sum, then, the picture of early adolescence that emerges from the foregoing studies is one of young people becoming increasingly less dependent on family and more reliant on peers for day-to-day interpersonal sustenance. Friends supercede parents as valued sources of social feedback, emotional support, and companionship. There are differences, however, between boys and girls in the salience of certain friendship functions.

Intimacy in Adolescent Friendships

The newly-emergent closeness between friends that is found in early adolescence is generally termed "intimacy". According to Sullivan (1953), intimacy is a feature of dyad relationships that first appears during preadolescence. In the empirically based literature, intimacy is usually defined

either as intimate knowledge (friends knowing the details of one another's personal lives to a degree surpassing the superficial knowledge that acquaintances might have) or as self-disclosure (friends telling each other about their private thoughts).

An extensive study of friendships among Soviet adolescents yielded results that differ from most U.S. findings. Kon and Losenkov (1978) found that girls' friendships were shallower and less intimate than boys', and that boys' friendships were of longer duration. Interestingly, subjects of both sexes in this study were more likely to describe an "ideal friend" as being male. In his classic comparative study of U.S. and Soviet education, Bronfenbrenner (1970) reported that girls in the USSR were far more adult-oriented than their male peers, or their American counterparts. Perhaps this feature of Soviet girlhood causes female adolescents to de-emphasize their friendships. If so, then the Kon and Losenkov results are more readily interpreted in terms of cultural differences.

Mark and Alper (1980) defined intimacy as "social penetration" through self-disclosure, and explored its relationship to sex role by means of a projective instrument. They found that women were more likely than men to write stories having intimacy imagery. The men who did write intimacy imagery stories, however, were less likely than other males to be masculine stereotyped.

Several authors have investigated self-disclosure among adolescents. Rivenbark (1971) found that girls are more disclosing than boys, especially to cross-sex friends. Both sexes, however, preferred same-sex friends over cross-sex friends as targets of self-disclosure. Although there was no significant decrease in disclosure to parents among these adolescents, there was a sharp increase in disclosure to peers between grades 8 and 10.

Davidson, Balswick, and Halverson (1980) argued that the sex differences in self-disclosure cited in the literature may be spurious, and dependent upon the types of questionnaire items used. Using a factor analytic procedure, these authors found four dimensions of self-disclosure, with sex differences related to 3 of the factors. Girls were more self-disclosing on Revealing General Information and Revealing Personal Information, while males were higher on Revealing Sexuality to parents. No sex differences were found on Revealing Sexuality to Peers.

Peoples' expectations of appropriate dyad behavior and self-disclosure has been shown to vary with the closeness and gender of the pair (Rands & Levinger, 1979). In close relationships, cross-sex pairs were perceived as more likely to engage in self-disclosure and physical contact than were same-sex dyads. Female pairs were expected to engage in greater self-disclosure, other-enhancement, and physical contact than were male friends. Furthermore, while females were perceived as being capable of intimacy with either sex, males were expected to obtain emotional gratification primarily from cross-sex relationships and were thus thought to be more dependent than females on heterosexual attachments.

Using a young sample (grades 6-8) and a longitudinal design, Crockett, et al. (1984) found that girls were more self-disclosing than boys, although there were no sex differences in reported satisfaction with best-friend relationships. Although all subjects said they had at least one good friend, only 5% of them volunteered a cross-sex peer as being a close friend. A developmental trend did emerge with regard to cross-sex relationships over grades 6-8, however, with both genders expressing an increasing interest in the opposite sex.

Further support for the notion of gender differences in the importance of cross-sex relationships may be found in the work of Wright and Keple (1981). In this study, girls reported both same-sex and cross-sex peer relationships to be strong, intense, and important. Boys, however, found their greatest rewards in cross-sex friendships, with male-male dyads being least rewarding.

In an effort to determine the role of sexual maturation in the development of cross-sex friendships and dating behavior, Dornbusch, et al. (1981) subjected a variety of data from a nationwide probability sample to a series of regression analyses with "dating" as the outcome variable. The authors found age to be a better predictor of dating than was sexual maturation, there being a 1 to 2 year interval between pubescence and the onset of dating behavior.

Diaz and Berndt (1982) studied developmental changes in children's intimate and nonintimate knowledge of a best friend. Using actual friendship pairs from grades 4 and 8, the authors found that knowledge of external characteristics, such as a friend's birthdate or telephone number, is distinct from intimate knowledge, and that age changes occurred only for intimate knowledge. Female dyads reported friendships of longer duration, and a greater knowledge of external characteristics. No other sex differences were found in this study.

The best predictor of both external and intimate knowledge was the frequency of contact between friends. The only predictor of intimate knowledge that showed age changes, however, was level of cognitive maturity (as measured by the Raven's Standard Progressive Matrices test). This finding, coupled with the age change in intimate knowledge, was interpreted by the authors as evidence of a cognitive component to intimacy between close friends. The Diaz and Berndt results are important to the present study because they lend support

to the author's use of Selman's model of social cognition as role taking. This model will be discussed in the following section.

One of the few studies designed primarily to compare same-sex and crosssex friendships in adolescence was conducted by Sharabany, Gershoni, and Hofman (1981). Using a large sample of Israeli students in grades 5, 7, 9, and 11, the authors looked at age and sex differences on eight dimensions of intimacy, as follows: (1) frankness and spontaneity, (2) sensitivity and knowing, (3) attachment, (4) exclusiveness, (5) giving and sharing, (6) imposing and taking, (7) common activities, and (8) trust and loyalty. Several interesting results emerged. With regard to same-sex relationships, girls reported more intimacy than boys, although intimacy was fairly stable over time for both sexes, with only the "frankness and spontaneity" and "knowing and sensitivity" increasing with age. Also, girls were higher on "attachment", "giving and sharing", and "trust and loyalty" than were boys. Cross-sex intimacy was low for both sexes at grade 5, after which girls' scores increased more rapidly than boys'. By the upper grades, girls reported much greater "attachment" and "trust and loyalty" toward boys than vice versa. These authors concluded that same-sex intimacy is already "in process" by preadolescence, but that cross-sex intimacy is only in a very The age-related increases in "knowing and sensitivity" were interpreted as being a function of cognitive development and improved roletaking skills. A temporary drop in same-sex intimacy, observed at grade 7, may be due to the onset of cross-sex relations. Clearly, this line of research is worth pursuing further.

To summarize, the following may be concluded from the foregoing review:

(1) Intimacy among friends increases from middle childhood to early adolescence.

- (2) Female dyads are more intimate than male dyads. The one clear exception to this (Kon & Losenkov, 1978) may be explained by cultural factors.
- (3) The onset of cross-sex intimacy occurs earlier among females than males, and develops more rapidly.
- (4) Increased intimacy across adolescence may be a function of increasing cognitive maturity.

Social Cognition

If, as has been briefly noted in the preceding section, an adolescent's capacity for intimacy is somehow related to his or her level of cognitive functioning, it becomes necessary for the researcher of intimacy to also understand the mental processes and structures associated with the adolescent years. More directly, it is essential for this research to be firmly anchored to the framework of social cognition.

Social cognition may be defined as the using of cognitive skills to understand and deal with social interactions in the real world (Muuss, 1982). More a synthesis than a theory in its own right, this area has been influenced by cognitive developmental psychology (e.g., Kohlberg, 1969; Piaget, 1932) and social psychology (e.g., Byrne, 1974; Mead, 1934). Social cognition occupies a conceptual ground between cognitive development and moral development.

Selman has advanced a model of social cognition (1971; 1980) that focuses on role taking as an attribute that increases with an individual's cognitive maturity. The model is based on a set of five stages that roughly parallel Piagetian levels of cognitive development. Briefly, Selman's stages and sequence are as follows:

Stage 0 - Egocentric. Preoperational, very little decentering (age 3 to 6)

- Stage 1 Subjective perspective-taking. The transition to concrete operations (age 5 to 9)
- Stage 2 Reciprocal perspective-taking. Concrete operations (age 7 to 12)
- Stage 3 Mutual perspective-taking. Transition to formal operations (age 10 to 15)
- Stage 4 Societal perspective-taking. Adult functioning (age 12 to adulthood)

The present research draws largely on stages 3 and 4 of Selman's model. It is at these stages that adolescents become increasingly able to step outside their own role in a friendship interaction and to view the dyad as a third person might. The result ought to be a clearer understanding of another's thoughts and feelings that goes beyond superficial knowledge. In other words, adolescents' maturing ability to take their friends' perspectives ought to facilitate the development of intimacy in their close personal relationships.

The invariant sequence of Selman's stages has been substantiated in a longitudinal follow-up study (Gurucharri & Selman, 1982) of his original sample of young male subjects. Only one case of regression was found among the 41 subjects who were re-interviewed. More important, the amount of change over the 5 year span of the study was roughly equivalent for all subjects, regardless of their initial age or developmental level.

Kurdek and Krile (1982) developed a written instrument as an alternative to Selman's more time-consuming interview. Using it in an empirical study of 3rd through 8th graders, these authors found a significant developmental trend in interpersonal understanding, with girls scoring higher than boys overall. More important for the present research, Kurdek and Krile reported higher interpersonal understanding among popular children. Also, an age trend emerged

linking peer acceptance to level of interpersonal understanding in older children more than among the younger subjects.

It seems reasonable to assume, on the basis of these empirical findings, that a developmental change in cognitive level will affect the quality of adolescent friendships. Whether or not intimacy itself increases with cognitive maturity is an issue open for study.

Summary

In sum, the research results presented in the preceding sections describe adolescence as a time of considerable change in the realm of social interactions. The family is challenged by peers as the adolescent's primary reference group. Against this backdrop of social independence from the family, the adolescent is striving to form intimate relationships with same-sex friends, then later, with opposite sex friends. For girls, the development of intimacy seems to come earlier than for boys. Facilitating the growth of a capacity for intimacy is the adolescent's increased cognitive level, especially when manifest as ever-improving role-taking skills.

Theoretical Rationale

Sullivan (1953) wrote at length on the critical importance of developing intimacy during the preadolescent years. It is at this time, according to Sullivan, that lifelong patterns of interpersonal relating are set in motion. The preadolescent child—by means of a close "chumship" and an intricate peer network—becomes newly capable of viewing the self through other people's eyes. This awakening ability to take another's role in an interaction is similar to Selman's Stage 3, or Mutual Perspective Taking (1980).

With the onset of puberty, the child, now classified by Sullivan as an "early adolescent", begins to shift intimacy needs from an isophilic (same-sex) object to

a heterophilic (cross-sex) object. In other words, the young teenager strives to duplicate the intimacy of chumship in a new relationship with an opposite sex peer, using the interpersonal skills acquired during the preadolescent years. This shift in the object of intimacy takes several years to effect, and may not be complete until early adulthood.

Problem Statement

Both Sullivan and Selman have emphasized the importance of role-taking abilities in facilitating intimacy. It is the task of the researcher to explore this theoretical link. The purpose of the present study is to investigate the nature and amount of self-disclosure and intimate knowledge reported by close friends across the pre- to mid-adolescent years. Most other studies using a cross-sectional design to look for developmental change in friendships have either begun or ended with early adolescence. Consequently, there are relatively few examples of the same intimacy measure being employed on a group of subjects whose ages span the critical period described by Sullivan (1953). Similarly, there has been little direct scrutiny of different patterns of same and cross-sex intimacy between male and females in this age group (cf. Sharabany, et al., 1981). A second purpose of the present study, then, is to delineate gender differences in the timing and quality of the shift to cross-sex intimacy.

