RELATIONSHIP AMONG IDENTIFIED PROBLEM AREAS, CHOICE OF HELPERS, AND SEX-ROLE DIFFERENTIATION IN GRADE ELEVEN STUDENTS

by

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ABSTRACT

This research study investigates, with a group of 181 grade eleven students, the relationships among a number of self-reported variables: identified problems, disclosure likelihood on these problems, and choice of helper. Students, grouped by biological sex and psychological sex-role orientation (Bem, 1978), were asked by means of a two-part questionnaire the extent to which each of eleven problem topics was a problem for them (Part I of the study), how likely they would be to talk about each of the problem topics, and with whom (Part II of the study). In Part I of the study, both the main effect for identified problem and the interaction between identified problem and sex of student were significant, though sex of student was not significant. When students were grouped by psychological sex-role orientation, only the main effect for identified problem was significant. In the second and larger part of the study, there were significant main effects and lower order interactions with regards to biological sex and psychological sex-role orientation of the discloser, gender and location of the helper, and the problem topic to be talked about. What is most notable, however, is the number of significant higher order interactions which indicate the complexity of conditionality for self-disclosure. This is to say that the subjects in this study report that the degree of their self-disclosure depends specifically on who they are in terms of their biological sex and psychological sex-role orientation, what the topic is, and to whom they are disclosing. The antecedents of self-disclosure are varied and complex.

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CHAPTER I

INTRODUCTION

I   BACKGROUND AND RATIONALE FOR STUDY

This study, and the literature related to it, can best be understood if it is thought of as exploring three separate but related topics: (1) identified problems: problem areas typical to students at large, and then when they are differentiated by gender and psychological sex-role orientation; (2) self-disclosure: the extent to which students as a whole and students grouped by gender are likely to self-disclose on particular problem topics, and who they are likely to choose as helpers, when helpers (targets) are differentiated by gender and location; and (3) psychological sex-role orientation and self-disclosure: the extent to which students[1] differentiated by a measure of psychological sex-role orientation are likely to self-disclose on particular problem topics, and who they are likely to choose as targets.

What follows is a very brief summary of the literature related to these themes and a critical look at the limitations of this literature. Implied in these limitations are invitations to do further research.

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[1]Though the outline above appears to focus on students as the disclosing population and the population with problems, and the sample measured in this study is a grade eleven student population, at times my literature review and interpretation of this research will not be limited to just a student population.

A.   Identified Problems

1.   Identified Problems

Only a limited amount of research has been directed at determining problem areas typical to students in general, and there exists only one study (LaFromboise, 1978) that considers a grade eleven population. From the literature, it is not clearly evident what problems a grade eleven student population, or for that matter any student population, would see as theirs. Presumably, problems that people (or students) have vary according to age and developmental stages (Jourard, 1971), as well as other unspecified variables.

2.   Identified Problems X Gender

Hartman (1968) found university students ranked seriousness of problems to reflect sex-stereotypes that have existed in our society (males were judged to be most worried about Vocational and Educational concerns; whereas, females were judged to be most concerned about Social Psychological Relations). Contrastingly, Snyder, Hill and Derksen (1972), using a similar population, found there to be no difference according to gender in students' self-rating of problems.

Ginn (1975), in a behavioral rather than self-report measure of identified problems, found practically no difference between the sexes in presentation of actual problems.

With the availability of only these three studies, we are not able to determine if male students experience significantly different problems than their female counter-parts.

3.   Identified Problems X Psychological Sex-Role Orientation

This is an untapped area. Nothing exists in the litera-ture to relate the factors of identified problems and psychological sex-role orientation.

B.   Self-Disclosure

1.   Main Effects

In the self-disclosure literature, we find several fairly consistent single-factor trends for each of the discloser, the topic, and the target. From this collection of research we can, with relative assuredness, make some assumptions that, for instance, females report to self-disclose significantly more than males (Jourard and Lasakow, 1958; Lombardo and Berzonsky, 1979; DeForest and Stone, 1980); that individuals tend to disclose more about less intimate topics (Jourard, 1971; Cosby, 1973; Morgan, 1976; Gilbert and Whiteneck, 1976; Lombardo and Lavine, 1977); and that, as targets, it is reported that females tend to receive more disclosure than males (Jourard, 1971; Rivenback, 1971; Morgan, 1976). We also have some reason to believe that target preference varies with the age of the discloser (Jourard, 1971), and that the nature of the relationship between the discloser and target, partially based on the behavior of the target, is

of great importance (Jourard, 1970; LaFromboise, 1978; Tubbs and Baird, 1978).

2. Lower Order Interactions

When we consider interactions between, for instance, the gender of the discloser, the intimacy and valence[2] level of the topic, and the gender and location[3] of the target, the interacting behavior of these factors becomes less clear. It seems that there is sufficient research to support a significant gender of discloser X intimacy level of topic relationship (that females report to disclose significantly more about intimate topics than males) (Morgan, 1976; O'Neill, Fein, Velit and Frank, 1976; Gilbert and Whiteneck, 1976; Lombardo and Berzonsky, 1979; and DeForest and Stone, 1980), but only one study (Gilbert and Whiteneck, 1976) considers gender of discloser X valence level of topic and, by its nature, one study is inconclusive. Similarly inconclusive are two studies (DeForest and Stone, 1980, and Gerdes, Gehling and Rapp, 1981) that contemplate a gender of discloser X gender of target interaction, and three studies that consider a gender of discloser X location of target

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[2]Valence refers to positive, negative or neutral value of a topic (Gilbert and Whiteneck, 1976).

[3]Location refers to the type of person being mentioned. Locations may refer to generic types such as parents or friends or the specific individual such as mother or closest female friend.

interaction (Morgan, 1976; Gilbert and Whiteneck, 1976; Lombardo and Lavine, 1977). Only the work of Lombardo and Lavine shows a significant interaction and these authors do not interpret it. There is virtually nothing in the literature to indicate what might be expected in either a gender of discloser X gender of target, or gender of discloser X location of target interaction.

Morgan (1976), and Gilbert and Whiteneck (1976) both found significant topic X target interaction revealing a pattern, for their university populations, where friends were reported to receive significantly more intimate disclosure than other targets. In the case of valence, the main effect for valence (the tendency to disclose positive rather than negative content) did not seem to matter as much when targets were intimates as opposed to when they were acquaintances or strangers (Gilbert and Whiteneck, 1976). It is expected that the trend of reserving intimate disclosure for those people in our lives with whom we have an intimate relationship will hold in subsequent research. Though Gilbert and Whiteneck found a significant relationship between the factors, gender of discloser X topic X target, these relationships are very difficult to interpret and they really do not give the reader any indication of what to expect in future related research.

When entertaining significant two and three-way interactions between self-disclosure variables, what

becomes important is not so much the specific interpretations of these significant interactions: rather, that they are happening. This indicates a complexity of conditionality for self-disclosure that two of the most current thinkers in the field articulate. Gilbert and Whiteneck (1976) conclude from their study that "a multidimensional approach to the study of self-disclosure is both justified and required,"(p.347), and Tubbs and Baird (1978) assert, "that the process of interpersonal self-disclosure is a complex one that is contingent upon a number of interacting factors."(p.32) It follows then, that future research in this area should be of a design that will allow the probing of a number of interacting self-disclosure factors.

C. Psychological Sex-Role Orientation and Self-Disclosure

1. Psychological Sex-Role Orientation

In the last ten years or so there has been a move on the part of a number of social scientists (Block, 1973; Bem, 1974; Bem, Martyna and Watson, 1976; Bem, 1977; Spence and Helmreich, 1978) to reject the traditional stereotypic traits and behaviors that have been associated with males and females (e.g., that males are "instrumental" (Parsons and Bales, 1955) and "agentic" (Bakan, 1966); whereas, females are "expressive" (Parsons and Bales, 1955) and "communal" (Bakan, 1966)), because, to them, these views are both limiting and inaccurate. Perpetuation of the sex-role dichotomy (that traits associated with

masculinity and femininity are at bi-polar ends of a single continuum) fails to allow for the fact that someone could be "androgynous": that is, have access to traits that have been associated with maleness and femaleness. Proponents of an androgynous way suggest that an androgynous individual is able to call on a wide range of responses according to what is most appropriate in a given situation. Pursuing this theme, and wishing to develop an instrument to measure psychological androgyny, Bem (1974, 1976 and 1978) created the Bem Sex-Role Inventory (BSRI). Bem's assumptions are that masculinity and femininity are both conceptually and statistically independent.

2. Psychological Sex-Role Orientation and Self-Disclosure

Compared to the volume of research that has been done to link gender of discloser with other variables of self-disclosure, little research has been attempted that considers psychological sex-role orientation as a measure of the subject and of what there is, most of the findings are inconclusive. Bem (1977), in a regression analysis, found the only significant correlation between her instrument, the BSRI (1974) and the Jourard Self-Disclosure Questionnaire (1971) was that total self-disclosure in men was positively related to masculinity. Unlike what might have been expected according to role theory; e.g., (Parsons and Bales, 1955), femininity

did not correlate with self-disclosure. Bem's findings need to be retested.

Authors of a second study, Lombardo and Lavine (1977), claim that the results of their work support that self-disclosure is more a function of psychological sex-role than biological gender. Though there exists in this study a disclosure main effect for subjects typed androgynous, as well as a significant sex of subject X androgyny level X target interaction, and a significant sex of subject X androgyny level X intimacy level of topic relationship, this research does not clearly illustrate the interacting behavior between Bem's measure of psychological sex role-orientation (BSRI, 1976) and these other variables.

Finally, Gerdes, Gehling and Rapp (1981) found nothing in their research to support their hypothesis that androgynous males would self-disclose more intimately than sex-typed males nor that psychological sex-typing was significantly related to any other factor of self-disclosure.

II   PURPOSES OF STUDY

A.   General Purposes:

The general purposes of this research were to find out:

1.   what gender and sex-role differentiated grade eleven students see as their most serious problems;

2. to what extent they say that they are likely to talk about these problems; and

3. with whom they are likely to talk.

B. Specific Purposes:

Specifically, the questions this study will attempt to answer are:

1. (a) Are some problem topics seen to be more serious for males than females? (b) Do females appear to be more troubled with problems in general than males?

2. (a) Are some problem topics more likely to be talked about by females than males? (b) Are females more likely to talk about more problems in general than males? (c) Are subjects, regardless of gender, more likely to talk about some problem topics than others?

3. (a) To what degree does statement of seriousness of problem topic correlate with likelihood of discussing problem topics? (b) Do males and females differ?

4. Are males and females equally likely to choose the same helpers for their problems, and how does identity and/or sex of helper appear to influence choice?

5. How does an individual's score on Bem's measure of psychological sex-role orientation (BSRI, 1978) relate to an individual's (a) seriousness of problem topics, (b) likelihood of talking about problem topics, and (c) choice of helper?

III IMPORTANCE, SIGNIFICANCE AND UNIQUENESS OF THIS STUDY

A. Importance

I believe that it is important to do this study to extend what has previously been done. Gaps exist in the related literature as outlined in the previous section "Background and Rationale for Study."

B. Significance

This study should have significance to both practitioners (those working in the field with high school students: guidance counsellors, psychologists, teachers, administrators, etc.), and the research community. I would expect that for school related personnel it may be helpful to have an idea of what grade eleven students, as a whole, and according to gender, report are their most serious problems. More important may be that school personnel develop a sense of students' likelihood of discussing different problems with different helpers. Guidance personnel, in particular, whose function it is to provide a sounding board for students, should be sensitive to this and related research. Because the person in the field often does not have access to a Bem Sex-Role Inventory score, this measure of psychological androgyny and how it relates to self-disclosure is unlikely to be of much practical use.

I would anticipate that the research community would be interested in everything above as well as how the BSRI (1978) interacts with the two new measures of identified problems and self-disclosure that have been developed for this study.

C. Uniqueness of this Study

This study is uniquely different from the rest of the literature in the following ways:

1. The instruments used in this study to measure identified problems and self-disclosure are unique to this study.

2. The population measured is a grade eleven population rather than a first year university population upon which so much of the identified problems and self-disclosure literature is based (see Chapter II: Review of the Related Literature).

3. Most of the self-disclosure literature either sums over problems to give a total self-disclosure score or scales items. In this study, I have attempted to limit the number of problem topics so that some of the ways they interact with other variables of self-disclosure can be looked at on more of an individual basis.

4. In this research design, the factor, helper or target has two levels, location (friend, parent and school person-nel), and gender (male and female); whereas, in the rest of the research, helper has had just one level: that is, who the target is. Typically, targets have been specified as closest male friend, mother, father, spouse and so on.

5. In this study, "no one" is a choice as a target person. That is, one could choose not to disclose to anyone on a given problem topic. "No one" as a choice does not exist anywhere else in the literature.

6. Nowhere in the literature is there a correlation between a list of identified problem topics and subjects' likelihood of disclosing on them.

7. Very little exists in the literature to study the relationships among psychological sex-role orientation and variables of self-disclosure.

IV DEFINITION OF TERMS

Each of the following terms is used in this study. For some of these items a distinction is made between the conceptual definition or construct, and the operational definition and how the term relates specifically to this research.

1. Identified Problems

    In the literature, identified problems refer to those problems that people identify as being theirs. In terms of this research, grade eleven students are asked "to what extent is each of the following a problem for you?" Eleven problem topics, ranging from "difficulty with grades" to "problems of sexual adjustment," are the stimulus. See the Appendix, Part I.

2. Self-Disclosure

    The term "self-disclosure," originally coined by Jourard (1964), refers to a personality construct and a process which occurs during interaction with others. Like terms that may describe a person are "social accessibility" (Rickers-Ovsiankina, 1956), "revealingness" (Crowne and Marlowe, 1964), and "openness" (Dreyfus, 1967). West

and Zingle (1969) describe the personality construct and process of self-disclosure nicely: "Self-disclosure as a dimension of personality refers to the extent to which an individual reveals personal and private information about himself as he communicates with or relates to others." (p.439)

3. Problems or Problem Topics

In the literature, problems or problem topics either refer to problems people identify as being theirs, or those they have disclosed upon (as in the case of the Jourard Self-Disclosure Questionnaire, 1971) or would disclose upon in the future. In terms of this study, eleven problems are presented to students for each of seven helpers in the form, "How likely would you be to talk to _____ about each of the following problems?" Problems are listed in the Appendix, Part II.

4. Helper or Target

Helper or target refers to the person chosen to be the listener in a self-disclosure situation. In this study, there are seven targets: closest male friend, closest female friend, father, mother, school personnel (male), school personnel (female) and no one. Targets are further subdivided by gender (male and female) and by location (their generic class, whether they are friends, parents or school personnel).

5. Gender or Sex

    Gender or sex refers to biological gender of either a discloser or target. Biologically, a person can be male or female.

6. Location

    In this research, location refers to the generic class of the target, whether the person, by description, is a friend, parent or school personnel.

7. Psychological Sex-Role Orientation

    Conceptually, this term refers to a psychological and behavioral orientation that a person may have that may be sex-typed (masculine or feminine), or a blend of these to yield an undifferentiated or androgynous orientation. In this research, the Bem Sex-Role Inventory (Bem, 1978) (see the Appendix, Part III) yields a masculinity and femininity score as well as a categorization according to one's psychological sex-role orientation: either masculine, feminine, androgynous or undifferentiated.

8. Masculine

    Masculine is a category that describes an individual with significant psychological and behavioral inclination towards the characteristics of the masculine sex-role. This category within the BSRI (1978) refers to those individuals with a high score on the instrument's masculine scale and a relatively low score on the feminine scale.

9. Feminine

   Counter to masculine, feminine is a category that de-
   scribes an individual with significant psychological and
   behavioral inclination towards the characteristics of the
   feminine sex-role. In the BSRI (1978), individuals cate-
   gorized feminine have a high score on the instrument's
   feminine scale and a relatively low score on the masculine
   scale.

10. Androgynous - Androgyny

    In the BSRI (1978), a person categorized androgynous
    has a high score on both the instrument's masculine and
    feminine scale. Conceptually, androgyny means both male
    and female in one: a balance and a capacity to exhibit
    both male and female characteristics as the situation
    demands. The state of androgyny allows both genders to
    freely engage in behaviors associated with males or fe-
    males and further assumes (other factors permitting) a
    flexibility and high level of psychological and social
    competency.

11. Undifferentiated

    Someone categorized undifferentiated on the Bem instru-
    ment (BSRI, 1978) would be one with low scores on both
    the masculine and feminine scales. According to some of
    the research, subjects classified undifferentiated tend to
    be the lowest of the four Bem categories on self-esteem
    (Spence, Helmreich and Stapp, 1975) and demonstrate
    behavioral strategies with low apparent probability for

successful social outcomes (Kelly, Caudill, Hathorn and O'Brien, 1977).

12. <u>Sex-Typed Individuals</u>

Sex-typed individuals (typed either masculine or feminine) are those who conform to the traditional behaviors thought to be associated with either males or females. Based on the results obtained by Wiggins and Holzmuller (1978), masculine-typed individuals appear to be dominant, ambitious, arrogant and calculating; where feminine-typed subjects appear to be agreeable, warm and extroverted. To be sex-typed, presumably individuals are motivated to maintain a self-image of either masculine or feminine, and to do so, seem to need to suppress behavior that they might consider undesirable or inappropriate for their gender. Bem (1975) suggests that a high level of sex-typing does not facilitate a person's general or psychological development.

13. <u>Sex-Role Stereotypes</u>

Similar to sex-typing, sex-role stereotypes have to do with role casting traditionally thought to be associated with the way a man or a woman should be. As with sex typing, maintenance of sex-role stereotypes limits the capacity of both men and women to realize their full potential as human beings.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

I INTRODUCTION

The author has chosen to classify the literature relevant to this study into three broad areas: (A) Identified Problems, (B) Self-Disclosure, and (C) Psychological Sex-Role Orientation X Self-Disclosure. Within each of these broad areas, there exists underlying complexities outlined as follows:

A. Identified Problems

This section refers to problem areas typical to students as a whole and then more specifically when they are differentiated by gender and by psychological sex-role orientation.

B. Self-Disclosure

This, the most complex section, attempts to review a massive body of literature that concerns itself with the long-time interest in self-disclosure, its correlates with mental health, the measuring of self-disclosure, a multidimensional model of self-disclosure, and the significant main and interacting effects for the factors of discloser, topic and target. For the dis-closer factor, gender is most pertinent; for topic, intimacy level and valence are most important; and for target, gender, location and relationship are relevant.

C. <u>Psychological Sex-Role Orientation X Self-Disclosure</u>

The development over time of the interest in psychological sex-role orientation and androgyny, and the interacting research that relates androgyny levels to self-disclosure, gender of subject, choice of target and topic are the themes within this section of the review.

