

THE UNIVERSITY OF MANITOBA

VULNERABILITY TO EXTERNAL INFLUENCE:
GENDER, SEX-ROLE IDENTITY, AND MODEL GENDER AS VARIABLES

by



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Abstract

The relationship between sex-role classification, sex of subject, and sex of model with regard to susceptibility to modelling influences was investigated. Introductory psychology students were screened on the Bem Sex Role Inventory and categorized as masculine, feminine, androgynous or undifferentiated. Eleven male and eleven female students were then chosen to represent each sex role classification, with the exception of feminine-typed males where there were insufficient numbers to form a cell. Only two male subjects scored in the feminine or near-feminine typed categories.

Subjects viewed one of two videotapes, each showing a male and a female model engaged in a figure size judgment task. Sometimes models agreed and sometimes disagreed on choice of figure. Subsequent to models choosing a figure, subjects recorded their choices and at the end of the experiment rated the competence of the models. Contrary to predictions, there were no differences in imitation among sex role groups nor was sex of model significant in ratings of perceived competence. There was some support for the hypothesis that sex-typed individuals differentially imitate same sex models more than do androgynous subjects. Consensus between the models (i.e., agreement on a figure) did not produce any differences among sex role groups. There were unexpected differences in subjects' responses

to the two sets of models, with subjects significantly imitating the female model in tape 2 more than the female model in tape 1 and the male model in tape 1 more than the male model in tape 2. Thus, within tapes, the male was imitated more in tape 1 and the female more in tape 2, although sex of model was not significant when tapes were combined.

The results are discussed in terms of the need to provide more than one instance of each model variable. The conflicting results yielded by the two tapes make generalization about the study's contribution to androgyny theory difficult.

As a psychological construct, masculinity-femininity (M-F) has traditionally been regarded as a bipolar characteristic (see Constantinople, 1973). Early tests designed to measure this trait were based on the assumption that masculinity and femininity were, at least in some degree, mutually exclusive entities. Frequently, the non-endorsement of, or low score on, a masculine-typed item was considered a feminine response, and vice-versa. As a result, it was a technical impossibility for an individual to register high scores on both traits. The measurement tools in existence simply would not permit this outcome. In general, high femininity scores were considered normal for females and high masculinity scores normal for males. Any deviation from this norm was, at best, suspicious and, if large, probably pathological and in need of treatment.

With the resurgence of the women's movement during the sixties and increasing recognition that rigid sex stereotyping frequently produced unhappy and less competent people (Gall, 1969; Harford, Willis, & Deabler, 1967), the concept of androgyny has gained popularity. Androgyny refers to the "integration of masculine and feminine characteristics within each individual, coupled with an ideology that encourages the expression of both masculine and feminine behaviours regardless of the sex of the individual actor" (Marecek, 1976). Thus, the androgyne

would be able to choose from a broad repertoire of behaviours and function more effectively in a variety of situations than the more restricted masculine and feminine personalities.

Traditional personality tests, however, were not capable of discriminating the androgyne from sex-typed individuals. Because of the need to measure androgyny, new instruments had to be developed. Such tests would necessarily consider M-F to be a multi-dimensional, not a unitary, trait and thus allow individuals' scores to vary independently along separate masculinity and femininity continua.

A number of reports on the development of personality tests to measure androgyny have begun to appear in the literature (Bem, 1974; Heilbrun, 1976; Berzins, Welling & Wetter, 1976(b); Spence, Helmreich & Stapp, 1975). One of the best researched and most utilized at this date is the Bem Sex Role Inventory or BSRI (Bem, 1974).

Development of the Bem Sex Role Inventory

Bem (1974) gave her raters a list of 400 personality characteristics and asked them to indicate how desirable on a scale of 1 (not at all desirable) to 7 (extremely desirable) it was in American society for a man or a woman to possess each of the characteristics. From the original list, 20 masculine and 20 feminine characteristics were chosen on the basis of their being significantly more

desirable for men and women respectively by both male and female judges. Twenty items, 10 positive and 10 negative, were chosen for the Social Desirability Scale on the basis of their being judged as no more desirable for one sex than the other with male and female judges not differing significantly in their overall desirability judgments of that trait. The Social Desirability Scale was used during the development of the BSRI to ensure that it would not merely be measuring a general tendency to endorse socially desirable characteristics. However, its main function now seems to be to provide a neutral context for the masculinity and femininity scales.

The BSRI therefore consists of a list of 60 adjectives (20 feminine-typed, 20 masculine-typed, 20 neutral) on which subjects are asked to rate themselves on a 7 point scale ranging from "never or almost never true" to "always or almost always true". (See Appendix for a sample BSRI.) Ratings for the 20 items on each of the masculinity (M) and femininity (F) scales are added and an average score calculated by dividing by 20. Androgyny scores are derived by subtracting an individual's M score from his or her F score normalized with respect to the standard deviations of his or her M and F scores. The resultant t-ratio enables persons to be classified as significantly sex-typed or sex-reversed or androgynous with negative scores indicating masculinity and positive scores indicating femininity.

T-scores ranging from -1 to +1 are classified as androgynous, t-scores > 2.025 are typed as feminine and t-scores < -2.025 are typed as masculine. Intermediate scores are considered to be either "near feminine" or "near masculine" depending on their sign.

In her original sample, Bem (1974) found that for males and females respectively, 11% and 20% could be classified as sex-reversed or near sex-reversed, 34% and 27% as androgynous, and 55% and 54% as sex-typed or near sex-typed. Using the same scoring method, Vandever (1977) found that masculine items were rated higher and feminine items lower in his University of North Dakota sample, resulting in only 6% of males being classified as feminine or near feminine and 32% of females being classified as masculine or near masculine. Sixty-nine per cent of males and 34% of females fell into the sex-typed or near sex-typed categories. A comparison of the North Dakota and Bem's Stanford samples indicated some difference between them and suggests that there may be differences between classification ratios in different populations. However, Segal & Richman (1978), using a different scoring method, compared students at the University of Georgia with those at Adelphi University in New York, and found no relationship between geographic location and sex role classification. Combining the two samples, for males and females respectively, 15% and 12%

were classified as sex-reversed, and 38% and 37% as sex-typed. Remaining subjects were classified as androgynous (19% and 29%) or undifferentiated (28% and 22%), and cannot be directly compared to Bem's original classification of subjects.

Scoring Methods

A number of criticisms (e.g. Strahan, 1975; Heilbrun, 1976) have been made of the BSRI's classification system. Spence et al (1975) point out that not only are individuals who score high on both the M and F scales classified as androgynous but also those who score low on both scales. Although they have a balance of both masculine and feminine traits, these nebulous "low-low" scorers may be quite different psychologically from the "high-high" scorers. Presumably, a "low-low" individual would not possess the "very best of what masculinity and femininity have come to represent" (Bem, 1976) but rather a lack of these desirable characteristics. Rather than having the theoretically broad variety of behaviours in the androgyne's repertoire, "low-low" scorers may have even fewer alternatives than masculine and feminine personality types and hence be more constricted. Including the "high-high" and "low-low" scorers in the same group may unnecessarily increase the statistical variation in the responses of the androgynous group. Although Bem (1975) claims that only 1% of the

university undergraduates she has tested fall below the midpoint on both the M and F scales, this may not be the case in other populations. For example, Kinsell-Rainey (1976) found that 20% of her adolescent group scored below the midpoint on both the M and F scales.

Bem (1977) subsequently re-analyzed data from her previous studies by classifying subjects relative to the median score of her Stanford group. (It should be noted that Bem's criterion in this paper is the median score, not the midpoint of the scale as in her previous statement about only 1% of her sample scoring low on both scales.) Those who scored below the median on both M and F were labelled as "undifferentiated" and compared to those who scored high on both scales. Although no significant differences were found between undifferentiated and androgynous groups on the Attitudes Towards Women Scales, Internal-External Locus of Control Scale, the Mach IV Scale or the Attitudes Toward Problem-Solving Scales, there was evidence that "low-low" and "high-high" scorers do differ. In general, the undifferentiated group compared to the androgynous group were lower in self-esteem, less apt to disclose personal information about themselves and less responsive to either a kitten or a 5 month-old baby (see Bem, 1975, for more details on this study). Overall, removing the undifferentiated subjects from the androgynous group tended

to strengthen the original findings. Bem (1977) concludes that the evidence warrants considering "high-high" and "low-low" scorers as separate groups and restricting the term "androgynous" to those individuals who score high on both the M and F scales.

Two procedures for distinguishing between low-low and high-high scorers have been proposed. Spence et al (1975) and Heilbrun (1976) suggest splitting scores at the median. Individuals scoring above the median on both the M and F scales are classified as androgynous, those below both medians are labelled undifferentiated and those with one score above and one below the median are typed according to their high score. A major criticism of this method is that it considers only the position of the subject's score and not its numerical value. It is possible, for example, for an individual to score only slightly above the median in femininity and near the top of the scale in masculinity and be classified as androgynous rather than masculine which would be a more accurate representation of the true personality type. Conversely, relatively balanced scores could be classified as masculine or feminine typed if one is slightly above the median and the other slightly below.

Orlofsky, Aslin & Ginsberg (1977) propose a two step difference/median split method which would overcome the major problem with the simple median split procedure.

Subjects are classified according to Bem's (1974) system utilizing t-scores. Those with T-scores in the -1 to +1 range are further divided. Those with below median scores on both the M and F scales are classified as undifferentiated while the remainder of those in this range are considered androgynous. Orlofsky found substantial differences in classification between the median split and the difference/median split methods affecting approximately 30% of his subjects, with the latter procedure yielding a higher proportion of sex-typed individuals and a smaller proportion of undifferentiated individuals. Most importantly, this method maintains the concept of balance of masculinity and femininity in androgyny and imbalance in sex and cross-sex typing. It also resulted in superior discrimination of the sex role groups on the Attitudes Towards Women Scale for females (but not for males) compared to the median split method (Orlofsky et al, 1977).

