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ACCURACY OF PERSON PERCEPTION AS A FUNCTION OF SEX ROLE ORIENTATION

By

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ABSTRACT

ACCURACY OF PERSON PERCEPTION AS A
FUNCTION OF SEX ROLE ORIENTATION

By

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This study investigated whether androgynous persons are more accurate person perceivers than those of a masculine, feminine, or undifferentiated sex role orientation. Undergraduates of these four sex role orientation groups as measured by the short form of the Bem Sex Role Inventory (s-BSRI; Bem, 1981) interacted in a play encounter with a child and in various psycho-dramas with another undergraduate.

Comparisons between the child's ratings of the undergraduates' behavior in the play encounter and the undergraduates' inferences of the child's perceptions indicated that androgynous persons were more accurate than persons of other sex role orientations. Comparisons between undergraduate's ratings of their partners on the masculinity, femininity and neutral scales from the s-BSRI and their partners actual ratings indicated than androgynous persons were not more accurate than masculine and feminine persons. Undifferentiated persons were the least accurate. The nature of the perceptual rating variable is an important component when assessing accuracy.

To Roger, for his patience, support
and always available ear.

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INTRODUCTION

In the past it was assumed that gender-linked behavior was best understood from the perspective of a linear model, wherein sex determined sex role which, in turn, affected personality. Thus, femininity-masculinity was viewed as a bipolar dimension; a conceptualization that emphasized differences between the sexes rather than similarities (Kaplan & Bean, 1976). This unidimensional characterization of masculinity and femininity implicitly assumed that one person could not incorporate characteristics of both masculinity and femininity.

In the 1970's this unidimensional, bipolar view of sex roles began to be questioned (Bem, 1974; Constantinople, 1973; Spence, Helmreich, & Stapp, 1975). Investigators concluded that individuals can and do possess both masculine and feminine characteristics. The research following these conclusions has attempted to discover how persons differ along the dimensions of masculinity and femininity and to identify the implications of this reconceptualization of sex role orientation (SRO) for understanding complex human functioning.

Among the implications which follow from such a reconceptualization is the idea that there are differences in the cognitive and interpersonal behavior of those with different SROs. For example, how a person perceives another, and how he or she behaves with that other may be affected by this individual's own, as well as the other's SRO.

The present study was conducted within the framework of a larger investigation which examined differences in cognitions, perceptions, and behaviors of undergraduates of varying SROs, who engaged in interactions with a child and another undergraduate. Specifically, the present study was designed to examine whether differences in the SROs of subjects are associated with differences in the degree of accuracy with which they perceive their interpersonal encounters. It was expected that androgynous persons would be more accurate person perceivers than those of other SROs. Subjects were classified as one of four SRO types: androgynous persons, who perceive themselves as having a high degree of positive, socially desirable masculine and femine characteristics; masculine persons, who perceive themselves as having a high degree of positive masculine characteristics and a low degree of positive feminine characteristics; feminine persons, who perceive themselves as possessing a high degree of positive feminine characteristics and a low degree of positive masculine characteristics; and undifferentiated persons, who perceive themselves as low on both sets of characteristics.

Person Perception

Perceptions and the Interpersonal Process

The importance of understanding perceptions in the interpersonal process must be underscored. As Sullivan (1953) argues, the act of perceiving is interpolated between outside reality and our cognitions. Kelly (1955) states that what a person perceives is the base from which the person acts. When persons differ in the way they construe or perceive an event, their subsequent behavior often differs. Kelly

states, "If we can predict accurately what others will do, we can adjust ourselves to their behavior" (p. 96). Snyder's (1974) concept of self-monitoring reflects this construing process. Self-monitoring involves the ability to monitor or control one's self-presentation and change one's self-presentation in differing circumstances. Thus, self-monitoring is the ability to "read" a situation and judge what would be the appropriate behavior. Thus, the ability to act appropriately in a situation is related to the accuracy of a person's perceptions. Indeed, Leary (1957) and Sullivan (1953) argue that psychopathology may be the result of a large discrepancy between a person's perceptions and consensually agreed upon reality. A greater understanding of those characteristics associated with greater accuracy and fit of perceptions and reality has ramifications for interpersonal behavior. More accurate and less biased perceptions may be associated with better adjusted and congruent interpersonal behavior (Messé, Stollak, Larson, & Michaels, 1979).

Person Perception and Perceptual Accuracy

Many variables have been found to affect the processes of person perception, including degree of accuracy. For example, group membership (Dennis, 1951; Tagiuri, 1969), past experience (Dennis, 1951; Kelly, 1955), a person's construction of the world and the variables they deem important (Bruner, 1951; Dennis, 1951; Dornbusch, Hastorf, Richardson, Muzzy, & Vreeland, 1965; Kelly, 1955; Sullivan, 1953), stereotypes of others (Snyder, Tanke, & Berschild, 1977), the external environmental cues (Bruner, 1951), and the degree of consistency in the characteristics of others (Asch, 1946; Tagiuri, 1969) have all

been found to influence perceptual processes. The judgment of accuracy of perceptions is a very complex process which must take into account the variables mentioned above as well as measurement artifacts to be discussed below.

Past research on perceptual accuracy has often used the concept of empathy (e.g., Dymond, 1949). Empathy in this context refers to the heightened ability to infer characteristics of the other and, thus, accurately predict how the other will act (Bucheimer, 1963). The usual paradigm for examining empathic ability consisted of comparing A's inferences of B with B's self-judgment, and using the absolute difference in these measures as the indication of empathic ability. The lower the difference score, the more empathic or accurate the perceiver was judged to be (Bronfenbrenner, Harding, & Gallwey, 1959; Cline, 1964; Cronbach, 1955; Hastorf & Bender, 1952).

