

SEX-ROLE ORIENTATION AND SEX STEREOTYPING
INFLUENCES ON SAME- AND CROSS-SEX FRIENDSHIPS

By

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Abstract

This study was designed to investigate the influence of two individual difference variables--sex-role orientation and level of sex stereotyping--on the quality of people's own same- and opposite-sex friendships, and their attitudes toward same- and opposite-sex friendships in general. It was predicted that androgynous individuals would experience the highest quality in their friendships, followed by the sex-typed and undifferentiated. Level of stereotyping was predicted to influence both the quality of peoples' friendships and their evaluations of the concepts same- and opposite-sex friendships. High-sex stereotyped persons were expected to have lower quality friendships and have less favorable attitudes toward cross-sex friendships compared with the low stereotyped. One hundred and one adults (62 females, 39 males) sampled from the City of Vancouver completed a series of questions designed to tap the quality of their same- and cross-sex friendships, and their attitudes toward same- and cross-sex friendships. The Bem Sex-Role Inventory (BSRI, Bem, 1974) was used to measure sex typing (androgynous, sex-typed, undifferentiated) and an instrument developed by the author was used to test level of sex stereotyping. As predicted, androgyny was related to better quality friendships. Androgynous individuals had significantly higher

quality scores than either sex-typed or undifferentiated persons. Quality scores were not significantly different for sex-typed individuals compared with undifferentiated. These findings were interpreted in terms of the greater behavioral flexibility associated with androgyny. Although not predicted, sex typing was also a significant factor in evaluations of friendships and attitudes toward cross-sex friendships specifically. Androgynous individuals gave significantly higher evaluations to friendships and were more accepting of cross-sex friendships than persons in the other two sex-role orientation groups. In light of this finding a modification was made to the original theoretical framework to account for sex typing effects on evaluations of friendships. None of the predictions for level of sex stereotyping influences on quality and evaluation of friendships was supported. Psychometric problems with the measures used in the present study may have contributed to these non-significant findings. Other findings showed same-sex friendships received significantly higher quality ratings than cross-sex and same-sex friendships received more positive evaluations compared with opposite-sex friendships, although these latter findings were non-significant.

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Sex-role Orientation and Stereotyping Influences on Friendships

People engage in a variety of social interactions ranging from superficial contacts with acquaintances to intimate involvement with loved ones. Somewhere between these two extremes is a category of relating called friendship. Friendships provide people with a sense of worth, a source of emotional support, and a context in which to experience feelings and events. Research on friendship has focussed on several areas including defining the concept (Davis & Todd, 1985; Wright, 1969), examining developmental changes in how people view friendship (La Gaipa, 1979), and identifying the determinants of attraction (Byrne, 1971; Duck, 1973; Kandel, 1978; Seyfried & Hendrick, 1973). What might be called the first law of friendship formation is that "like attracts like." Friends tend to be more similar than non-friends in attitudes, age, ethnicity, activity preference, and sex (Booth & Hess, 1974; Davis & Todd, 1985; Werner & Parmelee, 1979). Preference for same-sex peers is strong among children (Serbin & Sprafkin, 1983; Serbin, Tonick & Sternglanz, 1977) and, among adults, same-sex pairings account for about 80% of friendships (Booth & Hess, 1974).

Perhaps because of the preference for same-sex peers and the relative infrequency of cross-sex relationships outside of intimate pairings, most research focusses on same-sex

relationships and makes only tangential reference to cross-sex friendships. From this research comparisons between same- and cross-sex dyads reveal that, as early as two years old, same-sex dyads engage in more social behaviors than mixed-sex pairs, and children are more influenced by rewards and punishments received from same-sex compared with cross-sex peers (Jacklin & Maccoby, 1978). Davis and Todd (1985) found that adult cross-sex friendships were less intimate and stable than same-sex, and that cross-sex friends shared fewer activities compared with same-sex friends. However, cross-sex and same-sex friendships did not appear to differ on trust, respect, acceptance, or spontaneity, and subjects reported enjoying their cross-sex and same-sex friendships equally.

A descriptive study done by Bell (1981) suggests that individual differences account for some of the variation between same- and cross-sex friendships. According to Bell, nonconventional women were more satisfied with cross-sex friendships than conventional women. For men, the nonconventionals were more likely than conventionals to report that they would disclose totally to at least some of their close women friends, and both conventional males and females felt closer to same-sex than cross-sex friends. In a study undertaken by Booth and Hess (1974) marital status was identified as a factor in differences in quality between the two types of friendships. Generally, married men and women

had fewer interactions with and confided less in cross-sex compared with same-sex friends.

This study explores further the variables related to differences in same- and cross-sex friendships. Cross-sex friendships are defined in this study as non-sexual relationships between males and females. Cross-sex friendships are assumed to be based on the same or similar premises as same-sex, and the concept is meant to exclude relationships intended for mate selection. Two individual difference variables that will be examined with respect to differences in friendships are sex-role orientation and sex stereotyping. Specifically, this study will investigate the influence of sex-role orientation and level of sex stereotyping on individuals' reported quality and evaluations of same- and cross-sex friendships.

Sex-role orientations (also referred to as sex types) are composites of personality traits, behaviors, and interests individuals use to describe themselves. The traits and characteristics cluster into two dimensions which earlier researchers labeled instrumental/agentive and expressive/communal (Bakan, 1966; Parsons & Bales, 1955). More recently, these dimensions have been termed "masculine" and "feminine" (Bem, 1974; Spence & Helmreich, 1978¹). Differential endorsement of the personality traits and behavioral

characteristics contained in two popular sex typing measures--the Bem Sex Role Inventory (BSRI, Bem, 1974) and the Personal Attributes Questionnaire (PAQ, Spence & Helmreich, 1978)--has led to the identification of four distinct sex-role orientations. The feminine sex role has been shown to reflect a "reactive, emotionally responsive, and expressive orientation" to social interaction, while the masculine role is characterized by an "active, controlling, and instrumental" social orientation (Ickes, 1981, p.96). Androgyny is a combination of the instrumental orientation of the masculine sex role with the expressivity of the feminine role (Ickes, 1981) such that androgynous individuals are defined by relatively high levels of masculine and feminine traits and characteristics. In contrast, undifferentiated persons exhibit only low levels of both sets of qualities (Bem, 1977; Ickes, 1981; Spence, Helmreich & Stapp, 1975). Various studies have shown sex-role orientations to be differentially related to maturity of moral judgment (Block, 1973), self-esteem (Spence, Helmreich & Stapp, 1975), the ability to perform sex-typed behaviors (Bem & Lenney, 1976), and style of interpersonal interaction (Ickes, 1981).

Sex stereotypes are structured sets of beliefs about the personal attributes and characteristics that distinguish women and men as separate social groups (Ashmore & Del Boca, 1979; Smith, 1985). In terms of implicit personality theory, sex

stereotypes are the "inferential relations that link personal attributes to the social categories female and male" (Ashmore & Del Boca, 1979,p.225). The process of using sex stereotypes is termed stereotyping. Research has shown that sex stereotyping affects adults' treatment of infant boys and girls (see Katz, 1983; Rubin, Provenzano & Luria, 1974), the encoding and retrieval of gender-related information by children (Martin & Halverson, 1983), judgments about mental health (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972), and the social behavior of both the individual holding the stereotype and the person being stereotyped (Ashmore & Del Boca, 1979). [See also Basow (1980), and Williams & Best (1982).]

Sex-role orientation and sex stereotyping have received much attention in theorizing and research efforts over the past two decades (see Deaux, 1984; Ruble & Ruble, 1982; Smith, 1985 for reviews). The focus of this work has been on methodological and statistical issues surrounding measurement of the concepts. An interest in the utility of the concept of androgyny has dominated sex typing research, while work on stereotypes has focussed on their acquisition and impact on perceptions.

Several researchers have presented theoretical and/or empirical arguments for a relationship between stereotyping

and sex typing. Kohlberg's (1966) theory on the development of sex-role identity predicts a correlation between the two variables, a relationship supported empirically by Storms (1979). Bem (1979) bases her concept of androgyny on a sex-role orientation--stereotyping relationship. According to Bem individuals with different sex-role orientations are differentially motivated to keep behaviors consistent with sex stereotypes (Bem, 1979). Finally, sex stereotypes have been the basis for developing most measures of sex typing, despite the failure of these instruments to capture all aspects of stereotypes (Smith, 1985). While the consensus seems to be for a sex-role orientation--stereotyping relationship, Spence, Helmreich and Stapp (1975) found no correlation between the variables and argue that ratings of self (sex-role orientation) and others (stereotyping) are made relatively independently. A recent study by Martin (1984) supports the findings of Spence et al..

In this study, sex-role orientation and sex stereotyping will be treated as non related for the purpose of stating hypotheses. However, a correlation matrix for femininity, masculinity, and stereotyping and an analysis of variance on stereotyping by sex-role orientation will be calculated to test for a relationship between the two independent variables. The outcome of these preliminary analyses will guide subsequent treatment of the data.

Related Research

Relatively few studies discuss sex-role orientation and/or sex stereotyping in relation to people's interpersonal relationships (for exception see Banikiotes, Neimeyer & Lepkowsky, 1981; Fischer & Narus, 1981; Hammen & Peplau, 1978; Ickes, 1981, 1985; Pursell & Banikiotes, 1978; Seyfried & Hendrick, 1973; Wheeler, Reis & Nezlek, 1983). Comparison of results from the existing body of research is difficult due to methodological differences. Four studies used the BSRI (Bem, 1974) to measure sex-role orientation, one used the PAQ (Spence & Helmreich, 1978) and a sixth used a measure developed by the researchers. The only study to use sex stereotyping as the independent variable (Hammen & Peplau, 1978) employed a measure developed by the investigators. The dependent variables of interest in the above studies ranged from qualitative measures of interpersonal attraction (intimacy, liking) to quantitative measures of interaction (amount of interaction, interpersonal distance). None of the studies looked at people's evaluations of friendships and only two examined variables having some relationship to quality.

The first study (Fischer & Narus, 1981) examined the influence of sex-role orientation on level of intimacy in friendships. Results from the study showed significant main effects for sex of subject, sex of target person, and sex-role

orientation. Females reported greater intimacy in their relationships compared with males. In addition, relationships with females were significantly more intimate than relationships with males. Androgyny was positively related to level of intimacy. Androgynous individuals reported significantly higher levels of intimacy compared with undifferentiated persons. Sex-typed individuals also reported higher levels of intimacy compared with undifferentiated persons but did not differ significantly from androgynous individuals. These findings were interpreted as reflecting the greater behavioral flexibility of the androgynous sex-role orientation.