Psychometric Properties of the BSRI

Data on the reliability and validity of the BSRI have been accumulating. Early evidence suggests that the BSRI is a highly reliable instrument, and although attempts at establishing the construct validity of the BSRI have not been uniformly successful, there is still strong support for the utility of the BSRI.

Bem (1974) reports alpha coefficients on the internal consistence of the BSRI ranging from .80 to .86 on the androgyny, masculinity and femininity scales. Coefficients on the Social Desirability Scale were .70 and .75. Hogan's (1977) combined sample of high school and university students had split-half reliability coefficients of .90 and .84 on the M scale and .89 and .82 on the F scale for males and females respectively. The Social Desirability Scale fared less well, with reliability coefficients of .56 and .23. Wiggins & Holzmuller (1978) report alpha coefficients of .72 on the F scale and .83 on the M scale for a combined group of male and female undergraduates.

Test-retest reliability over a 4-week interval was .90 for both M and F, .93 for androgyny, and .89 for Social Desirability (Bem, 1974). Kinsell-Rainey (1976) reports a Pearson r of .89 ($n=135$) on the androgyny scores over an 8-week period.

The validity of Bem's (1974) basic assumption that masculinity and femininity are two separate constructs and not a single bipolar dimension has been established by a number of investigators (Lussenheide & Vandever, 1978; Waters, Waters & Pincus, 1977; Heilbrun, 1976). Combining male and female subjects, Wiggins & Holzmuller (1978) found a correlation of $-.127$ between the M and F scales of the BSRI, non-significant at the $p < .01$ level (the authors

chose this level of significance but the correlation is also non-significant at $p < .05$). Bem (1974) reported correlations between M and F scores in her normative groups ranging from $r = .02$ to $r = .14$, all non-significant. However, Hogan (1977) found a correlation of .15 ($p < .05$) for his female subjects and .71 for his male subjects ($p < .001$), but suggests that a positive response set on the part of his subjects was responsible, especially since correlations between the Social Desirability Scale and the majority of his subjects' scale scores were both positive and statistically significant.

Two independent factor analytic studies of the BSRI (Gaudreau, 1977; Waters et al, 1977) have yielded remarkably similar results even though based on quite different populations (industrial workers, police officers and housewives vs. college undergraduates). Four factors were identified. One simply represents the biological sex of the subject. A second feminine factor represents an affective, expressive orientation and includes essentially the same items from the F scale in both studies. Five feminine adjectives (child-like, gullible, shy, soft-spoken, does not use harsh language) did not load on the feminine factor in either study, and upon inspection, do not appear congruent with an affective, expressive orientation. In fact, 3 of the items, "shy", "gullible", and "childlike", were rated

as relatively undesirable, whether applied to an adult, a male or a female, by a group of graduate students (Pedhazur & Tatenbaum, 1979). Gaudreau also found that 6 of the neutral adjectives loaded significantly on the feminine factor, 3 of them (helpful, sincere, friendly) at .41 or better. A third factor, the masculinity factor, loaded highly on dominant, aggressive personality characteristics. Gaudreau and Waters et al found the same two feminine items (soft-spoken, shy) to load negatively on this factor. A fourth "maturity" factor was made up of such characteristics as "independent", "self-sufficient", and "self-reliant" with negative loading on "gullible" and "child-like". Both studies suggest the deletion of certain items from the BSRI and the possible reassignment of a few of the neutral adjectives. However, both analyses strongly support the conceptualization of masculinity and femininity as independent traits.

Correlations between the BSRI and other sex role inventories have tended to be moderate and positive. A comparison of the BSRI and the Adjective Check List (ACL) yielded correlations of .873 on the M scale, .731 on the F scale, and .857 on the difference measures (F-M) (Wiggins & Holzmuller, 1978). On the PRF Andro, using a simple median split procedure, Gayton, Havu, Ozman & Tavormina (1977) found correlations of .65 and .62 on the M scale for males

and females respectively. On the F scale, correlations were .57 for males and .55 for females. Overall, however, comparing the two scales, only 42% of the subjects fell into the same sex role category on both tests. Berzins, Welling & Wetter (1976a) reported correlations of .61 between F scales, .68 between M scales, and .75 on the androgyny difference score on the BSRI and the PRF Andro for a sample of male and female subjects combined. Although these correlations suggest that the BSRI and PRF Andro are tapping similar traits, the two tests cannot be used interchangeably because of the generally only moderate correlations between them. A comparison of the BSRI and the Heilbrun Masculinity and Femininity Scales (Heilbrun, 1976) revealed moderate and significant correlations between the two measures of masculinity (.59) and the two measures of femininity (.38) for males but not for females (Small, Erdwins & Gross, 1979). Using a median split method of classification, approximately 47% of subjects were placed in the same sex role category by both instruments. The authors conclude that the two inventories may be measuring common factors for males but not for females and that the validity of any relationship between variables and sex role category must be restricted to the particular scale used. Kelly et al (1976) reached the same conclusion after comparing the BSRI, PAQ (Personal Attributes Questionnaire,

Spence et al, 1975), ACL and PRF Andro Scale. Once again, correlations among the respective M and F scales were moderate and significant but the percentage of agreement in subject categorization between any two scales averaged only 56%. As Lenney (1979a) points out, there are theoretical, methodological, and empirical differences in the development of these scales and as a result the constructs measured are overlapping but non-identical.

Research on the BSRI

In general, behavioural measures of the external validity of the BSRI have tended to support the theoretical underpinnings of the BSRI (i.e., the greater adaptability of the androgyne compared to masculine- or feminine-typed individuals) while paper-and-pencil tests (primarily self-report inventories) have frequently yielded ambiguous and/or contradictory results that have been difficult to interpret. For example, Hogan (1977) found neither consistent nor high correlations between BSRI scale scores and a verbal sex role scale (which purports to measure feminism) and concludes that this result weakens the construct validity of the BSRI. But a comparison of members of a feminist organization with undergraduate women, working women and housewives revealed that the feminists significantly exceeded all other groups on the BSRI androgyny scale (Jordan-Viola, Fassberg & Viola, 1976).

The most comprehensive series of behavioural validations have been carried out by Bem herself. She found that in a situation designed to evoke stereotypically masculine (i.e. independent) behaviour, masculine and androgynous subjects of both sexes conformed less frequently to false norms than did the feminine-typed subjects (Bem, 1975). The sex variable, male vs. female, did not yield significant results. In this experiment, subjects had been asked to rate a series of cartoons that had been previously been judged for funniness. Subjects were fitted with earphones through which they ostensibly could hear the ratings of 3 other subjects. On the critical trials, a false consensus as to funniness was presented to subjects to determine their degree of conformity. However, a second experiment designed to evoke a stereotypical feminine response (i.e. nurturant-expressive) did not provide such clear results. For males, as predicted, both androgynous and feminine-typed subjects spontaneously played with a kitten more than the masculine-typed subjects. However, feminine and androgynous females did not show significantly greater overall involvement with the kitten than masculine females. Surprisingly, the feminine-typed females interacted with the kitten significantly even less than the androgynous subjects. Therefore, although androgynous subjects displayed more behavioural flexibility than non-androgynous subjects overall, the results for the female subjects are difficult to interpret.

Although Bem attempts to explain the lack of displayed feminine behaviour in feminine-typed females in terms of low self-confidence, low self-esteem and timidity, it is a post hoc effort and of limited utility in predicting future behaviour.

As Worell (1978) points out, the BSRI is designed primarily to differentiate individuals on instrumental (masculine) and expressive (feminine) domains, and validation studies could best accomplish their purposes by restricting themselves to these areas. However, in spite of a few contradictory reports in the literature, there is a strong body of evidence supporting the validity of the BSRI and the idea that individuals may indeed be usefully classified as masculine, feminine, androgynous or undifferentiated. (See Appendix for a brief review of studies using the BSRI.) There is now a place for research that will increase our knowledge of the functioning of these individuals. Lenney (1979b) suggests a number of new content areas for androgyny research, one of which relates to androgyny and modelling in the media. Little is known of how vulnerable individuals classified according to sex role are to external influence, or whether they would react differently to male and female models because of their sex role.

Conformity and Imitation

Although it is a commonly held belief that females are

more susceptible to influence than males, an examination of the literature (Eagly, 1978) reveals that there is very little experimental support for this general position. Research involving "persuasion" (i.e. a belief presented with supporting arguments) or "conformity" (a belief presented without supporting arguments) manipulations without the influence of group pressure have not revealed any strong sex differences in response. However, in settings where group pressure is evident, Eagly found that in studies where a sex difference was reported, women were much more likely to be influenced than men. The question arises as to whether the independent variables in these studies were such that one sex would be more open to influence than the other because of differences in expertise and interest level rather than personality characteristics.

For example, in persuasion research, content commonly involves political or economic issues in which males have been found to have more interest (Sloan, Love & Ostrom, 1974) and more information (Fiske, 1976) than females. Sistrunk & McDavid's (1971) research revealed an interaction effect between subject sex and item type (masculine, feminine, neutral) in which more conformity occurred on opposite sex-typed items, i.e. men conformed more on feminine-typed items, women on masculine-typed items.

In another experiment, Sistrunk & McDavid (1971)

varied the sex-of-source factor by telling subjects that the influencing normative data had been provided by either males or females. Type of item (masculine, feminine, or neutral) and sex of subject were also varied. Neither the sex of subject or sex of source variables reached significance, but there were significant interactive effects between sex of source and item type. There were no differences in conformity on any of the combinations of source and feminine or neutral items but on the masculine items, subjects tended to conform more to the female influence sources. A significant triple interactive effect (item type x sex of source x sex of subject) revealed that the greater conformity on masculine items was contributed by female subjects only. Female subjects very frequently conformed to the female sources on the masculine items. When items were divided as to difficulty (easy or difficult), it was found that conformity was strongest on the difficult items. This finding, that female subjects conformed most to a female source of influence on masculine items, is surprising. Presumably, the greater expertise of the males would have been expected to exert more influence on the female subjects. Instead, they appear to have relied on a source with which they could more closely identify --- other females. The same principle, however, did not apply to male subjects.