Upon completion of these sections, a "Summary of the State of the Art" will attempt to critically evaluate what are the most noteworthy and valuable findings in the related literature.

II IDENTIFIED PROBLEMS

Identified Problems; Identified Problems X Gender; Identified Problems X Psychological Sex-Role Orientation

A. <u>Identified Problems</u>

Some, but not a great deal of attention has been directed at determining problem areas typical to students at the high school, community college and university levels. Two of the best works, Hartman (1968) and LaFromboise (1978), consider problem areas regardless of gender of student. Hartman, using the Mooney Problem Checklist (1950), in attempting to locate the most prevalent problems of a first and second year community college student body, found that of the eleven problem areas, students indicated they were having the most problems in the areas of Adjustment to College Work, Personal-Psychological Relations, and Social and Recreational Activities. LaFromboise (1978), using her own self-report instrument, found in her fifty non-Indian grade eleven and twelve

students (similar in age to the population in my study) that the three most common problems that the students said they would like to talk about were, in order, problem about my future, problem making a decision, and a personal problem. Presumably, problems vary according to age and developmental stage of the individual (Jourard, 1971). From the literature it is not clearly evident what problems are most important for students when gender is not a factor.

B. Identified Problems X Gender

In Hartman's study (1968) when seriousness of problems were ranked by university students, males ranked the Future: Vocational and Educational as their second most serious problem; females ranked it eleven out of eleven. For females, Social Psychological Relations ranked third out of eleven; whereas it ranked eighth out of eleven for males in seriousness. These different responses on the part of Hartman's male and female student sample may reflect sex-stereotypes that have existed in society: men "stereotypically" have been more interested in work, and females more concerned with social-psychological relations. Finally, Hartman found that males self-reported to have more problems than females and also more serious ones. Hartman does not attempt to interpret these findings.

On the other hand, Snyder, Hill and Derksen (1972), in a study to learn more about from whom university students would seek help, developed seventy questions to tap thirteen problem areas and found there to be no difference according to

gender in students' self rating of problem topics. This, obviously, fails to support Hartman's findings.

In a different way, Ginn (1975) in his study juxtaposed a university undergraduate class' estimation of problems that male and female students would have against the actual presentation of problems to their university counselling center over a year period and found there to be very little difference according to gender in students' presentation of problems. Though there was agreement of males' and females' estimation on thirty-five typical female problems such as physical complaints, relationships, and emotionality (none were vocational-educational), and sixteen male problems (eight vocational-educational in nature and others having to do with alcohol, anger, drugs and sex), in contrast to the fifty-one problem differences estimates above, in actual fact, there was only a presentation difference according to gender in three out of seventy-five possible complaints. What may be most significant here is the discrepancy between the results of the self-report measure and the actual behavior exhibited. The behavior exhibited must be the more valid of the two measures.

C. Identified Problems X Psychological Sex-Role Orientation

Nothing exists in the literature that relates to identified problems and how they interact with psychological sex-role orientation. (The concept and construct of psychological sex-role orientation has been explained to a degree earlier in Chapter I, and will receive further attention later in this chapter.)

III SELF-DISCLOSURE

A. <u>Self-Disclosure:</u> Why the Interest and Correlates with Mental Health

It has been assumed by a certain body of therapists and psychologists that "appropriate" self-disclosure behavior leads to positive therapeutic outcome (Egan, 1975), and further, even if a person is not involved in psychotherapy, to allow one's real self to be known to at least one "significant" other is a prerequisite for a healthy personality (Jourard, 1959). Jourard (1963), concerned with the concept of self-actualization (Maslow, 1954), proposed that low disclosure is indicative of a repression of self and inability to grow as a person and that responsible self-sharing is part of the normal behavior of the healthy self-actualized person. It is this thinking that is the philosophical basis of much of the whole body of "talk" therapy that encourages genuineness, openness and relationship between client and therapist. This is one of the reasons the topic of self-disclosure is of interest to many helping professionals.

Wisely though, Jourard (1964) and others (Drag (1971), Cosby (1973), Egan (1975), Tubbs and Baird (1978)) recognize that for self-disclosure to be growthful, it must be "appropriate," and that if the relationship between the discloser and the receiver is not a trusting one, or if it is a socially inappropriate context in which the disclosure takes place (e.g., television), then the experience may be a harmful one. Self-disclosure has been made a positive value, something to

be fostered (Egan, 1975), but "more" openness may not necessarily mean "better."

In relationship to mental health, Cosby (1973) says that virtually every type of relationship has been reported in the literature, yet no correlation reported has been greater than .50, and most are much lower. According to Jourard (1964), and supported by Cosby (1973) and Egan (1975), the relationship between the two variables of self-disclosure and mental health seems to be curvilinear. Cosby (1973) hypothesizes that persons with positive mental health (given they can be identified) are characterized by high disclosure to a few significant others and medium disclosure to others in the social environment; whereas, individuals who are poorly adjusted (again assuming a suitable identification can be made) are characterized by either high or low disclosure to virtually everyone in the social environment.

B.   Measuring Self-Disclosure

Jourard's Self-Disclosure Questionnaire (1971) and its various earlier forms (1958, 1961) all thought to be roughly equivalent (Cosby, 1973) are even today by far the most frequently used self-report "paper and pencil" measure of self-disclosure. However, as with many similar instruments developed in the last fifteen years, (Plog (1965), West and Zingle (1969), Strong, Hendel and Bratton (1971), O'Neill, Fein, Belit and Frank (1976), and LaFromboise (1978)), there lies on the part of some critics strong reservations about the predictive validity of these instruments. Cosby (1973), citing considerable

research, maintains that there is little evidence of the predictive validity of the JSDQ (<u>Jourard Self-Disclosure Questionnaire</u>) and that self-disclosure should be measured behaviorally and used as a dependent variable. He asserts that paper and pencil measures of self-disclosure do not relate to actual self-disclosure, and if we are going to use them at all, then the questionnaire measures must be developed so that they correlate highly with the subjects' actual disclosure. This may or may not be possible.

Lubin and Harrison (1964) have an old, yet nevertheless thought-provoking study where they attempted to predict small group self-disclosing behavior with an early form of the <u>Jourard Self-Disclosure Questionnaire</u> and found that the inventory scores and actual self-disclosing behavior correlated only .13 (p .05). This is evidently support for Cosby's contention.

C. <u>Self-Disclosure</u>: A General Overview and a Model

Before dealing with some of the specific main effects related to self-disclosure (e.g., problem, gender and psychological sex-role orientation of subject, and location and gender of helper) and the possible lower order interactions between these factors, it may be important to consider a self-disclosure model offered by Tubbs and Baird (1978). In a figurative sense, this model can serve both as an introduction to this self-disclosure literature review and as a conclusion in that the latest and best literature is considering self-disclosure as a multidimensional phenomenon. Tubbs and Baird, in their

literature review, after considering some twenty years of self-disclosure research, conclude that the process of interpersonal self-disclosure is a complex one that is contingent upon a number of interacting factors that effect a person's "decision" to disclose. (People do make a conscious choice whether or not to self-disclose.) These factors include: (1) the background and personality of discloser (e.g., age, race, nationality, religion, gender (Jourard, 1971)), (2) the nature of the relationship between the discloser and the receiver which might include trust and acceptance (Mellinger, 1956) and something Jourard (1970) calls "reciprocity" where "openness begets openness," (3) the discloser's perception of receiver, (4) the content of the disclosure where generally the less risky is disclosed before the more intimate, (5) the social context in which the disclosure is made, and (6) the receiver's reaction or feedback to the disclosure: confirmation, acceptance, rejection, or whatever. The model is presented visually in Figure 1.

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                    ┌──────────────────┐
          ┌────────>│   Nature of      │──────────────┐
          │         │  Relationship    │              │
          │         └──────────────────┘              │
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│              │────│              │────│              │
│  Discloser   │    │   Content    │    │  Receiver    │
│              │    │              │    │              │
└──────────────┘    └──────────────┘    └──────────────┘
      ▲                                         │
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      └─────────│   Feedback   │◄───────────────┘
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          ┌──────────────────┐
          │  Social Setting   │
          └──────────────────┘
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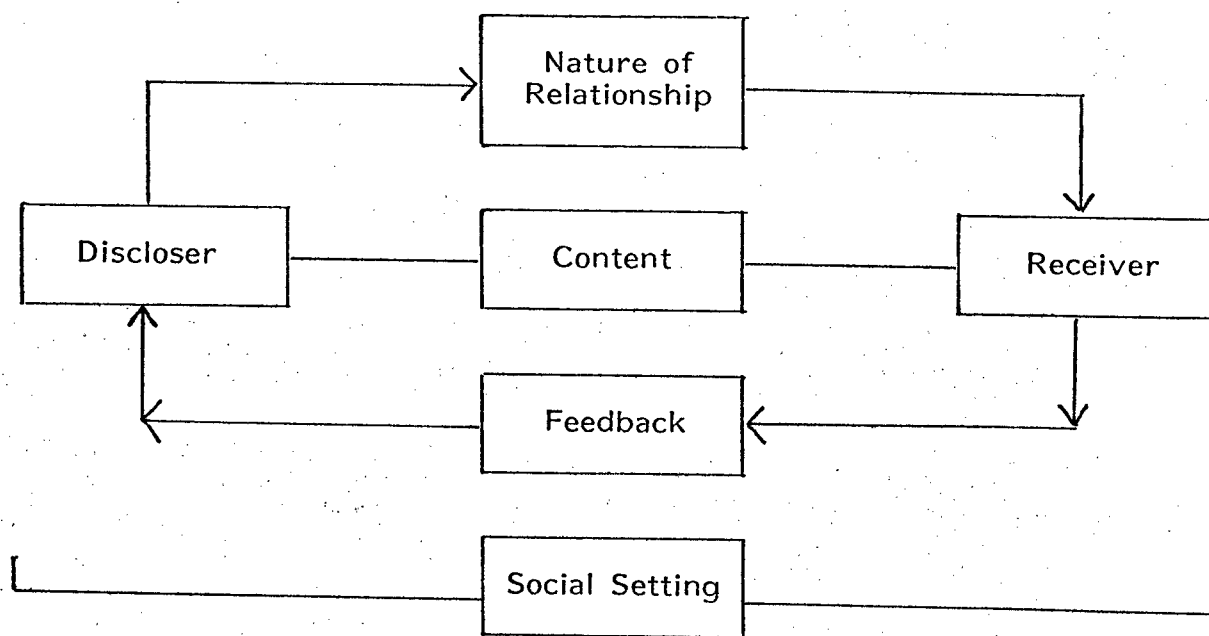
Figure 1

Self-Disclosing Communication Model:
Tubbs and Baird (1978)

Though Tubbs and Baird are alone in presenting a conceptual model, they are not alone in recognizing that self-disclosure in a complex phenomenon. Gilbert and Whiteneck (1976) conclude, because of two significant three-way interactions in their research "that a multidimensional approach to the study of self-disclosure is both justified and required."(p.347) Gilbert and Whiteneck's research will be examined in more detail later in this chapter.

D. Main Effects: The Discloser, The Topic, The Target

    1. The Discloser

        Though numerous and varied studies have been conducted over the last twenty years to measure the relationship between certain aspects of self-disclosure and the

discloser (e.g., age (Jourard, 1961(a)); race (Jourard and Lasakow, 1958); nationality (Plog, 1965); religion (Jourard, 1961(b)); birth order (Diamond and Hellkamp, 1969); and social class (Mayer, 1967)) and more recently, psychological sex-role orientation (Bem, 1977; Lombardo and Lavine, 1977; Gerdes, Gehling, and Rapp, 1981), by far the most research has related to gender of the discloser.

(a) Gender

Jourard and Lasakow (1958) reported that females have higher disclosure scores than males and most of the dozens of studies since then have supported this finding. Of the most current are Lombardo and Berzonsky (1979), DeForest and Stone (1980), and Gerdes et al. (1981). In some cases there has been found to be no significant differences between male and female scores (Plog (1965), West and Zingle (1969), Brooks (1974), Gilbert and Whiteneck (1976), O'Neill, Fein, Velit and Frank (1976), Bem (1977), Lombardo and Lavine (1977)); however, there is no study that reports significantly greater male disclosure. In turn, it is suggested that there is ample evidence to maintain that there exists actual significant total disclosure differences between the sexes.

To look further, however, this pattern of self-disclosure may be more complicated. It appears

that certain aspects of self-disclosure are likely to differentiate between males and females while others may not. For example, Morgan (1976), O'Neill et al. (1976.) and Lombardo and Berzonsky (1979) found the main effect for gender of the discloser not to be significant, but gender became significant on items when items were scaled for intimacy. Similarly, Gilbert and Whiteneck (1976) found the main effect for gender not significant, but when items were scaled for valence (positive, neutral or negative value), males were significantly more likely than females to disclose positive valence statements.

There is some evidence in the literature to support significant gender X target interaction (Lombardo and Lavine, 1977); however, it appears that this is not as strong a phenomenon as the interaction between gender of the discloser and topic.

Interactions with gender of discloser will be considered in more detail in subsequent sections of this literature review.

2. The Topic

It is generally found that there is an inverse relationship between the amount disclosed and the intimacy level of the topic such that individuals disclose less about more intimate topics (Cosby, 1973). More specifically, Jourard's findings (1971) for the most part stand: infor-

mation about one's work, tastes, hobbies, interests and one's attitudes toward religion, politics and the like are disclosed more than information about one's sex life, financial status, personality and body. Since Jourard, Morgan (1976) using the JSDQ (1971) scaled for intimacy level (two levels - high intimacy and low intimacy) found a significant intimacy main effect showing subjects revealed relatively less about more intimate topics. Similarly, Lombardo and Lavine (1977) using the JSDQ (1971) found intimacy to be significant. When they designated three topical categories as intimate (personality, body, and sex) and three as non-intimate (attitudes and opinions, tastes and interests, and work) and did a separate analysis of variance for each of four targets (mother, father, best male friend, and best female friend), they found the intimacy factor significant with all targets: non-intimate topics were reported as being disclosed significantly more than intimate topics.

Gilbert and Whiteneck (1976) add another valuable perspective when they consider, as part of the topic, the themes personalness (intimacy level of the content) and valence (positiveness or negativeness of the content). In a four-way repeated measures analysis of variance (three levels of personalness: non-intimate, moderately intimate, and intimate; three levels of valence: positive, neutral and negative; two levels of gender of discloser, and five levels of target) they found a significant main effect for

both personalness and valence. More exactly, the less personal the statements, the more likely they would be disclosed and the more positive the statements, the greater likelihood they would be disclosed. However, this issue is not as simple as the above may lead us to think. Gilbert and Whiteneck found the interaction between personalness and valence also significant, meaning for non-intimate statements, the likelihood of disclosure occurs in the following order: positive, neutral and negative; whereas, for intimate statements, the likelihood of disclosure occurs: negative, positive and neutral. Gilbert and Whiteneck suggest that highly negative disclosures may be reserved for intimate relationships. Other factors of this work including gender of disclosure and choice of target and their interaction with personalness and valence will be discussed later in this chapter.

Less fancy though worthy of mention before leaving this topic is the work of LaFromboise (1978). Of her fifty non-Indian grade eleven and twelve students (similar to the age of the population in the current study) the three most important common problems that they reported that they would like to talk about were in order: (1) problem about my future, (2) problem making a decision, and (3) a personal problem. LaFromboise makes no mention to what extent these problems are significantly different from each other in their ranking.

3.   The Target (Gender, Location, Relationship)

(a)   Gender

There is a considerable degree of literature to support that females receive significantly more disclosure than males (West and Zingle, 1969; Jourard, 1971; Rivenback, 1971; Morgan, 1976) and this seems probable in that role theorists such as Parsons and Bales (1955) and Bakan (1966) see women as being socialized to be more nurturing, emotional and expressive than men. However, Gerdes, Gehling and Rapp (1981) offer an explanation for this phenomenon that goes beyond the variable of gender to the actual behavior of the target. They found in their study no significant main effect due to sex of target person. Rather, what seemed most important was their variable of disclosure condition (two levels – high and low): that is, the disclosure level of the target in conversation. Subjects who had targets who disclosed intimately (high level) were themselves significantly more self-disclosing than those who had low-level disclosing targets. High level disclosure condition subjects responded more intimately and spoke significantly longer than their low level disclosure condition counterparts. It may be the case that females typically happen to, as targets, disclose more intimately than men, but Gerdes et al. say that

that is a factor of their behavior and not their gender. This study can also be taken as to support the phenomenon of reciprocity mentioned earlier where "openness begets openness" (Jourard, 1970).

(b) Location

In terms of location of target, that is the type of person the target is as opposed to the gender of the target, the choice of target seems to change with the age of the subject. The pattern according to Jourard (1971) seems to be one where the preference target of children is their parents, typically their mother, and as adolescence is reached, the amount of disclosure to parents is reduced and disclosure to same-sex friend is increased. As heterosexual relationships are commenced, culminating in marriage, the spouse becomes the closest confidant and there are further decreases in confiding to parents and closest same-sex friends. Hence the shift is from parents to friends to spouse.

Knowledge of this pattern helps us interpret what might otherwise seem to be vastly divergent research results. The research, without going into all of it, can be distilled to support this target preference pattern according to the age of the subject (West and Zingle, 1969; Rivenback, 1971; Snyder et al., 1972; Gilbert and Whiteneck, 1976; Morgan, 1976; Lombardo and Lavine, 1977;

Fromboise, 1978). In terms of a grade eleven population, one might expect target preference by location to be in order, friend, parent and school personnel, given these three categories to choose from.

(c) Relationship

The nature of the relationship between the discloser and receiver and how the discloser perceives the target is, of course, extremely important. Tubbs and Baird (1978) see "trust and acceptance," the level of intimacy between the discloser and target, and "reciprocity" or reciprocal disclosure on the part of both discloser and target as being the keys to the extent to which a subject chooses to disclose. Jourard (1971) and LaFromboise (1978) support this.

Using the term "dyadic effect" to explain reciprocity, Jourard (1971) claims that self-disclosure from one person is the most powerful stimulus to self-disclosure from the other and that the amount of disclosure received tends to correspond to the amount of disclosure given and vice-versa. LaFromboise (1978) found that within her grade eleven and twelve population, being trustworthy was the most important quality that a target or prospective helper could have. Jourard's (1971) opinion differs slightly: in an adult population, for women, liking for a target person is a strong correlate of

disclosure; whereas, for men knowledge of the other person is most important.