The study also examined the influence of sex stereotyping on level of intimacy. It was argued that if societal stereotypes about men and women were being adhered to there would be greater intimacy in female relationships generally, regardless of sex-role orientation and, the highest level of intimacy would be found in female-female relationships, the lowest in male-male. Although no direct measure of sex stereotyping was taken, intimacy levels followed the predicted pattern.

The second study (Hammen & Peplau, 1978) examined the influence of sex stereotyping on amount of interaction and degree of liking in stranger pairs. Amount of interaction may serve as a gross indicator of the quality of a relationship.

Wright (1969) found quantitative measures of interaction to differentiate between best and other friendships. In addition, in the Hammen and Peplau (1978) study verbal and visual interaction were positively correlated with liking of stranger ($r=.46$ for verbal, $.41$ for visual).

Results from the Hammen and Peplau (1978) study showed individuals interacted more when paired with an opposite-sex other than with a same-sex other. Within the opposite-sex pairings, low sex-stereotyped persons interacted more with the stranger than did high stereotyped persons. There was a three-way sex of subject by stereotyping by type of pairing interaction. Stereotyping was associated with low levels of interaction for males in same-sex pairings and with high levels of interaction in opposite-sex pairings. The pattern was reversed for females. Stereotyping was associated with high levels of interaction for females in same-sex pairings and with low levels in opposite-sex pairings. The authors noted that sex stereotyping "appeared to have strong effects on patterns of interaction, and appeared to be more predictive of behavior than gender alone" (Hammen & Peplau, 1978; p. 87).

There were no sex stereotyping effects for degree of liking in the Hammen and Peplau (1978) study. However, sex of subject and sex of target did appear to be associated with liking. Females rated male and female partners equally on

liking and males rated female partners slightly higher than male partners.

The two studies discussed above fall short of examining the relationship of sex-role orientation and sex stereotyping with quality of friendships. In the Hammen and Peplau (1978) study pairs of strangers were studied and, in the Fischer and Narus (1981) study sex stereotypes were not measured directly. Neither study looked specifically at relationship quality but instead used some aspect of quality--intimacy (Fischer & Narus, 1981), amount of interaction, and degree of liking (Hammen & Peplau, 1978). The current research hopes to improve on these studies by using a multi-dimensional measure to assess quality of friendships, by assessing sex typing and stereotyping directly and, by asking individuals about their actual friendships.

Quality of Friendships

The first set of hypotheses relate sex-role orientation and sex stereotyping to quality of friendships. Quality is conceptualized as a subjective feeling of closeness to the other person, as well as a more objective assessment of the degree to which various aspects of friendship are achieved in the relationship. Important aspects of friendship have been identified by several researchers (Bell, 1981; Davis & Todd, 1985; La Gaipa, 1979; Wright, 1969) and include enjoyment, mutual trust, intimacy, shared activities, frequency of

contact, and the provision of assistance.

Quality and Sex-Role Orientation. Consistent with the theoretical rationale of Fischer and Narus (1981) on level of intimacy, androgyny is expected to be positively related to quality of friendship. Androgynous persons are expected to have significantly higher quality friendships compared with sex-typed and undifferentiated persons and, sex-typed individuals are expected to have higher quality friendships compared with undifferentiated. The greater behavioral flexibility associated with androgyny should allow the androgynous person to engage in a wider range of friendship experiences relative to the sex-typed and undifferentiated and, consequently, experience higher quality friendships.

While the androgynous and sex-typed did not differ on level of intimacy in the Fischer and Narus (1981) study, they are expected to differ on quality of friendship in the present study. Quality is a multi-dimensional measure of the degree to which various aspects of friendship are experienced. The measure should be sensitive, therefore, to differences in behavioral flexibility among each of the sex-role orientations. Since the sex-typed category is associated with less flexibility than the androgynous, sex-typed individuals should experience lower quality in their friendships compared with androgynous individuals. Similarly, the undifferentiated

should have lower quality friendships than both the androgynous and sex-typed.

Fischer and Narus (1981) found sex of subject and sex of target main effects on intimacy. Females reported greater intimacy in their friendships and relationships with females were more intimate than relationships with males. Other research (Caldwell & Peplau, 1982; Davidson & Duberman, 1982) support these findings. However, Caldwell and Peplau (1982) caution that the standards used to assess intimacy in friendships may be accounting for some of the sex differences. In the present study sex differences are not predicted since the quality measure goes beyond measuring intimacy and includes a range of instrumental and expressive behaviors. As a result, it is not expected that one gender will score higher than the other.

Based on findings from Davis and Todd (1985), and data from a pilot study I conducted, same-sex friendships are expected to be described as higher in quality than cross-sex friendships. Social norms may account for this overall type of friendship effect. Norms favor the formation and maintenance of same-sex over cross-sex relationships (with the exception of marital relationships). In particular, married persons are not encouraged to maintain or develop cross-sex friendships outside the couple unit (see Gagnon & Greenblat, 1978; Hess, 1972). As a result of pressures against cross-sex

friendships, people may enjoy their same-sex friendships more than their cross-sex and feel closer to same-sex friends. In addition, similarity may be perceived as greater in same-sex friendships as a result of being in the same gender category. Similarity has been found to be reinforcing (see Byrne, 1971), and therefore, same-sex friendships may be assumed to have greater reward value.

To summarize the expected relationships between sex-role orientation and quality of friendships the following hypotheses are offered:

- 1.0 There will be a main effect of type of friendship on quality of friendship.
- 1.1 Same-sex friendships will be rated higher in quality than cross-sex friendships.
- 2.0 There will be a main effect of sex-role orientation on quality of friendship.
- 2.1 Androgynous individuals will report significantly higher quality friendships compared with sex-typed and undifferentiated.
- 2.2 Sex-typed individuals will report significantly higher quality friendships compared with undifferentiated individuals.

Quality and Sex Stereotyping. The next group of hypotheses examines the association between sex stereotyping and friendship quality. Stereotypes are cognitive structures or schemas and stereotyping is the use of these cognitive schemas to process information (see Ashmore & Del Boca, 1979).

Stereotypes are used in processing information in two interrelated ways. First, familiar and novel information can be fit into already existing cognitive "packages" (stereotypes). This process often results in the biasing of incoming information in the direction of the stereotype (Martin & Halverson, 1983; Martin, 1985). Second, inferences about otherwise unknown aspects of a target object or person can be made on the basis of the stereotype. In this way stereotypes can play a role in interpersonal interactions. By using a stereotype schema one can anticipate behaviors from another and adjust one's own behavior accordingly (see Ashmore & Del Boca, 1979; Martin & Halverson, 1981).

The predicted influence of sex stereotypes in the present study is for high sex stereotyped persons to report lower quality friendships compared with low stereotyped persons. While reports of quality in same-sex friendships should not be significantly different for the two groups, they are expected to differ significantly on quality in cross-sex friendships. The high sex-stereotyped are expected to report significantly lower quality cross-sex friendships compared with the low sex-stereotyped. These predictions are based on the assumption that a person who is highly sex stereotyped will believe that an opposite-sex friend has many interests that are incompatible with his or her own. The stereotyped person may, therefore, find these activities unattractive and/or

inappropriate and consequently limit both the contact and range of interactions in the friendship. Also, interaction with the opposite-sex friend may be judged to be less involving and less enjoyable as a result of the biasing of information about the interaction. As a result, for individuals with well-defined stereotypes quality will be lower in cross-sex compared with same-sex friendships.

Individuals with less well-defined stereotypes, who do not see men and women as inherently different, are not expected to experience the same degree of difference in quality between the two types of friendships. These people will see both sexes as potentially able to provide the full range of friendship experiences and will not favor one over the other. Quality in the same- and cross-sex friendships of the less stereotyped should not differ significantly, and these individuals should report significantly better quality in their cross-sex friendships compared with high stereotyped persons.

The predicted associations between sex stereotyping and quality of friendships are not entirely supported by results from the Hammen and Peplau (1978) study. The researchers found levels of interaction to be highest in opposite-sex pairings, and they found high sex-stereotyped males interacted more in opposite-sex pairings than in same-sex dyads. According to

the rationale used in the present study, level of interaction in opposite-sex dyads should be negatively related to level of sex stereotyping. This was the case only for females in the study.

The apparent anomalous findings from the Hammen and Peplau (1978) study may be the result of subjects' ages. The researchers used mainly first-year university students. This group may be influenced in their interactions with others by being in the mate selection years. The fact that males in the study were particularly likely to have high levels of cross-sex interaction probably reflects the socialization of males to initiate cross-sex relationships. The present study will use a non-university, older adult sample to attempt to overcome this problem.

The following hypotheses summarize predictions for the association between level of sex stereotyping and quality of friendship.

- 3.0 There will be a main effect of stereotyping on quality of friendship.
- 3.1 Low sex-stereotyped individuals will report significantly higher quality friendships compared with high sex-stereotyped individuals.
- 4.0 There will be a stereotyping by type of friendship interaction effect for quality of friendship.
- 4.1 High sex-stereotyped individuals will report significantly higher quality in their same-sex compared with their cross-sex friendships. Low sex-stereotyped individuals will not differ in the quality of the two types of friendships.

- 4.2 For cross-sex friendships, low sex-stereotyped individuals will report significantly higher quality compared with high sex-stereotyped individuals. For same-sex friendships, there will be no significant differences between the low and high sex-stereotyped individuals on reported quality.

Attitudes Toward Friendships

The next section of this thesis deals with sex-role orientation and stereotyping influences on people's attitudes toward friendships. Attitudes are orientations away from or toward an object or person and are made up of three components--cognitions, affect, and behavioral tendencies (Hendrick & Hendrick, 1983). The beliefs a person holds about a target form the cognitive component of her or his attitude toward that target. The affective component is an emotional feeling--positive, neutral, or negative--toward the target, and is typically measured by verbal evaluations of the target (Rosenberg & Hovland, 1960). Behavioral tendencies are the manifestation of the affect and cognition and translate into an approach/avoidance action.

Attitudes and Sex-Role Orientation. As noted previously, sex-role orientations are clusters of traits, behaviors, and interests that individuals use to describe themselves. The four sex types define more or less distinct personality types--masculine, feminine, androgynous and undifferentiated. As conceptualized by Ickes (1981) these sex-role orientations

translate into distinct styles of interpersonal interactions. Sex-role orientations are not expected to be associated with different attitudes toward friendships because attitudes are the result of cognitions about and affect toward a target, which subsequently lead to approach/avoidance behavior (Fishbein & Ajzen, 1975). While sex-role orientations are predicted to influence quality in interpersonal interactions they are not clearly related to one's cognitions and evaluations of targeted others. No predictions will be made, therefore, for sex typing effects on people's evaluations of friendships.