Tuddenham, Macbride & Zahn (1958), using both male and female subjects, varied the sex composition of reference groups. Experimental groups contained either 5 same sex members, 3 men and 2 women, or 3 women and 2 men. Experimental tasks included visual problems, information problems, and statements of opinion. Statistically significant results were obtained in only a minority of comparisons which the authors attribute to the enormous range of individual differences within groups. Therefore conclusions are based on consistency of results rather than significance. Over all three types of items, women significantly yielded more than men regardless of group composition. The authors' expectation that yielding by female subjects would vary inversely with the number of women in the group was generally confirmed, especially when visual judgments were required. The hypothesis that yielding by male subjects would vary directly with the number of men in the group was confirmed only for visual items. On information and opinion items, males yielded more in the "two other men, two women" groups than in all-male groups. The unwillingness of Tuddenham et al.'s female subjects to use females as a reference group on the visual judgment task (a "masculine" task, according to the authors) is in contrast to the findings of Sistrunk & McDavid (1971). One possible explanation may lie in the latter experimenters having presented their

subjects with a "paper" reference group while Tuddenham et al's subjects were actually introduced to one another. This procedure allowed uncontrolled and unidentified interpersonal determinants to exert an influence. Together, the two papers point out how extremely complex the relationship between sex of subject and sex of source is in conformity paradigms. In contrast to Tuddenham et al's (1958) finding that men tend to yield less in mixed-sex groups than in same sex groups, Reitan & Shaw (1964) found that both males and females conformed more in mixed-sex groups than in same-sex groups. The conflicting results are difficult to explain as visual discrimination tasks were involved in both studies and experimental procedures were similar, i.e. subjects were introduced to one another before beginning the experiment. The most likely explanation lies in the operation of interpersonal variables that influenced the effect of the sources in different ways in the two studies.

The question of whether females are indeed more easily influenced is further compounded by Eagly's finding that, particularly in persuasion research, sources of influence are predominantly male which provides a cross-sex context for female subjects and a same sex context for males. When sex of source has been varied, the results, similar to those reported in the modelling literature, reveal no consistent main or interaction effect between sex of subject and sex of observer. Some studies have found that varying sex of

source produces no effect (Coleman, Blake & Mouton, 1958; Meyers & Arenson, 1968; Johnson & MacDonnell, 1974), that male sources are more effective with femalesubjects (Meade & Barnard, 1975), and that female sources are more effective with males (Luchins & Luchins, 1955). Part of the explanation for the diversity of findings would seem to be, as in the modelling literature, the frequent use of one or very few representatives of each sex.

Eagly concludes that, in general, the literature on influenceability does not support the idea that women are more easily influenced than men. There is, however, some evidence that conformity paradigms employing group pressure do suggest that women are more apt to conform than men. She feels that this finding may be due to the females greater need to preserve social harmony and may reflect only a behavioural change in opinion rather than a basic change in belief.

There are differing results for conformity manipulations when sex role is taken into consideration.

Goldberg (1975) administered Gough's (1952) M-F Scale, a Women's Liberation Scale and a conformity instrument (taken from the original pool of Sistrunk & McDavid's (1971) items) to male and female introductory psychology students. Subjects were given information on the responses of a previous college sample to the conformity items. The sources were identified as being either male, female, or

a mixture of males and females. Subjects were classified as masculine or feminine, based on their responses on Gough's scale and as Pro Lib or Anti Lib, based on their scores on the Women's Liberation Scale. The first set of analyses consisted of two levels of sex of subject, two sex role variables (M or F), and three levels of source type. The results indicated that, on male-typed items, females conformed more overall than males, and that the all-male source exerted the most influence. On female-typed items, males conformed more. Type of source and sex role variables also produced significant results. Feminine-typed males conformed to the same extent to the female source and the male source on both male-related and female-related items. Masculine-typed males, however, conformed most to the female source when the items were female-related. On male-related and neutral items, masculine males conformed to the same degree regardless of source. Feminine females conformed to the same extent on all three sources on female-related items, but were most influenced by the male source on neutral or male-related items. Masculine-typed females pattern of responses was similar to that of the masculine males, i.e. type of source exerted no influence on male-related or neutral items but they yielded most to the female source on female-related items. When attitudes toward Women's Liberation were taken into account, it was found that Anti Lib subjects tended to conform the most to the

male source on both male-related and neutral items. On the female-related items, Anti Lib subjects tended to conform more. In general, then, the results indicated that feminine females yielded most to the male source, and especially so when the task was female-related. In contrast, masculine typed-females and masculine-typed males reacted similarly to one another, suggesting that sex role is a more powerful variable in this instance than is gender. Feminine males conformed to the same extent to the three types of source regardless of the nature of the items.

In another study of sex roles and conformity, Bem (1975) had her predictions confirmed, with masculine and androgynous subjects conforming less than feminine subjects, unlike Falbo (1977) who found no significant differences. However, their methodologies differed. Bem (1975) had subjects rate the funniness of cartoons and presented them with a false consensus via earphones. The voices were the same sex as that of the subject. Falbo's (1977) subjects also rated funniness of cartoons, but false feedback about other subjects' ratings was provided on accompanying rating sheets. An experiment with a different stimulus would aid in determining how generalizable (i.e. situation-dependent) the findings for external influenceability would be. Also, undifferentiated subjects would compose another group which has not previously been assessed on this variable.

The effect of sex role classification on susceptibility to modelling influences is a variable that has not yet been examined. Imitation occurs when the observation of a model's behaviour results in the production of similar responses by the observer. The importance of this process is indisputable. Most of the behaviours exhibited by human beings are acquired through observation of others rather than a complex combination of differential reinforcement, punishment, and extinction of spontaneously emitted responses.

As Akamatsu & Thelen (1974) point out, research on imitation has primarily been concerned with the reinforcement (either direct or vicarious) of the observer and the effect that various model characteristics have had on the observers' subsequent behaviour. Observer variables have, by comparison, been neglected. That observer characteristics do have an effect on imitation can scarcely be denied, given the amount of reported variability shown by subjects within experimental conditions.

In their review of the literature on observer characteristics and imitation, Akamatsu & Thelen (1974) examined the relationship between imitation and personality traits of the observer. They concluded that factors such as need for approval, dependency, and anxiety may influence the amount of imitation but that model conditions are a confounding variable in that the more information a subject

has about the situation (e.g. the competence of the model, consequences of the behaviour, familiarity of the task), the more the effects of observer traits and states are obscured. In general, the consistency of the findings on observer states (induced by experimental manipulation) may be attributed to either adequate control conditions or the fact that the state alone was studied. Significant results for trait variables have been attained when the same precautions were taken, but results have generally been more equivocal because of less stringent experimental control.

In a test of the formulation that observer characteristics have a maximal effect in situations in which little information is provided to the observer, Akamatsu & Thelen (1977) compared female college students of high, medium, and low need for approval on a modelled size judgment task. A high or low arousal manipulation was employed with each subject and they were assigned to either a model-reward or no-reward (i.e. low information) condition. Significant results were obtained in only the no-reward (i.e. low information) condition. Relationships have also been found in adults between imitative behaviour and such personality characteristics as authoritarianism (Candler & Goodman, 1977) and locus of control (McColley & Thelen, 1975) when low information designs have been employed. In the present

study, no information was provided about the models other than their sex, nor were they rewarded. Subjects were given no indication of the correctness of models' choices,

It has been hypothesized that an observer who perceives him- or herself to be similar to a model is more likely to match the behaviour of that model than if there is a great dissimilarity (Bandura & Walters, 1963). One of the most obvious areas of similarity is that of sex. If the above hypothesis is correct and all other model characteristics are held constant, male observers should imitate male models more than female models and female observers should imitate female models more than male models. The literature, however, reveals a less than consistent pattern of results when sex of model and observer are varied.

Hoffman (1977) concludes that, in general, children are more apt to imitate same sex than opposite sex models, but there are few studies that have systematically examined the effects of this variable in adults. Most researchers choose either to run same sex observer-model pairs or the same model for all observers. Imitation studies that have not ignored the sex variable have found that modelling occurs only with same sex pairs (Silverman, Shulman & Wiesenenthal, 1972), only with mixed sex pairs (Rickard & Joubert, 1968), an interaction effect between sex of model and status (Field, 1973), and no effect whatsoever (Albert, 1975). Flanders' (1968) statement that "the available

experimental manipulations of sex of M suggest few dependable effects" (p. 327) seems as true now as it was 12 years ago.

One reason for the lack of dependability in these studies is that, in the majority of them, only one male and one female have been used to represent the sex-of-model variable.

Field's (1973) study consisted of having 20 male and 20 female graduate students in an introductory counselling course view a modelling tape of counsellor/client interactions. The same confederate male client appeared in two sets of interactions with a male and a female counsellor, who were described as having either "high status" or "low status", for a total of four treatment conditions. Although status or sex of model per se did not affect subjects' acquired counselling behaviours, there was an interaction effect with low status males and high status females producing a modelling effect. Sex of subject did not influence the results. The findings of this study are difficult to interpret, a conclusion the author concurs with, but the generalizability of these results is seriously compromised given that the sex of model variable was represented by only one male and one female. Characteristics specific to these individuals quite independent of gender may have been the significant variables.