Hypotheses

Drawing on the literature and conceptual framework presented, the following hypotheses will be tested:

- (1) At every grade level, girls will have more accurate perceptions of their friends than will boys.
- (2) There will be an increase with grade level in the accuracy of perceptions of same-sex friends.

- (3) There will be a decrease with grade level in the discrepancy between accurate perceptions of same-sex friends and accurate perceptions of cross-sex friends.
- (4) Female target subjects will be more accurately perceived by their friends of both sexes than will male target subjects.
- (4a) At every grade level, girls will have more accurate perceptions of boyfriends than boys have of girlfriends.

Method

Sample

Subjects for this investigation are all the 7th, 9th, and llth graders in a medium sized Oklahoma town. The community is predominately working and middle class, with a racial mix that is mostly white but also contains numbers of Native American or black residents. The town is a county seat and a commercial center, with an economy largely based on agriculture. Access to the subjects was provided by the local superintendent of schools, with the support of the principals and counselors at the junior high and high school attended by the students. Around 200 students from each grade level—seventh, ninth, and eleventh—will be asked to participate in the project. A subsample of 72 students from each grade level will be selected for the main analyses. Inclusion in the subsample is to be based on individuals having close, reciprocated friendships with both sexes.

To ensure the adequacy of the subsample size, a power analysis was performed using Sample Calc, a microcomputer program (Anderson, 1982) based on the work of Cohen (1977). Results showed that 10 targets of each sex from the three grade levels is a sufficient sample size, assuming the following parameters: confidence level = .95, power = .8, and effect size = .5. The present

study will include 12 male and female targets, along with their same-sex and cross-sex friends, from the 7th, 9th, and 11th grades.

Measures

Sociometric questionnaire. A one-page questionnaire, developed by the author, will be given to each student in the subject pool. Subjects will be asked to name the three males and the three females to whom they feel closest, within their own grade level and school, and to indicate how long they have known each person listed. Data from these questionnaires will be analyzed by means of a microprocessor program (Graves & Manners, 1984), which will identify those persons (called "targets") who have reciprocated friendships with both a male and female classmate.

<u>Self-report inventory.</u> Each target subject will be asked to complete a 25item questionnaire designed to tap five areas which pilot studies have shown to
be salient to adolescents. The first pilot study consisted of asking open ended
questions to 40 eighth graders from a big-city school district. The items were
similar to those used in the present inventory. Multiple choice alternatives were
formulated from these pilot subjects' responses. The second version of the
questionnaire was administered to 70 eighth, tenth, and twelfth graders from a
rural school district. Minor editorial changes were made based on this larger
group's responses. For the final form of the inventory, the subscales and the
number and type of questionnaire items pertaining to each are as follows:

- (1) Social Preferences 10 multiple choice items covering subjects' group activities.
- (2) Individual Activities 2 multiple choice items dealing with the amount and quality of time the subject spends alone. Two additional items

probe subject's likelihood to be self-disclosing about a range of personal concerns.

- (3) Academic Attitudes 7 multiple choice items tapping feelings and preferences about school subject areas, purpose, and organization.
- (4) Future Orientation one item consisting of a list of ten components of adult status. Subjects are asked to imagine that they are ten years older and then to rank the components in the expected order of importance to the subject at that future time.
- (5) Values three items, each comprised of a dilemma vignette and several choices of action.

In addition to the target subjects, those students not forming part of a friendship group identified by the sociogram will complete this survey for the purpose of descriptive analyses. These analyses will provide a picture of the developmental processes, as well as any sex differences, at work in the five interest/attitude areas probed in the questionnaire. Future research may be generated from the results. A copy of the questionnaire may be found in the appendix.

Other-report. Students identified as reciprocated close friends of the targets will fill out a questionnaire identical to the self-report, except that these students will respond to the items as they think their friend would respond.

<u>Duration of friendship</u>. In order to control for differences in depth of knowledge of a friend caused by the length of time the individuals have known each other, subjects will be asked to report the duration of their same-sex and cross-sex friendships. This value will be used as a covariate.

<u>Dependent measures.</u> The outcome variable used in the main analyses will be the absolute difference derived by subtracting each target's self-report score from the other-report scores of the same and cross-sex friends. An overall

difference score for each dyad will be obtained, as well as separate difference scores for each of the five subscales.

Procedure

Data are to be collected through the school's regular English classes in two stages. First, all students will complete the sociometric questionnaire, naming their three best male and female friends. These responses will be analyzed by means of a microprocessor program that will generate all possible combinations of target male friend/female friend for each grade level, as well as indicating the closeness of each set of overlapping dyads. Each person's three male and three female choices will be assigned weights of 1 to 3, with 1 being the closest friend. When the dyads are identified by the microprocessor program, the weight assigned to each dyad members ranking of the other member will be summed to provide a measure of the closeness of the relationship. For example, if two people rank each other first on the sociometric questionnaire, their dyad weight will be 2-the closest possible friendship. If they rank each other third, their weight will be 6. Dyad weights will be combined to indicate the closeness of the targets' same and cross-sex relationships. Thus, a target having a same-sex dyad weight of 4 and a cross-sex dyad weight of 3 would be assigned a total weight of 7, to indicate overall closeness. Those overlapping dyads having the lowest combined weights will be selected for the subsample first, followed by those with increasingly higher weights until 12 groups have been chosen for each sex of target. To minimize subject loss due to absence or changing friendships, selection of the subsample will be completed immediately after the sociometric data are collected.

The following day, those students identified as "targets" will be asked to fill out the self-report inventory. Their male and female friends will complete

the other-report, answering as if they were the target person named on the questionnaire. All other students will complete a self-report. When all the instruments have been returned to the author, the students will be debriefed. A short explanation of the purpose of the study will be given, and any questions raised by the students will be answered.

Analyses

MANCOVA. A 3 (grade of subject) X 2 (sex of target) X 2 (sex of friend) nested design will be used. Analysis will be by means of a 6-factor MANCOVA, using duration of friendships as the covariate.

The degree of association between target's same-sex and cross-sex friends' knowledge will be determined on several levels: (1) the correlation between male and female friends' knowledge of male targets, overall and for the 5 subscales and at the 3 ages; (2) the correlation between male and female friends' knowledge of female targets, overall and for the 5 subscales and at the 3 ages.

<u>Descriptive analyses.</u> Age and sex differences in self-reports will be reported, using those students not part of a dyad, as well as target subjects.

Significance of the Study

The results of this investigation will be useful both conceptually and in application. If the hypotheses are supported, the findings from this research will add clarification to Selman's model of social cognition through demonstrating adolescents' increased competence with age in knowing another's thoughts. At the same time, Sullivan's theory can be further illuminated, particularly with regard to the isophilic to heterophilic shift during early adolescence. Finally, the rudiments of a direct theoretical link between the two models may be established.

In an applied sense, this investigation will be valuable to educators, youth service workers, and even to those concerned with the juvenile justice system. Professionals who interact with adolescents are certainly aware of the salience of the teenage friendship system, although they may lack the specific skills and information to use their knowledge optimally. Building on this line of research, more effective interventions into troubled peer relationships may be planned. Similarly, educational strategies may be devised that more closely follow the affective development of the students. Finally, a variety of social policy issues might be more properly addressed using results like those anticipated from this study. In short, any situation involving adolescents in groups is better understood and dealt with once the interpersonal dynamics typical of such settings have been outlined. It is hoped that the present investigation will be valuable in this regard.

References

- Berndt, T.J., & Hawkins, J.A. (1984). Friendships as social supports for children during school transitions. Paper presented at the annual meeting of the American Psychological Association, Toronto, Canada.
- Bronfenbrenner, U. (1970). <u>Two worlds of childhood: U.S. and USSR</u>. New York: Russell Sage Foundation.
- Bukowski, W.M., & Newcomb, A.F. (1983). The association between peer experiences and identity formation in early adolescence. <u>Journal of Early</u>
 Adolescence, 3, 265-274.
- Byrne, D.F. (1974). The development of role taking in adolescence.

 Dissertation Abstract, 34, No. 11, 5647B.
- Crockett, L., Losoff, M., & Peterson, A.C. (1984). Perceptions of the peer group and friendship in early adolescence. <u>Journal of Early Adolescence</u>, <u>4</u>, 155-181.
- Davidson, B., Balswick, J.O., & Halverson, C.F. (1980). Factor analysis of self-disclosure for adolescents. Adolescence, 15(60), 947-957.
- Diaz, R.M., & Berndt, T.J. (1982). Children's knowledge of best friend: Fact or fancy? Developmental Psychology, 18(6), 787-794.
- Dornbusch, S.M., Carlsmith, J.M., Gross, R.T., Martin, J.A., Jennings, D., Rosenberg, A., & Duke, P. (1981). Sexual development, age, and dating: A comparison of biological and social influences upon one set of behaviors. Child Development, 52(1), 179-185.
- Douvan, E., & Adelson, J. (1966). The adolescent experience. New York: John Wiley.
- Dunphy, D.C. (1963). The social structure of urban adolescent peer groups.

 Sociometry, 26, 230-246.

- Elkind, D. (1967). Egocentrism in adolescence. Child Development, 38, 1026-1034.
- Graves, W.H., & Manners, P. (1984). Unpublished microprocessor program.
- Gurucharri, C., & Selman, R.L. (1982). The development of interpersonal understanding during childhood, preadolescence, and adolescence: A longitudinal follow-up study. Child Development, 53(4), 924-927.
- Honess, T. (1980). Self-reference in children's descriptions of peers: Egocentricity or collaboration? Child Development, 51(2), 476-480.
- Hunter, F.T., & Youniss, J. (1982). Changes in functions of three relations during adolescence. Developmental Psychology, 18(6), 806-811.
- Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialization. In D.A. Goslin (ed.) <u>Handbook of Socialization</u>
 Theory and Research. Chicago: Rand McNally & Co.
- Kon, J.S., & Losenkov, V.A. (1978). Friendship in adolescence: Values and behavior. Journal of Marriage and the Family, 40(1), 143-155.
- Kurdek, L.A., & Krile, D. (1982). A developmental analysis of the relation between peer acceptance and both interpersonal understanding and perceived social self-competence. Child Development, 53(6), 1485-1491.
- Mark, E.W., & Alper, T.G. (1980). Sex differences in intimacy motivation.

 Psychology of Women Quarterly, 5, 164-169.
- Mead, G.H. (1934). Mind, self, and society. Chicago: University of Chicago Press.
- Mettetal, G.W. (1983). The conversations of female friends at three ages: The importance of fantasy, gossip, and self-disclosure. <u>Dissertation Abstracts</u>
 <u>International</u>, 43(9-B), 3076-3077.

- Montmayor, R. (1982). The relationship between parent-adolescent conflict and the amount of time adolescents spend alone and with parents and peers.

 Child Development, 53(6), 1512-1519.
- Muuss, R.E. (1982). Theories of adolescence. New York: Random House.
- O'Donnell, W.J. (1979). Affectional patterns of adolescents. Adolescence, 14(56), 681-686.
- Piaget, J. (1932). The moral judgment of the child. London: Kegan Paul.
- Rands, M., & Levinger, G. (1979). Implicit theories of relationship: An intergenerational study. <u>Journal of Personality and Social Psychology</u>, <u>37</u>(5), 645-661.
- Rivenbark, W.H. (1971). Self-disclosure patterns among adolescents. Psychological Reports, 28(1), 35-42.
- Sebald, H., & White, B. (1980). Teenagers' divided reference groups: Uneven alignment with parents and peers. Adolescence, 15(60), 979-984.
- Selman, R.L. (1971). Taking another's perspective: Role-taking development in early childhood. Child Development, 42, 1721-1734.
- Selman, R.L. (1980). The growth of interpersonal understanding:

 Developmental and clinical analyses. New York: Academic Press.
- Selman, R.L., & Byrne, D.F. (1974). A structural-developmental analysis of levels of role taking in middle childhood. Child Development, 45, 803-806.
- Sharabany, R., Gershoni, R., & Hofman, J.E. (1981). Girlfriend, boyfriend: Age and sex differences in intimate friendships. <u>Developmental Psychology</u>, 17(6), 800-808.
- Spurgeon, P., Hicks, C., & Terry, R. (1983). A preliminary investigation into sex differences in reported friendship determinants amongst a group of early adolescents. British Journal of Social Psychology, 22(1), 63-64.