E. Lower Order Interactions

1. Gender of Discloser X Topic (Intimacy and Valence)

As introduced in the previous sections, "The Discloser" and "The Topic," some research (Morgan, 1976; O'Neill et al., 1976; Gilbert and Whiteneck, 1976; Lombardo and Berzonsky, 1979; and DeForest and Stone, 1980) suggests that by not considering the intimacy and/or valence aspects of disclosure topics (defined earlier) and by summing across all disclosure topics, there is a tendency to mask actual sexual differences in disclosure patterns. Morgan's study (1976) illustrates this nicely.

(a) Intimacy

In a 2x2x4 repeated measures analysis of variance (two levels of sex of subject; two levels of intimacy of topic (high and low); and four levels of target (mother, father, best same-sex friend and best opposite-sex friend), Morgan found intimacy to be significant (reviewed earlier) and intimacy X sex to be significant. Males were found to report dis-closing significantly less than females concerning intimate topics, where there were no significant gender differences in disclosure of non-intimate topics. Sex, however, was found not to be signifi-cant. That is, total self disclosure scores according to sex were not significantly different.

Similarly, O'Neill et al. (1976), Lombardo and Berzonsky (1979), and DeForest and Stone (1980) all found similar patterns: significant sex of subject X intimacy level of topic interaction with females being willing to reveal on items rated intimate significantly more than males. As with Morgan's results, O'Neill et al. found the main effect for sex not to be significant.

(b) Valence

Gilbert and Whiteneck (1976) take a slightly more complicated approach to the sex of subject X topic of disclosure issue with a design that considers both intimacy level of topic (what they call personalness) and valence (positiveness or negativeness of the content). Hence, rather than the topic variable having two levels as in the case of Morgan (1976) (intimate or non-intimate), and O'Neill et al. (1976), or three levels, in the case of Lombardo and Berzonsky (1979) and DeForest and Stone (1980), Gilbert and Whiteneck's design has three levels of personalness (non-intimate, moderately intimate and intimate) and three levels of valence (positive, neutral and negative). In terms of this section of the review, what is most pertinent (notwithstanding that personalness, valence and their interaction were all significant - reviewed earlier) is that sex of subject X personalness was not significant; whereas,

sex of subject X valence was. (The three way interaction of sex X personalness X valence was not significant.) The authors see the significant sex X valence interaction as showing males being significantly less likely than females to disclose on positive statements, although both sexes were equally likely to disclose negative statements. In other words, the valence main effect (positive disclosures being more likely than negative disclosures) seemed to be exaggerated for females and minimized for males.

2. Gender of Discloser X Target

(a) Gender of Discloser X Target (by Gender)

As mentioned earlier, there is considerable but not unanimous support for the gender of target main effect, that females receive significantly more disclosure than males. There is not, however, anything nearly as definitive in the literature to maintain a particular gender of discloser X gender of target interaction. To this researcher's knowledge, only two pertinent studies exist, those of DeForest and Stone (1980) and Gerdes et al. (1981) and they find very similar interaction results. In both studies, though the main effects for gender of discloser were significant (females were significantly more self-disclosing than males), they found no effects due to sex of target person. More important for this section of this literature review is that in

neither case was there found to be significant gender of discloser X gender of target interaction.

(b) Gender of Discloser X Target (by Location)

As argued earlier, it seems reasonable to accept, with Jourard (1971), that preference of target (by location) shifts with age from parents to friends to spouse as one moves from childhood, to adolescence to marriage age, respectively. This trend, however, does not consider the sex of the discloser and when one does, no definitive pattern emerges. Morgan (1976) and Gilbert and Whiteneck (1976) both found gender of discloser to be non-significant, target to be significant (reviewed earlier) and the gender of discloser X target interaction not to be significant. Lombardo and Lavine (1977) found a significant interaction between these factors though they do not interpret it. Consequently, there is no indication in the literature as to what one might expect in a gender of discloser X location of target interation.

3. Topic X Target

Morgan (1976) and Gilbert and Whiteneck (1976) both found significant topic X target interaction. Morgan, using a repeated measures analysis of variance (two levels of discloser gender X two levels of topic intimacy: high and low X four levels of target: best same-sex friend, best opposite-sex friend, mother, and father), found a significant main effect for intimacy (reviewed earlier) and

a significant effect for target. Within his population of eighteen to thirty-two year old college students, Morgan discovered (not surprisingly considering target preference X age of subject trends) that for both high and low intimacy items there were no differences between disclosure to friends, significantly more disclosure to friends than parents, and significantly less disclosure to fathers than any other targets. Within his intimacy level of topic X target interaction a pattern emerged where friends received significantly more intimate disclosure than parents with the differences between disclosure to parents and friends being less for low intimacy topics. The effect of preference for target was more pronounced for high intimacy items.

Gilbert and Whiteneck (1976), using personalness and valence rather than intimacy to dichotomize their topic, found significant main effects for personalness, valence and target (reviewed earlier) and significant interactions for personalness X valence (reviewed earlier), personalness X target, valence X target and personalness X valence X target. They explain that the main effect due to personalness (a greater likelihood of making non-intimate than intimate disclosure) is exaggerated when the target is a stranger or acquaintance but is no longer present when the target is a spouse (they have five targets: stranger, acquaintance, parent, friend, and spouse).

With regard to valence X target; that is, the posi-tiveness or negativeness of the content X target, the main effect due to valence (a greater likelihood of making positive rather than negative disclosure) was slightly exaggerated for disclosing to acquaintances and parents, while differences were greatly reduced when disclosing to friends and spouses. It seems that in both personalness X target and valence X target interactions, the more intimate the relationship with the target is, the less the differences there are within either the personalness or valence factors.

Notably, Gilbert and Whiteneck have a significant three-way interaction, personalness X valence X target. According to them, the data follows trends described in the personalness X target and valence X target inter-actions. They say, however, that the three way inter-action is significant because of exaggerations and deviations from these combined trends. Interpretation of this three-way interaction is difficult other than to report that there were some unexpected variations in likelihood of disclosure to stranger and acquaintance targets.

F. Higher Order Interactions

1. Gender of Discloser X Topic X Target

Morgan (1976) did not find a significant gender of dis-closer X intimacy level of topic X target interaction, though Gilbert and Whiteneck (1976) found such an

interaction using valence to differentiate the disclosure topics. While there was not a significant main effect due to gender of the discloser, nor a significant gender X target interaction, there was a significant gender X valence (reported earlier) and gender X valence X target interaction. It seems, according to the authors, that the strength of the valence main effect varied as a combination of both gender and target. They interpret the likelihood of making positive rather than negative disclosures was greatest when females were projecting disclosure to strangers and acquaintances and when males were projecting disclosure to parents, friends and spouses. They hypothesize that perhaps due to different socialization, norms for appropriate disclosure relating to valence and target are different for males and females.

In their study, neither the interactions of gender X personalness X target nor gender X personalness X valence X target were found to be significant.

IV PSYCHOLOGICAL SEX-ROLE ORIENTATION

A. Psychological Sex-Role Orientation and Androgyny - Background

For at least the last twenty-five years, psychological researchers and theorists have been attempting to explain possible behavioral differences between males and females. When there is a difference found, for instance, that females disclose significantly more about themselves than do males (widely

supported as demonstrated earlier in this chapter), it is frequently interpreted that the differences are as a result of the way males and females are socialized. In Western societies, we understand that males have traditionally been reinforced for the learning of "instrumental" behaviors whereas women have been taught to adopt "expressive" roles (Parsons and Bales, 1955). Parsons and Bales suggest that men have been charged with being the family's representatives in the outside world and acting on its behalf, and women have had the responsibility of attending to the physical and emotional needs of the family and maintaining harmonious relations within it. Put another way, Bakan (1966) uses the terms "agency" and "communion," where "agency," for him, reflects a sense of self and is manifested in self-assertion, self-protection, and self-expansion; and "communion," on the other hand, implies selflessness, a concern with others and a desire to be at one with others. For Bakan, agency is identified with male principles or masculinity, and communion is identified with feminine principles or femininity. Other researchers, such as Erikson (1964) and Witkin (1974), refer to "outer" verses "inner" space and "field dependence" verses "independence," respectively. All attempt to explain the differences between the sexes. Often it was hypothesized that if males are this, females must be that.

More recently, some researchers (Block, 1973; Bem, 1974; Bem, Martyna and Watson, 1976; Bem, 1977; Spence and Helmreich, 1978) have rejected the traditional conceptualization

that masculinity and femininity and the traits associated with them are bipolar ends of a single continuum and that a person is either masculine or feminine, but not both. Bem (1974) explains that the sex-role dichotomy has served to obscure the hypothesis that individuals might be "androgynous," that is, both masculine and feminine, both assertive and yielding, both instrumental and expressive, depending on the situational appropriateness of the various behaviors. A further implication of androgyny, according to her, is that an individual may blend the above complimentary modalities into a single act: for instance, being able to fire an employee if the circumstances warrant it, but doing so with sensitivity for the human emotion that the act may produce. (Bem, 1977).

B.   Psychological Sex-Role Orientation and Identified Problems

No literature exists to relate these two variables.

C.   Psychological Sex-Role Orientation and Self-Disclosure

There are three studies in the literature that consider the relationship between psychological sex-role orientation and self-disclosure, one of which is valid in terms of a significant correlation (Bem, 1977), another (Gerdes, Gehling and Rapp, 1981) which has two significant main effects, and a third (Lombardo and Lavine, 1977) which uncovers some interesting main effects and two and three-way interactions.

Bem (1977), doing one-way anovas and multiple regression analyses from the data generated from the JSDQ (1971) and her own instrument, the BSRI (1974), found in her analysis of variance no significant total disclosure difference due to

gender of subject. In the multiple regression analysis only one significant correlation emerged: total self-disclosure in men was positively related to masculinity, suggesting that men who are low in masculinity (i.e., feminine or undifferentiated men) may be more inhibited about disclosing personal information to others. Interestingly, in Bem's study, femininity, given the assumptions of role theory, was not significantly correlated with self-disclosure in either males or females.

In a 2x2x2x2 between subjects factoral design (biological sex of subject X androgynous verses sex-typed sex role concept of subject X biological sex of target X disclosure level of target person, high verses low), Gerdes et al. (1981) using the BSRI (1974) and measuring self-disclosure "behaviorally" found psychological sex role orientation not to be significant, but sex of subject to be significant with females self-disclosing more than males. Psychological sex-role orientation X sex of subject was not found to be significant and consequently did not support the authors' original hypothesis that androgynous males would self-disclose more intimately than sex-typed males. Sex of target person was not found to be significant though the main effect for disclosure condition (high verse low disclosure of the target) was highly significant supporting the reciprocity effect. In this work, there were no significant interactions between any of the variables and there is really nothing to lead us to believe that psychological sex type is significantly related somehow to self-disclosure.

Lombardo and Lavine (1977), on the other hand, claim that the results of their work suggest that self-disclosure is more a function of psychological sex-role than biological gender. In their first of a two-part study, Lombardo and Lavine, using a 2 (sex of subject) X 2 (androgyny level of subject) X 4 (target) unequal n analysis of variance, found sex of subject not to be significant but a main effect for androgyny level of subject with androgynous persons disclosing more than stereotyped persons. A target main effect was found with friends being disclosed more to than parents and a significant sex of subject X target interaction was found though Lombardo and Lavine do not interpret this. More complicated is a significant sex of subject X androgyny level X target interaction where androgynous males reported to disclose more to mothers than stereotyped males but there was no difference for females.

In the second of their two-part study, Lombardo and Lavine, taking the same data, ran four separate unequal n anovas of 2 (sex of subject) X 2 (intimacy level of topic – intimate and non-intimate) X 2 (androgyny level – androgynous or sex-typed) for each of four targets: mother, father, best male friend, and best female friend. Only the intimacy factor was significant for all targets, clearly illustrating the preference to disclose non-intimate information over intimate subject matter. For the targets, father, best male friend and best female friend there was found to be an androgyny main effect indicating that the subjects categorized androgynous

reported that they would disclose significantly more than their sex-typed counterparts. Only to best female friend was sex of subject significant indicating that females disclosed more to female friends than did males. No significant sex of subjects X androgyny level interactions were found, though a significant sex X androgyny X intimacy level of topic was found in relation to the target, father. Here androgynous females disclosed significantly more on non-intimate topics than sex-typed females; whereas, there were no significant differences between androgynous and sex-typed females on intimate topics. And, androgynous males disclosed significantly more intimate information to fathers than sex-typed males but not significantly more non-intimate information.

Lombardo and Lavine's work, the most sophisticated of these three studies, is somewhat difficult to interpret, though, through it, using the BSRI (1976) and the JSDQ (1971), Lombardo and Lavine claim their data suggests that self-disclosure is a function of sex-role and not biological gender. As far as I am concerned, this contention is still in debate. However, these authors saying that androgynous males tend to be similar to females in self-disclosure patterns seems intuitively appealing.

V   SUMMARY OF LITERATURE

A.   Identified Problems

1.   Identified Problems

There is very little in the literature to articulate the types of problems that people identify as being theirs (identified problems). One might hypothesize that identified problems vary with age and gender and there is marginal support for this (Jourard, 1971; Hartman, 1968) though this is not conclusive. More research needs to be conducted that considers these factors.

2.   Identified Problems X Gender

Hartman's fifteen year old study (1968) reflects what look to be "sex-role stereotyped" responses when males ranked the Future: Vocational and Educational two out of eleven in seriousness, and for females it placed eleven out of eleven. Similar differences between the sexes existed for the topic Social Psychological Relations with females seeing these problems as much more serious than males. On the other hand, in a similar study, Snyder, Hill and Derkson (1972) found there to be no difference according to gender in students' "self-rating" of problem topics.

In what this researcher considers a very important study, Ginn (1975) found a marked discrepancy between the results of his self-report instrument and the actual behavioral presentation of problems to a university counselling center over a year period. This work and others - e.g., Lubin and Harrison (1964), and Cosby

(1973) – call to question the predictive validity of self-report instruments that measure identified problems and self-disclosure. Researchers may very well be inaccurate in pursuing a self-report type of measurement to measure identified problems.

3. Identified Problems X Psychological Sex-Role Orientation

Nothing exists in the literature to indicate the type of relationship that may exist between identified problems and psychological sex-role orientation.

B. Self-Disclosure

1. Why the Interest and Correlates With Mental Health

"Appropriate" self-disclosing behavior is considered good and is the underpinning of much of the whole body of "talk therapy." It is expected that the relationship between self-disclosure and mental health may be curvilinear (Jourard, 1964; Cosby, 1973; Egan, 1975).

2. Measuring Self-Disclosure

The Jourard Self-Disclosure Questionnaire (1971) and its earlier forms are the most widely used paper and pencil measures. They and all other paper and pencil measures may be doubtful in terms of predictive validity.

3. Self-Disclosure: A General Overview and a Model

Tubbs and Baird (1978) present an interesting and valuable model and conclude that the process of interpersonal self-disclosure is a complex one that is contingent upon a number of interacting factors. Support for this position comes from Gilbert and Whiteneck (1976) who, in an

excellent study, are drawn to deduce "that a multidimensional approach to the study of self-disclosure is both justified and required."

4. Self-Disclosure: Main Effects

(a) The Discloser

Gender as a descriptor of the discloser has by far received more attention than any other factor. Evidence is practically conclusive that females in Western society self-disclose significantly more in both volume and intimacy level than do their male counterparts.

(b) The Topic

It is generally found that there is an inverse relationship between the amount disclosed and the intimacy level of the topic such that individuals disclose less about more intimate topics (Jourard, 1971; Cosby, 1973; Morgan, 1976; Gilbert and Whiteneck, 1976; Lombardo and Lavine, 1977). Gilbert and Whiteneck (1976), in a valuable study, found main effects in the topic for both personalness (intimacy level of content) and valence (positiveness and negativeness of content) with results as we might expect: the less personal the statements, the more likely they would be disclosed and the more positive the statements, the greater likelihood they would be disclosed. For them, a personal X valence interaction also proved significant, suggesting that highly

negative disclosures may be reserved for intimate relationships.

(c) The Target (Gender, Location, Relationship)

i   Gender

Females in Western society receive significantly more disclosure than males (West and Zingle, 1969; Jourard, 1971; Rivenback, 1971; Morgan, 1976).

ii   Location

The type of person who is chosen as target seems to vary with the age of the discloser. Jourard (1971) suggests, and the literature (West and Zingle, 1969; Rivenback, 1971; Snyder, Hill and Derkson, 1972; Gilbert and Whiteneck, 1976; Morgan, 1976; Lombardo and Lavine, 1977; LaFromboise, 1978) supports that as the discloser moves from childhood to adolescence to adulthood, the target preference changes from parent to closest same-sex friend to spouse, respectively.

iii   Relationship

The nature of the relationship between the discloser and the target may be the most powerful determinant of self-disclosure. Tubbs and Baird (1978) site factors such as "trust and acceptance," level of intimacy between discloser and receiver, and "reciprocity" or reciprocal

disclosure on the part of both discloser and target as being the keys to the extent to which a subject chooses to disclose. Jourard (1971) uses the term "dyadic effect" to explain reciprocity. The more trusting, accepting, intimate and reciprocal the relationship, the more extensive and more intimate the disclosure is likely to be.

5. Gender of Discloser X Topic (Intimacy and Valence)

By not considering the intimacy and or valence aspects of disclosure topics and by summing across all topics, there is a tendency to mask actual gender differences within disclosure patterns. Morgan (1976), O'Neill, Fein, Velit and Frank (1976), Lombardo and Berzonsky (1979), and DeForest and Stone (1980) all found significant sex of subject X intimacy level of topic interactions indicating that females are willing to reveal on items rated intimate significantly more than males. This author feels that this is an important discovery and scaling topics according to intimacy should be a part of any new self-disclosure research.

Similarly, Gilbert and Whiteneck (1976) found a significant sex of subject X valence interaction which suggests that males may be less likely than females to disclose on positive statements. Scaling of topics according to valence, though not as important as intimacy level, may also offer direction in new self-disclosure research.

6. Gender of Discloser X Target

(a) Gender of Discloser X Target (by Gender)

In the two studies that have considered this theme, (DeForest and Stone, 1980; Gerdes, Gehling and Rapp, 1981) neither found a significant gender of discloser X gender of target interaction. Given the strong trends for the main effects, gender of discloser and gender of target, I might have expected different results.

(b) Gender of Discloser X Target (by Location)

Gilbert and Whiteneck (1976) found this interaction not to be significant; whereas, Lombardo and Lavine (1977) did find significance without interpreting it. Given the literature and the ambiguous nature of peoples' choice of target, I would expect that any interactions of this nature would not be clear.