Attitudes and Sex Stereotyping. Sex stereotypes are expected to influence attitudes toward friendships. Stereotypes are cognitive schemas and attitudes are made up, in part, of cognitions about a target object or person. The cognitions one holds about the differences between men and women are likely to influence the attitudes one holds about the friendships between the two groups.

The evaluation of experimental concepts has been central to most attitude research (Rosenberg & Hovland, 1960). The instrument used in this study to measure attitudes will emphasize respondents' evaluations of same- and opposite-sex friendships. A main effect of level of sex stereotyping on evaluation of friendships is predicted, along with a stereotyping by type of friendship interaction. Low

stereotyped persons are expected to give higher evaluations to friendships compared with high stereotyped persons. High sex-stereotyped individuals are expected to give lower evaluations to cross-sex compared with same-sex friendships. This group is also expected to give lower evaluations to cross-sex friendships compared with the low sex-stereotyped group.

Similar to type of friendship effects on quality, a main effect of type of friendship on evaluation of friendship is predicted. Same-sex friendships are expected to receive higher evaluations than cross-sex, regardless of level of stereotyping.

Both schematic processing (Martin & Halverson, 1981) and the reinforcing function of similarity (Byrne, 1971) provide support for these predictions. Stereotyped persons see little similarity between the two sexes, and between themselves and members of the opposite sex. Since similarity has been found to be reinforcing (see Byrne, 1971; Byrne, Clore & Worchel, 1966) relationships between people who are viewed as dissimilar (in this case cross-sex friends) should be judged as having less reward value compared with relationships between similar persons (in this case same-sex friends). The lower reward value of cross-sex friendships should be reflected in a lower evaluation of cross-sex compared with same-sex friendships. No predictions for sex of subject will

be made for the relationship between sex stereotyping and attitudes toward friendships. The following hypotheses summarize the expected relationships.

- 5.0 There will be a main effect of type of friendship on evaluation of friendships.
- 5.1 Same-sex friendships will be evaluated higher than cross-sex friendships.
- 6.0 There will be a main effect of stereotyping on evaluation of friendships.
- 6.1 Low sex-stereotyped individuals will give significantly higher evaluations to friendships compared with high sex-stereotyped individuals.
- 7.0 There will be an interaction effect of sex stereotyping by type of friendship on evaluation of friendship.
- 7.1 High stereotyped individuals will give significantly higher evaluations to same-sex compared with cross-sex friendships. Low stereotyped individuals will not give significantly different evaluations to the two types of friendships.
- 7.2 For cross-sex friendships, low sex stereotyped individuals will give significantly higher evaluations than high sex-stereotyped individuals. For same-sex friendships, low sex-stereotyped individuals will not differ significantly on evaluations from high sex-stereotyped individuals.

METHOD

Procedure

A package containing a covering letter, the Friendship Questionnaire [see Appendix A], and a stamped, addressed, return envelope was delivered to 494 households drawn randomly from a sampling frame of 4,887 addresses. Addresses were compiled using the 1985 Vancouver City Directory and census maps of two residential areas judged to be representative of the City of Vancouver on the basis of average family income and level of education. The covering letter briefly explained the purposes of the study and indicated participation was voluntary. Approximately three-fifths of the covering letters requested that an adult male (21 years or over) complete the questionnaire, and the remainder asked that an adult female (21 years or over) complete it. Males were oversampled since women have been shown to be more likely than men to participate in volunteer studies (Davis & Todd, 1981; Rosenthal & Rosnow, 1975). Respondents were advised that if no adult in the household fit the description, the oldest male or female should complete the questionnaire.

Questionnaires were numbered and cross-referenced with addresses. Approximately three weeks after the first mailing addresses not responding received a follow-up card (see Appendix B). One month later 74 addresses, which had not responded, and which had originally received a request for a

male to participate, received a second follow-up letter (see Appendix C) and a copy of the questionnaire. Selection of these 74 addresses was made on the basis of their geographic proximity to one another and ease of access.

From the 494 questionnaires delivered in the first round and the 74 questionnaires reissued to a male subsample, 120 (24%)² were returned. One hundred and one questionnaires (62 female, 39 male) were usable, 12 were spoiled, and 7 were returned unanswered. The main problem with spoiled questionnaires was missing data on one or more scales measuring the independent and/or dependent variables.

Subjects

Respondents' mean age was 39.5 (males = 40.9, females = 38.5) with a range from 20 to 76 years. Approximately fifty-five percent of all respondents were married or cohabiting (48.7% of all males and 58.1% of all females fell into this category); 24.8% of the sample were single (35.9% of the males, 17.7% of the females) and 20.8% were either separated, divorced, or widowed (15.4% of the males, 24.2% of the females). Forty-six and a half percent of the respondents had no children. Approximately 25% of the respondents had annual family incomes of \$20,000 or less, 44.5% had annual family incomes between \$21,000 and \$40,000 and 30.7% were over \$40,000. The average income for families in the city as a

whole is just over \$32,000 (Statistics Canada, 1983). Slightly over fifty-eight percent of the respondents had some university education (51.3% of the males, 62.9% of the females). These figures are considerably higher than the 18% for the city as a whole, and the 25% for the two sampled census tracts (Statistics Canada, 1983).

Materials

The Friendship Questionnaire employed in this study was composed of a series of pencil-and-paper questionnaires. The first section of the Friendship Questionnaire requests background and demographic information including subjects' age, sex, marital status, family composition, education, income, and occupation. The second section contains questions about the number and quality of subjects' same- and cross-sex friendships, the frequency of interaction with friends, and subjects' attitudes toward friendships. The last section of the questionnaire consists of three scales. Two of these scales measure the independent variables sex-role orientation and sex stereotyping, the third scale is included as a "filler" and measures loneliness.

Quality of friendship was measured by asking subjects to indicate on a five-point scale, once for a same-sex friendship and once for a cross-sex friendship, how often (1=never to 5=always) they experience eight types of friendship interaction. Four of the eight interaction statements derive

from La Gaipa's (1977) research on friendship. Items from his Friendship Expectancy Inventory were factor analyzed to develop an overall quality of relationship scale (D. Perlman, personal communication, July 4, 1985). The resulting scale was administered to 43 university students in a pilot study I conducted. Students first rated a close same-sex friend using the scale, and then a close opposite-sex friend. Item-total correlations were used to select four statements for inclusion in the quality of same- and cross-sex friendship measures for the present study. Item-total correlations for the four items ranged from .70 to .79 on the same-sex friendship scale, and .72 to .85 on the cross-sex scale. A typical statement is "I feel free to express my most inner private feelings to my friend".

All four statements were judged to tap only expressive aspects of friendship experiences. Four additional items were developed to represent instrumental friendship behaviors. These items were selected from seven statements submitted to a panel of judges who rated them on the degree to which they reflected instrumental behaviors, and the frequency with which they were likely to occur in a friendship. The four items rated highest on instrumentality, which also received high ratings on frequency, were incorporated into the friendship experiences question for this study. An example of one of the

four items is, "I can ask my friend for advice on matters concerning my present job situation or my future work or retirement plans".

The final eight-item scales (four expressive and four instrumental items for each of same-sex and opposite-sex friendships) were pretested on a sample of twenty-eight university students. Item-total correlations for the four expressive items ranged from .48 to .77 for the same-sex friendship scale, and .77 to .84 for the cross-sex scale. Correlations for the four instrumental items ranged from .41 to .77 for same-sex friendships and .70 to .91 for cross-sex. Test-retest data from the same sample gave correlation coefficients of .81 for same-sex friendships and .89 for cross-sex. High scores across the eight-item scale indicate high quality friendships.

In addition to the two quality questions, subjects in the present study were asked to indicate how close they feel to the same- and opposite-sex friend referred to in the quality measure. This single-item scale ranges from 1 (not at all close) to 5 (extremely close) with high scores reflecting high quality friendships. Finally, subjects were asked to indicate the frequency of interaction in the same- and cross-sex friendship. The five categories were scaled so that one indicates low frequency of interaction and five high frequency. High scores reflect high levels of interaction.

A correlation matrix (see Appendix D) was calculated for the eight-item quality scale, the closeness items, and the frequency of interaction items. Correlations for quality and closeness were .65 for same-sex friendships and .72 for cross-sex. Frequency of interaction correlated only .30 with quality of same-sex friendships and .35 with quality of cross-sex friendships (all p values $<.001$). As a result, the single item closeness measure was combined with the eight-item quality scale to create overall quality scales for same- and cross-sex friendships. The frequency of interaction items were treated as separate dependent measures. The median inter-item correlations for the final nine-item quality scales were .41 for same-sex and .47 for cross-sex.

Attitudes toward friendships were measured with a series of questions developed specifically for this study to tap the evaluative component of attitudes. A semantic differential scale (Osgood, Suci & Tannenbaum, 1957) using eight adjective pairs related to evaluations of friendships was employed once for same-sex and once for cross-sex friendships. Subjects were asked to rate each adjective pair on a seven-point scale. To reduce response bias, four of the adjective pairs were reversed so that the "positive" adjective was at the left end of the scale. Scores for these four items were later reversed. High scores over all eight items reflect positive

attitudes toward the friendship.

Four of the eight adjective pairs selected for use in this study were based on friendship research by Davis and Todd (1985). Their work involved identifying characteristics and qualities important to the friendships relationship. The concepts of intimacy, acceptance, stability, and enjoyment were found to be some of the important aspects of friendships. These concepts are represented by four of the adjective pairs.

The other four pairs of words were used by Tannenbaum (1966) in a study on attitude change. He found the four adjective pairs to be a reliable measure of subjects' evaluations of different teaching methods. An example of one of the evaluative pairs is successful-unsuccessful. Test-retest data on the eight-item scales taken over a period of two weeks yielded correlation coefficients of .84 for same-sex friendships and .78 for opposite-sex.

In the present study, item-total correlations on the two 8-item evaluation scales indicated a weakness in item one (intimate--non-intimate) for both scales (see Appendix E). This item was dropped in subsequent analyses. Median inter-item correlations on the final seven-item scale were .67 for evaluation of same-sex friendships, and .53 for cross-sex.

Subjects were asked two additional questions designed specifically to tap attitudes toward cross-sex friendships. On a five-point scale from 1 (not at all acceptable) to 5

(completely acceptable) subjects rated the acceptability of opposite-sex friendships, first for themselves, and then for their spouse. (If the subject had no spouse he or she was asked to answer as if he or she did have a spouse.) The two items correlated .79 with each other and were combined to form a separate single item indicator of subjects' attitudes toward cross-sex friendships.

Sex-Role Orientation. Sex-role orientation was measured using the short form Bem Sex-Role Inventory (BSRI) (Bem, 1981). Subjects were asked to rate on a scale of 1 (never or almost never true) to 7 (always or almost always true) the degree to which 10 masculine, 10 feminine, and 10 neutral traits and characteristics were self descriptive.