- Sullivan, H.S. (1953). The interpersonal theory of psychiatry. New York: W.W. Norton and Company, Inc.
- Wright, P.H., & Keple, T.W. (1981). Friends and parents of a sample of high school juniors: An exploratory study of relationship intensity and interpersonal rewards. <u>Journal of Marriage and the Family</u>, <u>43</u>(3), 559-570.
- Youniss, J. (1982). Friendship in moral development. Momentum, 13(2), 30-33.

APPENDIX B

Sociogram

Friendship Survey

Your name
Grade in school
Circle one: Male Female
For the following questions, please list <u>only</u> people who are in your grade at this school. Be sure to write the first <u>and</u> last names of everyone you list.
Name the three boys you feel the closest to.
Boy 1.
How long have you known each other?
How long have you been close friends?
Boy 2
How long have you known each other?
How long have you been close friends?
Boy 3.
How long have you known each other?
How long have you been close friends?
Name the three girls you feel the closest to.
Girl 1.
How long have you known each other?
How long have you been close friends?
Girl 2.
How long have you known each other?
How long have you been close friends?
Girl 3.
How long have you known each other?
How long have you been close friends?

APPENDIX C

Self Report

On the next few pages are some questions about things common to people in your age group. Please answer them, as honestly as possible. You may decline to answer any questions you choose. You will be asked to make some choices from a list. Please pick your choice or choices of those that are on the list even if your most favorite is not listed.

		wo (2	2) things on the following list you most like to do with other
peo	ple.	_	
			Go to movies
			Talk
			Go to video arcade
			Exercise (skating, horseback riding, bowling, swimming,
			etc.)
			Attend a party
		F.	Go shopping
2.	Pick one (1) kir	nd of party you would most like to attend.
	- 10.1 0.10 (Dancing
			Birthday
			Costume
			Small
			Surprise
			Dinner
		1.	Diffici
3.	What kind		arty would you most like to give? Pick one.
		A.	Dancing
			Birthday
			Costume
			Small
		E.	Surprise
		F.	Dinner
4.			of money to spend, where would you most like to go on a
	date? Pic		
			Fancy restaurant
			Movies
			Concert
		D.	An exotic place
5.	If you had	verv	little money to spend, where would you most like to go on a
	date? Pic		
			Fast food restaurant
			Home cooked meal
			Picnic
			Go to the park for a walk
			Don't go on the date
			Don't go on the date
6.			e, how much time do you spend with your friends, outside of
	school hou		ist having fun?
			Less than I hr/day
		B.	1-2 hrs/day
			2-3 hrs/day
			More than 3 hrs/day

7.	On the averag	e weekend, how much time do you spend with your friends, ?
		Less than 1 hr/day
	В.	1-2 hrs/day
	c.	2-3 hrs/day
	D.	3-5 hrs/day
	E.	
		•
8.	How many peop	ple are in your crowd, including yourself?
	Α.	
	в.	2-3
	c.	4-6
		7-15
	E.	
9.	How many clos	e friends do you have right now?
	Α.	0
	В.	1-2
	C.	3-5
		6-10
	E.	11 or more
10.	Put a check teenagers?	by each kind of gathering where you like to be with other
	Α.	Parties
		Sports events
		Church activities
	D.	
	E.	
11.	Pick the two (2	2) things you most like to do just by yourself.
	A.	Listen to music
	A. B.	Listen to music Read
	A. B. C.	Listen to music Read Watch TV
	A. B. C. D.	Listen to music Read Watch TV Sleep
	A. B. C. D. E.	Listen to music Read Watch TV Sleep Think
	A. B. C. D. E. F.	Listen to music Read Watch TV Sleep Think Do homework
	A. B. C. D. E. F. G.	Listen to music Read Watch TV Sleep Think Do homework Write
	A. B. C. D. F. G.	Listen to music Read Watch TV Sleep Think Do homework Write Do something artistic
	A. B. C. D. F. G. H.	Listen to music Read Watch TV Sleep Think Do homework Write Do something artistic Go shopping
	A. B. C. D. F. G. H. J.	Listen to music Read Watch TV Sleep Think Do homework Write Do something artistic Go shopping Play video games
	A. B. C. D. E. F. G. H. J. K.	Listen to music Read Watch TV Sleep Think Do homework Write Do something artistic Go shopping Play video games Clean your room
	A. B. C. D. F. G. H. J.	Listen to music Read Watch TV Sleep Think Do homework Write Do something artistic Go shopping Play video games Clean your room

12.		ntire day to spend alone, doing anything you wanted, what the time? Pick two (2).
		Listen to music
		Read
		Watch TV
		Sleep
		Think
		Do homework
		Write
		Do something artistic
		Go shopping
		Play video games
		Clean your room
	L.	Cook
13.		orite subject in school? Pick one (1).
		Language Arts/English
		Social Studies/History
		Mathematics
		Science
	E.	Gym/Physical Ed. Drama/Art/Music
	F.	Drama/Art/Music
		Typing/Home Ec./Shop
		None
	I.	All
14.	What do you pla	n to do after finishing high school? Pick one (1).
		Go to college
		Get a job
	<u>c</u>	Travel
		Get married
		Join the military
		John the mintary
15.	What is the mos	t important thing about going to school? Pick one (1).
		Being with friends
		Learning job skills
		Pleasing parents & relatives
		Self-improvement
		Getting more knowledge
	On the next th	and successions imposing you are in charge of representating
		ree questions, imagine you are in charge of reorganizing thanges would you make? Check one choice on each line.
16	A Tight	ter security B. no change C. fewer rules
10.	A. right	er security b. no change C. rewer rules
***	******	***************************************
17.	A. More	electives B. no change C. more basics
***	**********	***************************************
18.	A. More	free time B. no change C. more classes

19.	If you had the which would y	ne choice of being a little smarter or a little more popular,
		Smarter
	В.	More popular
20.	it is ten years of importance (2) for next m be least importance	
		A satisfying career
	B.	Earning a lot more money
		Having children
	D.	Being active in politics
	E.	Being married
	F.	Doing volunteer work in the community
	G.	Being married Doing volunteer work in the community Travelling to other countries
	Н.	Being well-known
	I.	Spending time with friends
	J.	Being in love
21.	How private a	person are you? Check one (1).
- - -		There are a lot of things I don't tell anyone, even a close friend.
	B.	There are some things I won't tell a close friend.
	c.	There are some things I won't tell an acquaintance
	D.	I am a fairly open person, with few secrets
22.	areas of life. them with ot	sen have problems or concerns in one or more of the following Some people are private about these things—they don't discuss hers. If you had problems like these, which ones would you to yourself? Put check marks by all of these that you would to
	A.	Social life
		Money problems
	c.	Family matters
	D.	School problems
	E.	Personal hygiene/health
		Feelings towards others
		Sex
		Religion
	I.	

23. You and your parents have always been very close, and have worked together to make your family strong spiritually and economically. You are a senior now, and you're trying to make the right decision about college. You have been offered a full scholarship at an excellent university 500 miles away. Your parents, however, are worried about your being so far from home. Besides, they say they really need your help with the family business. There is a small community college in town that you could attend while living at home. Your parents want you to turn down the scholarship and stay with them while you attend the community college.

A. I would go the the university because I would be getting a much better education, and it would save my family the tuition money. I can stay in close touch with my family by

telephone, writing and visiting.

B. I would go to the university. I love my parents, but I also need my independence. It will be better for all of us if I spend some time away from home.

- C. I would stay in my community and work in the family business to help out. I would enroll in the community college and get the best education they have to offer.
- 24. You have always been the best swimmer in your school. You love to swim, feeling as natural in water as you do on dry land. Two years ago, you began to swim in races, and found that you really enjoyed the pressure of competition and the thrill of winning.

Your coach and your parents have been very supportive, encouraging you and helping you right along. Lately, though, you are not as close to your friends as you once were. It seems that you are spending all your time either training or competing, at the expense of your social life.

You realize it's time to make a choice. You know you have a chance at the Olympic team, if you concentrate on swimming for the next year. However, you're afraid that by then you will have completely lost touch with your friends, and you wonder if it's worth it.

How would you handle this situation?

How would you handle this situation?

- A. I would concentrate on my potential as a swimmer, and try to make the Olympic team. My real friends will support me in this decision.
- B. I would cut back my travel and competition, but not eliminate it because I enjoy it too much. I would give up my hopes for the Olympic team in order to spend some time with my friends.
- C. I would swim for recreation only in order to make time for developing the kind of social life someone my age wants.

25. Your cousin Pat has been dating Chris for over a year. They are both 16. One day after school, they swear you to secrecy, then tell you that they are running away together that night, and plan to be married within a few days. They don't ask you for help or advice - they just want to share their secret with someone they trust.

You have grown up with both of them and the parents of all of you are very close. Although you don't want to cause trouble for Pat or Chris, you think they are making a mistake by running away, and you aren't sure whether keeping their secret is the best thing to do.

How would you handle this situation? A. I would tell Pat's and Chris' parents of their plan because they are too young to get married and their parents have a right to know. I hope they will forgive me later when they realize what a mistake I saved them from. B. I would try to talk them out of their plan. I would advise them to at least delay leaving until they have a chance to really think it over. I would tell them to discuss it with their parents, minister or school counselor. C. I think this is their business, and I have no right to interfere in it. I won't try to tell them what to do, nor will I break my vow of secrecy. D. I would figure out a way to make sure they get caught without actually telling on them. I may call and wake their parents with a wrong number as they are getting ready to sneak out.

APPENDIX D

Other Report

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On the next few pages are some questions about things common to people in your age group. Please answer them as honestly as possible, about your friend whose name is below. You may decline to answer any questions you choose. You will be asked to make some choices from a list. Please pick the choice or choices you think your friend would pick of those that are on the list even if his

or her most favorite is not listed.