7. Topic X Target

Morgan (1976) and Gilbert and Whiteneck (1976) both found significant topic X target interaction. In each case, topic does not refer to the subject matter of the topic: rather, for Morgan it refers to intimacy level and for Gilbert and Whiteneck, the themes of personalness and valence. With his eighteen to thirty-two year old college student population, not surprisingly, Morgan (1976) found friends received significantly more intimate disclosure than parents, but the differences between disclosure to parents and friends was less for low intimacy items. The

effect of preference for target was more pronounced for high intimacy items.

Gilbert and Whiteneck (1976) using the factors personalness and valence to differentiate their topics, found significant personalness X target, valence X target and personalness X valence X target interactions. Generally speaking, their results and interpretations parallel those of Morgan (1976) and we can expect in research to find the more intimate the relationship with the target is, the more likely one is to reveal highly personal topics of negative valence.

8. Gender of Discloser X Topic X Target

Only one part of one study (Gilbert and Whiteneck, 1976) has shown a significant gender of discloser X topic X target interaction, and this is difficult for us to interpret. According to the authors, perhaps due to different socialization, norms for appropriate disclosure relating to valence and target are different for males and females. Gilbert and Whiteneck's significant gender X valence X target finding and interpretation of it is complex and obtuse, and at this stage I find little value or direction for research within it.

C. Psychological Sex-Role Orientation, Identified Problems and Self-Disclosure

1. Psychological Sex-Role Orientation and Androgyny – Background

Some social scientists (Bem, 1974 and others) have rejected the traditional dichotomous conceptualization of

masculinity and femininity and prefer to think of males and females as having, to varying degrees, blends of qualities associated with each of masculinity and feminini- ty. That person, whether male or female by gender, having a balance of masculinity and femininity, is called "androgynous."

2. Psychological Sex-Role Orientation and Identified Problems

No literature exists that relates these two factors.

3. Psychological Sex-Role Orientation and Self-Disclosure

(a) The work of Bem (1977) is interesting in that in her regression analysis the only significant correlation that occurred in her university freshmen population was that in men, total self-disclosure was positively related to masculinity. Femininity as measured by the BSRI (1974) was not correlated to self-disclosure in either males or females, as the literature may lead us to expect.

(b) Gerdes, Gehling and Rapp (1981), in a study that measured self-disclosure "behaviorally," found no significant relationship between psychological sex- role orientation and self-disclosure though a signifi- cant gender of subject X self-disclosure interaction did exist.

(c) Lombardo and Lavine (1977) claim and demonstrate, to an extent, that self-disclosure may be more a function of psychological sex-role orientation than

biological gender. In the first of a two-part study, Lombardo and Lavine find sex of subject not to be significant but there is significance for psychological sex-role orientation. As well, these authors find a significant sex of subject X androgyny level X target interaction.

In the second of their two-part study, Lombardo and Lavine, by the way of significant sex of subject X intimacy level of topic X androgyny level interaction to the target father, found androgynous males to be significantly more revealing than their sex-typed counterparts on intimate topics and ironically, androgynous females to be significantly more revealing than sex-typed females on non-intimate topics. The authors suggest that androgynous males tend to be similar to females in self-disclosure patterns and this is a point that should be held in mind.

Though the above studies give us some suggestions, they do not lead us to any conclusions about the relationships between psychological sex-role orientation and self-disclosure.

CHAPTER III

METHODOLOGY

Facets of the methodology to be described in this chapter are, in order: description of subjects, description of measurement instruments, data collection procedures and data analysis.

I   DESCRIPTION OF SUBJECTS

The population for this study consisted of 181, largely caucasian, fifteen to seventeen-year-old grade eleven students from one high school, Mission Senior Secondary School, in Mission, B.C. Mission is a semi-urban town of approximately 15,000 people, forty-three miles (69 km.) east of Vancouver on the north bank of the Fraser River. Of the 181 students, seventy-nine were male and 102 were female, totaling to within forty of the entire grade eleven population enrolled in their school, the only senior secondary school in the immediate vicinity.[1] Forestry and agriculture are the chief resource sectors in the immediate area and provide the basis for retail and service activities concentrated in Mission. Table 1 presents further demographic information on Mission compared to Vancouver, British Columbia and the country as a whole so that the reader can consider the generalizability of the sample population.

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[1] Originally, 193 students participated in this study. Questionnaires from twelve students were discarded because they were incomplete.

TABLE 1

Selected Demographic Characteristics of Mission,
Vancouver, British Columbia and Canada

	Mission	Vancouver	B.C.	Canada
Population	14,997	410,188	2,466,608	22,992,600
Average Income in Dollars	10,313	10,809	11,111	10,313
% of Labor Force Unemployed	9.4	9.4	8.6	7.1
% of Population Fifteen and Over With University Degrees	2.6	7.9	4.9	4.3
Average Size of Families in Members	3.4	3.0	3.2	3.5
% of Single Parent Families	8.9	12.7	11.5	9.8

Reference: Census of Canada, 1976

The reader may conclude that residents of Mission are slightly less well-educated than those of Vancouver, but similar with Vancouver on other counts as are they with measures for both the populations of British Columbia and Canada.

II   DESCRIPTION OF MEASUREMENT INSTRUMENTS

In this study, three measurement instruments were used, two created by this author (one to measure identified problems and one to measure self-disclosure)[2] and a third, the BSRI (1978) to measure psychological sex-role orientation.

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[2]The identified problem measure was originally designed to precede the self-disclosure measure, the thinking being that if subjects were going to be asked about disclosure likelihood on a set of problems, one should first ask to what extent these same problems exist. These inventories can, however, be used together or separately.

A. Measurement of Identified Problems

1. Development of Instrument

Identified problems used in this study are found in Table 2, numbered one to eleven. Problems are "thought" to be grouped into four main factors or themes as illustrated. No factor analysis has been done on this set of problems. The fourth theme, adjustment to self and others, has two subsets, adjustment to others (interpersonal) and adjustment to self (intrapersonal).

TABLE 2

Four Themes and Eleven Problem Topics - Instrument:
Identified Problems

School Routine	1. Difficulty with grades. 2. Adjustment to school routine: attendance, homework, classes, teachers.
Money and Work	3. Problems with finances and employment (current).
The Future	4. The future: choice of occupation and/or further study.
Adjustment to Self and Others (Interpersonal)	5. Difficult relations with family. 6. Problems in getting along with friends. 7. Boyfriend - girlfriend problems.
Adjustment to Self and Others (Intrapersonal)	8. Health and physical development problems. 9. Problems with morals and religion. 10. Uncomfortable feelings and emotions. 11. Problems of sexual adjustment.

Subjects using this identified problems inventory to assess presence or seriousness of possible problems are asked, "To what extent is each of the following a problem

for you?" (For a copy of this instrument, please refer to the Appendix, Part I.) Subjects responded by checking the appropriate box in a five-point Likert scale ranging from one (not at all a problem) to five (very much a problem).

Because it was deemed, for the purposes of this study, that a suitable instrument to measure identified problems (and self-disclosure) did not exist, the author chose to develop the eleven topic instrument referred to above. It was not that there were no instruments to measure identified problems (and self-disclosure); rather, the instruments that did exist were either thought to be inappropriate for a grade eleven population or (the most serious problem) too large to fit both the current identified problem and self-disclosure design needs. Mooney and Gordon (1950) have a 330 item, eleven factor high school form of the Mooney Problem Checklist; Warman (1961) offers a sixty-six item, three factor instrument; Jourard (1971) presents a sixty item, six factor form of the Jourard Self-Disclosure Questionnaire; and LaFromboise (1978) furnishes a fifty-one item instrument called the Counselling Helping Questionnaire. However, all of these measures, and others by different authors (Plog, 1965; West and Zingle, 1969; Snyder, Hill and Derkson, 1972; and Ginn, 1975) have too many problem topics in them for one to be able to consider individual problem differences. Only the instrument by Strong,

Hendel and Bratton (1971) seemed at all suitable (it has nine different problem topics) though not all topics were worded in language understandable to a grade eleven population, and, besides, I wished to include a few more themes such as adjustment to school routine, the future (considered a very important topic in the literature), and boyfriend-girlfriend problems.

All of the works cited above have influenced the development of my eleven topic identified problems instrument: particularly, Mooney and Gordon (1950), Warman (1961) and Strong et al. (1971). From Mooney and Gordon, with some word changes, I have included in this instrument five factors (items 2, 3, 4, 8 and 9); from Warman, I have considered two main factors (school routine and adjustment to self and others); and from Strong et al., I have been influenced by five problem themes. Hence, selection of the problem items found in this instrument has been strongly influenced by the related literature.

In this questionnaire, there has been an attempt to order topics, in a loose sense, from less intimate to more intimate. Topics have been chosen to cover a range of themes that might be of concern to both males and females at the grade eleven level, and topics have been grouped according to what may be the inclusive factors or themes as represented in Table 2.

2.   Reliability and Validity

Only marginal reliability and validity data exists for this instrument at this time. In reference to reliability, there is no statistical evidence of internal consistency or of stability of this measuring device over time. It has been used only once, in this study. With respect to validity, criticisms laid against other self-report instruments (see Chapter II) regarding predictive validity apply here as well.

However, in the cases of content, construct and face validity, arguments can be made to support the current measure. Because the content of this instrument has been based largely on existing instruments, it can be considered construct and content valid. In the same way, it appears, at face value, to ask the questions clearly, and in no instances did any of the 181 respondents in the present study claim to have problems understanding it.

B.   Measurement of Self-Disclosure

1.   Development of Instrument

Like the identified problems measure just described, this self-disclosure instrument uses the same eleven problem topics (see the Appendix, Part II). Previous rationale for selection, ordering and grouping of topics also applies.

In this measure, subjects are asked, "How likely would you be to talk to _____ about each of the

following problems?" In a repeated measures fashion, subjects are asked seven times, for seven different targets, to respond to the set of eleven problems. At the top of each of seven pages, the name of a different helper appears. Ordering of helpers is designed such that the reader will not compare in his mind his responses from one target to the next: for instance, mother to father. Target presentation is in order: closest male friend; mother; male teacher, male counsellor, male coach, etc.; closest female friend; father; female teacher, female counsellor, female coach, etc.; and no one. Subjects respond by checking the appropriate box in a six-point Likert scale ranging from one (very unlikely), to six (very likely).

Targets were selected according to suggestions from the literature and personal design needs. Indication is that likely targets by location for a grade eleven student population are friends, parents and school personnel (Jourard, 1971; LaFromboise, 1978). Gender of target is also considered important (West and Zingle, 1969; Jourard, 1971; Rivenback, 1971; Morgan, 1976) and accordingly, gender of target has been included as a factor in this design. Combined, location of helper and gender of helper produce six different targets. Helper no one has been included as a seventh target because of a sense that, because of their nature, particularly at this

a sense that, because of their nature, particularly at this age, some students prefer to keep completely to themselves about some more intimate problem topics. It was felt that a measurement of this phenomenon might be helpful.

The wording of the question "How <u>likely</u> would you be to talk to _____ about each of the following problems?" was chosen because of personal preference. Strong, Hendel and Bratton (1971) and LaFromboise (1978) use a similar wording that includes likelihood; whereas, West and Zingle (1969) and Jourard (1971) have a slightly different approach. West and Zingle's questionnaire asks subjects to indicate the extent to which certain topics <u>become</u> the focus of communication with different helpers, and the JSDQ (1971) asks subjects to indicate the extent to which they <u>have talked</u> to or made themselves known to a set of people on a set of problems. The approach of Strong et al. and LaFromboise (and this instrument) asks subjects to project into the future on likelihood of disclosure (subjects probably do so based on personal knowledge of a particular helper and their own past disclosing behavior); whereas, West and Zingle's approach asks subjects to report on past behavior, as does the JSDQ. There is nothing in the literature to compare, within these instruments, the validity of these three different questioning approaches, though I expect that they all produce quite similar results.

2.   Reliability and Validity

As with the identified problems measure, no reliability data exists on this self-disclosure instrument. Similarly, except for face validity, that it appears to be okay (a subjective judgement), and that it appears to ask questions clearly and include relevant targets, no validity data exists for this measure. Evidence to support predictive validity is lacking (this is the case for all measures of this type) as is evidence for construct validity in that we do not know how well this instrument measures the construct of self-disclosure.

C.   Bem Sex Role Inventory

1.   The Instrument

Assuming that masculinity and femininity are not at opposite ends of a single continuum (Block, 1973; Bem, Martyna and Watson, 1976; Spence and Helmreich, 1978), Bem (1974), developed the Bem Sex Role Inventory (BSRI) that gives separate measures for each of these traits. Bem (1974) argues that masculinity and femininity are logically and empirically independent.

The BSRI is composed of sixty adjectives which subjects rate on a seven-point scale ranging from one, "never or almost never true [of me]" to seven, "always or almost always true [of me]." Twenty items are masculine traits, twenty are feminine and twenty are rated neutral. Two scores for each subject are derived from

the results, a score for masculinity and a score for femininity.

A researcher can use the scores generated by the BSRI in two ways: (1) either to classify subjects into four groups (masculine, feminine, androgynous or undifferentiated) on the basis of relative scores on the masculine and feminine scales of the BSRI, or (2) to analyze subjects without classification by using raw masculinity and femininity scores. Bem (1977) uses masculinity and femininity scores in a multiple regression analysis to correlate self-disclosure and her instrument. It may be argued that this approach is preferable to the classification system in that by assigning subjects to broad categories, there can be a loss of information and a consequent loss of accuracy (Pedhazur and Tetenbaum, 1979). Even so, the classification system is advocated by researchers such as Heilbrun (1976), Kelly and Worell (1976), and Kelly, Caudill, Hathorn and O'Brien (1977). It continues to be used for many reasons, one of them being that it gives a measure of androgyny.

For the classification approach, Bem (1976) recommends a four-fold grouping based on a median-split method. Once the median masculinity and femininity scores have been determined, subjects are grouped according to the following chart:

Masculinity Score

Above Median   Below Median

	Above Median	Below Median
Above Median	Androgynous	Feminine
Below Median	Masculine	Undifferentiated

Femininity Score

For instance, someone to be grouped androgynous would have above the specified median on the masculine scale, and above the particular population median on the feminine scale.

As a guideline, Bem (1976), in Table 3, offers an example of her grouping of a 1975 sample of Stanford undergraduates where the median masculinity and femininity scores were 4.89 and 4.76, respectively.

TABLE 3

Percentage of Subjects in Various Sex-Role Groups for a
1975 Sample of Stanford Undergraduates as Defined by
a Median Split of Both Masculinity and Femininity

Sex Role	Males	Females
Feminine	16%	34%
Undifferentiated	27%	20%
Androgynous	21%	29%
Masculine	37%	16%

Reference: Scoring Packet: Bem Sex Role Inventory Revised 4/76

One might expect groupings in other populations to be somewhat similar to those represented above.

2. Reliability and Validity

Considerable research has gone into establishing reliability and validity data for the BSRI.

Bem (1974) computed coefficient alphas separately for the masculine and feminine scales for each of her two normative samples. The scores were highly reliable (masculine, a = .86; feminine, a = .82 and androgynous, a = .85). Test-retest reliability estimates were masculine, r = .90; feminine r = .90; and androgynous r = .93. Concerning the empirical independence of the masculinity and femininity scales, Bem found the interscale correlation between masculinity and femininity for her Stanford

population to be for males, $r = .11$, and for females, $r = - .14$, suggesting a true empirical independence.

Validity of the BSRI has been supported through repeated experimentation. Various studies have shown that subjects' behaviors were consistent with their classifications on the BSRI (Bem, 1974, 1975, 1976). Bem and Lenney (1976), for instance, show that androgynous subjects consistently show no preference for masculine or feminine activities, where sex-typed individuals show preference for activities consistent with their genders. As well, Bem (1975), in a set of experiments to study androgyny in relation to independence and nurturance, found only subjects classified androgynous displayed both a high level of independence when pressured to conform, as well as a high level of nurturance when given a chance to play with a kitten.

The BSRI, however, does not go without criticism. To name two examples, Pedhazur and Tetenbaum (1978) claim that in it the constructs of masculinity and femininity are not clearly operationally defined; and Gaudrau (1977) challenges the assumption that the scales are independent. In sum, however, the BSRI is widely accepted and widely used as a measure of psychological sex-role orientation.

III DATA COLLECTION PROCEDURES

Administration of the three measurement instruments just reviewed took place in Mission Senior Secondary School in a regular classroom setting in eight individual class periods over two consecutive days. Completion of the three-part questionnaire, with instructions, took students between thirty and forty minutes. No students needed more than the forty minute-class period to complete the instruments.

In all classes, testing was conducted by this researcher. Instructions were standard. Students were asked to read directions to themselves while the author read them out loud (see the Appendix, Part I, Part II and Part III). Upon completion of the review of written instructions, any new questions that may have arisen were answered.

Students were directed to only work on one section at a time (each section was differently colour coded), to work on their own, and when they had completed the section they were working on, to stop and review their answers but not to go on until they were told to do so. At the beginning of each subsequent section, directions were reviewed as outlined above. All students worked on the same section at the same time.

Students appeared to have no difficulty with part one of the questionnaire, identified problems. With part two of the questionnaire, six students had difficulty understanding how to respond to helper, no one. In these cases, the researcher reexplained the situation until they indicated that they understood.

It was anticipated that the BSRI (1978) might present some vocabulary difficulties for some of this grade eleven population. Accordingly, a list of potentially difficult words and their meanings and/or synonyms were written on the blackboard for students' reference. Words listed included: affectionate, conscientious, assertive, compassionate, adaptive, dominant, tactful, conventional, yielding, analytical, individualistic, gullible and solemn. Any other questions that students had regarding word meanings were answered on an individual basis.

Finally, toward the end of each class period, all completed questionnaires were picked up by the researcher. At that time, each student was asked if he or she had any questions or problems with the instruments, and if there were further questions, they were attended to at that time. All students were dismissed at the same time: none were dismissed early.

IV   DATA ANALYSIS

Analysis of results in this present study were either: (a) correlational in nature, where Pearson product-moment correlation coefficients were computed to compare relationships between measurements taken on different variables, or (b) followed a factorial research design where several analyses of variance examined different main and interacting effects for a number of related factors.

A.   Correlational Approach

Pearson product-moment correlation coefficients were computed to estimate the relationships between:

1. Identified problems and sex of student (research question 1b, Chapter I);

2. Seriousness of identified problems and likelihood of disclosure on problems (research question 3a and 3b, Chapter I);

3. Masculinity and femininity scores on the BSRI and identified problems (research question 5, Chapter I);

4. Masculinity and femininity scores on the BSRI and likelihood of problem disclosure for each of three groups: male students, female students, and male and female students combined (research question 5b, Chapter I); and

5. Masculinity and femininity scores on the BSRI and choice of all possible helpers, by gender, by location, or a combination of gender x location (research question 5c, Chapter I).