Rather than using actual models, Rickard & Joubert (1968) prepared stimulus tapes using the voices of a

24 year-old female and a 28 year-old male. Models read a list of 250 words with each successive block of 50 containing more names of animals. After every fifth word, subjects (20 male and 20 female introductory psychology students) were signalled to respond and the frequency of animal responses analyzed in blocks of 10 trials. An analysis of variance on the last 10 trials did not yield either a sex-of-subject or a sex-of-model effect, but there was a significant interaction with males responding more strongly to the female model and females to the male model. Once again, the generalizability of these results is questionable given that only one male and one female voice were used.

Albert (1974) investigated the effects of providing undergraduate students with written materials and exposing them to either a male or female model demonstrating affective attending and accurate empathic response skills vs. written materials only vs. a no treatment control condition. Subjects' responses to a stimulus tape of ten helpee statements were then scored. She found no significant differences attributable to sex of model and concludes that this variable does not seem to be critical in the modelling process for young adults, a conclusion not born out by Fields (1973) or Rickard & Joubert (1968). This study, too, is vulnerable to the criticism that only one male and one female represented the gender variable.

Silverman et al (1972) studied the relationship between characteristics of experimenters and responses of their subjects on tasks involving projection or description of self. Subjects, introductory psychology students, were shown three photographs each of four different people posed with smiling, serious and neutral expressions, and asked to rate them on a 22-item inventory. In the description-of-self condition, subjects were also asked to rate themselves on the same items. Six experimenters, three male and three female, who had previously been judged on the same inventory ran subjects individually. There were no significant results on the photo ratings, but there were significant "model" (i.e. experimenter) effects on the self-rated measures. Different experimenters did obtain different results from subjects but modelling occurred only within same sex experimenter-subject dyads. The authors state that this is a plausible result, assuming "that subjects more readily use an experimenter of the same sex as a standard for self-evaluation" (p. 227). Because this study used three models to represent each sex, these results strongly suggest that, at least in this setting, sex of model is a relevant variable.

Although the differences among these findings are almost certainly also due in part to the nature of the modelled task (e.g. sex appropriateness relative to the

model), another source of variation may lie in the subjects themselves. The characteristics of the sample may be such that subjects have a varying history of reinforcement of same or opposite sex models and have been differentially reinforced for imitation of male or female models. Another possibility may be related to perceived similarity. For example, women with a strong masculine component in their personality may consider themselves as more similar temperamentally to males than to females and may therefore be more likely to consciously imitate male models.

This experiment attempted to determine which is the more powerful predictor of modelling behaviour, sex or sex role, both with regard to total imitative responses and to differential imitation of male and female models. As model competence may be a mediator variable (Rosenbaum & Tucker, 1962), subjects ratings of the models' competence were taken, although behaviourally there was no difference in models' actual performance. However, several studies have found that when the same piece of work is attributed to either a male or a female, the "male-produced" work is given a higher rating (Goldberg, 1968; Pheterson, Kiesler & Goldberg, 1975; Bem & Bem, 1970) and female efforts devalued. These findings suggest that males are perceived as intrinsically more competent.

Specific hypotheses to be tested were:

1. Feminine and undifferentiated subjects will imitate

more than masculine and androgynous subjects. Bem (1975) found that feminine subjects conformed more, and the lower self-esteem (Bem, 1977) of the undifferentiated groups should result in their being more susceptible to external influence.

2. Sex-typed individuals will differentially imitate same sex models more than androgynous subjects. Presumably sex-typed individuals would have a more consistent history of reinforcement for imitation of like sex models than androgynous individuals who have strong components of both masculinity and femininity in their personalities.

3. Sex-typed individuals will perceive one of the models as more competent (in contrast to androgynous individuals). Sex-typed individuals may rate same sex models as more competent because of stronger identification with them rather than opposite sex models or both masculine males and feminine females may see the male model as more competent on the assumption that males are stereotypically seen as more competent in most areas of endeavour. In either case, androgynous subjects would be expected to be less biased because they appear to be less bound to stereotypes of masculinity and femininity.

An analysis was also run to determine whether consensus between the two models, i.e. both agreeing on a response, would affect imitative behaviour.

Method

Subjects

At the University of Manitoba, introductory psychology students earn up to 7% of their grade in the course by participating in experiments. Experimental sign-up booklets (including a brief description of the experiment) are distributed to classes and students choose which experiments to participate in. The initial phase of the present study, the screening of subjects on the BSRI, was described as an experiment involving the completion of inventories. A number of group sessions were scheduled and subjects chose a time that fit in with their class timetables. A total of about 18 times were available and the numbers of subjects scheduled varied from approximately 10 to about 40 seated no more than 2 to a table in a classroom designed to hold 60 students. They were run in mixed sex groups by one of two female experimenters.

Two hundred and sixty-three females and 215 males completed the BSRI which was scored according to Orlofsky et al's (1977) method. Subjects were divided on the basis of their t-scores into masculine, feminine and androgynous groups. Undifferentiated subjects, those whose M and F scores were both below the sample medians, were then drawn from the androgynous group. Potential subjects were then contacted by telephone and asked to participate in the modelling phase of the experiment which was described to

them as an experiment to assess the relative competencies of two individuals on a size judgment task and also to rate their personalities. Approximately one-quarter of those contacted refused to participate for various reasons, including their already having sufficient experimental credits, deadlines for papers, approaching exams, etc.

Eleven male and eleven female subjects were selected from each sex role category with the exception of the feminine males group where there were insufficient numbers. Only two males, less than 1% of those tested, scored in the feminine range.

Apparatus and Stimulus Materials

All stimulus materials, including instructions, were presented to subjects via videotape. The stimuli for the size discrimination task (taken from Akamatsu & Thelen, 1977) consisted of 3 identical geometric figures labelled A, B, and C, whose positions were rotated. In some trials, the figures were all the same size while in other trials one figure was larger than the other two. (See Appendix for examples of the figures.) During the modelling sequence, a male and female model appeared on the screen simultaneously with 3 figures at the bottom of the screen. The figures faded out after 3 seconds and the models then verbalized their choice (A, B, or C) of the largest figure. The speaking order was counterbalanced with each model speaking

first on half the trials, although not in a strict alternating order. The models then faded away and after about 8 seconds during which subjects recorded their own choice and prepared for the next trial, the sequence was repeated. There were two tapes, with two different sets of models but the same set and same order of geometric figures. Two tapes were used to control for the possibility of response to a particular individual rather than to sex per se. Subjects were given a form (see Appendix for a sample form) upon which to record their choices for largest figure, rate the competence of the models, fill out an abbreviated version of the BSRI on each model, and state their view of the purpose of the experiment. The abbreviated BSRI was included to support the explanation given to subjects that the purpose of the study was to rate two people on the tape and to surround two items which constituted part of the measure of model competence. The Social Desirability items from the BSRI were eliminated to decrease length, along with 5 items from each M and F scale because of the apparent difficulty in rating models on these items (e.g. athletic, eager to soothe hurt feelings).

A portable video playback unit with a 20" screen was used to present the videotape to the subjects.

Procedure

Subjects were run in groups no larger than 3 and were seated separately so that they were unable to see one another's responses. The composition of the groups depended upon subjects' availability at the scheduled times. Most often they were mixed sex but some same sex groups were also run. Presentations of tape 1 and tape 2 were balanced across groups although due to the fact that there were 11 subjects in each group, one tape was viewed by a greater number of subjects within a particular group.

The tape began with a head-and-shoulders view of a female experimenter delivering the following instructions:

"You will be shown sets of 3 figures labelled A, B, and C. Choose the largest figure and write down its letter on the sheet in front of you. Each set of figures will be on the screen for approximately 3 seconds. It may sometimes be difficult to decide which figure is the largest but one will always be larger than the other two. Remember to write down the letter of the largest figure in each set."

All subjects were then given a perceptual screening test consisting of 10 trials of sets of 3 geometric figures, one of which was always larger, in order to detect any differences in perceptual ability between groups on this task. Subjects were then told:

"The purpose of this experiment is to assess the competency of two individuals on a size judgment task similar to the one which you have just done. You were given a brief experience with this task so that you could understand how the two people on the tape will feel. You will observe a videotape of two people

choosing the largest of three figures. The two people were in different rooms and could not hear one another's choices. A split-screen technique is presenting them to you simultaneously along with the figures they are seeing. One figure will always be larger than the others but at times this difference will be very small. On the tape, you will be shown the figures and you will hear the two people giving their answers. After they give their answers, you will write down the letter of the figure that you think is the largest on the sheet in front of you. This latter procedure will ensure that you are giving your full attention to the experimental procedure. After the tape is over, you will be given a brief questionnaire to fill out on the two people you have just observed. Are there any questions? First, we'll have a practice tape and then you will be able to ask questions."

Subjects were then shown a practice portion of the tape to acquaint them with the procedure. In it, a male and female model appeared on the screen simultaneously with the 3 figures on the bottom of the screen. The figures faded out after 3 seconds and the models then verbalized their choices (A, B, or C) of the largest figure. The practice portion consisted of 8 trials. Four of these had identically sized figures, upon which the two models twice agreed and twice disagreed on the largest figure. The remaining four cards had one figure that was larger than the other two, upon which the two models correctly agreed once, incorrectly agreed once and disagreed twice, with the male and female models each choosing correctly once. The four cards with larger figures were included to make the task more plausible.