Name of Friend

1.		(2) things on the following list your friend most likes to do
	with other peop	
		Go to movies
		Talk
		Go to video arcade
	D.	Exercise (skating, horseback riding, bowling, swimming, etc.)
	E.	Attend a party
		Go shopping
2.	Pick one (1) kir	nd of party your friend would most like to attend.
	Α.	Dancing
	R	Birthday
		Costume
		Small
		Surprise
		Dinner
3.	What kind of pa	arty would your friend most like to give? Pick one.
	A.	Dancing
	В.	Birthday
	c.	Costume
	D.	Small
	E.	Surprise
		Dinner
		
4.	If your friend	had <u>lots</u> of money to spend, where would he/she most like to
	go on a date?	Pick one.
	A.	Fancy restaurant
	В.	Movies
	c.	Concert
	D.	An exotic place
5.	If your friend l	had very <u>little</u> money to spend, where would he/she most like
	to go on a date	
		Fast food restaurant
	В.	Home cooked meal
		Picnic
		Go to the park for a walk
	E.	Don't go on the date
_		
6.	On the average	e, how much time does this person spend with his/her friends
	(including you),	outside of school hours, just having fun?
		Less than 1 hr/day
		1-2 hrs/day
		2-3 hrs/day
	D.	More than 3 hrs/day

7.	friends (inc	ludi A. B. C. D.	e weekend, how much time does this person spend with his/her ing you), just having fun? Less than 1 hr/day 1-2 hrs/day 2-3 hrs/day 3-5 hrs/day More than 5 hrs/day
8.	How many	peoi	ple are in your friend's crowd, including himself/herself?
•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Α.	
		В.	2-3
		C.	4-6
			7-15
		E.	16 or more
9.	How many	clos	e friends does this person have right now?
	_	A.	-
		B.	1-2
		C.	3-5
			6-10
		E.	11 or more
10.	Put a chec	k b	y each kind of gathering where your friend likes to be with
	other teena	iger:	s?
			Parties
		B.	Sports events
		C.	Church activities
		D.	Club meetings
		E.	Concerts
11.	Pick the tw	ro (2	2) things your friend most likes to do just by himself/herself?
			Listen to music
		B.	Read
		C.	Watch TV
		D.	Sleep
			Think
		F.	Do homework
			Write
		H.	
			Go shopping
			Play video games
			Clean your room
		L.	Cook

12.	If your friend had an entire day to spend alone, doing anything he/she wanted, what would he/she do with the time? Pick two (2). A. Listen to music B. Read C. Watch TV D. Sleep E. Think F. Do homework G. Write H. Do something artistic I. Go shopping J. Play video games K. Clean his/her room L. Cook
13.	What is your friend's favorite subject in school? Pick one (1).
1.7.	A. Language Arts/English
	B. Social Studies/History
	C. Mathematics
	D. Science
	E. Gym/Physical Ed.
	F. Drama/Art/Music
	G. Typing/Home Ec./Shop
	H. None I. All
	1. All
14.	What does your friend plan to do after finishing high school? Pick one (1).
	A. Go to college
	B. Get a job
	C. Travel
	D. Get married
	E. Join the military
15.	What does your friend think is the most important thing about going to school? Pick one (1). A. Being with friends B. Learning job skills
	C. Pleasing parents & relatives
	D. Self-improvement
	E. Getting more knowledge
	On the next three questions, imagine your friend is in charge of reorganizing schools. What changes would he/she make? Check one choice on each line.
16.	A. Tighter security B. no change C. fewer rules
***	**************************************
17	8 More electives P no change C
1/.	A. More electives B. no change C. more basics
***	*************************************
18.	A. More free time B. no change C. more classes

19.	If your frien	Id had the choice of being a little smarter or a little more the would he/she choose?
	• • •	. Smarter
		· Word popular
20.	be your frien through 10 of then. Use a forth, and pu B D E H G H	things about being an adult we want you to rank pretending to d. Imagine that it is ten years from now. Put the numbers 1 in these in the order of importance they will have for your friend (1) for the most important, (2) for next most important, and so to a (10) by the one that will be least important. A satisfying career Earning a lot more money Having children Being active in politics Being married Doing volunteer work in the community Travelling to other countries Being well-known Spending time with friends
		Being in love
21.	How private	a person is your friend? Check one (1).
	A	. There are a lot of things he/she doesn't tell anyone, even a close friend.
	В	. There are some things he/she won't tell a close friend.
	c	 There are some things he/she won't tell a close friend. There are some things he/she won't tell an acquaintance
		. My friend is a fairly open person, with few secrets
		•
22.	areas of life. them with of he/she prefer	ten have problems or concerns in one or more of the following Some people are private about these things—they don't discuss thers. If your friend had problems like these, which ones would r to keep private? Put check marks by all of these that your not talk about.
		. Social life
		. Money problems
		. Family matters
		• School problems
		Personal hygiene/health
	F	Feelings towards others
		Sex
		l. Religion
		Problems with the law
		1 (ODICINO WILL BIC 10W

For the following 3 stories, put yourself in your friend's place. As you read each one, imagine that the "you" in the story is your friend. Answer the questions as he/she would.

23. You and your parents have always been very close, and have worked together to make your family strong spiritually and economically. You are a senior now, and you're trying to make the right decision about college. You have been offered a full scholarship at an excellent university 500 miles away. Your parents, however, are worried about your being so far from home. Besides, they say they really need your help with the family business. There is a small community college in town that you could attend while living at home. Your parents want you to turn down the scholarship and stay with them while you attend the community college.

A. I would go the the university because I would be getting a much better education, and it would save my family the tuition money. I can stay in close touch with my family by telephone, writing and visiting.

B. I would go to the university. I love my parents, but I also need my independence. It will be better for all of us if I spend some time away from hom.

C. I would stay in my community and work in the family business to help out. I would enroll in the community college and get the best education they have to offer.

24. You have always been the best swimmer in your school. You love to swim, feeling as natural in water as you do on dry land. Two years ago, you began to swim in races, and found that you really enjoyed the pressure of competition and the thrill of winning.

Your coach and your parents have been very supportive, encouraging you and helping you right along. Lately, though, you are not as close to your friends as you once were. It seems that you are spending all your time either training or competing, at the expense of your social life.

You realize it's time to make a choice. You know you have a chance at the Olympic team if you concentrate on swimming for the next year. However, you're afraid that by then you will have completely lost touch with your friends, and you wonder if it's worth it.

How would your friend handle this situation?

with my friends.

A. I would concentrate on my potential as a swimmer, and try to make the Olympic team. My real friends will support me in this decision.
B. I would cut back my travel and competition, but not eliminate it because I enjoy it too much. I would give up my hopes for the Olympic team in order to spend some time

C. I would swim for recreation only in order to make time for developing the kind of social life someone my age wants.

25. Your cousin Pat has been dating Chris for over a year. They are both 16. One day after school, they swear you to secrecy, then tell you that they are running away together that night, and plan to be married within a few days. They don't ask you for help or advice - they just want to share their secret with someone they trust.

You have grown up with both of them and the parents of all of you are very close. Although you don't want to cause trouble for Pat or Chris, you think they are making a mistake by running away, and you aren't sure whether keeping their secret is the best thing to do.

How would your friend handle this situation? A. I would tell Pat's and Chris' parents of their plan because they are too young to get married and their parents have a right to know. I hope they will forgive me later when they realize what a mistake I saved them from. B. I would try to talk them out of their plan. I would advise them to at least delay leaving until they have a chance to really think it over. I would tell them to discuss it with their parents, minister or school counselor. C. I think this is their business, and I have no right to interfere in it. I won't try to tell them what to do, nor will I break my vow of secrecy. D. I would figure out a way to make sure they get caught without actually telling on them. I may call and wake their parents with a wrong number as they are getting ready to sneak out.

APPENDIX E

Design

Design

		Rating of target by female friend	Rating of target by male friend
7th Grade	female target		
9th Grade	female target		
	male target		
11th Grade	female target		
	male target		

³ factor split-plot design.

APPENDIX F

Cross Tabulation Tables

TABLE OF A1 BY TARSEX

A1	SCCIAL P	PEF. 1	TA	ARSEX	TARGET	SEX
FREQUENCY COL PCT	•	l M	ı	TCTAL		
A	30 38.96	45 51•72	•	75		
Е	28 36•36	26 29•89	•	54		
c	2 2•60	7 8•05	•	Ş		
D	12 15.58	6 • 90	•	1 &		
E	4 5•19	3 3.45	•	7		
F	1 1.30	0.00		1		
TOTAL	77	٤٦	~~	164		

TABLE OF A2 BY TARSEX

A2	SOCIAL PR	REF. 2	TA	RSEX	TARGET	SEX
FREGUENCY COL PCT	<u> </u>	W	ı	TCTAL		
	3	4	1	•		
A	0.00	1 1•20	1	1		
8	7 9•46	9 10.84	•	16		
C	1 1•35	11 13•25	•	12		
D	-	42 50.60	-	65		
E	21 28•38	16 19.28	· •	37		
F		4 4 82	•	25		
G	1 1.35	•	•	1		
TCTAL	74	83	-+	157		

TABLE CF AS BY TARSEX

A3	ATTEND P	ARTY TA	RSEX	TARGET SEX
FREQUENCY COL PCT		W	TCTAL	
A		31 35.63	50	
В		17 19•54		
c		18 20.69	•	
D	4 5.19	3 3.45	•	
Ε	•	10 11•49	-	
F	4 5•19	8 9•20	-	
TOTAL	77	87	164	

TABLE CF A4 BY TARSEX

A 4	GIVE PARTY TARSE		EX TARGET SEX
FREQUENCY COL PCT	<u>.</u>	[M	TCTAL
	1	0 •	•
A	29 38.16	24 27.59	· 53
В	9 11.84	18 20.69	
C		12 13.79	27
D	5.26	7 8.05	11
E	•	21 24 • 14	3 E
F	2.63	5 5.75	7

TOTAL 76 E7 163

TABLE OF AS BY TARSEX

A 5	EXFENSIVE DATE		TARSEX	TARGET	SEX
FREQUENCY COL PCT	•	ļ v	TCT	AL	
A	24 31•17	25 28•74	1	4 Ç	
E	8 10.39	14 16•09	 	22	
C	31 40.26	38 43.68	 -+	€\$	
D	14	10 11•49	1	24	
TOTAL	77	27	1	€ 4	

TABLE CF 46 BY TARSEX

A6	CHEAP DATE TARSE		TARGET	SEX
FREQUENCY COL PCT		, ,	TCTAL	
	0 1	1	•	
A	10	17 19.77	27	
В	11 14.25	12	23	
С	26 33.77	29 33.72	55	
D	20 25.97	17 15.77	37	
E	10	11 12.79	21	
TOTAL	77	86	163	

TABLE CF A7 BY TARSEX

A7	TIME W/FRIENCS_WEEKDAYS	TARSEX	TARGET SEX
EDECHENC	~ 1		

FREQUENCY COL FCT	Ī	1 M	TCTAL	
	c •	1 .	•	
A	18 23.38	17 19•77	+] 35 !	
В	20 25.97	30 34.88	† 50	
C	17 22.08	19	† 36 	
D	22 28.57	20.26	42	
TOTAL	77	86	163	

TABLE CF AS BY TARSEX

48	TIME W/FRIENCS_MEEKENCS				TARGET SEX
FREGUENCY COL PCT] W	TCTAL		
A	8	10	12		
8	8 10.39	12 13.79	20 		
C	9	14	23		
D	20 25.97	12 13.79	32		
E	32 41.56	39 44.83	71		
TCT AL	77	87	164		

100

TABLE OF AS BY TARSEX

A 9	CROWE SI	ZE TARS	EX TARG	ET SEX
FREQUENCY COL PCT	•	[M	TCTAL	
A	1 1.30	1 1.15	2	
В	12.99	29	•	
C	25 32.47	3C 34.48	† 55 	
D	3 <i>2</i> 41.56	19	<u>-</u>	
E	S 11.69	•	<u>-</u>	
TOTAL	77	£7	+ 164	

TABLE CF A10 EY TARSEX

A10	CLCSE FF	TARGET	SEX		
FREGUENCY COL PCT	•	W	TCTAL		
A	2 2.60	•	3		
8	13 16•88	20 22.99	33		
C	34 44•16	40	74		
D	13	15 17.24	2e		
E	15	11 12.64			
TOTAL	77	87	+ 164		

TABLE OF A11 BY TARSEX

A1 1	SOLITARY	PREF. #1	TARSEX	TARGET	SEX
FREQUENCY		[M	TCTAL		
A	54.55	51 58•62			
8	16	5 5•75	21		
c	7 9.09	17 19•54			
C	•	4 4 60			
E	2	0.00	2		
F	2	•	•		
G	1	1.15	•		
+	2 2 60	1 3	€		
I.	2 • 60	1	3 		
J	1 1 1-30		2		
K	0.00	•	1 		
TOT AL	77	87	164		