The UBC Statistical Package for the Social Sciences (1978) was used for computing all of the above.

B. Analysis of Variance

A number of analysis of variance procedures were employed to examine the several factorial research designs as listed:

1. A 2x11, sex of student X identified problem design (research questions 1a and 1b, Chapter I);

2. A 4x11, Bem grouping of student X identified problem design (research question 5a, Chapter I);

3. A 2x2x3x11, sex of student X gender of helper X location of helper X problem "repeated measures design" (Winer, 1962), where each student is asked about likelihood of

disclosure on the same problem six times (research questions 2a, 2b, 2c and 4, Chapter I);

4. A 2x11, sex of student X problem design, where students are asked about disclosure likelihood to helper, no one (research question 4, Chapter I);

5. A 4x11, Bem grouping of student X problem design, where students are asked about disclosure likelihood to helper, no one (research question 5c, Chapter I); and

6. A 4x2x3x11, Bem grouping of student X gender of helper X location of helper X problem "repeated measures design" (Winer, 1962), (research questions 5b and 5c, Chapter I).

Where main effects or interactions from analysis of variance procedures reached statistical significance (set at the .01 level rather than the .05 level because of the power inherent in a repeated measures design), Dunn's multiple comparison procedure (Kirk, 1968), was employed. It, in turn, focused on those statistically significant interactions to determine which subgroups differed significantly from the others. Again, the .01 level of significance was used with Dunn's multiple comparison procedure.

The UBC BMD2PV computer program was used for computing all of the above unequal n analysis of variance procedures (items 1 - 6).

CHAPTER IV

RESULTS

The results of this study are organized first into three broad themes: (1) identified problems, (2) self-disclosure, and (3) psychological sex-role orientation and self-disclosure, and then, within these themes, according to the research questions as outlined in Chapter I. Important findings will be highlighted, though more complete interpretations of these findings will be left until Chapter V.

I   IDENTIFIED PROBLEMS

A copy of the instrument designed to measure identified problems follows in the Appendix, Part I. The reader will remember that when doing the questionnaire the subject was asked: "To what extent is each of the following a problem for you?"

Research Question 1:   (a) Are some problem topics seen to be more serious for males than females?

(b) Do females appear to be more troubled with problems in general than males?

To arrive at answers for these two questions a simple two-way analysis of variance was performed yielding the following summary table:

TABLE 4

Summary Table - Identified Problem and Sex of Student -
Analysis of Variance

Source	Sum of Squares	df	Mean Square	F	Tail Probability
Mean	5,741.22	1	5,741.22	1,883.67	.0000
Sex	.39	1	.39	.13	.7206
Error	545.57	179	3.05		
Problem	245.43	10	24.54	33.65	.0000
Problem X Sex	43.83	10	4.38	6.01	.0000
Error	1,305.55	1,790	.73		

n = 181

Accordingly, we find that because Table 4 indicates that sex is not significant in this study ($p > .01$), females do not appear to be more troubled with problems in general than males (research question 1b).

However, because of a significant problem X sex interaction (tail probability .0000), we need to look at the data more carefully to answer research question 1a. Please refer to Table 5.

TABLE 5

Means and Significant Differences of Identified Problems
For Students Grouped by Sex

	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	Marginal	Count
Males	2.35	2.30	2.00	2.30	1.68	1.28	1.63	1.42	1.25	1.54	1.22	1.73	79
Females	1.98	1.57	1.92	2.34	1.90	1.17	1.68	1.37	1.42	1.99	1.33	1.70	102
Sign.Diff.	*	*								*			
Marginal	2.14	1.89	1.96	2.33	1.81	1.22	1.66	1.39	1.35	1.80	1.28	1.71	181

Note: Significant difference level = .36   * p = .01   n = 181
      From Dunn's Multiple Comparison Procedure (Kirk, 1968)

Evidently, problems one and two, difficulty with grades and adjustment to school routine, are seen to be significantly more serious to this sample of males than females and problem ten, uncomfortable feelings and emotions, is significantly more serious for females than males. Pearson correlation coefficients support this pattern as evidenced in Table 6. The significant correlations in Table 6 parallel those problem cases in Table 5 where there is a significant difference between sex of student.

TABLE 6

Pearson Product-Moment Correlation Coefficients Between
Identified Problems and Sex of Student

	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}
Sex	-.20*	-.36**	-.03	.01	.10	-.10	.02	-.03	.10	.23*	.09

* $p < .01$ $n = 181$
** $p < .001$

Note: For the purposes of this Pearson correlation, males were coded 0
and females were coded +1.

II   SELF-DISCLOSURE

The reader will remember that problems for disclosure are the same as those for identified problems. Helpers or targets include: father, mother, closest male friend, closest female friend, school personnel (male), school personnel (female) and no one. Subjects are asked, "How likely would you be to talk to _____ about each of the following problems?" A copy of this self-disclosure instrument is found in the Appendix, Part II.

Research Question 2:

(a) Are some problem topics more likely to be talked about by females than males?

(b) Are females more likely to talk about more problems in general than males?

(c) Are subjects, regardless of gender, more likely to talk about some problem topics than others?

To answer these research questions, and others that will follow (questions 3 and 4), it is appropriate to present the following analysis of variance summary table, Table 7.

TABLE 7

Summary Table - Problem, Sex of Student, Gender of Helper
and Location of Helper - Analysis of Variance

Source	Sum of Squares	df	Mean Square	F	Tail Probability
Mean	115,687.19	1	115,687.19	2,324.89	.0000
Sex	1,150.43	1	1,150.43	23.12	.0000
Error	8,907.09	179	49.76		
Location	4,087.59	2	2,043.80	123.10	.0000
Location X Sex	217.54	2	108.77	6.55	.0016
Error	5,943.98	358	16.60		
Gender	750.86	1	750.86	87.23	.0000
Gender X Sex	436.55	1	436.55	50.72	.0000
Error	1,540.81	179	8.60		
Location X Gender	88.58	2	44.29	6.09	.0025
Location X Gender X Sex	14.48	2	7.24	.99	.3709
Error	2,605.55	358	7.28		
Problem	3,859.37	10	385.94	138.59	.0000
Problem X Sex	64.56	10	6.46	2.32	.0104
Error	4,984.69	1790	2.78		
Location X Problem	980.87	20	49.04	35.77	.0000
Location X Problem X Sex	80.37	20	4.02	2.93	.0000
Error	4,908.27	3,580	1.37		
Gender X Problem	58.24	10	5.82	5.99	.0000
Gender X Problem X Sex	55.81	10	5.58	5.74	.0000
Error	1,740.22	1,790	.97		
Location X Gender X Problem	40.89	20	2.04	2.35	.0006
Location X Gender X Problem X Sex	55.54	20	2.78	3.19	.0000
Error	3,118.23	3,580	.87		

n ≈ 181

Research Question 2:   (a) Are some problem topics more likely to be talked about by females than males?

The answer to this question is no. Because sex of student X problem tail probability exceeds .01 (see Table 7), females in this study report that they are not significantly more likely than males to talk about some problems. However, for the reader's interest, Table 8 presents mean likelihood of disclosure scores for males and females for each of eleven problems. No attempt has been made to test for significant difference levels on problems between sex.

TABLE 8

Mean Disclosure Scores on Problems for
Students Grouped by Sex

	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	Marginal	Count
Males	3.48	3.28	3.22	3.79	2.77	2.50	2.57	2.68	2.28	2.42	2.03	2.82	79
Females	4.30	4.06	3.79	4.54	3.47	3.29	3.00	3.21	2.76	3.14	2.40	3.45	102
Marginal	3.94	3.72	3.54	4.22	3.15	2.97	2.81	2.98	2.55	2.82	2.24	3.18	181

n = 181

Research Question 2:   (b) Are females more likely to talk about more problems in general than males?

Because the factor for sex has been found to be highly significant (tail probability .0000: refer to Table 7) and because the mean disclosure score for females is 3.45 as compared to 2.82 for males (refer to Table 8), the answer to this question is yes. The results indicate that females report a higher total disclosure score than

males and that females are significantly more likely than males to talk about more problems in general.

Research Question 2:   (c) Are subjects, regardless of gender, more likely to talk about some problem topics than others?

Since the main effect for problem as illustrated in Table 7 is highly significant (tail probability .0000), we can hypothesize that, yes, subjects, regardless of gender, self-report that they are more likely to talk about "some" problem topics than others. Below, Table 9, illustrates such a pattern.

TABLE 9

Rank Order, Mean Disclosure Scores and Significant
Difference Levels Between Likelihood of Problem Disclosure

P	$\bar{X}$	4	1	2	3	5	8	6	10	7	9	11
4	4.22	*										
1	3.94		*									
2	3.72			*								
3	3.54				*							
5	3.15					*						
8	2.98						*					
6	2.97							*				
10	2.82								*			
7	2.81									*		
9	2.55										*	
11	2.24											

Significant difference level = .27   * p = .01   n = 181
From Dunn's Multiple Comparison Procedure (Kirk, 1968)

To interpret Table 9, one should consider those problem topics in brackets below the asterisks as being significantly less likely to be disclosed upon than the headlining problem topic. We can see that, for instance, problem topic 4, the future, is significantly more likely to be talked about than problem topics 1, 2, 3, 5, 8, 6, 10, 7, 9 and 11. Similarly, students report that problem topic 1, difficulty with grades, is significantly more likely to be talked about than problem topics 3, 5, 8, 6, 10, 7, 9 and 11. The reader may like to consider significant differences for other problem topics outlined in this table.

Research Question 3:   (a) To what degree does statement of seriousness of problem topic corre- late with likelihood of discussing problem topics?

(b) Do males and females differ?

To answer part (a) of this question, it is appropriate to consider a total population Pearson correlation between the two variables, seriousness of problems and likelihood of disclosure on these same problems. Table 10 presents these coefficients.

TABLE 10

Pearson Product – Moment Correlation Coefficients For All
Students Between Seriousness of Identified Problems and
Likelihood of Disclosure on These Same Problems

		P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	Sum P
	Sum IP	-.09	-.08	.05	.01	.02	.02	.05	.09	.08	.06	.08	.03
	IP_{11}	.07	.09	.12	.08	.05	.06	.05	.09	.11	.04	.06	.09
	IP_{10}	.05	.07	.13	.10	.10	.12	.02	.16	.16	.10	.12	.13
	IP_9	.00	.02	-.01	.03	.02	.04	.08	.19*	.12	.17	.13	.08
Seriousness of Each Identified Problem	IP_8	-.06	-.12	-.06	-.04	-.09	-.04	-.03	.09	-.02	-.06	.01	-.06
	IP_7	-.07	-.04	-.03	.00	.05	.07	.04	-.01	.03	-.02	-.02	-.00
	IP_6	-.07	-.06	-.02	.03	-.01	.06	.07	.01	.05	.08	.12	.03
	IP_5	-.07	-.07	.00	.05	.08	.04	.02	.13	.03	.09	.04	.03
	IP_4	.08	.11	.13	.09	.06	.07	.10	.05	-.01	.03	.04	.08
	IP_3	-.09	-.13	.09	-.03	-.09	-.04	-.00	-.07	.03	-.02	.04	-.04
	IP_2	-.20*	-.20*	-.05	-.18	-.02	-.07	.00	-.04	-.02	.01	.02	-.09
	IP_1	-.09	-.15	-.01	-.07	-.04	-.06	-.05	-.05	.04	-.04	-.00	-.06

Likelihood of Disclosure on Each Problem

* $p < .01$ n = 181

Note: Sum IP = Sum of extent of all identified problems
       Sum P = Sum of likelihood of disclosure of all problems

Most relevant to this question is the extent to which the seriousness of each problem correlates with the likelihood of disclosure on that same problem. In other words, if students judge problem 4 to be a serious issue for them, do they correspondingly say that they are likely to disclose to a large extent on it? Reference to Table 10

indicates that only in one case, with problem 2, adjustment to school routine, is there any significant correlation between the extent to which this is a serious problem and the likelihood of disclosure on it. And, this significant correlation ($p < .01$) is a negative one, meaning that the more students report that this is a problem, the less likely they claim to be to self-disclose on it. Also, worthy of noting is the lack of significant correlation (.03) between the sum of seriousness of all identified problems (Sum IP) and the sum of the likelihood of disclosure on all problems (Sum P).

Research Question 3:   (b)   Do males and females differ?

The answers to this question are found in separate, shortened Pearson product-moment correlation tables for the male and female populations. Tables 11 and 12 follow:

TABLE 11

Pearson Product - Moment Correlation Coefficients For Males Between Seriousness of Each Identified Problem and Likelihood of Disclosure on That Same Problem

	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	Sum P
Sum IP												.06
IP_{11}											-.01	
IP_{10}										.07		
IP_9									.12			
IP_8								-.03				
IP_7							.10					
IP_6						.15						
IP_5					.01							
IP_4				.18								
IP_3			.08									
IP_2		-.06										
IP_1	.05											

Seriousness of Each Identified Problem

Likelihood of Disclosure on Each Problem

* $p < .01$ n = 79

TABLE 12

Pearson Product - Moment Correlation Coefficients For Females
Between the Seriousness of Each Identified Problem and
Likelihood of Disclosure on That Same Problem

Seriousness of Each Identified Problem	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	Sum P
Sum IP												.03
IP_{11}											.07	
IP_{10}										.01		
IP_9									.07			
IP_8								.19				
IP_7							-.03					
IP_6						.05						
IP_5					.08							
IP_4				.01								
IP_3			.11									
IP_2		-.15										
IP_1	-.11											

Likelihood of Disclosure on Each Problem

* $p < .01$ $n = 102$

According to Tables 11 and 12, neither Pearson correlations show there to be any significant correlation for males or females between the seriousness of each identified problem and the likelihood of disclosure on that same problem. Nor is there a significant correlation between Sum IP and Sum P in either case. Do males and females differ to the degree which seriousness of problem topics correlate with likelihood of discussing these problems? Because

neither males nor females show significant correlations anywhere within these matrices, it does not appear that they do differ significantly. No further significant difference testing has been applied to the correlation coefficients presented in Tables 11 and 12.

Research Question 4:   Are males and females equally likely to choose the same helpers for their problems, and how does identity and/or sex of helper appear to influence choice?

The question, on the surface seemingly simple, in fact demands some extensive examination of this self-disclosure research data. It asks us to look at the main effects for each of gender and location of helper, and at least some of the interactions between sex of student X gender of helper; sex of student X location of helper; gender of helper X location of helper; sex of student X gender X location of helper; problem X gender of helper; problem X location of helper; problem X gender X location of helper; sex of student X problem X gender of helper; sex of student X problem X location of helper; and sex of student X problem X gender X location of helper. (The main effects for sex of student and problem and their interaction have been covered through research question 2.) Also, related to this question are two more issues: (1) the extent to which students, differentiated by sex, claim they would respond to the helper, no one; and (2) the extent to which they are likely to disclose to all seven helpers when helpers are distinguished just by who they are, rather than by gender and/or location.

For reasons of clarity and to compliment the format of the literature review, it is proposed that question 4 be approached as implied above, from the simple to the more complex: that is,

examination of main and lower order interactions first, and higher order interactions later. Because of the complexity and obscurity of some of the interactions that have to do with problems (there are eleven levels of problem), it is also proposed that post hoc analyses should be done only for some main effects and lower order interactions where interpretation may be meaningful in the light of the literature. These, I suggest, should include the main effect for location of helper and the interpretable interactions for sex of student X gender of helper; sex of student X location of helper; gender of helper X location of helper; and sex of student X gender X location of helper. Cell means will be presented for the sex of student X problem X gender of helper X location of helper and significant differences between sex of student will be marked, but there will not be an attempt to interpret these significant difference levels. Other significant interactions with problems such as location of helper X problem; location of helper X problem X sex of student; gender of helper X problem; gender of helper X problem X sex of student; and location of helper X gender of helper X problem, because of their obscure interpretability, will not be analyzed at this time.

Gender of Helper
Location of Helper

Though question 4 does not ask about students' preference of targets according to the main effects of gender and location, these themes are worth considering before dealing directly with the question. Table 7 indicates that gender of helper is significant

(tail probability .0000), as is location of helper (tail probability .0000). Table 13 offers a mean disclosure to female helpers (gender 2) of 3.45, significantly greater than the disclosure score of 2.90 to male helpers (gender 1).

TABLE 13

Mean Disclosure Scores to Male and Female
Helpers For Students Grouped By Sex

	Male Students (Sex 1)	Female Students (Sex 2)	Marginal
Male Helpers (Gender 1)	2.76	3.00	2.90
Female Helpers (Gender 2)	2.88	3.90	3.45
Marginal	2.83	3.45	3.18
Count	79	102	

n = 181

Similarly, Table 14 displays mean disclosure scores to helpers by location: friends (location 1), 3.76; parents (location 2), 3.42; and school personnel (location 3), 2.35. Manipulation of Dunn's Multiple Comparison Procedure yields a significance difference level of .89 (p = .01) suggesting that students, as a group, report that they are significantly more likely to disclose to friends than school personnel and to parents than school personnel but not friends more than parents.

TABLE 14

Mean Disclosure Scores to Friends, Parents and
School Personnel For Students Grouped By Sex

	Male Students (Sex 1)	Female Students (Sex 2)	Marginal
Friends (Location 1)	3.20	4.20	3.76
Parents (Location 2)	3.19	3.60	3.42
School Personnel (Location 3)	2.10	2.55	2.35
Marginal	2.83	3.45	
Count	79	102	

n = 181

Sex of Student X Gender of Helper

Pertinent to the significant interaction between sex of student and gender of helper (tail probability .0000 – Table 7) are the cell means presented in Table 13. In this research female students report that they are significantly more likely to disclose to female helpers than to male helpers and more likely than male students to disclose to either male or female helpers. (Dunn's Multiple Comparison Procedure suggests a significant difference level of .80, p = .01.) No other significant differences exist between the four interacting cells.

Sex of Student X Location of Helper

Table 7 also indicates a significant sex of student X location of helper interaction (tail probability .0016) (p .01). Cell means from Table 14 are presented in Table 15.