Masculinity and femininity are conceptualized by Bem as two independent dimensions. As a result, the BSRI was designed to be able to identify people who possess both sets of traits. Empirical support for the independence of masculinity and femininity is provided by the low, and non significant correlations between the two scales. In a 1973 study the correlation for a sample of 279 females was .10 and for 444 males, .33. A 1978 study showed correlations for the two scales of .19 and .12 for 340 females and 476 males respectively (Bem, 1981). In this study masculinity correlated .24 ($p > .05$) with femininity for males and .11 ($p > .20$) for

females. The ability of the BSRI to measure masculinity and femininity independently makes it a preferred scale.

Items for the short form BSRI were selected in such a way that the internal consistency of both the masculinity and femininity scales, and their independence were improved over that of the original scale version (Bem, 1981). Item-total correlations for both scales were used to identify items with the highest correlations which were then included in the short form. Correlations on the feminine scale items ranged from .37 to .65, while masculine items ranged from .43 to .64. Test-retest reliability data from a sample of 28 males and 28 females, administered four weeks apart, gave reliability scores ranging from .76 to .91 (Bem, 1981).

A controversy exists over the best method for scoring the BSRI (see Spence, Helmrich & Stapp, 1975; Strahan, 1975; Bem, 1974, 1977). Originally Bem (1974) employed a difference score technique to classify subjects as sex-typed masculine, sex-typed feminine, or androgynous. Scoring was done using Student's t ratio to assess the difference between a person's endorsement of feminine and masculine items on the BSRI. Using this method of scoring, people with significantly higher scores on the masculine scale were classified sex-typed masculine, those with significantly higher scores on the feminine scale were classified sex-typed feminine, and all subjects with equal or similar scores on both scales were

labeled androgynous.

Spence, Helmreich, and Stapp (1975) pointed out the failure of this difference score procedure to separate people scoring low on both masculine and feminine scales from those scoring high on both. They claimed that low scorers, although giving equal endorsement to both sets of traits, were not equivalent to the high scorers and should therefore be placed in a fourth category which they called undifferentiated. In order to obtain a four-fold classification system--sex-typed masculine, sex-typed feminine, androgynous, and undifferentiated--scores for the masculine and feminine subscales are compared to the median score for all subjects. Subjects whose masculine and feminine scores are both above the median are classified androgynous, those with both scores below the median undifferentiated, and those with one score above and one below, sex-typed masculine or feminine.

Spence, Helmreich and Stapp (1975) provide a strong theoretical argument for including the category undifferentiated in sex-role orientation research. Accordingly, the median split scoring method will be used in this study.

Sex Stereotyping. A measure of sex stereotyping was developed specifically for this study. Although several measures of sex stereotyping exist (see Beere, 1979) none was

found suitable for the purposes of this study. Several of the scales are appropriate only for children, and the majority of measures assess subjects' knowledge about the specific activities, personality traits, or occupations associated with each gender (Beere, 1979). In the present study I am not interested in assessing knowledge about culturally defined sex stereotypes but rather in determining subjects' perceptions of the similarity or dissimilarity between males and females.

The two-part stereotyping measure used in the present study uses the same items and scale as in BSRI. Subjects are asked first to rate women on each item and second to rate men. Items in the stereotyping scale were randomly ordered in a different sequence than in the BSRI and were separated from the BSRI by a "filler" scale on loneliness.

Scores were calculated by taking the absolute difference of the rating given to women and men on each item. A score of zero suggests an absence of stereotyping (the subject does not see any differences between men and women), while a high score reflects a sex stereotyped person. Scores can range from a low of zero to a high of 180.

Although the stereotype measure is believed to have face validity, no other validity or reliability data have been obtained.

RESULTS

Sex-Role Orientation and Sex Stereotyping

To test for relatedness of the two independent variables, sex-role orientation and sex stereotyping, a Pearson correlation was calculated for all masculinity, femininity, and stereotyping scores. In addition, a 2 x 3 analysis of variance, with gender and sex-role orientation (androgyny, sex typed, undifferentiated)³ as between subjects factors and stereotyping as the dependent factor, was calculated. Femininity correlated $-.04$ with level of stereotyping and masculinity $-.11$, $p > .2$. The analysis of variance showed no sex-role orientation effects. Mean stereotyping scores for sex typed, androgynous, and undifferentiated individuals were 29.9, 30.8 and 31.0 respectively, $F(2,76) = .04$, $p > .10$. For all subsequent analyses, sex typing and level of stereotyping were treated as orthogonal.

The overall research paradigm was a repeated measures analysis of variance using a 2 x 3 x 2 x 2 design with sex of subject, sex-role orientation (sex typed, androgynous, undifferentiated), and level of sex stereotyping (low, high) as between subjects variables, and type of friendship (same-sex, cross-sex) as the within factor. This research design was used to analyse the two main dependent variables, quality of same- and cross-sex friendships, and evaluations of same- and cross-sex friendships. As noted previously, the frequency

of interaction items did not correlate strongly with the quality measures. Therefore, frequency of interaction was considered as a separate dependent measure and was analyzed using the repeated measures analysis of variance design described above.

An additional dependent measure considered in this study was acceptability of opposite-sex friendships. This item was asked only about cross-sex friendships and was therefore not incorporated with the evaluation scale since this would have created an 8-item scale for cross-sex friendships and a 7-item scale for same-sex friendships. Correlations for the acceptability item and the two evaluation scales were .16 ($p > .05$) for same-sex, and .31 ($p < .01$) for cross-sex. Acceptability of cross-sex friendships was analyzed using a $2 \times 3 \times 2$ analysis of variance with sex of subject, sex-role orientation and level of stereotyping as between subjects factors.

Sex-role Orientation and Friendships

Table I presents findings for sex-role orientation effects on each dependent measure. As predicted, there was a strong sex-role orientation main effect on quality of friendships, $F(2,55)=8.53$, $p < .01$. Tukey's HSD multivariate comparisons test ($P = .05$) showed androgynous individuals had significantly higher quality scores than sex typed and

undifferentiated ($\bar{M}=4.05, 3.62, 3.34$ respectively). The sex-typed and undifferentiated groups did not differ significantly from each other on quality scores. A sex-role orientation main effect was also found for frequency of interaction, $F(2,61)=4.21, p<.05$. Based on Tukey's comparisons, androgynous persons interacted significantly more with their friends ($\bar{M}=3.07$) than sex-typed ($\bar{M}=2.13$). Undifferentiated individuals did not differ significantly from the other two groups.

Although no predictions were made for sex-role orientation effects on evaluations of friendships, a main effect was obtained, $F(2,60)=4.56, p>.05$. Tukey-HSD post-hoc analysis ($p=.05$) showed androgynous persons differed significantly from sex-typed in their overall evaluations of friendships ($\bar{M}=6.61$ for androgynous and 6.09 for sex-typed). No other groups were significantly different from each other on evaluation of friendships.

Results from the analysis of variance for acceptability of cross-sex friendships showed a main effect for sex-role orientation, $F(2,72)=3.59, p<.05$. No two groups were significantly different using Tukey-HSD analysis. Accordingly, Duncan's multiple range test was used with alpha set to .05. Duncan's post-hoc comparison test is a slightly less conservative test than the Tukey. This subsequent

Table I. Mean Scores on Dependent Measures by Sex-Role Orientation

Measure	SRO			Mean Sqs.	F Ratio
	Sext	Andro	Undiff		
Quality	3.62	4.05	3.34	5.85	(2,55)=8.53*
Frequency	2.13	3.07	2.27	9.36	(2,61)=4.21*
Evaluation	6.09	6.61	6.21	3.70	(2,60)=4.56*
Acceptability	4.00	4.65	3.98	3.75	(2,72)=3.59*

Note. * $p < .05$

Table II. Mean Scores on Dependent Measures by Level of Sex Stereotyping

Measure	Stereotyping		Mean Sqs.	F Ratio
	Low	High		
Quality	3.84	3.56	1.08	(1,55)=1.57
Frequency	2.38	2.67	4.32	(1,61)=1.95
Evaluation	6.30	6.35	.17	(1,60)= .21
Acceptability	4.45	4.04	3.11	(1,72)=2.98

Note. None of the above F values were significant.

analysis indicated that the androgynous group were significantly more accepting of cross-sex friendships ($\underline{M}=4.65$) compared with the sex-typed ($\underline{M}=4.00$) and undifferentiated groups ($\underline{M}=3.98$). The sex-typed and undifferentiated groups did not differ significantly from one another.

Sex Stereotyping and Friendships

Results for level of sex stereotyping on friendship outcomes are presented in Table II. No support was found for predictions of stereotyping effects on quality of friendships, $\underline{F}(1,55)=1.57, p>.10$. Mean quality scores were 3.84 for low stereotyped adults compared with 3.56 for high stereotyped adults. No stereotyping effects were obtained for frequency of interaction in friendships, $\underline{F}(1,61)=1.95, p>.10$, nor for evaluation of friendships, $\underline{F}(1,60)=.21, p>.10$. A non-significant stereotyping trend was found for acceptability of opposite-sex friendships, $\underline{F}(1,72)=2.98, p<.10$. Low sex-stereotyped persons had more accepting attitudes toward opposite-sex friendships for themselves and their spouse ($\underline{M}=4.45$) than did high stereotyped persons ($\underline{M}=4.04$).

Other outcomes

As predicted, a main effect for type of friendship on quality was found. Same-sex friendships received significantly higher scores on quality ($\underline{M}=3.99$) compared with cross-sex ($\underline{M}=3.41$), $\underline{F}(1,55)=33.24, p<.01$. This trend was

not found for frequency of interaction $F(1,61)=.77$, $p>.10$. Frequency of interaction in same-sex friendships did not differ significantly from frequency in cross-sex friendships ($M=2.64$ and 2.43 respectively). A non-significant main effect for type of friendship on evaluation of friendships was found, $F(1,60)=3.31$, $p<.10$. Same-sex friendships were evaluated more positively ($M=6.42$) than cross-sex ($M=6.24$). (See Table III).

A sex of subject by type of friendship interaction on quality was also found, $F(1,55)=1.57$, $p<.05$. (See Table IV). However, post-hoc analysis showed no significant differences between gender groups at the .05 level. Females rated their same-sex friendships slightly higher than males ($M=4.05$ and 3.88 respectively) and mean quality scores for the two groups were essentially the same on cross-sex friendships ($M=3.36$ for female subjects, 3.49 for males).

Tables showing the results for the repeated measures analysis of variance on quality, frequency and evaluation, and the analysis of variance on acceptability of cross-sex friendships are shown in Appendix F.