TABLE OF A12 BY TARSEX, Continued

A12	SOLITARY	PREF. #2	TARSEX	TARGET SEX
FREQUENCY COL PCT	-	M	TCTAL	
	4	14	•	
Е	5 6.85	3 4•11	. ε	
C	16 21•92	20 27.40	. 3€	
C	5.48	5.48	. €	
E	5.48	3	7	
F	7 9.59	3	10	
TOTAL	73	73	146	

TABLE OF A12 BY TARSEX

A12	SOLITARY	PREF. #2	TARSEX	TARGET SEX
FREQUENCY COL PCT	2	lm l	TCTAL	
G	5.48	0.00	4	
н	1 1.37	13	14	
I	9.59	3	1 C	·
J	8 10.96	16 21.92	24	
K	13	I I	17	
L	5.48	4 5.48	ε	
TOTAL	73	73	146	

TABLE OF A13 BY TARSEX

A13	INDIV. AC	TIV•#1	TARSEX	TARGET	SEX
FREQUENCY COL PCT			TCTAL		
	0	1	•		
A	46 59•74	42 48•84	•		
E	7 9.09	5 5.81	•		
C	9	-	-		
C	4 5.19	4 • 65	•		
E	1 1.30	0.03		•	
F	3 3.90	•	ł		
G	0.00	1	1		
F	1 1.30		Ţ.		
I	6 7.79	3.49	-		
J	0.00	1 1.16			
TOTAL	77	86	163		

TABLE CF A14 BY TARSEX, Continued

414	INDIV.ACTIV.#2		TARSEX		TARGET	SEX
FREQUENCY COL PCT		[M	1	TOTAL		•
	c •	4	i I	•		
В	4 5•19	1 1.20	1	5		
c	12 15.58	19 22•89	•	31		
D	3.90	5 ۥ02	•	8		
E	4 5•19	2 2•41	•	6		
F	4 5.19	1 1.20	1	5		
TOTAL	77	83	- 1	160		

TABLE CF 414 EY TARSEX

A14	INDIV.AC	TIV.#2	TARSEX		TARGET	SEX
FREQUENCY COL PCT	7	v	l	TCTAL		
G	1 1.30	1 1.20	1	2		
н	9 11.69	14 1€•€7	•	23		
I	15 19•48	7 E•43	1	22		
J	10 12.99	27 32•53	•	37		
K	7 9.09	3 3.61		10		
L	8 10.39	7	1	11		
TOTAL	77	83	- 7	160		

TABLE OF A15 BY TARSEX

A15	FAVORITE	SUBJECT	TARSEX	TARGET SEX
FREQUENCY COL FCT	•	M	TCTAL	
	1	0 [•	
A	3 3∙95	1 1•15		
E	3 3•95	4 4•60		
С	· .	28 32•18	54	
C	1.32	7 8•05	ε	
E	25 32.89	31 35•63		
F	4	6 6•90	10	
G	3	•		
+	4 5•26	•	1 c	
I		4 4 • 60	11	
TOT AL	76	87	163	

TABLE OF A16 BY TARSEX

A16	AFTER He	S. TARSE	X TARGET	SEX
FREQUENCY COL PCT	-	[N]	TCTAL	
	2	0	•	
A	63 84.00	55 63.22	118	
Е	4 5•33	11 12.64	15	
C	2 2.67	1 1.15	3	
D	1 5.33	12 13.79	16	
E	2 2 . 67	8 9•20	10	
TETAL	75	87	162	

TABLE CF A17 EY TARSEX

A17	SCHOOL IMPORTANCE		TARSEX	TARGET SEX
FREQUENCY COL PCT	-	M [TCTAL	
	1 1	0 1	•	
A	9 11.84	9 1C.34	18	
В	12	· · · · · · · · · · · · · · · · · · ·	24	
c	5 ۥ 58	4	9	
D	9	8 9.20	17	
E	41 52.95	54 €2.07	95	
TOTAL	76	87	163	

TABLE OF A18 BY TARSEX

A18	RECRG. SE	CUR. TAF	RSEX	TARGET	SEX
FREQUENCY COL FCT	Ī	M [TCTAL		٠
	2	1	•		
A	21	21 24.42	42		
В	3C 40.00	- :	57		
c	24 32.00	38 44.19	€2		
TOTAL	* 75	86	161		

TABLE CF #19 EY TARSEX

A19	REORG. C	URR I CULUM	TARSEX	TARGET SEX
FREQUENCY COL PCT	•	M	TCTAL	
	2	1	•	
A	26 34.67	40	66	
В	25	22	47	
С	24 32.00	24 27.51	48	
TOTAL	75	86	161	

TABLE OF A2C BY TARSEX

A20	RECRE. T	IPE TAR	SEX TAI	RGET SEX
FREQUENCY CEL PCT	•	į m	TCTAL	
	2	1	•	•
A	41	•	95	
E	20 26.67	21	41	
C	14	•	21	
TCT AL	75	86	161	

TABLE CF A21 BY TARSEX

A21	SMART/POP	ULAR T	ARSEX	TARGET	SEX
FREQUENCY	<u>.</u>	M	l TGTAL		
	15 +	m 	1 101AL		
	1 2 1	3			
	· !	•	1		
A	48	56	1 104		
	64.00	66.67			
8	27	28	55		
	1 36.00	33.33	1		
TOT AL	+ 75	24	·+ 159		
8	64.00 27 36.00	66.67 28 33.33	 		

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TABLE CF #22 EY TAFSEX

A22	PRIVACY	TARSEX	TARGET SEX
FREQUENCY COL PCT	•	M	TETAL
	0	1	•
Ą	18	18 20.93	36
В	15 19.48	16	31
С	7.79	12	18
D	38	40 46.51	78
TOTAL	77	86	163

TABLE OF A23 BY TARSEX

A23	UNIVERSI	TY VALUE	TAFSEX	TARGET SEX
FREQUENCY]			
CGL FCT	F	M	TCTAL	
	0	1	•	
A	37	:	79	
	48.05	48.84		
е	31	•	53	
	40.26	25.58 		
c	9	22	31	
	11.69	25.58 		
TOTAL	77	86	163	

TABLE OF #24 EY TARSEX

A24	SPORT VAL	LUE TARS	EX TARGE	T SEX
FREQUENCY COL PCT	•	! w	TCTAL	
	c	3	•	
A	j 51 €€•23	48 57.14	99	
В	29 25.97	24 28•57	44	
c	6 7.79	12 14•29		
TOTAL	77	84	161	

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FREQUENCY COUNTS FOR ITEMS. BY GRADE & SEX
GRADE=7

TABLE OF A25 BY TARSEX

A25	FRIENDSH	IF VALUE	TAFSEX	TARGET SEX
FREQUENCY COL FCT	•	[M	TETAL	
	0	3	•	
A	32 41•56	31 36.90	63 	
6	28 36•36	29 34 • 52	57	
C	13 16.88		24	
C	5.19		17	
TOT AL	77	84	161	

TABLE CF J6 BY TARSEX

J 6	CAREER	TARSEX	TAFGET SEX
FREQUENCY COL PCT	•	M 1	TCTAL
•	3	5	•
1	42 56.76		78
2	7 5.46	•	20
3	1 1.35	8 9•76	9
4	6 6.11	•	
5	•	7 E . 54	11
6	•	6 7•32	13
7	1 1.35	4 4 4 4) 5
8	1 1.35	•	3
9	3 4.05	1 1.22	4 4
10	2.70	2 2 2 2	+ 4
TOTAL	74	82	+ 156

TABLE CF J7 BY TARSEX

J7	EARN MONEY	TARSEX	TARGET SEX
----	------------	--------	------------

FREQUENCY COL PCT		W	TCTAL
•	3	5	•
1		19 23•17	! 29 !
2			
3			1 16
4	7 9•46	_	13
5	12 16•22		21
6	7 9•46	_	12
7	4 i 5.41		; ; ;
8	3 4•05		• €
9	2 2.70		7
10	3		+
TCT AL	74	82	156

TABLE CF J8 BY TARSEX

3 L	CHILDREN	TARSEX	TARGET SEX
FREQUENCY COL PCT		[M	TCTAL
•	5	6	•
1	0.0c	2 2.47	2
2	3 4.17	4 4.94	7
3	11 15•28	12.35	2 1
4	9	17 20.99	2 6
5		11 13.58	1€
6	8 11•11		17
7	9	7 8.64	16
8	6 8•33		16
9	6 8•33	3.70	-
10	15 20.83	8 9•88	23
TOTAL	72	81	153

TABLE CF JG BY TARSEX

J 9	PCLITICS	TARSEX	TARGET SEX
FREGUENCY COL FCT	 F	[TCTAL
•	4	6	•
1	-	0 C.00	2
2	5.48	2 2 47	€
3	-	2 2 2 47	
4	4 4 5•48	6 7.41	10
5	•	8 9•88	
6	-	11-11	
	8 10.96	13.58	
	10.96	-	13
	9		20
10	23 31.51	27	50 50
TCT AL	73	81	154

TABLE OF J10 BY TARSEX

J10	MARFIAGE	TARSEX	TARGET	SEX
FREGUENCY	F	[H	TCTAL	
•	3	•	•	
1	3 4.05	9 10.98	12	
2	19 25.68	13 15•85	32	
3	8•11 8•11	18 21.95	24	
4	5.41	12	1€	
5	12 16.22	•	20	
6	6 8.11	-	12	
7	6 e.11		10	
8	9	1 2	11	
	•	7 8.54	15	
10	1 1.35		4	
TCT AL	74	82	156	

TABLE CF J11 EY TARSEX

J11	VCLUNTEE	R TARSEX	TARGET	SEX
FREGUENCY COL PCT	7.	[w j	TCTAL	
•	5	6	•	
1	2 2•78	3 3.70	5	
2	10 13.89	4	14	
3	3 4•17	5 6.17	ė	
4	10 13.89	6 7•41		
5	6 8.33	5	11	
6	•	7 8.64	13	
7	6 8.33	14 17•28	20	
8	9	11	20	
9	15 20.83	17	32	
10	5 6.94	9	14	
TCT AL	† 72	++ 81	153	

TABLE CF J12 BY TARSEX

J12	TRAVEL	TAFSEX	TARGET SEX
FREGUENCY COL PCT	1	M 1	TCTAL
•	3	5	•
1	5.41	3 3.66	7
2	5 6.76	2	7
3	9	•	1 €
4	<u>.</u>	6 7•32	11
5	•	7 8.54	13
6	3 4.05		10
7	•	7 8.54	15
8	9	•	28
9	₹	14	25
10	14	11	25
T CT AL	74	82	156

TABLE CF J13 EY TARSEX

J13	FAKE T	AFSEX	TARGET SEX
FREGUENCY COL FCT		M	TCTAL
•	5	6	•
1	1 1.39	2.47] -
2	6 8.33	4.94	1 10
3	•	6 7.41	1 1 C
4	• -	11 13.58	1 16
5	<u>. </u>	9	23
6	9.72	4 .94	11
7	12 16.67	12 14.81	24
8	_	12	1 24
9	•	9 11.11	l 15
10		12	1 17
TOTAL	72	81	153

TABLE CF J14 EY TARSEX

J14	TIME W/F	RIENDS	TARSEX	TARGET	SEX
FREQUENCY COL PCT	F	М	TCTAL		
•	5	4	•		
1	3 4 • 17	4 4 82	•		
2	5 6 •94	5 ۥ02			
3	1C 13.89	5 ۥ02			
4	12.50	7 8•43	•		
5	•	9 10•84	İ		
6	18.06	18	31		
7		13	1 2€		
8] 3	10.84	i		
9	•	10 12.05	17		
10	2 2 • 78	_	5		
TOTAL	72	83	155		