TABLE 15

Rank Order, Mean Disclosure Scores and Significant
Difference Levels for the Interaction:
Sex of Student X Location of Helper

		$\overline{X}$	1	2	3	4	5	6
1.	Female Students X Friends (Location 1)	4.20	*					
2.	Female Students X Parents (Location 2)	3.60		*				
3.	Male Students X Friends (Location 1)	3.20						
4.	Male Students X Parents (Location 2)	3.19						
5.	Female Students X School Personnel (Location 3)	2.55						
6.	Male Students X School Personnel (Location 3)	2.10						

Significant difference level = 1.47   * p = .01   n = 181
From Dunn's Multiple Comparison Procedure (Kirk, 1968)

To interpret Table 15, one should consider those interaction cell means in brackets below the asterisks as being significantly less likely to occur than the headlining interaction. For instance, in this study subjects report that female students are significantly more likely to disclose to friends than female students to school personnel and male students to school personnel. The only other

significant difference is that students report that female students are significantly more likely to disclose to parents than are male students to school personnel.

Gender of Helper X Location of Helper

Understood in this design is that two levels of gender of helper (male and female) and three levels of location of helper (friend, parent and school personnel) when merged produce six different targets. Table 16 below illustrates this translation. Gender 1, male helper crossed with location 1, friend, yields closest male friend; gender 1, crossed with location 2, parent yields father, and so on.

TABLE 16

Gender of Helper X Location of Helper Design
Into Six Targets

	Gender 1 (Male Helper)	Gender 2 (Female Helper)
Location 1 (Friend)	Closest Male Friend	Closest Female Friend
Location 2 (Parent)	Father	Mother
Location 3 (School Personnel)	School Personnel (Male)	School Personnel (Female)

The reader will note that Table 7 reports a significant interaction for the variables gender of helper X location of helper (tail probability .0025) suggesting that students (regardless of gender) report that some helpers are preferred as targets significantly more

than others. Rank order, mean disclosure scores and significant difference levels between six targets from the gender of helper X location of helper interaction are presented in Table 17.

TABLE 17

Rank Order, Mean Disclosure Scores and Significant
Difference Levels Between Six Targets

		X	1	2	3	4	5	6
1.	Closest Female Friend	4.12	*					
2.	Mother	3.73		*				
3.	Closest Male Friend	3.40			*			
4.	Father	3.10						
5.	School Personnel (Female)	2.50						
6.	School Personnel (Male)	2.20						

Significant difference level = .96   * p = .01   n = 181
From Dunn's Multiple Comparison Procedure (Kirk, 1968)

As with previous tables of similar format, interpretation is much the same: the reader should consider those labelled helpers in brackets below the asterisks as being significantly less likely to be disclosed to than the headlining helpers. For instance, students report that, as a group, they are significantly more likely to disclose to their closest female friend than their father, school personnel (female) and school personnel (male); to their mother than to either school personnel, and to their closest male friend than to school personnel (male). Notable for school personnel is that they place lowest in students' preference for targets.

Sex of Student X Gender of Helper X Location of Helper

In terms of the sex of student X gender X location of helper rela-
tionships, Table 7 suggests a non-significant interaction (tail prob-
ability .3709). Accordingly, there will be no attempt to test for
significant difference levels between cells. However, for the read-
er's information, cell means are presented below in Table 18.

TABLE 18

Mean Disclosure Scores to Helper Gender X Helper
Location (Friends, Parents, School Personnel) For
Students Grouped By Sex

	MALE STUDENTS (Sex 1)		FEMALE STUDENTS (Sex 2)		
	Male Helpers (Gender 1)	Female Helpers (Gender 2)	Male Helpers (Gender 1)	Female Helpers (Gender 2)	Marginal
Friends (Location 1)	3.06	3.33	3.66	4.74	3.76
Parents (Location 2)	3.12	3.24	3.08	4.12	3.42
School Personnel (Location 3)	2.11	2.08	2.27	2.83	2.35
Marginal	2.76	2.88	3.00	3.90	

n = 181

Sex of Student X Seven Helpers

Put another way and including the helper, no one, Table 19 presents the disclosure score cell means to all seven helpers for both male and female students.

TABLE 19

Rank Ordering and Mean Disclosure Scores to
Seven Helpers For Students Grouped by Sex

	Male Students	Female Students	Marginal
Closest Female Friend	3.33 (2)	4.74 (1)	4.12 (1)
Mother	3.24 (3)	4.12 (2)	3.73 (2)
Closest Male Friend	3.06 (5)	3.66 (3)	3.40 (3)
No One	3.47 (1)	2.94 (5)	3.17 (4)
Father	3.12 (4)	3.08 (4)	3.10 (5)
School Personnel (Female)	2.08 (7)	2.83 (6)	2.50 (6)
School Personnel (Male)	2.11 (6)	2.27 (7)	2.20 (7)
Marginal	2.91	3.38	

n = 181

The right hand column marginal in Table 19 offers individual target preference in order from most preferred to least preferred for all students regardless of gender. Rank order is indicated by numbers in parenthesis. Rank order preference for individual

targets within sex of student are similarly indicated by numbers in parenthesis. Though male and female students report that they are generally in agreement in their preference ranking of targets (within one or two positions), what is most notable is the discrepancy between male and female preference for the helper, no one. For males, no one or not speaking to anyone is their preference over all other target choices; whereas, for females no one is their fifth preference. No attempt has been made to test for significant difference levels between the seven helper means presented in Table 19 because helper no one means have been added to the gender of helper X location of helper model. No one disclosure means have come from a separate analysis.

Helper, No One

Again, because the helper no one did not fit the gender X location of helper model, students likelihood of disclosure responses to this target were not analyzed within the large analysis of variance represented in Table 7. Rather, Table 20 presents a separate analysis of variance for the variables sex of student and problems to this target.

TABLE 20

Summary Table - Problem and Sex of Student -
Analysis of Variance For Helper, No One

Source	Sum of Squares	df	Mean Square	F	Tail Probability
Mean	20,063.22	1	20,063.22	954.37	.0000
Sex	137.08	1	137.08	6.52	.0115
Error	3,763.01	179	21.02		
Problem	343.12	10	34.31	18.85	.0000
Problem X Sex	28.33	10	2.83	1.56	.1139
Error	3,258.49	1,790	1.82		

n = 181

As Table 20 suggests, sex of student in this study was not significant (tail probability .0115), nor was problem X sex of student. These results suggest that neither sex reports to be significantly different in their disclosure patterns when problems are summed over, and that males and females claim to respond similarly in their reticence to disclose on particular problems. Problem, however, is significant (tail probability .0000) meaning that some problems are significantly less likely to be talked about than others. The problem marginal in Table 21 presents relevant cell means for this discussion.

TABLE 21

Mean Problem Disclosure Scores to Helper No-One For
Students Grouped by Sex

	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	Marginal
Males	3.15	3.22	2.81	2.96	3.71	3.48	3.71	3.81	3.44	3.73	4.09	3.47
Females	2.41	2.35	2.50	2.12	3.29	3.06	3.15	2.99	3.33	3.37	3.73	2.94
Marginal	2.74	2.73	2.64	2.49	3.48	3.24	3.39	3.35	3.38	3.53	3.88	

n = 181

Table 22 represents the rank ordering of students' reticence to disclose on particular problem topics and significant differences between the likelihood of disclosure.

TABLE 22

Rank Order, Mean Disclosure Scores and Significant
Difference Levels Between Likelihood of Problem
Disclosure to Helper, No One

P	X̄	11	10	5	7	9	8	6	1	2	3	4
11	3.88	*										
10	3.53		*									
5	3.48			*								
7	3.39				*							
9	3.38					*						
8	3.35						*					
6	3.24							*				
1	2.74											
2	2.73											
3	2.64											
4	2.49											

Significant difference level = .53   * p = .01   n = 181
From Dunn's Multiple Comparison Procedure (Kirk, 1968)

The reader needs to be aware that disclosure to helper, no one is scored in reverse to disclosure to the other six targets. That is, though problem topic 11, problems of sexual adjustment, is ranked first in Table 22 with the highest mean score, students are responding to the question, "How likely would you be to talk to no one: that is, keep completely to your self about each of the following problems?" Students saying that they are most likely to keep to themselves about intimate topics such as problem 10 and 11 and be open about topics such as 3 and 4 is entirely consistent (in

reverse) with likelihood of problem disclosure to the other six helpers as represented in Table 8. To interpret Table 22 one should consider those topics in brackets below the asterisks as having a significantly different disclosure likelihood than the head-lining topic. Students report that they are significantly less likely to disclose on topic 11, for instance, than topics 6, 1, 2, 3 and 4. Put another way, and playing with semantics, students say that they are significantly more likely to disclose to helper no one on topic 11 than on topics 6, 1, 2, 3 and 4. Please consider other significant differences on disclosure likelihood.

Sex of Student X Problem X Gender of Helper X Location of Helper

The final task in response to research question 4 is to consider the notable significant higher order interaction between the variables: problem, sex of student, gender of helper, and location of helper (tail probability .0000 - see Table 7). With eleven levels of prob-lem, two levels of sex of student, two levels of gender of helper and three levels of location of helper, testing and interpreting significance levels for all interacting cells would be laborsome, difficult to interpret and would go beyond what is necessary for the scope of this paper. What is of interest, however, and keeping with the spirit of research question 4, is the way male and female students report to differ on likelihood of disclosure on each problem to each helper by gender and location. Table 23 displays mean disclosure scores and significant difference level notation between sex of student (S1, S2) for each problem to each helper by gender (G1, G2) and location (L1, L2, L3). If the reader prefers, how-ever, he or she can translate male helper X friend into closest male

friend, male helper X parent into father, male helper X school personnel into school personnel (male), and so on. For translation, please refer to Table 16. No attempt has been made to test for significance levels between marginal male and female student mean scores in that the interaction problem X sex of student was found not to be significant. Refer to Table 7.

TABLE 23

Mean Disclosure Scores and Significant Difference Level
Notation Between Sex of Student For Each Problem
to Each Helper by Gender and Location

Problem 1: Difficulty with grades.

	MALE HELPER (G1)			FEMALE HELPER (G2)			
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	3.54	3.47	3.28	3.77	3.28	3.01	3.48
Females (S2)	4.08	3.99	3.34	5.37	4.81	4.19	4.30
	*	*		*	*	*	

Problem 2: Adjustment to school routine: attendance, homework, classes, teachers.

| | MALE HELPER (G1) | | | FEMALE HELPER (G2) | | | |
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	3.25	3.29	3.09	3.71	3.53	2.78	3.28
Females (S2)	3.94	3.70	3.06	5.27	4.48	3.92	4.06
	*	*		*	*	*	

Problem 3: Problems with finances and employment (current).

| | MALE HELPER (G1) | | | FEMALE HELPER (G2) | | | |
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	3.68	4.39	1.99	3.25	4.01	2.00	3.22
Females (S2)	3.78	4.28	2.18	4.70	4.95	2.82	3.79
				*	*	*	

Problem 4:   The future: choice of occupation and/or future study.

	MALE HELPER (G1)			FEMALE HELPER (G2)			
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	3.97	4.48	3.28	3.94	4.33	2.76	3.79
Females (S2)	4.28	4.47	3.73	5.23	5.11	4.44	4.54
			*	*	*	*	

Problem 5:   Difficult relations with family.

	MALE HELPER (G1)			FEMALE HELPER (G2)			
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	3.01	3.25	1.62	3.41	3.57	1.78	2.77
Females (S2)	4.19	3.09	2.04	4.85	4.06	2.57	3.47
	*		*	*	*	*	

Problem 6: Problems in getting along with friends.

| | MALE HELPER (G1) | | | FEMALE HELPER (G2) | | | |
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	3.04	2.56	1.70	3.39	2.80	1.78	2.50
Females (S2)	3.78	2.67	1.90	4.95	3.97	2.47	3.29
	*			*	*	*	

Problem 7: Boyfriend - girlfriend problems.

| | MALE HELPER (G1) | | | FEMALE HELPER (G2) | | | |
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	3.24	2.44	1.53	3.85	2.57	1.81	2.57
Females (S2)	3.96	2.07	1.61	5.05	3.24	2.08	3.00
	*			*	*		

Problem 8: Health and physical development problems.

	MALE HELPER (G1)			FEMALE HELPER (G2)			
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	2.75	3.05	2.23	2.76	3.28	2.03	2.68
Females (S2)	2.78	2.75	2.10	4.37	4.57	2.71	3.21
				*	*	*	

Problem 9: Problems with morals and religion.

	MALE HELPER (G1)			FEMALE HELPER (G2)			
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	2.44	2.75	1.49	2.52	2.84	1.65	2.28
Females (S2)	2.83	2.68	1.74	3.78	3.60	1.91	2.76
				*	*		

Problem 10: Uncomfortable feelings and emotions.

	MALE HELPER (G1)			FEMALE HELPER (G2)			
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	2.53	2.47	1.57	3.38	2.82	1.76	2.42
Females (S2)	3.79	2.50	1.92	4.64	3.72	2.25	3.14
	*			*	*	*	

Problem 11: Problems of sexual adjustment.

	MALE HELPER (G1)			FEMALE HELPER (G2)			
	Friend (L1)	Parent (L2)	School Personnel (L3)	Friend (L1)	Parent (L2)	School Personnel (L3)	Marginal
Males (S1)	2.18	2.22	1.44	2.66	2.09	1.57	2.03
Females (S2)	2.89	1.70	1.34	3.96	2.78	1.75	2.40
	*	*		*	*		

Significant difference level = .39   * p = .01   n = 181
From Dunn's Multiple Comparison Procedures (Kirk, 1968)

The reader will note that of sixty-six comparisons (eleven problems X six helpers), forty-three reach significance with females reporting to be likely to disclose significantly more in forty-two of the forty-three situations. Only on problem 11, problems of sexual adjustment, do male students report that they are significantly more

likely to disclose to their fathers than female students to their fathers. Also of note is that females report likelihood of disclosure significantly more than males to the helpers closest female friend and mother on all eleven problems.

For the purposes of this study and because it would be of limited use in the light of the literature, this researcher proposes not to articulate, at this time, any more of the specific results from Table 23.

III PSYCHOLOGICAL SEX-ROLE ORIENTATION AND SELF-DISCLOSURE

<u>Research Question 5:</u>   How does an individual's score on Bem's measure of psychological sex-role orientation (BSRI, 1978) relate to an individual's (a) seriousness of problem topics, (b) likelihood of talking about problem topics, and (c) choice of helper?

Two statistical approaches have been selected to help answer the above question: (1) a correlational approach that takes raw masculinity and femininity scores from the Bem instrument for each of males, females and the whole student population, and correlates them with identified problems, likelihood of disclosure on problems and reported disclosure likelihood to different levels of helpers, and (2) an analysis of variance approach that will consider interactions between Bem groupings X identified problems; Bem groupings X problem disclosure likelihood to helper no one; and Bem groupings X problem disclosure likelihood to helpers by gender and location.

It is proposed that most measures of significance will be taken from the correlational procedure (Pearson correlation coefficients): analysis of variance summary tables will be presented as will tables

illustrating rank orderings and mean scores for some interactions, though only in the cases of main effects for identified problems and Bem grouping will attempts be made to test for and demonstrate significant differences between means.

Research Question 5:   (a) How does an individual's score on Bem's measure of psychological sex-role orientation (BSRI, 1978) relate to an individual's seriousness of problem topics?

Table 24 expresses Pearson product-moment correlation coefficients between the BSRI masculinity and femininity scores for males, females and all students times eleven identified problems. Identified problems are the same list of eleven problems that have been used throughout this study. (Refer to the Appendix, Part I.) The reader will remember that students were asked, "To what extent is each of the following a problem for you?"

TABLE 24

Pearson Product-Moment Correlation Coefficients Between
BSRI Masculinity and Femininity Scores for Male,
Female and All Students For Eleven Identified Problems

	MALE STUDENTS		FEMALE STUDENTS		MALE AND FEMALE STUDENTS	
	Masc.	Fem.	Masc.	Fem.	Masc.	Fem.
IP_1	-.13	-.17	.02	.04	-.00	-.18*
IP_2	.01	-.15	-.06	-.06	.06	-.29**
IP_3	-.17	-.13	.13	-.11	.00	-.11
IP_4	-.27*	-.11	-.08	-.05	-.16	-.06
IP_5	.05	-.02	.11	.02	.06	.05
IP_6	-.32*	-.01	.14	.05	-.06	-.04
IP_7	-.09	.05	.08	-.11	.00	-.01
IP_8	-.13	.02	.14	.01	.02	-.01
IP_9	-.16	.12	.09	-.03	-.03	.09
IP_{10}	-.09	-.07	-.08	.03	-.13	.11
IP_{11}	-.12	.13	-.18	.07	-.17*	.13
Sum IP	-.24	-.09	.05	-.04	-.06	-.07

* $p < .01$ $n = 181$
** $p < .001$

Though there are a few significant correlations within this table,
close inspection of it does not suggest any unique discovery or
reveal any important pattern(s). Nor do scores on masculinity or
femininity correlate significantly with total identified problems (Sum
IP) for any group.

Another approach to answering this question is by an analysis of variance procedure. All students, by a median-split method (Bem, 1976), were categorized according to their masculinity and femininity scores into four Bem groupings: masculine, feminine, androgynous and undifferentiated. Specifically, a person typed masculine scored above the median on the masculine scale (96.00, in the present study) and below the median on the feminine scale (94.67, in the present study); a person typed feminine scored above the median on the feminine scale and below the median on the masculine scale; a person typed androgynous scored above the median on both scales; and a person typed undifferentiated scored below the median on both scales. Table 25 displays the distribution of students, in this study, according to sex and Bem groupings.

TABLE 25

Distribution of Students According to
Sex and Bem Grouping

	Count Row Percentage Column Percentage Total Percentage	Male	Female	Row Total
Group	Masculine	31 75.6 39.2 17.1	10 24.4 9.8 5.5	41 22.7
	Feminine	2 5.1 2.5 1.1	37 94.9 36.3 20.4	39 21.5
	Androgynous	17 32.7 21.5 9.4	35 67.3 34.3 19.3	52 28.7
	Undifferentiated	29 59.2 36.7 16.0	20 40.8 19.6 11.0	49 27.1
	Column Total	79 43.6	102 56.4	181 100.0

Though there is a fairly equal distribution of total students into each of the four Bem groupings, there is not as much of a balance within each of the sexes. Most striking is that of seventy-nine males, only two fall into the category of feminine. Put another way, of the thirty-nine individuals grouped feminine, two are male and thirty-seven are female. Bem's 1975 sample of Stanford under-graduates (Table 3) is much more even in its distribution.

Table 26 presents an analysis of variance for identified problems X Bem grouping of student. The reader needs to be aware that this is an analysis of variance for all students. Separate analyses of variance were not performed for each of the male and female student population.