Following the practice tape, subjects' questions about the procedure were answered and the experimental tape was

then shown. The experimental tape was similar to the practice tape and used the same models but contained a total of 36 trials. Twelve of the trials constituted the imitation variable, where the male and female models disagreed, with neither choosing the correct figure, i.e. either all the figures were the same size (9 trials) or the third unchosen figure was the largest (3 trials). Subjects were scored as having imitated the male model when their response matched his or the female model when their response matched hers or as having made an independent choice of the third unchosen figure. Thus the possible range of imitative scores per se could vary from 0 to 12, consisting of a combination of imitation-of-male-model responses and imitation-of-female-model responses. On another 12 trials, both models agreed on the "largest" figure when either all 3 figures were the same size (9 trials) or an unchosen figure was really larger (3 trials). This component constituted the consensus variable. On 6 of the remaining 12 trials, both models agreed on the larger figure while on the last 6 they disagreed with each model correctly choosing the largest figure 3 times. (The levels of performance for the male and female model were exactly equal.) The last 12 trials should have served, as in the practice tape, to make the task more plausible. After each trial, subjects marked down their choice for the largest figure.

After the experimental tape was shown, subjects were

asked to rate the performance of the male and female models separately on a 7-point scale ranging from 1 (very poor) to 7 (excellent), as well as assessing their personalities on an abbreviated BSRI to which two adjectives, "competent" and "capable" were added. The performance rating was added to the ratings of the models on the two adjectives and divided by 3 for the measure of perceived model competence. Subjects were also asked to write a brief statement on what they thought the purpose of the experiment was in order to determine their awareness of the experimental manipulation.

Results

The 215 males and 263 females tested on the BSRI were categorized as shown in Table 1. In contrast to other reports (Orlofsky & Windle, 1978; Bem, 1974), there were almost no feminine-typed males (less than 1% of the males tested had androgyny scores of $t > 1.0$) and that cell was dropped from the design.

 Insert Table 1 about here

The University of Manitoba sample also seems atypical in the proportion of males, almost 65%, scoring in the masculine range and the proportion of females in the combined androgynous and undifferentiated range, almost 56%. To this point, there are no reports in the literature on the classification of Canadian subjects according to t-scores on the BSRI and the only comparisons possible are with data from American universities.

BSRI data on the 77 subjects selected for the second phase of this study are shown in Table 2. Group means on the masculinity and femininity scales were 4.728 (S.D.=1.328) and 4.746 (S.D.=1.460) respectively.

Table 1: Comparison of percentages of subjects in sex role categories according to t-score on BSRI.

	Guse	Orlofsky (1978)	Bem (1974)	
Females	n=263	n=53	n=279	n=77
Masc.	3.42%	a16.98%	8%	7%
Near Masc.	7.60		12	7
Fem.	12.17	b54.72	34	40
Near Fem.	20.91		20	8
Andro.	42.59	18.87	c27	c38
Undiff.	13.31	9.43		
Males	n=215	n=58	n=444	n=117
Masc.	39.07%	a46.55%	36%	21%
Near Masc.	25.58		19	17
Fem.	0.00	b15.52	6	9
Near Fem.	0.93		5	9
Andro.	21.86	20.69	c34	c38
Undiff.	12.56	17.20		

a - Masc. and Near Masc. categories are combined.

b - Fem. and Near Fem. categories are combined.

c - Andro. and Undiff. categories are combined.

 Insert Table 2 about here

None of the specific hypotheses were confirmed for the combined tape 1 and tape 2 group. Hypothesis 1, that feminine and undifferentiated subjects would imitate more than masculine and androgynous subjects, was tested by adding the total imitative scores of the undifferentiated females (UF) and feminine females (FF) together and comparing them with the combined total imitative scores of the masculine female (MF) and androgynous female (AF) groups. The test was non-significant ($t=.49$, $d.f.=21$). The hypothesis was tested with female subjects only as the missing feminine typed male cell precluded the male subjects. A one-way ANOVA run on all 7 groups on total imitative responses did not reveal any significant differences ($F(6,20)=1.24$, non-sig.).

The results for the second hypothesis, that sex-typed subjects would differentially imitate same sex models more than androgynous subjects approached significance ($t=1.49$, $d.f.=21$, $p<.08$). Masculine males (MM) and FF tended to imitate the male and female model respectively more than their androgynous counterparts. This hypothesis was tested by comparing FF's and MM's imitation of same sex model with AF's and androgynous males' (AM) imitation of the same sex



Table 2: Mean BSRI Scores

Scale	Sex Role Category						
	FF	MF	AF	UF	MM	AM	UM
Masc.	3.57	5.57	5.19	3.71	5.76	5.01	3.92
Fem.	5.95	4.68	5.32	3.99	4.48	4.92	4.06
Andro.	3.06	-2.73	.06	.11	-3.68	-.10	-.01

FF - Feminine-typed females

MF - Masculine-typed females

AF - Androgynous females

UF - Undifferentiated females

MM - Masculine-typed males

AM - Androgynous males

UF - Undifferentiated males

model.

The third hypothesis, that sex-typed individuals, unlike androgynous subjects, would perceive one of the models as more competent was tested by comparing the absolute difference between competence rating of the male and female models by FF and MM with that by AF and AM. This hypothesis was also rejected ($t=.405$, $d.f.=21$, non-sig.). In fact, there were no group differences in ratings of male and female models ($F(6,70)=.449$, non-sig.; $F(6,70)=.502$, non-sig.) nor was any model judged significantly more competent than any other model (see Table 3).

 Insert Table 3 about here

The mean scores of the 7 groups on the perceptual ability screening test ranged from (out of 10) 7.91 for UF to 8.91 for MF ($F(6,70)=.639$, non-sig.). See Table 4 for group means when stimuli actually differed in size.

 Insert Table 4 about here

Treating perceptual ability as a covariate did not

Table 3: Model Competence

	Tape 1		Tape 2		Combined	
	MM	FM	MM	FM	MM	FM
Subjects						
Female						
Fem.	4.73	4.93	4.83	4.61	4.75	4.74
Masc.	4.24	5.10	4.67	4.33	4.38	4.81
Andro.	4.33	4.53	4.67	4.39	4.54	4.47
Undiff.	4.89	4.45	4.31	4.72	4.66	4.59
Male						
Masc.	5.00	4.50	4.62	4.24	4.76	4.34
Andro.	4.33	4.33	4.61	4.89	4.46	4.62
Undiff.	4.40	3.94	4.22	4.78	4.31	4.40
	----	----	----	----	----	----
Mean	4.54	4.57	4.56	4.56	4.55	4.57
F value	.49	1.29	.27	.52	.44	.44

All F values are non-significant.

MM - Male Model

FM - Female Model

Table 4: Correct choices by sex role groups when stimuli differed in size.

	<u>Sex Role Group</u>						
	FF	MF	AF	UM	MM	AM	UM
PAST	8.91	8.64	8.00	7.91	8.36	8.73	8.36
ES	16.00	16.45	14.64	16.90	16.30	15.80	16.90

PAST - Perceptual Ability Screening Task (out of 10)

ES - Experimental Stimuli (out of 18)

There were no significant differences between any of the groups on either the screening task or the experiment proper.

appreciably alter the means. However, in order to delete any possible influence of perceptual ability on the values of the other variables, it was treated as a covariate in all MANOVAs and ANOVAs.

A one-way multivariate analysis of variance (Prins, 1978) was performed on the data with perceptual ability, ratings of male and female model competence, imitation of male and female model and consensus response as dependent variables. In the original design, the three independent variables were: sex of subject, sex role of subject (masculine, feminine, androgynous, undifferentiated) and sex of model. However, to accomodate the missing feminine males (FM) cell, the two independent variables of sex and sex role of subject were combined to form one independent variable which yielded 7 groups: FF, MF, AF, UF, MM, AM, and UM. There were no significant results on the overall MANOVA when tape 1 and tape 2 were combined (Rao's F approximation = .807, d.f.= 36, 288, non-sig.), nor did the univariate ANOVAs yield any significant results.

Because of the possibility that the particular tape viewed was a relevant variable, a number of post hoc analyses were run.

To test for any effects due to tape, the MANOVA was re-run with subjects divided according to sex/sex role and tape viewed, a total of 14 groups. Significant differences

that had been obscured by combining the two groups did emerge (Rao's $F(65, 282)$ approximation=1.40, $p<.05$). The univariate ANOVA with d.f.=13,63 revealed significant differences in the imitative responses to the male model ($F=1.932$, $p<.01$). Univariate ANOVAs on the 7 groups (FF, MF, AF, UF, MM, AM, and UM) were then performed on tape 1 and tape 2 subjects separately to detect where group differences lay. There were no significant differences for tape 2 subjects but for tape 1 subjects there were significant differences on the imitation of female model variable ($F(6,29)=3.530$, $p<.01$) and near significance on the imitation of male model variable ($F(6,29)=2.226$, $p<.07$). Table 5 compares results on these two variables for both tapes combined and separated.

 Insert Table 5 about here

On tape 1, the male model was imitated more than the female ($t=5.20$, d.f.=36, $p<.001$) while on tape 2, the female model tended to be imitated more than the male ($t=-1.85$, d.f.=39, $p<.1$). There were significant differences between imitation of the male models on tape 1 and 2 ($t=4.29$, d.f.=36, $p<.001$) with the tape 1 model being imitated more and the female models on tape 1 and 2 ($t=-2.86$, d.f.=36, $p<.01$) with the

Table 5: Imitative Responses to Model

	<u>MODEL</u>					
	Tape 1		Tape 2		Combined	
	Male	Fem.	Male	Fem.	Male	Fem.
Subjects						
Female						
Fem.	5.39	2.61	2.71	4.60	3.93	3.70
Masc.	4.01	3.56	3.26	2.98	3.74	3.35
Andro.	4.53	3.46	2.82	3.02	3.62	3.20
Undiff.	3.29	3.71	2.77	3.45	3.07	3.57
Male						
Masc.	4.80	1.95	3.85	3.30	4.18	2.82
Andro.	4.30	1.90	2.85	4.17	3.47	3.16
Undiff.	3.56	3.23	3.17	3.49	3.36	3.36
Mean	4.22	3.00	3.07	3.60	3.62	3.28

For Tape 1 (male) - Tape 2 (male), $t=4.29$, $p<.01$.