TABLE CF JIS BY TARSEX

J15	LOVE 7	TARSEX	TARGET SEX
FREQUENCY COL PCT	 F	Į M	TGTAL
•	1 4	5	
1	17	12.20	i
2	4 5•48	1 14	1 18
3		13	•
4	1 1C	8 9.76	_
5	7 9 • 59	8.54	İ
6	6 8 • 22	9.76	1 14
7	2 2 . 74	4.88	•
8	9 12.33	9.76	1
9	1 4 5 • 48	•	5
10	4 5•48	•	-
TOTAL	73	- +	-+ 155

TABLE CF AT BY TARSEX

A1	SOCIAL PR	EF. 1	TA	RSEX	TARGET	SEX
FREQUENCY COL PCT	I	м	I	TCTAL		
A	26 36•62	_	•	57		
8	3C 42.25	15 27•27	•	45		
С	1 1 1	3 5•45	•	4		
D	1C 14.08		:	14		
E	4 5.63	2 3.64	-	6		
TOTAL	71	5 5	- +	126		

TABLE CF A2 BY TAPSEX

A2	SECTAL F	REF. 2	TARSEX	TARGET	SEX
FREGUENCY COL PCT	-	{ N	TCTAL		
	3	7	•		
8	8 11•76	5 10•42	•		
C	0	7 14.58	† 7 		
D	8 11.76	12 25.00	•		
E	23 33.82	24 50.00	•		
F	29 42.65	0.00	1 29		
TCTAL	68	48	116		

TABLE CF A3 BY TARSEX

A3	ATTEND P	ARTY TA	RSEX	TARGET SEX
FREQUENCY COL PCT	•	M	TCTAL	
A	39 54.93	26 47.27	1	
В	0.00	4 7•27	4	
C	12 16.90	11 20.00	23	
D	4 5•63	7.27	8	
E	15 21.13	6 10•91	21	
F	1 1 . 4 1	4 7•27] 5]	
TCTAL	71	55	126	•

TABLE CF A4 BY TARSEX

A4	GIVE PART	TARSE	X TARGET	SEX
FREQUENCY COL PCT	•	м	TCTAL	
	2	C	•	
A	•	23 41.82	43	
В	5.80	4 7•27	٤	
C	12	7 12.73	15	
D		10.91	11	
E	Ι.	10	3€	
F	2 .90	5 5•09	7	
TOTAL	65	55	124	

TABLE OF AS BY TARSEX

A5	EXPENSIV	E DATE	TA	RSEX	TARGET	SEX
FREQUENCY COL FCT	<u>.</u>	l M	1	TCTAL		
	1	0	-÷ !	•		
	 •	 	 -+			
A	16	15	İ	31		
	22.86	27.27	 -	•		
e	. 6	12	i	1€		
*	8.57	18.18	 -+			
c	19		•	34		
	27.14 	27.27	 -+			
C	•	15	-	44		
	41.43 +	27.27 	 -+			
TOT AL	70	55	•	125		

TABLE CF A6 BY TARSEX

A 6	CHEAP DAT	TARSEX	TARGET SEX
FREGLENCY COL PCT	· .	M	TCTAL
	0	1	•
A	1 C 14 • 0 E	10 18•52	20
8	1C 14•38	7 12•96	17
c	19 26.76	18	37
D	24 33.80	14 25.93	38
E	e 11•27	5 5•26	13
TOTAL	71	54	125

TABLE OF A7 BY TARSEX

A7	TIPE W/F	FIENCS_WE	EKCAYS	TARSEX	TARGET SEX
FREQUENCY COL PCT	•] #	TCTAL		
	1	2	•		
A		10	-		
6	•	12	<u> </u>		
C	1	17 30.91	32 		
D	12	16 29.09	+ 26 		
T OT AL	70	5 5	125		

TABLE CF A8 BY TARSEX

AS	TIME W/F	RIENDS_WES	TARSEX	TARGET SEX	
FREQUENCY COL PCT	-	 M	TCTAL		
	1	1			
A	€ 8•57	7.41	10		
8	1 C 14.29		16		
C	17.14	8	20		
C	20 28.57	16.67	29		
E	22 31.43	•			
TOT AL	70	54	124		

TABLE CF 49 BY TARSEX

AS	CRCND SI	ZE TARSEX	TARGET	SEX
FREGUENCY COL PCT	•	[w	TCTAL	
	0	2	•	
A	0 0.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	
E	14	11 20.75	25	
C	26 36•62	23	49	
D	25 35.21	13 24.53	36	
E	6 8.45	5 9.43	11	
TOT AL	71	53	124	

TABLE CF #10 EY TARSEX '

A10	CLOSE FR	IENDS 1	IARSE X	TARGET	SEX
FREQUENCY COL PCT		[M	TCTAL		
A	2.82	0.00	2		
В	1 £ 25•35	8 14.55	<u>-</u>		
C	41 57.75	26 47.27	•		
D	ع 11•27	12	4		
E	2.82	9 16.36	•		
TOTAL	71	55	126		

TABLE OF ALL BY TARSEX

A11	SCLI TARY	FREF. #1	TARSEX	TARGET SEX
FRECUENCY	•		TCTAL	
A	•	38 69.09	. 83	
6	15 21•13	4 7•27	19	
C	3 4•23	8 14•55	11	
D		2 3.64	2	
Ε	5 7.94	1 1•82	ε	
F	3 4•23	1 1.82	4	
H	0 00	1 1.82	1	
TOTAL	71	55	126	

TABLE CF A12 BY TARSEX, Continued

A12	SOLITARY	PREF. #2	TARSEX	TARGET SEX
FREQUENCY COL PCT		lm I	TOTAL	
	c •	1 1	.•	
8	2.82		5	
С	15 21.13	26 26 48•15	41	
C	9 12.68	6 11•11	15	
E	13	•	17	·
F	3 4.23	0.00	2	
TOT AL	71	54	125	

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TABLE OF A12 BY TARSEX

A12	SOLITARY	PREF. #2	TARSEX	TARGET SEX
FREQUENCY COL PCT	7	IM I	TOTAL	
G	€ 8•45	2 3•70	ε	
н	5 7.04	5 9•26	1 C	
I	8.45	0.00	6	
J	C 0.00	6 11•11	6	
К	€ 8•45	2 3.70	ε	
L		0 0 0	€	
TOTAL	71	54	125	

TABLE OF A13 BY TARSEX

A13	INDIV.AC	TARGET	SEX		
FREGUENCY COL PCT	=	M	TCTAL		
	1	1	•		
Α	35 50•00	35 64•81	70		
B	13 18.57	4 7•41			
C	9 12.86	8	17 		
D	5 7.14	3 5.56	•		
E	2 2.86	0 0.00	<u>*</u>		
F	1 1.43	1 1.85	•		
G	2 2•86	0.00	1 2		
I	1 1.43	3 5•56	-		
K	2 2•86	0.00	2		
TCTAL	70	54	124		

TABLE CF #14 EY TARSEX, Continued

A14	INDIV.ACTIV.#2		TA	FSEX	TARGET	SEX
FRECLENCY COL PCT	:	i w	1	TETAL		
	1	1	i	•		
8	1 1 43	1 1.85	1	2		
c	8 11.43	16 29.63		24		
D	7 10.00	7 12•96	1	14		
E	6 E.57	2 3.70	1	8		
F	3	1 1.85	1	4		
TOTAL	70	54	-+	124		

TABLE OF A14 BY TARSEX

A14	INDIV.ACTIV.#2		TARSEX		TARGET	SEX
FRE GUENCY		N	1	TCTAL		
G	3 4•29	1 1•85	1	4		
H	8 11.43	6	1	14		
I	22 31•43	•	•	27		
J	3 4•29	12 22•22	•	15		
K	6 8•57	2 3.70	- 1	e		
L	3 4•29	1 1.85	1	4		
TCT AL	70	54	- •	124		

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TABLE CF A15 EY TARSEX

A15	FAVORITE	SUBJECT	TARSEX	TARGET SEX
FREQUENCY COL PCT	•	[M]	TCTAL	
A	•	2 3.64		
В	1 1 1 1	3 5.45		
C	7	13 23.64	30	
D	2 .82	8 14.55	10	
E	-	13 23.64	20	
F		4 7•27	25	
G	7 9.86	6 10•91	13	
н	•	5 9.09		•
I	•	1 1•82	5	
TOTAL	71	55	126	

TABLE CF A16 EY TARSEX

A16	AFTER H.	S. TARSE	X TAFG	ET SEX
FREQUENCY COL PCT	•	M -	TCTAL	
A	52 73•24	35 63.64	87	
В	7 5•8€	7 12.73	14	
С	3 4•23	3 5.45	6	
D	8 11•27	2 3.64	10	
E	1 1•41	8 14.55	9	
TOTAL	71	55	126	

TABLE OF A17 BY TARSEX

A17	SCFCCL I	PFCFTANCE	TARSEX	TARGET SEX
FREQUENCY COL FCT	•	[M]	TCTAL	
	0	1 1	•	
4	14 19•72	11 20.37	25	
E .	-	14 25.93	19	
C	4 5•63	0.00	4	
D	12 16.90		21	
E	36 50.70	20 37.04	56	
TOT AL	71	+ 54	125	

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FREQUENCY CCUNTS FCF ITEMS, EY GRADE & SEX
GRADE=9

TABLE OF ALB BY TARSEX

A18	RECRG. SI	ECUR. T	ARSEX	TARGET	SEX
FREGUENCY COL PCT	Ĭ	[M	! тст	AL	
	1	0	Ĭ !	•	
A	4 5.71	6	† -	10	
E	28 40.99	•	1	42	
C	38 54.29	63.64	i	73	
TCTAL	70	5 5	1	25	

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TABLE CF A19 BY TARSEX

A19	RECRG. C	URR I CULUM	TARSEX	TARGET SEX
FREQUENCY COL PCT	<u>*</u>	IM I	TOTAL	
A	45 63.38		76	
В	14 19•72	13 23.64	27	
c	12 16.99	•	23	
TOTAL	71	55	126	

TABLE CF #20 EY TARSEX

A20	RECRG. T	INE TARSE	X TARGET SE	X
FREGUENCY COL PCT	•	M	TCTAL	
A	43 60.56	80.00	87	
8	21 29.58	8 14.55	29	
c	7 9.86	5.45	10	
TCTAL	71	55	12€	

TABLE OF A21 BY TARSEX

71

TOTAL

A21	SMART/PC	PUL AR	TAR	SEX	TARGET	SE X
FREQUENCY COL FCT	•	W	I	TCTAL		
	(c	1		•		
A	57.75	36 66.67	•	77		
В	3C 42.25	18	:	48		

54

125

152
FREQUENCY CCUNTS FCF ITEMS. BY GRADE & SEX
GRADE=5

TABLE OF A22 BY TARSEX

A22	PRIVACY	TARSEX	TARGET SEX
FREGUENCY COL PCT	•	[TCTAL
A	11 15•49	9 16•36	20
8	27 38.03	11 20.00	38
C	13	7 12.73	20
D	20	Ţ	4 E
TCT AL	71	5 5	126

TABLE CF A23 BY TARSEX

A23	UN IVERS I	TY VALUE	TAFSEX	TARGET SEX
FREQUENCY COL PCT	-	M I	TCTAL	
	c •	1 1	•	
Α	30 42•25	23	53	
8	34 47•89	24	58	
C	7 9 •86	7 12.96	14	
TOTAL	71	54	125	