TABLE 26

Summary Table - Identified Problems and Bem Grouping
of Student - Analysis of Variance

Source	Sum of Squares	df	Mean Square	F	Tail Probability
Mean	5,726.72	1	5,726.72	1,890.99	.0000
Bem	9.93	3	3.31	1.09	.3534
Error	536.03	177	3.03		
Problem	240.95	10	24.10	32.48	.0000
Problem X Bem	36.43	30	1.21	1.64	.0164
Error	1,312.96	1,770	.74		

n = 181

Bem grouping is not significant (tail probability .3534) nor is identified problem X Bem grouping (tail probability .0164) (P .01); however, problem is significant, meaning that students report that some problems are seen to be significantly more serious for them than others. Table 27 presents rank order, mean scores and significant difference levels between identified problems. The same mean scores appear in Table 5. (This analysis could have been done earlier in this chapter had research question 2 been worded differently.)

TABLE 27

Rank Order, Mean Scores and Significance
Difference Levels Between Identified Problems

IP	$\bar{X}$	4	1	3	2	5	10	7	8	9	11	6
4	2.33	*										
1	2.14		*									
3	1.96			*								
2	1.89				*							
5	1.81					*						
10	1.80						*					
7	1.66							*				
8	1.39											
9	1.35											
11	1.28											
6	1.22											

Significant difference level = .34   * p = .01   n = 181
From Dunn's Multiple Comparison Procedure (Kirk, 1968)

Students, regardless of Bem grouping, report that identified problem 4, the future: choice of occupation and/or further study, is significantly more a problem for them than problems 3, 2, 5, 10, 7, 8, 9, 11 and 6. Of course, the reader should consider those problem topics in brackets below the asterisk as being reported to be significantly less serious for students than the headlining problem topic.

Research Question 5:   (b) How does an individual's score on
Bem's measure of psychological
sex-role orientation (BSRI, 1978)
relate to an individual's likelihood of
talking about problem topics?

As in the answering of part (a) of this question, a correlational

approach will be pursued first (the extent to which Bem masculinity

and femininity scores correlate with likelihood of problem disclo-

sure), followed by an analysis of variance to consider the inter-

action between likelihood of problem disclosure and Bem grouping.

Table 28 offers correlations as labelled.

TABLE 28

Pearson Product-Moment Correlations Between BSRI Masculinity
and Femininity Scores for Male, Female and All Students
X Likelihood of Problem Disclosure

	MALE STUDENTS		FEMALE STUDENTS		MALE AND FEMALE STUDENTS	
	Masc.	Fem.	Masc.	Fem.	Masc.	Fem.
P_1	.15	.21	-.07	.13	-.04	.32**
P_2	.02	.18	-.01	.20	-.07	.32**
P_3	.13	.19	.02	.20	.00	.30**
P_4	.17	.20	.19	.21	.10	.34**
P_5	.20	.28*	.08	.18	.05	.37**
P_6	.09	.21	.18	.25*	.05	.36**
P_7	.18	.17	.19	.18	.13	.26**
P_8	.05	.17	.22	.19	.09	.27**
P_9	.12	.15	.13	.10	.08	.21*
P_{10}	.15	.32*	.23	.26*	.11	.40**
P_{11}	.10	.21	.12	.05	.06	.22*
Sum P	.15	.25	.14	.23	.06	.37**

* $p < .01$ $n = 181$
** $p < .001$

Most obvious is the very strong and consistent trend of positive significant correlations between femininity scores, within the total student population, and reported likelihood of disclosure on all eleven problems (including Sum P (total problem disclosure likelihood)). Only two correlations within this grouping do not reach the .001 probability level, femininity and problem 9, problems with

morals and religion and femininity and problem 11, problems of sexual adjustment. They, however, reach the .01 probability level and are positively correlated with femininity as are all other significant correlations in Table 28. In sum, the BSRI measure of femininity appears to correlate positively and very highly with likelihood of disclosure on all eleven problems for students as a whole group, and less strongly for a few specific problems within each of the male and female populations. The BSRI measure of masculinity appears not to correlate significantly in any way with likelihood of problem disclosure.

Another approach to answering research question 5(b) is by analysis of variance as shown in Table 29. Here the whole student population has been categorized into four Bem groupings as illustrated earlier in Table 25. Factors become: Bem grouping X problem X location of helper X gender of helper. Levels of problem, location of helper and gender of helper remain the same as that for Table 7, as does the question that students are asked, "How likely would you be to talk to _____ about each of the following problems?"

TABLE 29

Summary Table - Problem, Bem Grouping of Student, and Gender
and Location of Helper - Analysis of Variance

Source	Sum of Squares	df	Mean Square	F	Tail Prob- ability
Mean	118,569.59	1	118,569.59	2,403.86	.0000
Bem	1,327.07	3	442.36	8.97	.0000
Error	8,730.46	177	49.32		
Location	4,334.61	2	2,167.30	129.74	.0000
Location X Bem	247.81	6	41.30	2.47	.0235
Error	5,913.71	354	16.71		
Gender	911.06	1	911.06	86.58	.0000
Gender X Bem	114.77	3	38.26	3.64	.0140
Error	1,862.59	177	10.52		
Location X Gender	91.29	2	45.64	6.28	.0021
Location X Gender X Bem	48.55	6	8.09	1.11	.3536
Error	2,571.48	354	7.26		
Problem	4,054.82	10	405.48	146.67	.0000
Problem X Bem	155.83	30	5.19	1.88	.0028
Error	4,893.42	1,770	2.76		
Location X Problem	1,041.62	20	52.08	37.97	.0000
Location X Problem X Bem	133.35	60	2.22	1.62	.0019
Error	4,855.29	3,540	1.37		
Gender X Problem	56.15	10	5.61	5.68	.0000
Gender X Problem X Bem	46.91	30	1.56	1.58	.0237
Error	1,749.12	1,770	.99		
Location X Gender X Problem	46.26	20	2.31	2.66	.0001
Location X Gender X Problem X Bem	92.09	60	1.53	1.76	.0003
Error	3,081.68	3,540	.87		

n = 181

Once again, question 5(b) asks how an individual's score on the
BSRI relates to that individual's likelihood of problem disclosure.
Table 29 indicates that Bem grouping is significant (tail probability

.0000); problem is significant (tail probability .0000); and Bem grouping X problem is significant (tail probability .0028). Mean Bem grouping disclosure scores summed over all problems to all six helpers are presented in the right hand marginal of Table 30.

TABLE 30

Mean Disclosure Scores to Male and Female Helpers
For Students Grouped by the BSRI

	Male Helpers (G1)	Female Helpers (G2)	Marginal
Masculine	2.73	3.05	2.89
Feminine	3.03	3.85	3.44
Androgynous	3.21	3.90	3.55
Undifferentiated	2.61	3.00	2.81
Marginal	2.90	3.45	

n = 181

Dunn's Multiple Comparison Procedure (Kirk, 1968) suggests a .29 difference for there to be a significant difference between means at the .01 level. Consequently, it appears that subjects grouped androgynous and feminine are significantly more likely to disclose on all problems to all helpers than those typed masculine or undifferentiated. Subjects typed androgynous and feminine seem to be similar in the way they report likelihood of disclosure as is the case for those typed masculine and undifferentiated.

As in the case of the analysis presented in Table 7, problem in Table 29 is significant. Analysis of significant differences between likelihood of problem disclosure remains the same as that presented in Table 9.

Significant interaction between Bem grouping and problem also exists though in keeping with previous rationale regarding significant problem X other variable interactions, an analysis of it (eleven levels of problem X four levels of Bem grouping) does not seem to be important or particularly useful at this time.

Research Question 5:   (c) How does an individual's score on Bem's measure of psychological sex-role orientation (BSRI, 1978) relate to an individual's choice of helper?

Again, there are two approaches that can be used to answer this question, a correlational approach, and an analysis of variance approach. Table 31 makes available correlation coefficients between the BSRI masculinity and femininity scores for males, females and all students X all the different ways to consider helpers: by gender, by location, or specifically by who they are.

TABLE 31

Pearson Product-Moment Correlations Between
BSRI Masculinity and Femininity Scores for Males,
Females and All Students to Helper No One,
And All Combinations of Helpers

	MALE STUDENTS		FEMALE STUDENTS		MALE AND FEMALE STUDENTS	
	Masc.	Fem.	Masc.	Fem.	Masc.	Fem.
Male Helper (G1)	.10	.17	.10	.21	.07	.22*
Female Helper (G2)	.18	.30*	.16	.20	.04	.45**
Friend (L1)	.12	.35**	.14	.25*	.03	.45**
Parent (L2)	.13	.13	.05	.12	.04	.20*
School Personnel (L3)	.11	.13	.13	.13	.07	.22*
Male Friend	-.05	.14	.11	.27*	-.01	.28**
Female Friend	.04	.05	.10	.14	.00	.24**
Father	.11	.07	.15	.10	.11	.11
Mother	.25	.44**	.14	.16	.06	.50**
School Personnel (Male)	.19	.19	-.03	.07	.08	.10
School Personnel (Female)	.10	.18	.10	.13	.02	.29**
No One	-.10	-.27*	.06	-.01	.03	-.23**

* $p < .01$ ** $p < .001$ n = 181

As with the correlations between BSRI masculinity and femininity scores and topic disclosure (represented in Table 28), all significant correlations in Table 31 are with femininity scores. All but two (femininity in total students to helper no one and femininity in males to helper no one) are positive correlations. Most occur under the banner, male and female students (that is all students) with a few notable exceptions: femininity in male students with female helper, friend and mother, and femininity in female students with friend and male friend. It is appropriate that significant correlations to helper no one are negative in that to this target the question was not how likely would you be open, but rather, how likely would you be to be closed or keep to yourself. As explained earlier, disclosure to no one was scored in reverse to the other six helpers.

The other way of looking at this question is of course by analysis of variance. Table 29 suggests significant main effects for Bem grouping, problem, location, and gender, and as well, significant lower order interactions for location X gender; problem X Bem grouping; location X problem; and gender X problem. All of these main effects and lower order interactions have been analyzed and/or discussed earlier in this chapter.

Though interactions for gender of helper X Bem grouping; location of helper X Bem grouping; and location of helper X gender of helper X Bem grouping did not reach significance in Table 29, cell means for these are presented, for the reader's information, in Tables 30, 32 and 33, respectively. Tables 32 and 33 follow:

TABLE 32

Mean Disclosure Scores to Helpers by Location
For Students Grouped by the BSRI

	Friends (L1)	Parents (L2)	School Personnel (L3)	Marginal
Masculine	3.29	3.30	2.08	2.89
Feminine	4.26	3.64	2.42	3.44
Androgynous	4.28	3.67	2.71	3.55
Undifferentiated	3.21	3.06	2.15	2.81
Marginal	3.76	3.42	2.35	

n = 181

TABLE 33

Mean Disclosure Scores to Helper by Gender X Helper by
Location For Students Grouped by the BSRI

	Closest Male Friend (G1,L1)	Closest Female Friend (G2,L1)	Father (G1,L2)	Mother (G2,L2)	School Personnel (Male) (G1,L3)	School Personnel (Female) (G2,L3)	Marginal
Masculine	2.98	3.60	3.14	3.45	2.06	2.11	2.89
Feminine	3.80	4.72	3.25	4.04	2.06	2.77	3.44
Androgynous	3.78	4.79	3.31	4.03	2.54	2.87	3.55
Undifferentiated	3.04	3.39	2.72	3.40	2.07	2.27	2.81
Marginal	3.40	4.12	3.10	3.73	2.20	2.50	3.18

n = 181

The model above, of course, does not consider disclosure likelihood
to helper, no one. For no one, Table 34 indicates that neither the
main effect for Bem grouping nor the interaction between Bem
grouping and problem reach significance. Problem, however, is
significant and cell means and interpretation of significant
differences between problem topics is the same as that which is
presented in Table 22.

TABLE 34

Summary Table - Problem and Bem Grouping of Student -
Analysis of Variance For Helper, No One

Source	Sum of Squares	df	Mean Square	F	Tail Probability
Mean	19,650.70	1	19,650.70	906.37	.0000
Bem	62.62	3	20.87	.96	.4116
Error	3,837.48	177	21.68		
Problem	377.12	10	37.71	20.79	.0000
Problem X Bem	75.91	30	2.53	1.39	.0761
Error	3,210.91	1,770	1.81		

n = 181

Left to consider from Table 29 are the significant higher order interactions: location of helper X problem X Bem grouping, and location of helper X gender of helper X problem X Bem grouping. As with the argument regarding interpretation of the significant sex of student X problem X location of helper X gender of helper interaction reviewed earlier, it can be argued here that for these interactions, pursuit of significance testing and interpretation would not be particularly useful at this time. Rather, what is more important is that the reader appreciates the complexity of condition- ality for disclosure for students grouped by the Bem Sex-Role Inventory.

CHAPTER V

DISCUSSION, LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS

I   DISCUSSION OF RESULTS

The discussion of results of this study are organized first, broadly, into three themes (a) Identified Problems, (b) Self-Disclosure, and (c) Psychological Sex-Role Orientation X Self-Disclosure, and then within these themes according to the specifics of the research questions listed earlier. Research questions will not be repeated. Interpretation of results will be limited to only those findings that this researcher considers most interesting and most important.

A.   Identified Problems

1.   Identified Problems

The factor identified problems was significant suggesting that, regardless of sex of student, some problems were reported to be significantly more serious than others. As one might have expected, problem four, the future: choice of occupation and/or further study was reported to be of greatest concern followed closely by problems to do with school, money and work. Generally speaking, the more intimate in nature the problem, the less it was reported to be of concern. That grade eleven students would be most concerned with topics to do with the future, school, work and money makes sense, and concurs with the findings of LaFromboise (1978).

2. Sex of Student

The factor sex of student did not reach significance suggesting, by group, neither males nor females reported to have more problems than the other. Hartman (1968) found that males reported to have more problems than females, though Snyder, Hill and Derksen (1972) found no difference between sexes.

3. Identified Problems X Sex of Student

The identified problems X sex of student interaction was significant with males reporting to be significantly more concerned with problems one and two, both school related matters, and females reporting to be significantly more troubled than males with problem ten, uncomfortable feelings and emotions. These results roughly parallel those of Hartman (1968) and may reflect societal sex-role stereotypes.

B. Self-Disclosure

What follows is a consideration of some of the single and interacting behaviors of the following factors: sex of student, problem, gender of helper, and location of helper. Correlational results between seriousness of identified problems and likelihood of disclosure on these same problems are included in item four.

1. Sex of Student

As with most of the literature and as anticipated, sex of discloser in this study was found to be significant with

females reporting a significantly higher total disclosure likelihood than males.

2. Problem

As with sex of student and as might have been expected, problem was also found to be significant with subjects reporting that they were significantly more likely to disclose on some problems than others. Problem topic four, the future: choice of occupation and/or further study was ranked most likely to be disclosed upon, followed by topics to do with school routine, money and work. These results follow trends in the literature where individuals report to disclose more about topics of this nature and less about more intimate topics.

3. Sex of Student X Problem

Unlike what has been a fairly consistent trend in the literature, the sex of student X problem interaction in this study did not reach significance. Had the trend continued, one might have observed males reporting to disclose significantly less than females concerning intimate topics (e.g., topics five through eleven). Close examination of the data from this study does not reveal such a pattern.

4. Identified Problems X Problems

Unlike what this researcher might have expected, no significant positive Pearson correlations were evident in any of the sample populations between seriousness of

identified problems and likelihood of disclosure on these same problems.

5. Gender of Helper

As expected, and in keeping with the literature, gender of helper was found to be significant with subjects reporting to be significantly more likely to disclose to female helpers than to male helpers.

6. Location of Helper

Location of helper was found to be significant with friends and parents being preferred as helpers significantly more than school personnel. These results agree with suggestions made by Jourard (1971), results of related studies, and what one might have expected, given the developmental stage of students at this age.

7. Sex of Student X Gender of Helper

Results of this interaction indicate a preference on the part of both male and female students for female helpers, though for males the preference is only marginal and not significant. Given the strong gender of helper effect, this is not surprising, though no significant sex of discloser X gender of helper interaction exists in the literature.

8. Gender of Helper X Location of Helper

When sex of student and problem are summed over, order of helper preference for students becomes: closest female friend, mother, closest male friend, father, school personnel (female), and school personnel (male). These

results fit with what one might have expected when one blends preference for female helpers with location preferences for students at this age.

9. Sex of Student X Seven Helpers

When helper no one is added to the gender of helper X location of helper model, no one becomes an astounding first choice for males, fifth choice for females and fourth choice overall. What is most interesting (and perhaps accurate) is that this group of males reports that they prefer to keep to themselves and disclose to no one; rather than disclose to any of the other helpers. Unfortunately, because cell means for no one have been added to the gender of helper X location of helper model, levels have not been established for significant differences between targets. The above represents only a rank ordering.

10. Sex of Student X Problem X Gender of Helper X Location of Helper

Results of this interaction have proved to be highly significant with females reporting to disclose significantly more than males in forty-two out of sixty-six possible situations. Only in one case, on problem eleven, problems of sexual adjustment, do male students report that they are significantly more likely to disclose to their fathers than female students to their fathers. Apart from these findings, results of this sort indicate a high complexity of conditionality for disclosure, and lend support

to some of the related literature that encourages a multi-dimensional approach to the study of self-disclosure.

C. Psychological Sex-Role Orientation and Self-Disclosure

1. Correlation of BSRI Masculinity and Femininity Scores With Likelihood of Problem Disclosure

Unlike the results of Bem (1977) where total self-disclosure in men was positively related to masculinity scores, in this study, all significant positive correlations were related to femininity scores, including total self-disclosure in the all-student group. The results of this study are consistent with the assumptions of role theory, that is, that self-disclosure would be aligned with scores that reflect feminine principles rather than masculine principles.

2. Bem Grouping of Student

In the four-factor analysis of variance: Bem grouping of student X problem X gender of helper X location of helper, Bem grouping was significant suggesting a pattern where subjects typed androgynous and feminine seemed to be similar in the way they reported likelihood of disclosure, as was the case for those typed masculine and undifferentiated. Even though the research literature is inconclusive on this count, given the assumptions associated with the Bem groupings (see definition of terms), it might have been anticipated that masculine and undifferentiated types would report to disclose significantly less than those typed feminine and androgynous.

Apart from that, and perhaps equally important is that the distribution of students in this study by sex into Bem groupings was not equal, with the majority of females falling into the groups feminine and androgynous and males, into the groups masculine and undifferentiated. Females, of course, had earlier reported a significantly higher total disclosure score than males.