Table III. Type of Friendship Main Effects on Quality, Frequency and Evaluation of Friendships

Measure	Type of Friendship		Mean Sqs.	F Ratio
	Same-Sex	Cross-Sex		
Quality	3.99	3.41	8.14	(1,55)=33.24*
Frequency	2.64	2.43	1.07	(1,61)= .77
Evaluation	6.42	6.24	.97	(1,60)= 3.31

Note. *p = .001, all other F values were non-significant

Table IV. Quality Scores for Type of Friendship X Sex of Respondent Interaction

Type of Friendship					
Same-Sex		Cross-Sex		Mean Sqs.	F Ratio
Females	Males	Females	Males		
4.05	3.88	3.36	3.49	1.09	(1,55)=4.43*

Note. * p<.05

In summary, hypotheses 1 and 2 were strongly supported by the data. Same-sex friendships were rated higher in quality than cross-sex, and androgyny was related to higher quality scores. The prediction that sex-typed individuals would have higher quality friendships than undifferentiated (hypothesis 2.2) was not supported. Hypothesis 5 obtained modest support ($p < .05$), with same-sex friendships receiving higher evaluations ($M = 6.42$) than cross-sex ($M = 6.23$). The data did not support stereotyping effects on quality of friendships (hypotheses 3 and 4), nor stereotyping effects on evaluation of friendships (hypotheses 6 and 7).

DISCUSSION

Sex-Role Orientation and Friendships

Results for sex-role orientation effects were strong and consistent across three of the dependent measures--quality of friendships, frequency of interaction, and evaluation of friendships. The separate analysis for acceptability of cross-sex friendships also supported a sex-role orientation effect. Androgynous individuals consistently reported higher quality in their friendships, experienced higher levels of interaction, and evaluated friendships more positively than sex-typed masculine and feminine persons. The androgynous group also tended to be more accepting of opposite-sex friendships for themselves and their spouses compared with the sex-typed group.

The sex-role orientation effects found in the present study are interpreted as reflecting the greater behavioral flexibility associated with androgyny. Androgynous individuals are defined as having a range of personality characteristics that incorporates both a masculine/instrumental and a feminine/expressive dimension. This allows the androgynous person to be better able to respond appropriately and with ease in a variety of situations. In contrast, sex-typed persons are defined as having internalized only expressive traits or only masculine characteristics and are consequently less effective in situations that may demand qualities in

which they are deficient.

Androgyny has been associated with greater behavioral flexibility on both an individual, and interactional level (see Spence & Helmreich, 1978 for a review). Bakan (1966) argued that individuals and society suffer if instrumental or expressive qualities are represented to the exclusion of the other. A review of relevant literature by Maccoby (1966) provides support for this claim at the level of the individual. In addition, androgynous persons have been found to perform cross-sex tasks with relative ease (Bem & Lenney, 1976), and to display both a "masculine" and "feminine" side of their personalities (Bem, 1975; Bem, Martyna & Watson, 1976). On an interactional level, dyads composed of at least one androgynous individual have been shown to have more satisfying interactions and higher levels of interaction than dyads with no androgynous members (Ickes & Barnes, 1978; Ickes, Schermer & Steeno, 1979; Lamke & Bell, 1982).

The present study lends further support to the thesis that androgyny encourages maximal functioning in a social system. Androgynous individuals had better quality relationships than either sex-typed or undifferentiated individuals. In addition, people who scored as androgynous interacted more with their friends than people who scored as sex-typed.

It could be argued that it is a social desirability effect, not a sex-role orientation effect, that explains the findings in the present study. The 30-item BSRI scale taps only socially desirable traits and characteristics. People who endorse both masculine and feminine qualities from the scale may not actually be androgynous but may simply be responding in a socially desirable manner.

In order to eliminate this alternative explanation a oneway analysis of variance was calculated for the three sex-role orientation groups using scores for the 10 neutral (neither feminine nor masculine) BSRI items. If a social desirability effect was operating, individuals who scored as androgynous should have significantly higher neutral-item scores compared with sex-typed and undifferentiated individuals. The analysis showed a main effect for sex-role orientation on neutral scores, $F(2,79)=12.10$, $p<.01$, however, Tukey's comparisons ($p=.05$) indicated that the androgynous and sex-typed groups did not differ significantly from each other ($\bar{M}=6.04$ and 6.06 respectively). The two groups were significantly different from the undifferentiated ($\bar{M}=5.46$) on neutral scores.

While this analysis suggests social desirability is not necessarily a factor (since androgynous individuals did not score higher on neutral items compared with sex-typed), it does not entirely rule out the possibility. Neutral scores

for androgynous individuals were still high. A second analysis was therefore done to determine if androgynous individuals reported having significantly more friends than the other sex-role orientation groups. Because having friends is regarded as a good thing, individuals responding in socially desirable ways might be expected to inflate the number of friends they report. The analysis of variance indicated no significant differences among the three groups on number of friends. In fact, although differences were non-significant, it was the sex-typed individuals, not the androgynous, who reported the highest number of friends ($M=11.08$ compared with 9.14). Based on the above analyses a social desirability response bias was ruled out.

Data collected in the present study indicate that individuals who possess high and equal levels of instrumental and expressive qualities (androgynous individuals) experience higher quality interaction in their friendships. The fact that the influence of sex-role orientation was strong in the study of friendships suggests that the effects are quite powerful. Traditional study designs, which use short, structured settings to examine the impact of sex-role orientation, have been criticized because they virtually insure that sex-role orientation effects will be found (Ickes, 1981). The argument is that individuals rely only on

well-learned behaviors when they are in unfamiliar settings with strangers. For sex-typed individuals this would mean a limited range of behaviors. As a result significant sex-role orientation effects might be expected in studies using brief encounters between strangers. To counteract this problem Ickes (1981) used a different methodology than the previous studies and had individuals interact in unstructured settings over a period of 5 minutes. Lamke and Bell (1982) extended the Ickes' paradigm to two 5-minute meetings, and one 10-minute meeting for a total of 20 minutes. Even over these extended periods of interaction strong sex-role orientation effects were detected.

The present research extends further the boundaries and conditions under which interaction takes place, and therefore provides a more robust test for sex typing effects. The very nature of a friendship in which actors have a history of shared experiences encourages participants to be fluid in their interactions. Where strangers might tend to assume rigidly defined roles vis a vis one another, friends are free to express a full range of personality characteristics (Davis & Todd, 1985). For sex-typed individuals this might mean the less developed qualities of the opposite sex-role orientation would be expressed. Any effect of sex-role orientation in differentiating friendships on quality may be minimized, therefore, by the effects of the relationship (the friendship)

itself. The fact that this was not the case in the present study suggests that sex-role orientation exerts a strong force on interpersonal interaction.

Sex-role orientation effects were unexpected for evaluations of friendships, but results showed androgynous individuals rated friendships more positively than did sex-typed, and were more accepting of cross-sex friendships for themselves and their spouses. It was predicted that sex stereotypes (cognitions) not sex-role orientations (behavioral styles) would influence evaluations of same- and opposite-sex friendships. The rationale for this prediction related to sex-role orientations as patterns of social behavior. Because the different sex-roles translate into distinct styles of interaction, it was expected their influence would be on the interaction in the actual friendship and consequently the quality of the friendship. Evaluations which derive from cognitions about a target object were expected to be influenced by level of sex stereotyping not by the individuals particular style of social interaction.

In light of the main effects found for sex role orientation on evaluations found in the present study, a modification of the original theoretical model was required. To review the model, sex role orientation was predicted to influence the quality of individuals own friendships through

differences in capacities for social behavior. Sex stereotyping was predicted to influence both the quality of individuals own friendships and their evaluations of the concepts same- and opposite-sex friendship through its effect on cognitive processing. It appears likely, however, that the experiences a person has in his or her actual same- and cross-sex friendships would influence how they would evaluate same- and cross-sex friendships in general. The influence, then, of sex-role orientations on evaluations of same- and opposite-sex friendships is through the experiences in actual friendships.

An unexpected pattern emerged in the analyses with sex-role orientations. It was predicted that the sex-typed would have significantly higher quality friendships compared with the undifferentiated (hypothesis 2.2). This, however, was not the case. The undifferentiated did not differ significantly from the sex-typed on quality of friendships, and they did not differ significantly from either the sex-typed or androgynous on frequency of interaction. Using the argument that the three sex-role orientations reflect different capacities to interact in a social exchange, the undifferentiated, who are defined by relatively low levels of instrumental and expressive qualities, should be the least "successful" in their social interactions. Instead, they were only slightly lower than sex-typed on quality ($\bar{M}=3.34$ compared with 3.62), and were slightly higher on frequency of interaction ($\bar{M}=2.27$ and 2.13).

Some of the apparent confusion may stem from the nature of what it means to be undifferentiated, a classification Ickes (1981) refers to as a default category. Early work by Bem (1974) failed to identify the undifferentiated sex-role orientation. Later, Spence, Helmreich and Stapp (1975) pointed out the potential value in separating individuals with high scores on both masculine and feminine scales (the androgynous) from those with low scores on both scales (the undifferentiated). They found that persons classified as undifferentiated were lower in self-esteem (Spence, Helmreich & Stapp, 1975). In response to the Spence et al. criticism, Bem (1977) compared the three sex-role orientation groups on six outcome variables, including self-esteem. In general, the androgynous and undifferentiated were significantly different only on self-esteem, with the undifferentiated scoring lower than the androgynous. The groups did not differ in any predictable way on the other five measures. Bem (1977) pointed out the problems associated with using a category with low predictive power but agreed the undifferentiated classification should be maintained. Results from the present study suggest the undifferentiated classification continues to be problematic and no conclusive statements can be made concerning outcomes for this group.

Level of Sex Stereotyping and Friendships

None of the hypotheses relating level of stereotyping to friendship outcomes was supported. Low sex-stereotyped adults did not differ significantly from high stereotyped adults in the reported quality of their friendships, the frequency of interaction in their friendships, and in their evaluations of same- and cross-sex friendships. A non-significant trend was evident for stereotyping effects on individuals acceptance of cross-sex friendships. Low stereotyped persons were more accepting ($\underline{M}=4.45$) of these relationships for themselves and their spouses than high stereotyped persons ($\underline{M}=4.04$, $\underline{F}(1,72)=2.98$, $p<.10$).

Several factors may account for these non-significant findings. First, assuming that the measures of stereotyping, quality of same- and cross-sex friendships, and evaluations of same- and cross-sex friendships are valid and reliable, it may be that the reasoning used to establish a link between level of sex stereotyping and the dependent variables is faulty. Previous research has established that stereotyping schemas do in fact bias perceptions in the direction of the stereotype. However, this research also indicates that stereotypes are most likely to be used when no information is available other than group membership (e.g. gender), and/or when the situation is ambiguous (Ruble & Ruble, 1982). Also, the sex typing of the task influences the probability of a stereotype being used

(Ruble & Ruble, 1982). With respect to the non-significant findings for respondents' evaluations of friendships, it may be that the scales used to measure evaluations failed to trigger the use of gender schemas. Gender information was provided in the evaluations scales but it was not the only information provided, and the task was neither ambiguous nor sex typed. Consequently the measure may not have met the conditions for use of stereotypes and individuals may not have used their gender schemas when making judgments about same- and cross-sex friendships.