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TABLE CF #24 EY TARSEX

A24	SPORT VA	LLE TARS	EX TARGET SEX
FREGUENCY	1		
COL PCT	F	IN I	TCTAL
 A	+ 1 45	1 49 1	85
	63.38	72.73	
 2	1 20	+ 1 8 l	28
_	28.17	14.55	
 C	1 6	1 7 1	13
_	8.45	12.73	
TOT AL	·+ 71	55	126

TABLE CF #25 EY TAFSEX

A25	FRIENDSHIP	VALUE	TAPSEX	TARGET SEX
FREQUENCY COL PCT	-	1	TCTAL	
	+	 1 l	•	
	i i	• i	_	
A	12 16.90	10 18.52	22	
В	44 61•97	21	65	
C	11	13 24.07	24	
D	4 5 • 63	10 18.52	14	
TOTAL	71	54	125	

TABLE OF JE BY TARSEX

J6	CAFEER	TARSEX	TAFGET SEX
FREQUENCY	•	! M !	TCTAL
•	0	1	•
1	39 54•93	•	63
2	•	8 14•81	17
3	6 8.45	•	10
4	5 7.04	•	ş
5	4 5 • 63	7 1	11
6	7 9.86	•	9
7	• -	4 7.41	5
9	0.00	1 1 1	1
TCTAL	+ 71	++ 54	125

TABLE CF J7 BY TARSEX

J7	EARN MONE	Y TARSEX	T AFGET	SEX
FREGUENCY COL PCT	 F	w	TCTAL	
•	0	1	•	
1	3 4.23	•	17	
2	1	16 29•63	31	
3	12 16.90	7.41	16	
4	11	7 12.96	18	
5	· ·	6	18	
6	5 7.04	3 5•56	ε	
7	7	1 1	e	
8	2	2 3.70	4	
9	2.82	•	3	
10	2 2 . 82	0.00	2	
TOT AL	71	54	125	

TABLE CF J8 BY TARSEX

18	CHILDREN	TARSEX	TARCET	SEX
FREGUENCY COL PCT	l If	!	TCTAL	
•	0	2		
2	4 5.63	4 7•55	·	
3	10	11 20.75		
4	9	-	13	
5	9.86	13 24.53	<u> </u>	
6	<u>-</u>	6	15	
7	9	7.55	•	
8	! з	3 5.66	€	
ò	•	3	•	
10	12	•		
TCT AL	71	53	124	

TABLE CF J9 BY TARSEX

18	POLITICS	TARSEX	TARGET SEX
FREGUENCY COL PCT] W]	TCTAL
•	0	:	•
2	2.82	0.00	_
3	2 2 82	3 5•56	5
4	2 2 82	1 1•85	3
5	8.45	7•41	10
6	5.63	2 3.70	ε
7	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	7 12•96	13
8	9	5 9.26	14
9	10	12 22•22	22
10	30 42•25	20 37.04	50
T CT AL	71	54	125

TABLE CF JIO EY TARSEX

JIO	MARR IAGE	TARSEX	TARGET	SEX
FREGUENCY	 F	[M]	TCTAL	
•	0	1	•	
1	=	9.26	11	
2	-	13 24.07		
3	8	1 1 1 1	\$	
4	8 11•27	13	21	
5	8	. 7	15	
6	8	3 5•56		
7	5 7.04	4 7•41	\$ 	
8	8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$	
9	8	6	14	
10	0.00	1 1 .85	1	
TCT AL	+ 71	+ 54	125	

TABLE CF J11 EY TARSEX

J11	VCLUNTEE	TARSE	TAFGET	SEX
FREQUENCY COL PCT		N	TCTAL	
•	0	1	•	
2	3 4.23	2 3.70	£	
3	1 1.41	3 5•56	4	
4	7 5. 86	2 3.70	9	
5	8 11.27	1 1 .85	s I	
6	6 8.45	3 5.56	, 5 	
7	12	7 12.96	19	
8	13 18.31	11 20•37	24	
9	11	18 33•33	29	
10	10	7 12.96	17	
TOTAL	71	54	125	

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TABLE CF J12 EY TARSEX

J12	TRAVEL	TARSEX	TARGET SEX
FREQUENCY COL PCT	 F	[N	TCTAL
•	0	1	•
1	1 1 • 4 1	•	2
2	2 · 82		2
3	2.82		8
4		1.85	8
5	7	7 12.96	14
	10	•	17
7	9 12.68	2 3.70	11
8	15	7 12.96	2 2
9	11	9 16.67	20
10	7 5.86	14 25.93	21
TOTAL	71	++ 54	125

TABLE CF J13 EY TARSEX

J13	FANE T	ARSEX	TARGET SEX				
FREQUENCY COL PCT F W TCTAL							
•	0		•				
1	5 7.04	•	6				
2	1 4 5.63		† 5 				
3	5 7.04	•	1 11 1				
	•	4 7.41	l 6				
5		7 12.96	10				
6	•	•	14				
7	13 18.31	-	26				
8	12 16.90		23				
9	15 21.13	•	17				
10	• -	1 1.85	7				
TOTAL	71	54	125				

TABLE CF J14 EY TARSEX

J14	TIME W/F	RIENDS	TARSEX	TARGET	SEX
FREQUENCY COL PCT		ابا ا	TETAL		
•	c •	1			
1	6 8•45	2 3.70	8		
2	•	3 5.56	•		
3	17 23.94	•	Ĭ		
4	12 16.90	11 20.37	_		
5	5 7.04	5 9•26			
6	10 14.06	15 27.78	1		
7	3	7 12.96	1 10		
8		3	6		
9	5	0 0. 00			
10	2 .82	2 3.70	1		
TOTAL	71	54	125		

TABLE CF J15 EY TAFSEX

J15	LCVE T	ARSEX	TARGET SEX					
	FREQUENCY COL PCT TCTAL							
•	0	1 1	!					
1	17 23.94	11 20.37	28 					
2	11	7 12.96	1 18					
3	9 12.6E		20					
	e 11•27	5 5.26						
	10 14.08		-					
6	5 7.04	3 5.56	•					
	5 7.04							
8	4 5.63	_	-					
9	1 1.41	2 1 3.70	•					
10	1 1 1 1	1 1.85						
TOTAL	71	54	-+ 125					

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TABLE OF AT BY TARSEX

A1	SCCIAL PE	REF. 1	TA	RSEX	TARGET	SEX
FREQUENCY COL PCT	•	W	1	TCTAL		
A	23 34•33	•	1	55		
В	28 41.79	20 31•75	1	4 8		
С	0.00	1 • 59	1	1		
D	6 8•96	8 12•70	1	14		
E	9	2 3.17	•	11		
F	1 1.45	0 1 C-00	1	1		
TOTAL	67	63	-+	130		

TABLE CF A2 BY TARSEX

A2	SECTAL PI	REF. 2	TA	ARSEX	TARGET	SEX
FREQUENCY CCL FCT	_	[M	i	TCTAL		
_	4	3	I	•		
В	e 12.70	7 11.67	•	15		
C	1 1 • 59	2 • 33		3		
D	9 14•29	10 16.67		19		
E	23 36.51	37 61.67	•	6 C		
F	22 34.92	4 6.67	•	26		
TOTAL	63	60	-+	123		

TABLE OF AS BY TARSEX

AS ATTEND PARTY TARSEX TARGET SEX

FREQUENCY	_	M	TCTAL
Δ	32 47.76	29	6C
Е	5 7•46	1 1 • 59	
C	3 4•48	1 1•59	4
C	14 20•90	18 28.57	32
E	5 7.46	6 9•52	† 11
F	8 11•94	9 14 • 29	17
TOT AL	67	63	130

TABLE CF #4 BY TARSEX

A4	GIVE PAR	TY TARSE	EX TARG	ET SEX
FREQUENCY COL PCT	<u>.</u>	W	TCTAL	
A	22 22•84	22 34.92	44	
В	8 11•94	2 3.17	10	
С	7 10.45	2 3•17	9	
D	8 11•94	23 36•51	31	
E	28.36	10 15•E7	29	
F	3 4.48	4 6•35	7	
TOTAL	67	63	130	

TABLE CF AS BY TARSEX

A5	EXPENSIV	E CATE	TAF	RSEX	TARGET	SEX
FREQUENCY COL FCT	<u>.</u>	M	1	TOTAL		
	1	1	1	•		
A	22	33 53.23		55		
В	5 7.58	2 2•23	•	7		
C	11 16•67	15 24•19	•	26		
C	2E 42.42	12	:	4 C		
TOT AL	66	62	-+	128		

TABLE CF A6 BY TARSEX

46	CHEAF DAT	TARSEX	TARGET	SEX
FREGLENCY COL PCT		M	TCTAL	
A	10	17 26.58	27	
В	17.91		18	
c	19 28.36	8 12.70	27	
D	24 35.82	17 26.98	41	
E	2.99	15 23.61	17	
TOTAL	67	63	130	

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TABLE OF A7 BY TARSEX

A7	TIME W/F	RIENCS_WE	EKDAYS	TARSEX	TARGET SEX
FREQUENCY	•] M	TCTAL		
**********	0 •	1 1	+ - 		
Δ	16 23.88	15 24.19	Ĭ.		
E	14	13	-		
C	•	17 27.42	Ī		
C	19 28•36	17 27.42	Ţ.		
TOTAL	67	62	129		

TABLE OF AS BY TARSEX

A8	TIME W/FRIENDS_WEEKENDS			TARSEX	TARGET SEX
FREQUENCY COL PCT		w	TCTAL		
4	5 7•46	5 7.94	19		
В	4 5.97	3 4.76	7		
C	6 8.96	12	18		
D	23	I	44		
E	29 43•28	Ī	51		
TOTAL	67	63	130		

TABLE OF AS BY TARSEX

A 9	CREWE SI	ZE TARSE	X TARGE	T SEX
FREQUENCY CGL FCT	-	M	TCTAL	
	1	2	•	
Δ	0.00	3 4•92	3	
Е	9	10 l 16•39 l	15	
C	34 51.52	28 45.90	€2	
D	19 28.79	17 27•87	3€	
E	6.06	3 4 • 92	7	
TOT AL	66	61	127	

TABLE OF A10 BY TARSEX

A10	CLCSE FR	IENDS	TAR	SEX	TARGET	SEX
FRECLENCY COL PCT	-	M	1	TCTAL		
	1 1		0	•		
A	0.00	1 1.5	1	1		
E	26 39.39	26.9	17	43		
C	30 45.45	49.2	31	61		
D	7	14.2	9	16		
E	3 4.55	1 7.9	5	ε		
TCT AL	66	+	53	129		

TABLE CF #11 EY TAFSEX

A11	SOLITARY	PREF. #1	TARSEX	TARGET SEX
FREQUENCY COL PCT		[M]	TCTAL	
	1	0	•	
4	41 62.12	39 €1•90	85	
В	11 16•67	6 9•52	17	
C	8 12•12		20	
D	2 3.93	3 4•76	5	
E	2 3.03	1 1•59	3	
F	1	2 2•17	3	
Н	1 1.52	0	1	
TOTAL	66	63	125	

TABLE OF A12 BY TARSEX, Continued

A12	SOLITARY	PREF. #2	TARSEX	TARGET S	EX
FREQUENCY COL FCT	-	[M]	TCTAL		
	1	1 1	•		
E	6	3 4 • 84	ç		
C	7	19 30 •65	2€		
C	9.09	11 17.74	17		
E	27 40.91	16 25•81	43		
F	6.06	1 1	٤		
TOTAL	66	62	128		