For Tape 1 (female) - Tape 2 (female), $t=-2.86$, $p<.05$.

tape 2 model being imitated more.

For tape 1 subjects, Scheffe's method for making post hoc comparisons between means (Kleinbaum & Kupper, 1978; p. 271) revealed significant differences ($p < .05$) on the imitation of the female model between UF and AM, between MF and MM, and between AF and AM with female subjects consistently imitating the female model more than the male subjects. There was no difference between UF and UM. Within the male groups, UM differed significantly from MM and AM by imitating the female model to a much greater extent. MM and AM were significantly different from all other groups on this variable, indicating that the performance of the UM was much more similar to that of the female subjects than the other male subjects. Because significance was only approached on the imitation of male model variable, a less stringent criterion ($p < .10$) was used to explore for group differences. A $p < .05$ would not have identified group trends. Using Scheffe's method, differences were found between FF and both UF and MF as well as UM with FF imitating the male model more than the other three groups.

Because of the differing results on the MANOVA when subjects were divided according to tape, the 3 hypotheses were also tested on tape 1 and tape 2 separately. The only significant result occurred for the second hypothesis on tape 2 with sex-typed individuals (MM and FF) imitating same sex models more than androgynous (AM and AF) individuals

($t=2.286$, $d.f.=11$, $p<.05$). This finding suggests that the trend in the second hypothesis evident when all subjects were tested is due entirely to the responses of subjects viewing tape 2.

Although the abbreviated BSRI ratings on the models were included in the experimental design only to provide some validity for the explanation given to subjects of the study's purpose and context for "competence" items, it seemed possible that the ratings might provide some clue to the differing responses to the two tapes. Accordingly, androgyny scores were calculated for models based on subjects' ratings on an abbreviated BSRI. The mean masculinity and femininity scores were generally lower than those subjects had given themselves, and male models were seen as "masculine-typed" while female models were seen as more "androgynous". (See Table 6.) The relatively low femininity scores may be due to the fact that the task that models were involved in was agentic (involving the self as "doer") rather than communal (involving more "other-directed" qualities), which are roughly equivalent to traditional masculinity or femininity. The models' BSRI scores do not appear to aid in interpreting subjects responses to the models. A number of correlations were also carried out, relating imitative responses to the male or female model with their rated competency, and also relating model and

subject androgyny scores to explore the possibility that perceived similarity might explain the different results for tape 1 and tape 2. The only significant correlation was between subjects' androgyny scores and male model androgyny scores on tape 2 ($r=.375$, d.f. =34, $p<.05$) and given the number of correlations performed, this can best be regarded as a chance finding.

Insert Table 6 about here

Another attempt to identify the salient variables differentiating the models was made by asking 10 (4 female, 6 male) graduate students in Psychology to rate the models on 5 characteristics (intelligent, attractive, competent, trustworthy, confident) on a 7-point scale. The students were told that subjects had reacted differently to the two videotapes. As well as rating the models, the students were also asked to suggest any other variables that might distinguish between models and to predict the direction of the original subjects' preferences.

There were no significant differences between any of the models on any of the five adjectives, nor did the group accurately predict which model was more often imitated.

Table 6: Comparison of masculinity, femininity and androgyny scores of models on the abbreviated BSRI according to tape and sex.

		<u>Model</u>	
		Male	Female
Tape 1			
	M	4.42	4.11
	F	3.52	3.88
	A	-2.30	-1.27
Tape 2			
	M	4.33	4.12
	F	3.56	4.01
	A	-2.71	-0.40

Each model was seen as capable of eliciting as much imitation as any other model. Statements about models in a particular tape were sometimes conflicting. For example, the male model in tape 2 was seen as "unsure of himself", "more relaxed" and "neutral" in comparison to the female model. Models in tape 1 were generally seen as indistinguishable from one another, although one graduate student remarked that the female model appeared more bored with the task while another thought that the male appeared more bored.

The safest conclusion about the different reactions to the models by both the original sample and the graduate student sample seems to be that a complex set of model-observer interactions is operating and at this point it is beyond the scope of this study to determine what they are and how they are affecting imitation.

Subjects' statements about the purpose of the study varied. About 48% of them believed that the experiment had something to do with determining how the people in the tape would influence their judgment of figure size but only 6 (1 from each group except for androgynous males) stated that the experiment was concerned with whether subjects would agree with the male or female more often. Other subjects thought that the purpose had to do with rating size judgment ability in people (27%), having subjects choose largest figures (9%), judging the personality of a male and female (5%), and miscellaneous others.

Discussion

The results of this study with regard to vulnerability to external influence of different sex role groups are inconclusive, due to the different effects that the two tapes had on subjects. Overall, there were no differences attributable to sex role on either imitation per se or specifically to sex of model, although there was a tendency for sex-typed subjects to differentially imitate same sex models more than did androgynous subjects. The most striking, and unexpected finding, had to do with the different effects the two tapes produced, as significant findings emerged when subjects were divided according to the tape they observed. Had only tape 2 been used, the results would have shown no effects of sex role within the male or female model variables, but a significant finding on the differential imitation of same sex models by sex-typed subjects compared to androgynous subjects. Had only tape 1 been shown, this latter result would not have shown up but relatively strong differences among sex role groups within each sex-of-model variable would have emerged. As it is, the results for tape 1 and tape 2 are difficult to interpret simultaneously. However, the fact that 2 sets of models (whose appearances seemed superficially unremarkable to the experimenter) could produce such different results suggests that studies concerned with modelling effects should have at least 2 representatives of each condition

in order to strengthen generalizability.

The model factors that subjects were responding to were apparently only powerful enough to differentiate significantly between the male and female model in tape 1. However, they appear to have favoured the male model in tape 1 and the female model in tape 2. The identification of these relevant factors in this study is not possible, but further research on how subjects perceive models' personalities might aid in delineating their influence. At this point, all that can be said is that perceived model competence did not influence subjects' imitation. The results of this study cast doubt on the generalizability of reports in the literature that have used only one model or one pair of models. It appears that more subtle variables, rather than sex or perceived competence of model can influence subjects' imitative responses, producing results pertinent only to the particular model(s) used.

The lack of feminine typed males (including near-feminine typed) in the University of Manitoba sample was unexpected, given the proportions reported in previous samples (Orlofsky, 1978; Bem, 1974; Segal & Richman, 1978). The deletion of the FM cell in the design necessitated changes in the original design of the study. An analysis to determine whether sex or sex role was the better predictor of behaviour had to be abandoned. The first two specific hypotheses could be tested only for female subjects, rather

than also for males and male and female subjects combined. Given the reports in the literature of differing results for male and female subjects (e.g. Jones et al, 1978; Orlofsky, 1977; Bem et al, 1976; Bem, 1975), the results cannot be generalized to males. The question arises, too, whether feminine-typed males really constitute such an insignificant portion of the introductory psychology student population at the University of Manitoba or if something in the procedure of enlisting subjects discouraged feminine-typed males from participating or from responding accurately. During the mass screening, the BSRI was administered along with a handedness questionnaire and a repression-sensitization scale, which may have affected responses. If, however, feminine typed males do form less than 1% of the population in a Manitoba university in contrast to American universities, the reasons would be worth investigating. They perhaps might have to do with less accepting attitudes to feminine typed personality characteristics, even positive ones, in males in Canada. This conjecture is given some support by the relatively high proportion of masculine and near-masculine typed males.

The general overall lack of significance on the imitative and consensus measures tends to support Falbo (1977) rather than Bem (1975) with regard to group differences on these variables, i.e. there is no relationship between sex role and external influenceability.

Sex-typed subjects, however, did tend to imitate same sex models more than did androgynous subjects, suggesting that sex-typed individuals have a stronger history of reinforcement for same sex identification than do androgynous individuals. This finding is particularly interesting in light of the very similar competency ratings given to all models. On tape 1 in particular, although all groups rated the female model's competence at similar levels, AM and MM imitated her significantly less than the other sex role groups. As previously discussed, perceived model competence may not influence imitation. However, an alternate explanation may lie in the current liberal zeitgeist of equality of the sexes. Intellectually, many individuals overtly maintain that men and women are equal in ability, recognizing that any private beliefs about the "natural" superiority of one sex would be unpopular, especially in the university community. The result may be that, although expressed evaluations of male and female competence do not differ, private beliefs are determining responses. Support for this hypothesis, especially with regard to MM, is apparent from Andersen's (1978) article which found that masculine-typed males more than other sex role groups endorsed discriminatory attitudes toward women. In the present study, behaviour may not necessarily reflect expressed confidence in another person's judgment, if this

"confidence" is a posture rather than a deeply held belief. The question of how influenceability is related to sex role remains an interesting one and one that requires further investigation. However, given the conflicting results attained in this study, perhaps a simpler starting point, one that circumvented the problem of interpersonal variables would provide some clearer answers.

A replication of Sistrunk's & McDavid's (1971) study with sex role as a variable might be a viable alternative to the method used in this study. As previously discussed, the authors used "paper" sources and identifying the sample providing normative data as either male or female would identify the sex of the source without confounding interpersonal variables. This procedure holds promise for determining whether different sex role groups are more susceptible to conformity pressures and whether sex of source exerts an influence.

However, the actual presence of a model, even on videotape, provides a closer approximation to real life situations. Although the precise effect may be unpredictable, it seems likely that people are more likely to be affected by those that they can observe rather than merely read about. A paradigm that presented subjects with only one model (either same or opposite sex) at a time would provide a closer approximation to the real world while also allowing subjects

to rate models on their individual characteristics without comparison to other models. The simultaneous presence of two models as in the present study may have confused clear perceptions of model characteristics. Not only were subjects forming impressions of each of the models as individuals but also in comparison to one another. A study employing single models in the imitation manipulation followed by a well-chosen list of personality characteristics upon which subjects would rate the models might come closer to identifying the salient interpersonal characteristics.