A related factor is that over time and in close friendships the effects of stereotyping may be diminished by the effect of information that is contrary to the stereotype and, by increased familiarity with the target person (see Jones & Nisbett, 1972). High sex stereotyped persons may have their gender schemas continually challenged by interactions in their cross-sex friendships that go against their stereotypes. Men's and women's close same-sex friendships of long duration have been shown to be surprisingly similar (Rose, 1985). Consequently, one might expect that sex stereotyped persons in close cross-sex friendships would enjoy reasonably compatible relationships and there would be ample instances where the influence of sex stereotypes on the relationship could be moderated by contradictory actions. As

a result, stereotyped persons may come to view their cross-sex relationships as exceptions to the rule in terms of their sex stereotype schemas. Similarly, the increased familiarity between sex stereotyped individuals and cross-sex friends would shift the emphasis from the use of stereotypic attributions for explaining interactions to situational attributes (see Jones & Nisbett, 1972). With such a shift, sex stereotypes would not have the impact on interactions in the friendships that would otherwise be expected. With respect to the present study, this would explain the lack of stereotyping effects on quality in people's same- and cross-sex friendships.

The foregoing argument may also be relevant to the non-significant findings for evaluations. Individuals were asked for their attitudes toward the concepts same- and opposite-sex friendship, but they may have simply evaluated their own friendships. Quality correlated .49 with evaluation for same-sex friendships and .27 for cross-sex ($p < .01$). The unexpectedly high quality in the friendships of the high sex stereotyped individuals would therefore be reflected in the evaluations of these same friendships.

Problems associated with sample size offer an alternative explanation for non-significant findings for level of sex stereotyping. Despite initial sampling of nearly 500 adults, only 120 questionnaires were returned, 101 of which were

usable. Of the usable questionnaires, 15 had data missing on one or more scales. With three independent variables in the analyses final cell sizes were smaller than recommended for survey research (Roscoe, 1975). Subsequent analyses were done with sex-role orientation dropped from the equation to see if stereotyping effects could be detected with larger cell frequencies. These analyses revealed a stereotyping effect for quality of friendships $F(1,78)=4.72$, $p<.05$, with low stereotyped individuals giving higher average ratings on quality ($\bar{M}=3.81$) compare with high stereotyped ($\bar{M}=3.48$). However, increasing cell sizes for the analysis on evaluation of same- and cross-sex friendships did not alter the non-significant stereotyping findings.

A final possibility is that psychometric problems associated with one or more of the stereotyping, quality, and evaluation scales may have undermined the relationship between sex stereotyping and friendship outcomes. All scales were judged to have face validity and reliability data were collected for the dependent variables. With respect to the stereotyping measure it may be that individuals were not accurately categorized into low and high sex stereotyped groups. The measure was adapted from work by Martin (1984) and uses the same items as the BSRI. Respondents rated men and women on the thirty BSRI traits on a 7-point scale. Scores

were calculated as the absolute difference between ratings for women and men on each item. While this gives an indication of the degree to which people view men and women as different, it does not indicate if the differences are in culturally-defined stereotypic directions. An alternate procedure (see Appendix G) was used to obtain classifications for high sex-stereotyped and low sex-stereotyped individuals based on culturally-defined masculine and feminine characteristics. The categories were divided at the median (1.8) with respondents scoring above the median labeled high sex stereotyped and those below, low sex stereotyped. The culturally defined stereotyping scores correlated .78 with scores obtained by the absolute differences method.

Repeated measures analyses of variance using gender, sex-role orientation, and culturally-defined level of stereotyping as between factors, were calculated for each dependent measure. As with the original ANOVARS no stereotyping main or interaction effects were found. (See Table V). An analysis of variance using the culturally-defined stereotype groups was calculated for acceptability of cross-sex friendships. The analysis showed no stereotyping effects. Low stereotyped individuals were as accepting of cross-sex friendships ($\bar{M}=4.38$) as high stereotyped ($\bar{M}=4.10$, $F(1,73)=1.32$, $p>.10$). Evidence from the subsequent analyses using culturally-defined stereotyping groups suggest the decision to score stereotyping

Table V. Mean Scores on Dependent Measures by Culturally-Defined Sex Stereotypes

Measure	Stereotyping		Mean Sqs.	F Ratio
	Low	High		
Quality	3.73	3.65	.11	(1,56)= .16
Frequency	2.39	2.71	2.01	(1,62)= .80
Evaluation	6.34	6.33	.03	(1,61)= .04
Acceptability	4.38	4.10	1.39	(1,73)=1.32

Note. None of the above F values were significant.

as the absolute differences between ratings for men and women did not account for the non-significant findings. Of course, other psychometric weaknesses in the stereotyping measure, such as low reliability or precision, may have undermined the strength of the relationship between stereotyping and friendships outcomes.

Problems associated with weaknesses in the stereotyping measure, the conditions under which people use stereotypes, and sample size may have contributed to a failure in this study to detect sex stereotyping effects.

Same-sex and Cross-sex Friendships

While very few studies specifically address the question of how same-sex friendships compare with cross-sex, the former seem to be characterized by more involving exchanges (Davis & Todd, 1985) and higher levels of assistance and loyalty (Rose, 1985). The present study provides further evidence for an apparent advantage of same-sex over cross-sex friendships. As measured in this study, same-sex friends experienced higher quality relationships compared with cross-sex friends ($M=3.99$ and 3.41 respectively, $p<.01$).

Two related factors probably contribute to the relative advantage of same-sex friendships. First, social norms favor the formation and maintenance of same-sex over opposite-sex friendships and discourage cross-sex friendships outside the couple unit (Hess, 1972). Second, this normative pressure, in

part, determines the relative numbers of each type of friendship. Opposite-sex friendships are common during the mate-selection years, ususally the late teens and early twenties. However, once intimate heterosexual pairs are formed the number of cross-sex friendships declines and/or involvement in the friendships is reduced. The potential to achieve a high level of quality in cross-sex friendships is reduced with fewer opposite-sex friends with which to interact and with constraints placed on the interactions.

The gender composition of same-sex compared with cross-sex friendships is another factor that probably contributes to differences in quality. Most people identify, at some level, with their own gender group, and feel they share common life experiences and interests with same-sex others. This perception of a common bond may translate into reports of higher quality in same-sex compared with opposite-sex friendships. Differences in the status afforded women and men in our society may also contribute to lower quality in cross-sex compared with same-sex friendships (Rose, 1985). In a recent study Rose (1985) found men provided companionship to female friends in exchange for acceptance and intimacy while women settled for less acceptance and intimacy in return for the status afforded them through an opposite-sex friendship. The different interaction dynamics that appear to be present

in the cross-sex friendships may account in part for the lower quality found in these relationships relative to same-sex friendships.

Sex differences in same-sex friendships might also contribute to differences between same-sex and opposite-sex friendships. If women have different experiences or expectations in their same-sex friendships compared with men, then it might be expected that a male-female friendship would not necessarily meet the needs of each of the participants. Generally, women's same-sex friendships center around personal and emotional exchanges while men's same-sex friendships stress activity as the basis for interacting (Bell, 1982; Caldwell & Peplau, 1982). Women tend to have more intimacy in their friendships (Fischer & Narus, 1981), perhaps because men disclose less personal information to their friends (Wright, 1982). In terms of relationship development, women's friendships are characterized from the start by equal emphasis on behavioral interdependence and psychological sharing. For men, behavioral interdependence is primary in the early stages of relationship development and psychological sharing is secondary. Only after a period of about twelve months does psychological sharing in men's friendships reach the same level as behavioral interdependence (Wright, 1982). It is possible that the differences in relationship development and friendship activities may prohibit some cross-sex friendships

from progressing to more involving stages that would lead to higher quality relationships.

While sex differences in men's and women's same-sex friendships may contribute to differences in quality between same-sex and opposite-sex friendships, the findings for sex differences must be interpreted with caution. Wright (1982) found that men's and women's same-sex friendships which were of long duration or high level of involvement did not differ appreciably from each other. Rose (1985) confirms this. She reports "sex similarities in same-sex close friendship functioning, formation, and maintenance predominated in participants' descriptions of friendships" (1982; p. 73) [Emphasis mine.]

Summary

The present study attempted to gain a better understanding of how two individual differences variables -- sex-role orientation and level of sex stereotyping--contribute to differences in quality and evaluation of same- and opposite-sex friendships. The study differed in important ways from previous research by selecting a non-university sample, by asking individuals about their actual friendships, and by using multi-dimensional measures of quality and evaluation of friendships.

The data provided strong support for sex-role orientation

effects on ongoing social relationships. While the undifferentiated continues to be a problematic category for making predictions, the androgynous clearly have an advantage over the sex-typed in the quality of their relationships. The greater behavioral flexibility of the androgynous sex-role was implicated in these findings. The failure to find stereotyping effects on quality and evaluation of friendships may be due in part to inadequacies in the stereotyping measure and/or the instrument used to measure attitudes toward the concepts same- and cross-sex friendship. It may be that people regard their cross-sex friends as exceptions to gender stereotypes and as a result of good quality cross-sex friendships they hold positive attitudes toward the idea of opposite-sex friendships. However, valid and reliable measures need to be developed for assessing not only level of sex stereotyping but also attitudes toward friendships before firm conclusions can be drawn. More research also needs to be done to establish what sex differences, if any, truly exist between men's and women's same-sex friendships. This would provide a better basis for developing measures to assess quality in opposite-sex friendships.

With the changing roles for both men and women in our society, opposite-sex friendships outside the couple unit may become more prevalent. As men and women interact on more equal ground in the work place and elsewhere, friendship bonds are

more likely to occur across gender boundaries. Identifying how these relationships are similar and different from same-sex friendships, and finding ways to enhance the quality of these friendships may provide many people with a previously untapped source of social support.

FOOTNOTES

¹Spence and Helmreich (1979) now use the terms instrumental and expressive.

²The low response rate is probably attributable to two factors. First, the sample from each census tract contained a large number of elderly people. Several of these potential respondents called or wrote to say they did not feel their opinions were of value. Second, there was a large ethnic population in one census tract. Language and cultural differences likely inhibited these people from responding.

³Sex typed feminine females and sex typed masculine males were placed in a single category labeled sex typed and gender was used as a separate factor in all analyses. Eighteen cross-sex typed subjects (6 feminine males, 12 masculine females) were dropped from the analyses.