TABLE CF A12 BY TARSEX

A12	SOLITARY	PREF. #2	TARSEX	TARGET SEX
FREQUENCY COL FCT	-	[M	[TCTAL	
G	5 7.58	0 0 0		
H	3 4.55	3 4 • 8 4	€ 	
I	3 3.55	0.00]]	
J	C .00	2 3 • 2 3	2 	
K	5 7.58	6.45		
L	0.00	3 4.84	3 	
TOT AL	66	62	128	

TABLE CF A13 EY TARSEX

A13	INDIV. AC	TIV•#1	TARSEX	TARGET	SEX
FREGUENCY COL PCT	Ξ	1 ×	1 TCTAL		
	1	0			
A		42 66.67	•		
8	-	3.17	•		
C		14 22.22	•		
D	6.06	6.35	•		
E	4 6.96	0.00	4		
G	1 1.52	0.00	•		
H	3 4.55	1 1.59	•		
I	•	0.00	•		
TETAL	66	63	129		

TABLE OF A14 BY TARSEX

A14	INDIV.AC	TIV.#2	TARSEX	TARGET SEX
FREGUENCY COL PCT		l w	1 TCTA	L
	2	1	1	•
E	2 3.08	3 4•84	•	5
C	8	30.65	1	7
D	5 7.69	14 22.58	1	S
E	3 4.62	8		1
G	5 7.69	0.00	-	5
Н	3 4.62	6 9.68		S
I	27 41.54	•	•	4
J	1 1.54	•	•	3
	8	1 1.61		9
L	3 4.62	2 3.23	•	Ę
TOT AL	65	62	12	7

TABLE CF #15 EY TARSEX

A15	FAVCFITE	SUEJECT	TAFSEX	TARGET SEX
FREGUENCY COL PCT		[M]	TCTAL	
	0	1	•	
Α	18 26.87	5 8•06	23	
8	-	8 12.90	15	
C	14.93	9 14•52	19	
D	3 4.48		.	
E	1 1.49	11	12	
F	16 23.88	3 4.84	19 	
G	5.97	•	11	
н	7	15 24•19	22	
ī	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3•23	3 	
TCT AL	67	62	129	

TABLE OF A16 BY TARSEX

A16	AFTER H.	S. TARSE	X TARGET SEX
FREQUENCY COL PCT	•	۱ × ۱	TCTAL
A	39 58•21	40 63.49	79
E	10 14.93	14 22•22	24
C	1 1 • 4 9	0	1
D	14 20.90	1	15
E	3 4.48	•	11
TOTAL	67	63	130

TABLE CF A17 EY TARSEX

A17	SCHECL I	PORTANCE	TARSEX	TARGET SEX
FREQUENCY COL PCT	•	l M 1	TETAL	
	l •	1 1	•	
A	9 13.64	14 22.58	23	
В	5 7.58	6 5.68	11	·
C	4 6.06	6 5.6 8	19	
D	20 30.30	Ī	29	
E	28 42.42	27 43.55	55	
TOTAL	66	62	128	

TABLE OF A18 BY TARSEX

A18	RECRG. SE	ECUR.	TAR	SEX	TARGET	SE X
FREQUENCY COL PCT	•	l M	1	TCTAL		
A	10 14.93	1 1.59	1	11		
E	29 43•28	•	1	53		
c	28 41•79	38 60.32	•	66		
TOTAL	67	53	-+	130		

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TABLE CF 419 EY TARSEX

A19	REORG. C	URP ICULUM	TARSEX	TARGET SEX
FREQUEN		1 M 1	TCTAL	
COL PC	. r	[m	TCTAL	
A	1 38	42	80	
	56.72	1 66.67		
В	l 21	18	39	
•	21.34	•		
	+	++		
С	8	3 1	11	
	11.54	4.76		
TOTAL	67	63	130	

TABLE OF A20 BY TARSEX

A20	RECRG. T	INE	TARSE	X TARGET	SEX
FREQUENCY	•	į M		TCTAL	
A	61.19	69	44	8.5	
Е	23 34.33	•	19	41	
С	4.48	1	1	4	
TOT AL	+ 67	+	63	130	

TABLE CF 421 EY TARSEX

A21	SMART/PO	PUL AR	74	RSEX	TARGET	SEX
FREQUENCY COL PCT	Ī	M		TCTAL		
	0	! !	2	•		
A	46 €€•66	77.0	7	93		
8	21	22.9	4	3 5		
TOTAL	67	+	1	128		

TABLE OF A22 BY TARSEX

A22	PRIVACY	TAFSEX	TARGET SEX
FREQUENCY COL PCT		l w	TCTAL
A	16 23.88	10 15•87	26
8	18 26.87	:	-
c	10 14.93	5 7•94	15
D	23 34.33		5 1
TCTAL	67	63	130

TABLE OF A23 BY TARSEX

A23	UN IVERS I	TY VALUE	TARSEX	TARGET SEX
FREQUENCY COL PCT	-	l M	TCTAL	
	! c	1	•	
4	15	<u> </u>	40	
8	35 52.24	:	€3	
С	17 25.37	•	2€	
TOTAL	67	62	125	

TABLE CF 424 EY TARSEX

A24	SPORT VAL	LLE TARS	EX TA	RGET SEX
FREGLENCY COL PCT		M	TCTAL	
********	0	1	•	
4	54 EC.6C	49 79.03	103	
8	10 14.93	7 11.29	17	
С	3 4.48	6 9•68	9	
TOTAL	67	62	129	

TABLE OF AZE BY TARSEX

A25	FRIENDSH	IF VALUE	TAFSEX	TARGET SEX
FREQUENCY	7	I M 1	TCTAL	
	0	1	•	
Α	10 14.93	6 9.68	1€	
E	41 61.19	36 58.06	77	
C	11	•	26	
C	5 7•46	5 8.06	1 C	
TOTAL	67	62	129	

TABLE CF J6 BY TARSEX

J6	CAREER	TARSEX	TAFGET SEX
FREQUENCY COL PCT	•	»	TCTAL
•	! !!	. •	•
1	30 45.45	33 52.38	63
2	10 15.15	11 17•46	21
3	-	9.52	13
4		3 4.76	7
5	ع ا 12•12	7	15
6	5 7.58	0 000	5 5
7	i c	2 2 . 17	2
8	1 1.52	C • 00	1
9	1 1.52	-	
TOTAL	66	63	125

TABLE CF J7 BY TARSEX

J7	EARN MONE	Y TARSEX	TARGET	SEX
FREQUENCY COL FCT	 F	W [TCTAL	
•	1		•	
1	ε 12.12	· · · · · · · · · · · · · · · · · · ·	1 €	
2	19.70	22 34.92	35	
3	9.09	14 22.22	20	
4		4 €.35	15	
5	•	4 6.35	15	
6		4 6.35	1 C	
7	6.06	1	5	
8	3 4.55	3 4.76	6	
9	C	1	1	
TOTAL	66	63	129	

TABLE CF J8 BY TARSEX

J 8	CHILCREN	TARSEX	TARGET	SEX
FREQUENCY COL FCT	F	H 1	TOTAL	
•	1	1	•	
2	2 3.02	•	4	
3	15 22.73	6 9 . 68	21	
4		13 20.97	25	
5	15.15	4 6•45	14	
6	€ 9•09	11 i 17•74	17	
7	5	2 3•23	7	
8	3 4 •55	12 19•35	15	
9	5 7•58	6 9•68	11	
10		6 9•68	14	
TOTAL	66	62	128	

TABLE CF JS BY TARSEX

J 9	PCLITICS	TARSEX	TARGET	SEX
FREQUENCY COL FCT] F	M I	TCTAL	
•	1	2	•	
2	0.00	•	. 2	
3	6.96	-	6	
4	2 .03		3	
5	1 1.52	2 3•28	3	
6	•	E-20	è	
7	1 1.52	6 9.84	7	
8	1 1.52	5 8•20	6	
9	13 19.70	12 19•67	25	
10	4 C 60 • 61	26 42•62	66	
TOTAL	66	€1	127	

TABLE CF JIC BY TARSEX

710	MAFRIAGE	TARSEX	TARGET	SEX
FREQUENCY COL FCT		[M]	TCTAL	
•	1	1	•	
1	6 9.09	2 3•23	Ε	
2	•	15 24.19	34	
3	11 16.67	10 16.13	21	
4	-	7	17	
5	6 9.09	3 4.84	ç	
6		6 9.68	5	
7	3 4•55	9 14.52	12	
8	6.06	•	€	
9	3 4.55	6 9.68	e e	
19	1 1.52	•	; 3	
TOTAL	66	62	12E	

TABLE OF J11 BY TARSEX

J1 1	VOLUNTEE	R TARSEX	TARGET	SEX
FREQUENCY CGL FCT	<u>*</u>	M	TCTAL	
•	1	2	•	
2	3 4.55	1 1.64	4	
3	2 3.03	•	ੇ ਫ	
4	1	5 8 • 20	_	
5	3 4.55	•	10	
6	7		12	
7	11 16.67	6	17	
8	15 22•73	9 14•75	24	
9	18	16 26•23	34	
10	6 9.09	11	17	
TOTAL	66	61	127	

TABLE OF J12 BY TARSEX

J12	TRAVEL	TAFSEX	TAFGET SEX
FREQUENCY COL PCT	=	[w	TCTAL
•	1	1	•
1	1 1.52	0 •00	1
2	1 1.52	2 3•23	3
3	2 3.03	5 8.06	•
4	6 9.09	2	ε
5	6.06	8	
6	-	8	2 C
7	•	8 12.90	
8	11 16.67	19 16.13	
9	13		•
19	3 4 • 55	11	14
TOTAL	+ 66	+ 62	128

TABLE OF J13 BY TARSEX

J13	FAME T	ARSEX	TARGET SEX
FREQUENCY COL FCT	•	<u> </u>	TCTAL
•	1 1	0	•
2	2 3.03	3.17	4
3] 2 3.03	•	<u>*</u>
4	6.06	4 6.35	ξ ε
5	8	8 12.70	1 16
6	9.09	9	•
7	11 16.67	15 23.81	2€
8	20	12 19.05	32
9	9 13.64	7	16
10	6.06	6.35	l ε
TCT AL	66	63	129

FREQUENCY CCUNTS FCF ITEMS. EY GFADE & SEX GRADE=11

TABLE CF J14 BY TARSEX

J14	TIME W/F	RIENDS	TARSEX	TARGET SEX	
FREGLENCY COL PCT	 F	[w	TCTAL		
•	1	1			
1	4 6•96	6 9•68	1 10		
2	6 9.09	1 1•61	7		
3		7 11•29	•		
4	8 12•12	16 25•81	•		
5	•	8 12•90	1 15		
6	12 18•18	•	1		
7		8 12•99	18		
8	4 6.06	4 6•45	1 e		
9	4	2 3•23	-		
10	1 1.52	0 0 .0 0	7.		
TCT AL	66	62	128		

FREQUENCY CCUNTS FCF ITEMS, EY GRADE & SEX GRADE=11

TABLE CF J15 EY TARSEX

J15	LEVE T	AFSEX	TARGET SEX
FREGUENCY COL PCT	•	l w	TCTAL
•	1 1	1	•
1	19 28.79	11	•
2	15 22•73	8 12.90	
3		8 1 12.90	•
4	8 12•12	6 9.68	•
5	3 4.55	10 16.13	1
6	3 4.55	•	•
7	7.58	3 4 • 84	1
8	1 1 • 52	4 6.45	
9	l 1 1.52	2 3.23	<u>.</u>
10	0.00	1 1.61	
TCT AL	66	+ 62	-+ 128