APPENDIX

Literature Review

A number of studies have examined differences between subjects classified according to the Bem Sex Role Inventory. A brief literature review of these studies follows.

Bem & Lenney (1976) found that sex typed individuals were more apt to actively avoid engaging in cross-sex activities than were androgynous and sex-reversed individuals, even when it was to their advantage (i.e. higher rate of pay for performing cross-sex than neutral or sex-appropriate activities). Subjects were told that pictures of the same person performing many different activities were needed for a future study, and that they could choose which activities they would perform. Subjects would be paid but because some activities were under-represented in pictures taken up to that time, the experimenters were willing to pay a little more for these. The activities were all simple, everyday activities that could be quickly performed but some were stereotypically masculine (e.g. oil squeaky hinge on metal box, nail two boards together), some were stereotypically feminine (e.g. iron cloth napkins, prepare a baby bottle by mixing powdered formula with milk) and some were neutral (e.g. peel oranges, play with a yo-yo). Subjects were required to choose which one in each of a series of pairs of activities they would perform. When there was a difference

in sex-appropriateness between members of a pair, the less sex-appropriate activity always paid more. After completing each activity, subjects rated their feeling about performing the activity. Sex-typed individuals felt the worst about themselves and experienced the most discomfort when performing cross-sex activities, particularly when the experimenter was of the opposite sex.

Bem, Martyna & Watson (1976) further investigated the relationship between sex roles and nurturant-expressive behaviour in experiments measuring responsiveness to a human infant and to a "homesick" conversation partner (actually a confederate of the experimenter). In the latter experiment, predictions were confirmed for both male and female subjects, with androgynous and feminine types responding more than masculine types. There were, however, no differences among the female sex role categories in responsiveness to the infant, although androgynous and feminine-typed males responded significantly more than the masculine-typed males.

Kelly et al (1976) classified male and female college students into 4 BSRI categories and asked them to role play responses to a live partner in situations designed to elicit warm, complimentary social skills or refusal assertiveness. Androgynous subjects were rated as highly effective on these social skills while undifferentiated subjects were found

to be highly inept and socially ineffective. Masculine- and feminine-typed groups did not differ significantly from one another and tended to fall between the androgynous and undifferentiated groups on rated social competence.

In unstructured situations, the presence of androgynous individuals in mixed-sex dyads results in increased interaction and interpersonal attraction compared to sex-typed dyads (Ickes & Barnes, 1978). Presumably, sex typed females, although sociable and willing to interact, would nevertheless expect the male to take the lead and initiate conversation. The traditional male, a little reticent and uncomfortable in the social domain, would probably be somewhat unresponsive. Androgynous individuals, possessing both expressive and instrumental characteristics, were more able to adapt their behaviour to that of the other individual than were the traditionally sex-typed persons.

Jones, Chernovetz & Hansson (1978) compared androgynous with sex-typed individuals on a number of attitudinal and personality measures. However, the results are sometimes difficult to interpret because of the classification system the authors used. Subjects were given the BSRI and divided into 3 groups according to a t-score method: sex typed ($t > 1.0$ in the direction of the subject's sex), androgynous ($|t| < 1.0$, indicating a balance of male and female characteristics) and sex reversed ($t > 1.0$ in the direction of the

opposite sex). Thus undifferentiated subjects were included in the androgynous group and "near" typed ($1.0 < t < 2.025$) were incorporated into the appropriate sex-typed or sex-reversed groups.

In a secondary analysis of some of the data, the subjects were re-assigned in order to determine whether there were differences in the androgynous group between those scoring high on the scale and those scoring low. Subjects were classified in 2 ways: Bem's (1977) subtractive technique where those in the androgynous group are divided into high-high and low-low scorers depending on whether both scores on the M and F scales are above or below the median, and Spence et al's (1975) additive technique where all subjects are classified relative to the median scores. The subtractive method affects only those subjects in the original "androgynous" group while the additive method also reclassifies subjects originally included in the sex-typed and sex-reversed groups. Because 2 methods of classification were used, there are 2 sets of comparisons for each sex on 8 variables for a total of 32 results. Low-low and high-high terminology refer to Bem's method, while undifferentiated and androgynous refer to those divided by Spence's method in this study. The analyses yielded 2 significant ($p < .05$) results with low-low males experiencing more problems with alcohol than high-high males (the additive method yielded

near significant results ($p < .10$) on this same comparison) and undifferentiated males scoring more external on the locus of control measures. There was also a near significant ($p < .10$) finding on the self-esteem measure with androgynous females scoring higher than the undifferentiated females. Although there were few significant differences between undifferentiated and androgynous subjects (or between low-low and high-high subjects), it would be erroneous to assume that they should be considered as psychologically equivalent. In this situation, a Type II error (saying they are the same when they are really not) could be serious. For example, although not statistically significant, all comparisons on the measure of neurosis yielded t-values greater than 1.0 in the direction of undifferentiated and low-low scorers being more neurotic. This suggests that inclusion of low-low scorers in the androgynous group in the original analysis may have artificially elevated the neurosis mean.

Given these problems, the Jones et al findings have to be carefully interpreted. The authors state that "Contrary to expectation, AM (androgynous males) show greater externality of control, more problems with drinking, and a trend ($p < .06$) toward greater introversion than MM (masculine males)" (p. 305). However, the first two results are probably largely attributable to the input of the low scoring "androgynes" as previously discussed, and although the authors appear to

equate extraversion with adaptability and mental health, one might more accurately predict that androgynes would be somewhere in the centre of the introversion-extraversion continuum: i.e. they would be sufficiently extraverted to experience satisfactory interpersonal relations but would also be able to reap the positive benefits of introversion such as an appreciation of solitude and increased self-understanding because they possess a certain amount of inner directedness. Compared to MM, FM (feminine-typed males) were more external, more neurotic, lower in self-esteem and had more problems with alcohol. FM also scored as more neurotic and lower in self-esteem than AM. MF (masculine-typed females) were more extraverted than either AF (androgynous females) or FF (feminine-typed females). Two measures of intellectual competence, political awareness (a listing of U.S. senators) and the Unusual Uses Test (a test of divergent creativity), were used with the result that AM performed more poorly on these measures than either the FM or MM groups. The results for female subjects were much more in line with predictions. Both AF and MF scored higher on the political awareness measure than did the FF group while not differing from one another. The AF group scored higher on creativity than FF and showed a similar trend relative to MF ($p < .10$). The contradictory sets of results for males and females are difficult to interpret.

Jones et al also used a series of measures of sexual maturity and heterosexuality (based on retrospective self-report data) and found that AF reported more intimate heterosexual involvement and fewer feelings of inhibition than FF. They also were less sensitive to criticism, less shy, less awkward and less easily embarrassed than FF. MF reported themselves as being more popular with the opposite sex than AF and also more awkward (?). In general, MF were more precocious in their heterosexual relationships than either AF or FF (e.g. having boyfriends before age 16, having sexual intercourse before age 18). The data for females thus revealed a strong tendency for more active adolescent sexual and related behaviour being associated with less traditional sex role orientations. For males, the only significant difference was the greater sensitivity to criticism of FM compared to both AM and MM. Sex type was not an important factor in the sexual maturity of males.

A number of other variables (helplessness, ideal sex role identification, luck vs. skill preference in a game) were also examined. Jones et al conclude that, in general, masculine-typed subjects, whether male or female, are more adaptive, competent and flexible than androgynous and sex typed individuals. MM and FF were generally the least secure and competent. However, this conclusion should be tempered by the knowledge that the androgynous group also

contained low-low scorers as well as high-high scorers, and that some of the measures used may have somewhat doubtful validity. For example, is the listing of U.S. senators an adequate test of political awareness? Is sexual intercourse before the age of 18 an indication of sexual maturity in its fullest sense? Is a high score on extraversion related to optimal psychological health?

This study was examined in detail because of the challenge it appears to present to Bem's premise that androgynous individuals would be the most adaptive over a large and varying number of situations. Although in only two situations, creativity and political awareness in male subjects, did androgynous subjects score more poorly than sex-typed or sex-reversed subjects, masculine-typed (both male and female) generally showed the most competent and flexible responses. Whether these results are primarily a consequence of the measures (self-report inventories) and classification system used in the study, or an accurate indication of the relatively high level psychological functioning of masculine-typed subjects compared to other sex role orientations is a question that can be answered only by further research.

Babbladelis (1978) also examined a number of personality measures relative to BSRI scores and, contrary to Jones et al (1977), concluded that androgynous individuals are indeed more flexible than masculine-or feminine-typed persons in a range of interpersonal situations (but not in creative

thinking tasks). Babladelis used the Carlson-Levy Social-Personal Orientation Scale (a measure of whether one is socially or personally oriented), the Life Interpersonal History Enquiry (a retrospective account of relationships with parents before the age of six), the Coping Operations Preference Enquiry (preference for certain defense mechanisms), the Remote Associates Test (creative thinking) and two of the FIRO scales (measures of interpersonal behaviour). Sex role classifications yielded nearly twice as many significant differences as gender. On the Carlson-Levy Scale, masculine and androgynous subjects chose social orientations. There were non-significant differences for gender on this measure. On the FIRO-B scales, masculine subjects scored significantly higher than the other sex role groups on interpersonal control and feminine subjects expressed more affection and and wanted more control and affection from others than did either masculine or androgynous persons. Significant differences were generally between masculine and feminine subjects, with androgynous subjects achieving middle scores on the measures, leaning equally frequently toward feminine and masculine choices. Babladelis states that the expectation that androgynous individuals are more flexible than sex-typed persons in their interpersonal interactions and personal orientations is confirmed in her study and acknowledges the utility of the BSRI in predicting behaviour in these areas.