3. Correlation of BSRI Masculinity and Femininity Scores With Choice of Helpers

As with correlations between BSRI masculinity and femininity scores and topic disclosure, again all significant correlations here are related to femininity scores. Strongest are the correlations in the all-student population between femininity scores and the following helpers: male helper, female helper, friend, parent, school personnel, male friend, female friend, mother, and school personnel (female). Appropriately, any negative significant correlations are with femininity scores and helper, no one. Because of the strength of these findings, and because there is nothing in the literature to link masculinity or femininity scores with reported choice of targets, it is felt that these are important results.

4. Bem Grouping X Problem X Gender of Helper X Location of Helper

As with the sex of student X problem X gender of helper X location of helper interaction, so was this a highly significant interaction. Even without interpreting the

intricacies of this interaction, the fact that it exists is important, and no similar findings exist in the literature.

II   LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

A.   Limitations

The most obvious limitations of this study are, of course, the measurement instruments themselves. First, and most impor- tant, all three measurement instruments are self-report in nature and in being so have questionable predictive validity - we do not know to what extent results from them reflect real behavior. Secondly, the two instruments created by this author are new and untested other than their use in this study. Though they appear to have performed well, and the results produced are generally consistent with the literature and what makes sense, more reliability and validity testing needs to be conducted on them. In the case of the BSRI (1978), if one wants a measure of psychological sex-role orientation, the BSRI is probably the best instrument of its kind available, in spite of its limitations (see Chapter III).

In terms of sampling, one class of grade elevens (181 students) in one center is not enough to be able to make broad generalizations about students' behavior at this age. Otherwise, data collection and data analysis procedures were satisfactory.

B. Recommendations for Future Research

Consideration of the related literature, and examination of the results from this study stimulate the following ideas for future research:

1. Combine some behavioral measures of self-disclosure with the self-report measures from this study to determine actual problem areas of grade eleven students and who students choose as helpers. Because students at this age appear to be most likely to disclose to their peers and their parents, it may be appropriate to monitor problems brought to peer counseling groups where one or two student volunteers act as trained observers. Similarly, a group of trained parent volunteers may act as observers and monitor actual problems brought home. Ideally, these observers would be mothers of students in the peer counseling group.

2. To increase the generalizability of the results of a study like this, get a larger more representative sample of grade eleven students. Sampling students from different grade eleven classes from different communities in the Lower Mainland would achieve this end.

3. To refine both the identified problem and self-disclosure instruments, factor analyze the eleven problem topics. This, in turn, could improve the wording, ordering, and grouping of problem topics.

4. To fit with a very important part of the literature, scale problem topics according to intimacy and valence levels.

As well, in a multi-factor analysis of variance, smaller sized factors for intimacy and valence may be more manageable and meaningful than the one eleven-level factor for problems that exists.

5. To compliment the literature, particularly Lombardo and Lavine (1977), cross factors for sex of subject X androgyny level of subject and add them to the existing psychological sex-role orientation X self-disclosure design to produce a 2 x 2 x 11 x 2 x 3 factor model. This would yield a sex of subject X androgyny level of subject X problem X gender of helper X location of helper design. By doing this, one could test the contention that self-disclosure is more a function of psychological sex-role orientation than biological gender (Lombardo and Lavine, 1977).

6. Continue research that correlates BSRI masculinity and femininity scores with measures of identified problems, likelihood of problem disclosure, and choice of helper. These results have the potential of being very fruitful.

III IMPLICATIONS AND CONCLUSIONS

Of the results generated by this study, two stand out as being important for the research community, and a third has significance for those working with students at the grade eleven level.

A. In terms of research, it is highly notable that both four-factor analyses of variance interactions were significant at their most

complex levels. Again, this suggests that future research in this area should be of a multidimensional nature. Not to do so would be to mask important differences within factors.

B. Results from the correlation between the BSRI femininity scores and problem disclosure, and the femininity scores and choice of helper are very interesting. That they have occurred makes sense, and lends support for the validity of the Bem instrument.

C. An important concern for those working in the field with grade eleven students is students' reported preference for targets. Generally, students have said that they are significantly more likely to disclose to their closest female friend on most topics suggesting an overal helper preference, almost regardless of topic. Even if the topic is a school related concern (thought to be the domain of school personnel), students report that they will choose to disclose to their closest female friend or mother significantly more than to any school personnel. Obviously, implications for peer counseling exist here. This researcher might suggest that school personnel, particularly guidance personnel, should spend less time counseling and more time as catalysts to provide opportunities for students to counsel each other.

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A P P E N D I X

PART I

On the next page is a list of 11 problem topics that are often a concern to people your age. Please indicate, by checking the appropriate box, the extent to which each is a problem for you.

For instance, you might be asked: To what extent is each of the following a problem for you? (Check (✓) the box which is closest to your answer.)

1	2	3	4	5
not at all a problem	slightly a problem	somewhat a problem	pretty much a problem	very much a problem
☐₁	☐₂	☐₃	☐₄	☐₅

a) Problem with money management.

| ☑₁ | ☐₂ | ☐₃ | ☐₄ | ☐₅ |

If your answer is that a "problem with money management" is "not at all a problem" for you, check (✓) box 1.

b) Deciding how to spend the summer vacation.

| ☐₁ | ☐₂ | ☐₃ | ☐₄ | ☐₅ |

Now try an example on your own. To what extent is "deciding how to spend the summer vacation" a problem for you? (Check (✓) the box which is closest to your answer.) If you have any questions, please raise your hand for further information. Proceed to the next page.

To what extent is each of the following a problem for you? (Check (✓) the box which is closest to your answer.)

	1 not at all a problem	2 slightly a problem	3 somewhat a problem	4 pretty much a problem	5 very much a problem
	☐1	☐2	☐3	☐4	☐5
1. Difficulty with grades.	☐1	☐2	☐3	☐4	☐5
2. Adjustment to school routine: attendance, homework, classes, teachers.	☐1	☐2	☐3	☐4	☐5
3. Problems with finances and employment (current).	☐1	☐2	☐3	☐4	☐5
4. The future: choice of occupation and/or further study.	☐1	☐2	☐3	☐4	☐5
5. Difficult relations with family.	☐1	☐2	☐3	☐4	☐5
6. Problems in getting along with friends.	☐1	☐2	☐3	☐4	☐5
7. Boyfriend-girlfriend problems.	☐1	☐2	☐3	☐4	☐5
8. Health and physical development problems.	☐1	☐2	☐3	☐4	☐5
9. Problems with morals and religion.	☐1	☐2	☐3	☐4	☐5
10. Uncomfortable feelings and emotions.	☐1	☐2	☐3	☐4	☐5
11. Problems of sexual adjustment.	☐1	☐2	☐3	☐4	☐5

PART II

On the following pages you will be presented with examples of different people you may choose to talk to about 11 problem topics. What you are asked to do is to indicate how likely you would be to talk to each of these people about each of these problems. In other words, if you had certain problems, then how likely would you be to talk to the person identified at the top of the page about each of these problems?

For instance, you might be asked: How likely would you be to talk to an older male friend of the family about each of the following problems? (Check (✓) the box which is closest to your answer.)

	1	2	3	4	5	6
	very unlikely	quite unlikely	somewhat unlikely	somewhat likely	quite likely	very likely
	□₁	□₂	□₃	□₄	□₅	□₆

a) Problem with money management. □₁ □₂ □₃ □₄ ☑₅ □₆

If your answer is that it is "quite likely" that you would talk to an older male friend of the family about a "problem with money management", check (✓) box 5.

b) Deciding how to spend the summer vacation. □₁ □₂ □₃ □₄ □₅ □₆

Now try an example on your own. How likely would you be to talk to an older male friend of the family, if you had a problem with "deciding how to spend the summer vacation"? (Check (✓) the box which is closest to your answer.) If you have any questions, please raise your hand for further information. Turn the page and continue until you complete this next section.

YOUR CLOSEST MALE FRIEND

How likely would you be to talk to your closest male friend about each of the following problems? (Check (✓) the box which is closest to your answer.)

	1 very unlikely	2 quite unlikely	3 somewhat unlikely	4 somewhat likely	5 quite likely	6 very likely
	□₁	□₂	□₃	□₄	□₅	□₆
1. Difficulty with grades.	□₁	□₂	□₃	□₄	□₅	□₆
2. Adjustment to school routine: attendance, homework, classes, teachers.	□₁	□₂	□₃	□₄	□₅	□₆
3. Problems with finances and employment (current).	□₁	□₂	□₃	□₄	□₅	□₆
4. The future: choice of occupation and/or further study.	□₁	□₂	□₃	□₄	□₅	□₆
5. Difficult relations with family.	□₁	□₂	□₃	□₄	□₅	□₆
6. Problems in getting along with friends.	□₁	□₂	□₃	□₄	□₅	□₆
7. Boyfriend - girlfriend problems.	□₁	□₂	□₃	□₄	□₅	□₆
8. Health and physical development problems.	□₁	□₂	□₃	□₄	□₅	□₆
9. Problems with morals and religion.	□₁	□₂	□₃	□₄	□₅	□₆
10. Uncomfortable feelings and emotions.	□₁	□₂	□₃	□₄	□₅	□₆
11. Problems of sexual adjustment.	□₁	□₂	□₃	□₄	□₅	□₆

YOUR MOTHER

How likely would you be to talk to <u>your mother</u> about each of the following problems? (Check (✓) the box which is closest to your answer.)

		1 very unlikely	2 quite unlikely	3 somewhat unlikely	4 somewhat likely	5 quite likely	6 very likely
		□₁	□₂	□₃	□₄	□₅	□₆
1.	Difficulty with grades.	□₁	□₂	□₃	□₄	□₅	□₆
2.	Adjustment to school routine: attendance, homework, classes, teachers.	□₁	□₂	□₃	□₄	□₅	□₆
3.	Problems with finances and employment (current).	□₁	□₂	□₃	□₄	□₅	□₆
4.	The future: choice of occupation and/or further study.	□₁	□₂	□₃	□₄	□₅	□₆
5.	Difficult relations with family.	□₁	□₂	□₃	□₄	□₅	□₆
6.	Problems in getting along with friends.	□₁	□₂	□₃	□₄	□₅	□₆
7.	Boyfriend – girlfriend problems.	□₁	□₂	□₃	□₄	□₅	□₆
8.	Health and physical development problems.	□₁	□₂	□₃	□₄	□₅	□₆
9.	Problems with morals and religion.	□₁	□₂	□₃	□₄	□₅	□₆
10.	Uncomfortable feelings and emotions.	□₁	□₂	□₃	□₄	□₅	□₆
11.	Problems of sexual adjustment.	□₁	□₂	□₃	□₄	□₅	□₆

A MALE TEACHER, MALE COUNSELOR, MALE COACH, ETC.

How likely would you be to talk to <u>a male teacher, male counselor, male coach, etc.</u> about each of the following problems? (Check (✓) the box which is closest to your answer.)

	1 very unlikely	2 quite unlikely	3 somewhat unlikely	4 somewhat likely	5 quite likely	6 very likely
	□₁	□₂	□₃	□₄	□₅	□₆
1. Difficulty with grades.	□₁	□₂	□₃	□₄	□₅	□₆
2. Adjustment to school routine: attendance, homework, classes, teachers.	□₁	□₂	□₃	□₄	□₅	□₆
3. Problems with finances and employment (current).	□₁	□₂	□₃	□₄	□₅	□₆
4. The future: choice of occupation and/or further study.	□₁	□₂	□₃	□₄	□₅	□₆
5. Difficult relations with family.	□₁	□₂	□₃	□₄	□₅	□₆
6. Problems in getting along with friends.	□₁	□₂	□₃	□₄	□₅	□₆
7. Boyfriend – girlfriend problems.	□₁	□₂	□₃	□₄	□₅	□₆
8. Health and physical development problems.	□₁	□₂	□₃	□₄	□₅	□₆
9. Problems with morals and religion.	□₁	□₂	□₃	□₄	□₅	□₆
10. Uncomfortable feelings and emotions.	□₁	□₂	□₃	□₄	□₅	□₆
11. Problems of sexual adjustment.	□₁	□₂	□₃	□₄	□₅	□₆

YOUR CLOSEST FEMALE FRIEND

How likely would you be to talk to your closest female friend about each of the following problems? (Check (✓) the box which is closest to your answer.)

	1	2	3	4	5	6
	very unlikely	quite unlikely	somewhat unlikely	somewhat likely	quite likely	very likely
	☐1	☐2	☐3	☐4	☐5	☐6
1. Difficulty with grades.	☐1	☐2	☐3	☐4	☐5	☐6
2. Adjustment to school routine: attendance, homework, classes, teachers.	☐1	☐2	☐3	☐4	☐5	☐6
3. Problems with finances and employment (current).	☐1	☐2	☐3	☐4	☐5	☐6
4. The future: choice of occupation and/or further study.	☐1	☐2	☐3	☐4	☐5	☐6
5. Difficult relations with family.	☐1	☐2	☐3	☐4	☐5	☐6
6. Problems in getting along with friends.	☐1	☐2	☐3	☐4	☐5	☐6
7. Boyfriend - girlfriend problems.	☐1	☐2	☐3	☐4	☐5	☐6
8. Health and physical development problems.	☐1	☐2	☐3	☐4	☐5	☐6
9. Problems with morals and religion.	☐1	☐2	☐3	☐4	☐5	☐6
10. Uncomfortable feelings and emotions.	☐1	☐2	☐3	☐4	☐5	☐6
11. Problems of sexual adjustment.	☐1	☐2	☐3	☐4	☐5	☐6

YOUR FATHER

How likely would you be to talk to your father about each of the following problems? (Check (✓) the box which is closest to your answer.)

	1 very unlikely	2 quite unlikely	3 somewhat unlikely	4 somewhat likely	5 quite likely	6 very likely
	□1	□2	□3	□4	□5	□6
1. Difficulty with grades.	□1	□2	□3	□4	□5	□6
2. Adjustment to school routine: attendance, homework, classes, teachers.	□1	□2	□3	□4	□5	□6
3. Problems with finances and employment (current).	□1	□2	□3	□4	□5	□6
4. The future: choice of occupation and/or further study.	□1	□2	□3	□4	□5	□6
5. Difficult relations with family.	□1	□2	□3	□4	□5	□6
6. Problems in getting along with friends.	□1	□2	□3	□4	□5	□6
7. Boyfriend – girlfriend problems.	□1	□2	□3	□4	□5	□6
8. Health and physical development problems.	□1	□2	□3	□4	□5	□6
9. Problems with morals and religion.	□1	□2	□3	□4	□5	□6
10. Uncomfortable feelings and emotions.	□1	□2	□3	□4	□5	□6
11. Problems of sexual adjustment.	□1	□2	□3	□4	□5	□6

A FEMALE TEACHER, FEMALE COUNSELOR, FEMALE COACH, ETC.

How likely would you be to talk to a female teacher, female counselor, female coach, etc. about each of the following problems? (Check (✓) the box which is closest to your answer.)

	1	2	3	4	5	6
	very unlikely	quite unlikely	somewhat unlikely	somewhat likely	quite likely	very likely

1. Difficulty with grades.

2. Adjustment to school routine: attendance, homework, classes, teachers.

3. Problems with finances and employment (current).

4. The future: choice of occupation and/or further study.

5. Difficult relations with family.

6. Problems in getting along with friends.

7. Boyfriend - girlfriend problems.

8. Health and physical development problems.

9. Problems with morals and religion.

10. Uncomfortable feelings and emotions.

11. Problems of sexual adjustment.

NO-ONE

How likely would you be to talk to <u>no-one</u>, that is, keep completely to yourself about each of the following problems? (Check (✓) the box which is closest to your answer.)

	1	2	3	4	5	6
	very unlikely	quite unlikely	somewhat unlikely	somewhat likely	quite likely	very likely
	□1	□2	□3	□4	□5	□6
1. Difficulty with grades.	□1	□2	□3	□4	□5	□6
2. Adjustment to school routine: attendance, homework, classes, teachers.	□1	□2	□3	□4	□5	□6
3. Problems with finances and employment (current).	□1	□2	□3	□4	□5	□6
4. The future: choice of occupation and/or further study.	□1	□2	□3	□4	□5	□6
5. Difficult relations with family.	□1	□2	□3	□4	□5	□6
6. Problems in getting along with friends.	□1	□2	□3	□4	□5	□6
7. Boyfriend - girlfriend problems.	□1	□2	□3	□4	□5	□6
8. Health and physical development problems.	□1	□2	□3	□4	□5	□6
9. Problems with morals and religion.	□1	□2	□3	□4	□5	□6
10. Uncomfortable feelings and emotions.	□1	□2	□3	□4	□5	□6
11. Problems of sexual adjustment.	□1	□2	□3	□4	□5	□6

PART III

On the following page, you will be shown a large number of personality characteristics. I would like you to use those characteristics in order to describe yourself. That is, I would like you to indicate, on a scale from 1 to 7, how true of you these various characteristics are. Please do not leave any characteristic unmarked.

Example: sly

Mark a 1 if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a 2 if it is USUALLY NOT TRUE that you are sly.

Mark a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a 4 if it is OCCASIONALLY TRUE that you are sly.

Mark a 5 if it is OFTEN TRUE that you are sly.

Mark a 6 if it is USUALLY TRUE that you are sly.

Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly", never or almost never true that you are "malicious", always or almost always true that you are "irresponsible", and often true that you are "carefree", then you would rate these characteristics as follows:

Sly	3
Malicious	1

Irresponsible	7
Carefree	5

Disregard the small numbers to the right of the box. They are for scoring only.

If you are not sure about the meaning of any of the words on the next page, quietly ask your teacher for help. Do so by not disturbing others.

1	2	3	4	5	6	7
Never or almost never true	Usually not true	Sometimes but infrequently true	Occasionally true	Often true	Usually true	Always or almost always true

Defend my own beliefs		Adaptable	1	Flatterable	21
Affectionate		Dominant	2	Theatrical	22
Conscientious		Tender	3	Self-sufficient	23
Independent		Conceited	4	Loyal	24
Sympathetic		Willing to take a stand	5	Happy	25
Moody		Love children	6	Individualistic	26
Assertive		Tactful	7	Soft-spoken	27
Sensitive to needs of others		Aggressive	8	Unpredictable	28
Reliable		Gentle	9	Masculine	29
Strong personality		Conventional	10	Gullible	30
Understanding		Self-reliant	11	Solemn	31
Jealous		Yielding	12	Competitive	32
Forceful		Helpful	13	Childlike	33
Compassionate		Athletic	14	Likable	34
Truthful		Cheerful	15	Ambitious	35
Have leadership abilities		Unsystematic	16	Do not use harsh language	36
Eager to soothe hurt feelings		Analytical	17	Sincere	37
Secretive		Shy	18	Act as a leader	38
Willing to take risks		Inefficient	19	Feminine	39
Warm		Make decisions easily	20	Friendly	40