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Appendix A

THE UNIVERSITY OF BRITISH COLUMBIA
School of Family and Nutritional Sciences
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VANCOUVER, B.C., CANADA
V6T 1W5

Division of Family Sciences

"a penny for your thoughts"

Friendship Study

I am a graduate student at U.B.C. in the School of Family and Nutritional Sciences. As part of my master's degree, I am undertaking a study on adult friendships. Although many studies are conducted using university students, I feel students do not necessarily represent the views of most people. For this reason I have delivered questionnaires to a representative sample of households in Vancouver.

At first it may seem unimportant to study friendship, especially with current world problems. But perhaps because of these problems, it is even more important to know something about friendship and the role friends play in our lives. For many people, friends are a major source of assistance, comfort, emotional sharing, and just plain fun. A recent article in the Vancouver Sun (Feb. 3rd) dealt with the importance of friendships. However, the information was based on American data and it is important for us to know more about friendships from a Canadian point of view.

All information obtained in this study will be held in strictest confidence, and will be used in statistical form only. You are not asked to give your name anywhere on the questionnaire. Access to completed forms will be restricted to myself and my three-member research committee. You are under no obligation to complete the enclosed questionnaire, and you are free to refuse to answer any or all of the questions. Of course, I hope you will find it of interest and decide to participate. It should take 20 to 30 minutes to complete the questions.

For your household, I would ask that an adult FEMALE (21 years or older) complete the questionnaire. (Some households have been asked to have an adult male participate.) If no adult female is available in your household, the enclosed questionnaire can be answered by an adult male. If no member of the household is over 21 please have the oldest member,

Social Relationships Questionnaire

This questionnaire has to do with your attitudes and feelings about friendships and friends, as well as your views on some related matters. Because I am interested in YOUR opinions, I would ask that you not share this questionnaire with any of your friends or family, but rather that you complete it on your own. You are free to refuse to answer any or all of the following questions. All information will be held in strictest confidence. While the questionnaire may appear to be lengthy, it is mostly a result of the spacing of questions for easier reading. Also some questions are quite similar to one another. Completion of the questionnaire should take approximately 30 minutes. Please answer the questions in the order presented as completely and accurately as possible.

Upon completion of the questionnaire please return it to me in the enclosed stamped, addressed envelope. Thank you very much for your assistance.

Yours truly,

Linda M. Conrad

PART I

GENERAL BACKGROUND INFORMATION

1. Please indicate your sex by circling the appropriate number.

1. male 2. female

2. Please state your age in years. _____ years old.

3. What is your current marital status?
Please circle the appropriate number.

1. never married 4. divorced/separated
2. married 5. widowed
3. cohabiting

4. How long have you been with your current spouse/
partner? Please circle the number for your answer.

1. not currently 4. 16 - 25 years
 married/cohabiting
2. less than 5 years 5. over 25 years
3. 6 - 15 years

5. How many children do you have? Circle the
number for your answer.

1. none 4. three children
2. one child 5. four or more children
3. two children

6. What is the age of your oldest child?

_____ do not have any children.

_____ years old

7. Please circle the number that indicates your level of education.

- | | |
|--------------------------------------|------------------------------------|
| 1. high school graduation
or less | 3. university
(no degree) |
| 2. trade or other
schooling | 4. university
(degree obtained) |

8. Please circle the number that best reflects your current job classification. If you are retired or unemployed, please check this space _____, and indicate what kind of job you did before retirement/unemployment.

- | | |
|--|---|
| 1. service worker (including
domestic helper) | 6. homemaker |
| 2. labourer (including
farm worker) | 7. professional,
technical or
similar |
| 3. machine, transport
equipment operator | 8. student |
| 4. craftsman, foreman
or similar | 9. manager,
administrator,
business owner |
| 5. sales worker | 10. clerical or
similar |

9. Please circle the number that best reflects your annual family level of income (before taxes).

- | | |
|-----------------------|----------------------|
| 1. less than \$10,000 | 4. \$31,000 - 40,000 |
| 2. \$10,000 - 20,000 | 5. \$41,000 - 50,000 |
| 3. \$21,000 - 30,000 | 6. over \$50,000 |

PART II

FRIENDSHIP QUESTIONS

10. This next question asks that you list, by initials only, people whom you consider to be "good friends". In answering this question please use the following definition of friend:

"A good friend is someone you like, someone with whom you enjoy doing things, and/or someone with whom you feel comfortable discussing personal matters."

Using the above definition give the initials of the people whom you call friends. Do NOT include your spouse, cohabiting, or dating partner. You do not need to list a person for each space.

Beside each set of initials indicate the sex of the friend by circling the appropriate letter: m=male, f=female; indicate how close you feel to the friend: 1=NOT VERY CLOSE, 5=EXTREMELY CLOSE; and finally, indicate how frequently you get together with the friend: 1=once a month, 2=two-three times a month, 3=four-five times, 4=six-seven times, 5=eight or more

SEX		CLOSENESS					CONTACT				
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5
_____	m f	1	2	3	4	5	1	2	3	4	5

11. Think about a good friend of the opposite-sex as you. Circle the appropriate number on the scale after each of the statements to indicate how often you experience what is described. Answer in terms of a good opposite-sex friend. Do not include a spouse, dating or romantic partner.

	<u>Never</u>			<u>Always</u>	
	1	2	3	4	5
My friend shows concern for my welfare and helps promote it.	1	2	3	4	5
I feel able to ask my friend for advice on where to get a deal or on what brand name to buy.	1	2	3	4	5
I feel free to express my private feelings to my friend.	1	2	3	4	5
My friend teaches me to do things like play a sport or make something.	1	2	3	4	5
I talk to my friend about personal matters.	1	2	3	4	5
I ask my friend for advice concerning my present job situation or future work or retirement plans.	1	2	3	4	5
My friend shows that he/she knows how I feel even when I can't put it into words.	1	2	3	4	5
I enjoy building or making things <u>and/or</u> organizing/ planning things with my friend.	1	2	3	4	5

- 11(a) How often do you see this friend? Please circle the number that best reflects your answer.

- | | |
|-------------------------|----------------------------|
| 1. once a month or less | 4. 6 - 7 times a month |
| 2. 2 - 3 times a month | 5. 8 or more times a month |
| 3. 4 - 5 times a month | |

11(b) Overall, how close would you say you and this friend are? Circle the number on the scale for your answer.

NOT AT ALL CLOSE

EXTREMELY CLOSE

1

2

3

4

5

12. The following sets of words can be used to describe either two people in a friendship or the friendship itself. Place an X on the line between the two words to indicate how much YOU believe the word describes an opposite-sex friendship. This does not mean YOUR opposite-sex friendship, but rather any such friendship.

intimate

non-intimate

_____ : _____ : _____ : _____ : _____ : _____ : _____

bad

good

_____ : _____ : _____ : _____ : _____ : _____ : _____

relaxed

nervous

_____ : _____ : _____ : _____ : _____ : _____ : _____

worthless

valuable

_____ : _____ : _____ : _____ : _____ : _____ : _____

acceptable

unacceptable

_____ : _____ : _____ : _____ : _____ : _____ : _____

unsuccessful

successful

_____ : _____ : _____ : _____ : _____ : _____ : _____

stable

unstable

_____ : _____ : _____ : _____ : _____ : _____ : _____

unimportant

important

_____ : _____ : _____ : _____ : _____ : _____ : _____

13. Think about a good friend of the same-sex as you. Circle the appropriate number on the scale after each of the statements to indicate how often you experience what is described. Answer in terms of a good same-sex friend.

	<u>Never</u>		<u>Always</u>		
	1	2	3	4	5
My friend shows concern for my welfare and helps promote it.	1	2	3	4	5
I feel able to ask my friend for advice on where to get a deal or on what brand name to buy.	1	2	3	4	5
I feel free to express my private feelings to my friend.	1	2	3	4	5
My friend teaches me to do things like play a sport or make something.	1	2	3	4	5
I talk to my friend about personal matters.	1	2	3	4	5
I ask my friend for advice concerning my present job situation or future work or retirement plans.	1	2	3	4	5
My friend shows that he/she knows how I feel even when I can't put it into words.	1	2	3	4	5
I enjoy building or making things <u>and/or</u> organizing/ planning things with my friend.	1	2	3	4	5

- 13(a) How often do you see this friend? Please circle the number that best reflects your answer.

- | | |
|-------------------------|----------------------------|
| 1. once a month or less | 4. 6 - 7 times a month |
| 2. 2 - 3 times a month | 5. 8 or more times a month |
| 3. 4 - 5 times a month | |

13(b) Overall, how close would you say you and this friend are? Circle the number on the scale for your answer.

NOT AT ALL CLOSE

EXTREMELY CLOSE

1

2

3

4

5

14. The following sets of words can be used to describe either two people in a friendship or the friendship itself. Place an X on the line between the two words to indicate how much YOU believe the word describes a same-sex friendship. This does not mean YOUR same-sex friendship, but rather any such friendship.

intimate

non-intimate

_____ : _____ : _____ : _____ : _____ : _____ : _____

bad

good

_____ : _____ : _____ : _____ : _____ : _____ : _____

relaxed

nervous

_____ : _____ : _____ : _____ : _____ : _____ : _____

worthless

valuable

_____ : _____ : _____ : _____ : _____ : _____ : _____

acceptable

unacceptable

_____ : _____ : _____ : _____ : _____ : _____ : _____

unsuccessful

successful

_____ : _____ : _____ : _____ : _____ : _____ : _____

stable

unstable

_____ : _____ : _____ : _____ : _____ : _____ : _____

unimportant

important

_____ : _____ : _____ : _____ : _____ : _____ : _____

In answering the next few questions, keep in mind the definition of friend:

A good friend is someone you like, someone with whom you enjoy doing things, and/or someone with whom you feel comfortable discussing personal matters.

15. How important are friendships to you?

NOT AT ALL
IMPORTANT

VERY
IMPORTANT

1 2 3 4 5

16. How acceptable do you feel it is (or would be)

a) for you to have friendships with members of the opposite sex? (REMEMBER this does not mean with a spouse/cohabitor or romantic partner.)

NOT AT ALL
ACCEPTABLE

COMPLETELY
ACCEPTABLE

1 2 3 4 5

b) for your spouse to have friendships with members of the opposite sex? (If you do not have a spouse answer how you think you would if you had a spouse.)

NOT AT ALL
ACCEPTABLE

COMPLETELY
ACCEPTABLE

1 2 3 4 5

IF YOU ARE MARRIED, COHABITING OR HAVE A ROMANTIC PARTNER
PLEASE ANSWER THIS NEXT QUESTION, OTHERWISE GO ON TO PART III.

17. How acceptable do you think your partner feels it
is

a) for you to have a friendship with someone of
the opposite sex?