A comparison of the influence strategies of male and female subjects classified on the BSRI found that sex role was a more important variable than gender (Falbo, 1977). Feminine-typed subjects were more likely to report using tears, subtlety and emotional alteration and less likely to use assertion. Masculine-typed subjects reported using fewer strategies than androgynous or feminine subjects. One significant sex difference did emerge, with females more apt to use reasoning than males. A second phase of the experiment involving evaluation of participants' behaviour in a leaderless group discussion again produced differences attributable to sex role rather than gender. (These groups were composed of 5 same sex members.) Masculine subjects were rated more positively than feminine subjects, not too surprising considering the goal-oriented nature of the discussion topic - "What I plan to get out of college". As hypothesized, sex-typed and androgynous subjects scored higher on need for approval than feminine males or masculine females. A conformity manipulation (funniness of cartoons) failed to yield any significant findings, in contrast to Bem's (1975) study. There were, however, some methodological differences between the two. The phenomenon of differing results for male and female subjects classified by BSRI scores is a widespread one (Jones et al, 1978; Orlofsky, 1977; Bem et al, 1976; Bem, 1975). One explanation may be

that females, and particularly feminine females, are "silently" expressive. Although the feelings are there, a lack of instrumentality prevents these inclinations from being translated into overt behaviour. For example, feminine-typed females may want to interact with a kitten or a baby but are unable to convert these feelings into action. Feminine-typed males may possess a larger masculinity component than feminine-typed females and therefore be more capable of instrumental behaviour. Certainly socialization forces would bear more strongly on males taking the initiative than females. Even in the area of sex roles, there would appear to be sex differences within classifications.

Wiggins & Holzmueller (1978) present interesting data on trait-descriptive adjectives discriminating androgynous males from androgynous females. The androgynous female describes herself as bossy, over-talkative, gullible, aggressive and vivacious. The androgynous male presents himself as quiet, shy, calm and passive. On the item "aggressive", the mean response for androgynous females was 6.54 (on a 9-point Likert scale) while androgynous males scored a mean of 4.82. As the authors state, "...males and females achieved androgyny by different routes. Although both androgynous groups clearly differed from stereotyped groups of the same gender, they also differed from each other in ways that both support and contradict sex role stereotypes". (p. 46). For example,

masculine males described themselves as dominant and cold while androgynous males used such terms as warm and submissive. In contrast to feminine females who saw themselves as meek and submissive, androgynous females presented themselves as dominant and extraverted. Androgyny was indeed approached from two different directions. The general trend is for androgynous females to be more outgoing and extraverted while androgynous males tend to be more introverted.

The upper and lower 25% of the androgynous groups for males and females were also examined. Once again, there was a sex difference. At a criterion of $p < .000029$, a value derived by dividing the usual level of confidence, $p = .05$, by 1,710, the number of adjectives used in the self ratings, there were 20 items that discriminated between low-low and high-high androgynous females. A less stringent criterion of $p < .001$ produced 13 adjectives that so discriminated with males. There were no shared adjectives with the male and female groups, although as would be expected, high-high scorers in both groups attributed highly positive characteristics to themselves (e.g. heroic, assertive, polished, thoughtful) while low-low scorers saw themselves in negative terms (e.g. compassionless, spineless, peevish, unpleasable). These data suggest that the high-high androgynous subjects have higher self-esteem than the low-low scorers, particularly since the high-highs describe them-

selves as more certain and less self-doubting or unassured than low-lows. These differences are especially interesting since, according to the authors, the high-high and low-low scorers differed only slightly from each other in their masculinity and femininity scores.

Wiggins & Holzmuller's findings suggest that although total androgyny scores may be similar for both males and females, they may represent quite different personality types. At this date, no detailed data on the BSRI has appeared in the literature which examines possible differences on specific BSRI items between male and female subjects, not only for androgynes but also for masculine- and feminine-typed individuals. The possibility that such differences could exist can be inferred from studies reporting the mean androgyny scores on the BSRI of the different sex role groups for males and females. For example, in one sample of university undergraduates (Falbo, 1977), the mean androgyny score of masculine-typed males was -4.18 compared to -2.07 for masculine-typed females. Feminine-typed males scored +1.94 while feminine-typed females scored +3.41. The differences between male and female androgynous subjects were much smaller, with scores of -.18 and +.14 respectively.

In recent studies using female subjects only, evidence has been found positively relating androgyny and low fear of success (Gayton, Havu, Barnes, Ozman & Bassett, 1978),

feminism (Baucom & Sanders, 1978), and self-esteem (Schiff & Koopman, 1978). Androgynous and masculine-typed females have tended not to differ from one another in these studies, but both groups score in more adaptable directions than undifferentiated and feminine-typed females.

Name _____ Sex _____

Student No. _____ Section _____

Inventory

On the following page, you will be shown a large number of personality characteristics. We would like you to use those characteristics in order to describe yourself. That is, we 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.

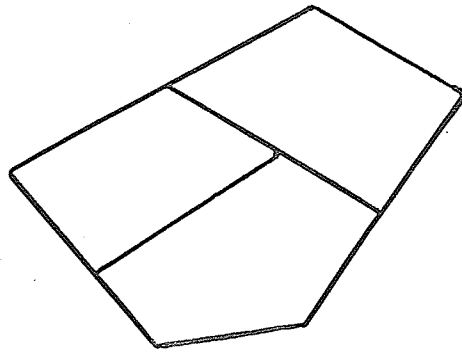
Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

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:

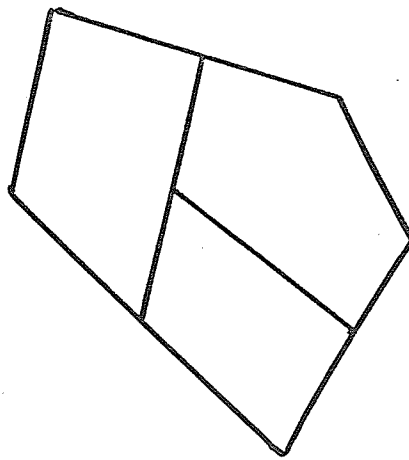
sly	3	irresponsible	7
malicious	1	carefree	5

Describe yourself

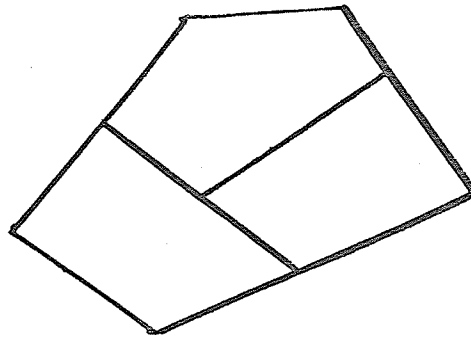
1	2	3	4	5	6	7
Never or almost never true	Usually not true	Sometimes but infrequently true	Occasionally true	Often true	Usually true	Always or almost always true
Self reliant		Reliable		Warm		
Yielding		Analytic		Solemn		
Helpful		Sympathetic		Willing to take a stand		
Defends own beliefs		Jealous		Tender		
Cheerful		Has leadership abilities		Friendly		
Moody		Sensitive to the needs of others		Aggressive		
Independent		Truthful		Gullible		
Shy		Willing to take risks		Inefficient		
Conscientious		Understanding		Acts as a leader		
Athletic		Secretive		Childlike		
Affectionate		Makes decisions easily		Adaptable		
Theatrical		Compassionate		Individualistic		
Assertive		Sincere		Does not use harsh language		
Flatterable		Self-sufficient		Unsystematic		
Happy		Eager to soothe hurt feelings		Competitive		
Strong personality		Conceited		Loves children		
Loyal		Dominant		Tactful		
Unpredictable		Soft-spoken		Ambitious		
Forceful		Likable		Gentle		
Feminine		Masculine		Conventional		



C



B



A

6.

EXPERIMENT MODCOMP

Name _____

Student # _____

PART 1

1. _____

6. _____

2. _____

7. _____

3. _____

8. _____

4. _____

9. _____

5. _____

10. _____

PART 2

1. _____

5. _____

2. _____

6. _____

3. _____

7. _____

4. _____

8. _____

Name _____

PART 3

- | | |
|-----------|-----------|
| 1. _____ | 19. _____ |
| 2. _____ | 20. _____ |
| 3. _____ | 21. _____ |
| 4. _____ | 22. _____ |
| 5. _____ | 23. _____ |
| 6. _____ | 24. _____ |
| 7. _____ | 25. _____ |
| 8. _____ | 26. _____ |
| 9. _____ | 27. _____ |
| 10. _____ | 28. _____ |
| 11. _____ | 29. _____ |
| 12. _____ | 30. _____ |
| 13. _____ | 31. _____ |
| 14. _____ | 32. _____ |
| 15. _____ | 33. _____ |
| 16. _____ | 34. _____ |
| 17. _____ | 35. _____ |
| 18. _____ | 36. _____ |

78.

Name _____

1. The purpose of this experiment was _____

2. Rate the performance of the two people you have just
seen according to the following scale:

- 1) very poor
- 2) poor
- 3) fair to poor
- 4) fair
- 5) good
- 6) very good
- 7) excellent

Put the number best reflecting their performance in the
blank. Male _____ Female _____

Describe the _____

1	2	3	4	5	6	7
er or t never true	Usually not true	Sometimes but infrequently true	Occasionally true	Often true	Usually true	Always or almost always true
Self-reliant		Analytic		Warm		
Yielding		Has leadership abilities		Willing to take a stand		
Competent		Sensitive to the needs of others		Tender		
Defends own beliefs		Understanding		Aggressive		
Cheerful		Makes decisions easily		Gullible		
Capable		Compassionate		Does not use harsh language		
Independent		Self-sufficient		Competitive		
Shy		Dominant		Gentle		
Affectionate		Soft-spoken		Assertive		
Flatterable		Masculine		Strong Personality		
Forceful		Feminine				

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