NOT AT ALL
ACCEPTABLE

COMPLETELY
ACCEPTABLE

1 2 3 4 5

b) for themselves to have a friendship with someone
of the opposite sex?

NOT AT ALL
ACCEPTABLE

COMPLETELY
ACCEPTABLE

1 2 3 4 5

PART III

GENERAL OPINION AND RELATED QUESTIONS

This final section of the friendship questionnaire contains
three questions. Answer each question as accurately as you can.

18. Please indicate how accurate YOU THINK each of the
following 30 characteristics and behaviours are in
describing what you are like. Place a number from the
scale below beside each of the 30 words to indicate how
true they are in describing what you are like.

The scale is:

- 1 = never or almost never true
- 2 = usually not true
- 3 = sometimes but infrequently true
- 4 = occasionally true
- 5 = often true
- 6 = usually true
- 7 = always or almost always true

understanding _____	reliable _____	sincere _____
warm _____	have leadership ability _____	tender _____
truthful _____		sympathetic _____
conscientious _____	dominant _____	eager to soothe hurt feelings _____
sensitive to the needs of others _____	happy _____	helpful _____
love children _____	willing to take risks _____	assertive _____
willing to take a stand _____	independent _____	adaptable _____
friendly _____	defends own beliefs _____	forceful _____
likable _____	compassionate _____	affectionate _____
tactful _____	has strong personality _____	gentle _____
		aggressive _____

19. For this second question please indicate how often you feel the way described in each of the statements. Use the scale at the right and circle the number for each statement to indicate how often you feel that way.

	Never	Rarely	Sometimes	Often
	1	2	3	4
I feel in tune with the people around me.	1	2	3	4
No one really knows me well.	1	2	3	4
I can find companionship when I want it.	1	2	3	4
People are around me but not with me.	1	2	3	4

20. This next (and last!) question uses some of the same words as question 18. This time, however, I would like you to indicate how accurate YOU THINK each of the 30 characteristics and behaviours are in:
- describing what WOMEN are like
 - describing what MEN are like

Please do not refer back to question 18. Again, place a number from the scale in the blank beside each of the 30 words, first to indicate how much you believe the word describes what women are like, and secondly, what men are like.

The scale is:

- 1 = never or almost never true
- 2 = usually not true
- 3 = sometimes but infrequently true
- 4 = occasionally true
- 5 = often true
- 6 = usually true
- 7 = always or almost always true

How accurate is each word in describing WOMEN?

tender_____	truthful_____	happy_____
dominant_____	has strong personality_____	understanding_____
reliable_____		independent_____
adaptable_____	warm_____	willing to take a stand_____
eager to soothe hurt feelings_____	sincere_____	love children_____
aggressive_____	has leadership ability_____	assertive_____
sensitive to the needs of others_____	friendly_____	tactful_____
sympathetic_____	willing to take risks_____	helpful_____
likable_____	compassionate_____	affectionate_____
conscientious_____	defends own beliefs_____	forceful_____
		gentle_____

How accurate is each word in describing MEN?

tender_____	truthful_____	happy_____
dominant_____	has strong personality_____	understanding_____
reliable_____		independent_____
adaptable_____	warm_____	willing to take a stand_____
eager to soothe hurt feelings_____	sincere_____	love children_____
aggressive_____	has leadership ability_____	assertive_____
sensitive to the needs of others_____	friendly_____	tactful_____
sympathetic_____	willing to take risks_____	helpful_____
likable_____	compassionate_____	affectionate_____
conscientious_____	defends own beliefs_____	forceful_____
		gentle_____

Appendix C

THE UNIVERSITY OF BRITISH COLUMBIA
School of Family and Nutritional Sciences
2205 East Mall
VANCOUVER, B.C., CANADA
V6T 1W5

Division of Family Sciences

To a MALE member of the household:

Recently you received a request to participate in a study having to do with adult friendships. You may also have received a "friendly" reminder asking that you complete and return the questionnaire at your earliest opportunity. I realize that by that time you may have misplaced the questionnaire. I am enclosing a second copy of the questionnaire in the hope that you will take a few minutes to participate in the study.

I have come back to you with this third request because it is very important when doing "mail-out" research that the group of people first sampled are encouraged to participate. If only a few of these people participate then the information we gather is not an accurate reflection of how "people in general" feel about a particular subject. YOUR views are important both because you were in the original sample and because you are MALE. A higher proportion of females than males responded to the first request and I need to hear more from the males and how they view their friendships.

Again I have enclosed a stamped self-addressed envelope and another "penny for your thoughts". Please take a few minutes to complete and return the enclosed questionnaire. I thank you sincerely for your effort.

Yours truly,

Linda M. Conrad
Graduate Student

Appendix D

Correlation matrix for quality, closeness and frequency of interaction in same- and cross-sex friendships.

	QSSF	CS	FS	QCSF	CC	FC
QSSF	1	.65	.30	.57	.29	.19
CS		1	.29	.35	.28	.13
FS			1	.25	.13	.35
QCSF				1	.72	.35
CC					1	.39
FC						1

Note. QSSF = quality of same-sex friendships;
 CS = closeness to same-sex friend;
 FS = frequency of interaction with same-sex friend;
 QCSF = quality of cross-sex friendship;
 CC = closeness to cross-sex friend;
 FC = frequency of interaction with cross-sex friend.

Appendix E

Item-total correlations of scales for evaluation of same-sex friendships and cross-sex friendships.

Individual items from evaluation of same-sex friendships

	1	2	3	4	5	6	7	8
EVSSF	.40	.84	.81	.88	.85	.79	.77	.78

P = .000

Individual items from evaluation of cross-sex friendships

	1	2	3	4	5	6	7	8
EVCSF	.30	.72	.76	.79	.76	.72	.60	.80

P < .001

Note. EVSSF = 8-item evaluation of same-sex friendship scale
 EVCSF = 8-item evaluation of cross-sex friendship scale

Appendix F

Repeated Measures Analysis of Variance on Quality of Friendships

BETWEEN SUBJECT FACTORS ARE:

A - SEX: 1 male, 2 female

B - SEX ROLE ORIENTATION:
1 sex typed, 2 androgynous, 3 undifferentiated

C - LEVEL OF SEX STEREOTYPING:
1 low, 2 high

WITHIN SUBJECTS FACTORS ARE:

D - TYPE OF FRIENDSHIP:
1 same-sex, 2 cross-sex

SOURCE	DEGREES OF FREEDOM	MEAN SQUARES	F RATIO	PROBABILITY
A	1	.03	.05	NS
B	2	5.85	8.53	.001
AB	2	.39	.58	NS
C	1	1.08	1.57	NS
AC	1	.21	.31	NS
BC	2	.53	.77	NS
ABC	2	.00	.00	NS
S-WITHIN	55	.69		
D	1	8.14	33.24	.001
AD	1	1.09	4.43	.04
BD	2	.09	.39	NS
ABD	2	.26	1.06	NS
CD	1	.05	.20	NS
ACD	1	.20	.81	NS
BCD	2	.57	2.31	NS
ABCD	2	.50	2.04	NS
DS-WITHIN	55	.25		

Repeated Measures Analysis of Variance
on Frequency of Interaction

BETWEEN SUBJECT FACTORS ARE:

A - SEX: 1 male, 2 female

B - SEX ROLE ORIENTATION:
1 sex typed, 2 androgynous, 3 undifferentiated

C - LEVEL OF SEX STEREOTYPING:
1 low, 2 high

WITHIN SUBJECTS FACTORS ARE:

D - TYPE OF FRIENDSHIP:
1 same-sex, 2 cross-sex

SOURCE	DEGREES OF FREEDOM	MEAN SQUARES	F RATIO	PROBABILITY
A	1	6.69	3.01	NS
B	2	9.36	4.21	.01
AB	2	2.15	.97	NS
C	1	4.32	1.95	NS
AC	1	4.91	2.21	NS
BC	2	3.17	1.43	NS
ABC	2	4.69	2.11	NS
S-WITHIN	61	2.22		
D	1	1.07	.77	NS
AD	1	.07	.05	NS
BD	2	1.17	.85	NS
ABD	2	.09	.07	NS
CD	1	2.70	1.95	NS
ACD	1	.09	.06	NS
BCD	2	1.36	.98	NS
ABCD	2	1.39	1.00	NS
DS-WITHIN	61	1.39		

Repeated Measures Analysis of Variance
on Evaluation of Friendships

BETWEEN SUBJECT FACTORS ARE:

A - SEX: 1 male, 2 female

B - SEX ROLE ORIENTATION:
1 sex typed, 2 androgynous, 3 undifferentiated

C - LEVEL OF SEX STEREOTYPING:
1 low, 2 high

WITHIN SUBJECTS FACTORS ARE:

D - TYPE OF FRIENDSHIP:
1 same-sex, 2 cross-sex

SOURCE	DEGREES OF FREEDOM	MEAN SQUARES	F RATIO	PROBABILITY
A	1	2.06	2.53	NS
B	2	3.70	4.56	.01
AB	2	.43	.53	NS
C	1	.17	.21	NS
AC	1	.22	.27	NS
BC	2	.01	.02	NS
ABC	2	.06	.08	NS
S-WITHIN	60	.81		
D	1	.97	3.31	NS
AD	1	.00	.00	NS
BD	2	.26	.87	NS
ABD	2	.83	2.83	NS
CD	1	.11	.36	NS
ACD	1	.02	.08	NS
BCD	2	.17	.57	NS
ABCD	2	.04	.15	NS
DS-WITHIN	60	.29		

Analysis of Variance
on Acceptance of Cross-sex Friendships

VARIABLES:

- A - SEX
- B - SEX ROLE ORIENTATION
- C - LEVEL OF SEX STEREOTYPING

SOURCE	DEGREES OF FREEDOM	MEAN SQUARES	F RATIO	PROBABILITY
MAIN EFFECTS	4	2.79	2.67	.04
A	1	.75	.72	NS
B	2	3.75	3.59	.03
C	1	3.11	2.98	NS
INTERACTIONS				
2-WAY	5	1.30	1.25	NS
AB	2	2.20	2.11	NS
AC	1	.91	.87	NS
BC	2	.55	.53	NS
3-WAY	2	.63	.60	NS
ABC	2	.63	.60	NS

Appendix G

Mean scores were calculated on all masculine and feminine items from the stereotyping scales. This was accomplished by subtracting the value given to the group "women" for masculine items from the value given to the group "men" on that same masculine items. This was done for all 10 masculine items. The values were then summed and averaged. The procedure was repeated for the 10 feminine items. A cultural stereotype score was then calculated by subtracting the mean for all feminine items from the mean for all masculine items. The median split (at 1.8) was used to divide individuals into low and high stereotyped groups.