However, Gage and Cronbach (1955) argue that this previous index could yield inflated estimates of accuracy and they developed three components of accuracy scores to better assess the construct of accuracy. They describe these components using the following paradigm: A rates self, B rates self, and A predicts how B rated self. These aspects are "real similarity" which is the actual agreement of A's and B's self-ratings, "assumed similarity", which is the agreement between A's self-rating and A's prediction of B, and "accuracy" which is the agreement of B's self-rating and A's prediction (the only measure used in previous research, generally). They note that when there is high real similarity between persons and the judges assumes similarity between him or herself and the other, the result is "accuracy". However, had the real similarity been low, the judge's assumption of

similarity would not have led to "accuracy". In these cases, "accuracy" was the function of assumed similarity and real similarity not of the ability to predict the other's responses "accurately". Therefore, the use of the discrepancy score between B's self-rating and A's prediction was not necessarily only a measure of accuracy but, could be reflecting the processes just described. Any discussion of accuracy must take these artifacts into consideration.

As noted above, many variables affect the perceptual process (e.g., group membership, stereotypes of others), however, one variable which has received little investigation in relation to the perceptual process and the judgment of accuracy, is SRO. Ickes (1981) hypothesized that androgynous persons are likely to be more accurate person perceivers, since they are more behaviorally flexible than are persons with other SROs. He speculated that this greater adaptability could be the result of more accurate perceptions. The present research was designed to investigate this hypothesis in an attempt to achieve greater understanding of characteristics associated with perceptual accuracy.

SRO Research

The Measurement of SRO

A person's SRO is generally defined from scores derived from the Bem Sex Role Inventory (BSRI; Bem, 1974), its revised short form, the s-BSRI (Bem, 1981), and the Personal Attributes Questionnaire (PAQ; Spence et al., 1975), and its expanded version of the Extended PAQ (EPAQ; Spence, Helmreich, & Holahan, 1979). Subjects are categorized as androgynous, masculine, feminine, and undifferentiated on the

basis of their masculine (M) and feminine (F) scores obtained from these instruments. There currently is a debate in the SRO literature regarding the applicability or usefulness of the construct of SRO (Constantinople, 1973; Lubinski, Tellegen, & Butcher, 1983; Locksley & Colten, 1977; Pedhazur & Tetenbaum, 1979; Tellegen & Lubinski, 1983; Jackson, Hunter, Stollak, & Ialongo; Note 1). There does, however, appear to be rather widespread agreement that these scales are measuring the characteristics of instrumentality and expressivity (e.g., Lubinski et al., 1983; Spence, 1983) which are generally associated with masculinity and femininity, respectively. At the very least, then, these scales may be viewed as measuring one aspect of personality which is generally associated with masculinity and femininity at this point in our culture.

SRO and Behavioral Flexibility

One of Bem's (1974) original assertions regarding androgyny was that androgynous persons would be more behaviorally flexible. Depending on the requirements of the situation they could act in a masculine/instrumental fashion or a feminine/expressive fashion, as both characteristics are consonant with their view of themselves. However, sex-typed persons, due to their sex-typed view of themselves would not be able to readily express behaviors that were inconsistent with their SRO. Thus, masculine persons would not behave expressively, nor would feminine persons behave instrumentally.

In a series of studies begun initially by Bem and her colleagues, researchers have attempted to examine this behavioral flexibility hypothesis. A summary of these studies appears in Table 1, which

TABLE 1

Behavioral Flexibility Studies

Study	Instrument	SRO Groups	Dependent Variables	Summary of Results
Bem, 1975	BSRI	AN[a] MS[b] FM[c]	Pressure to Conform (Behavioral)	MS & AN < FM t=3.27, p < .01
			Nurturance with Kitten (Behavioral)	Males: FM & AN > MS t=3.39, p < .002
				Females: AN > FM t=2.08, p < .05
Bem, Martyna, & Watson, 1976	BSRI	AN MS FM[d] UN[d]	Nurturance with Baby (Behavioral)	FM & AN > MS $t(68)$ = 2.12, p < .05
			Supportive Listening (Behavioral)	FM & AN > MS $t(78)$ = 3.37, p < .002
Bem & Lenney, 1976	BSRI	AN MS FM	Activity Preference (Self-Report)	AN & sex-reversed < sex-typed $t(141)$ = 3.43, p < .001
			Post-Activity Reactions (Behavioral)	AN & sex-reversed < sex-typed $t(141)$ = 3.87, p < .001
Orlofsky & Windel, 1978	BSRI	AN MS FM UN	Affect Cognition (Behavioral)	Males: AN & FM > UN p < .05
			Instrumentality (Self-Report)	MS & AN > FM & UN p < .05

TABLE 1 (cont.)

Study	Instrument	SRO Groups	Dependent Variables	Summary of Results
Heilbrun & Pitman, 1979	Adjective Checklist M & F Scales	AN MS FM	Sex-Role Consistency (Self-Report)	Males: Relation of AN & Flexibility $r(20) = .72$, $p < .01$
			Laboratory Measures of Flexibility (Behavioral)	Females: Relation of AN & Flexibility $r(20) = .43$, $p < .05$
Helmreich, Spence, & Holahan, 1979	PAQ	AN MS FM UN	Comfort Rating (Self-Report)	AN > other SRO's $p < .001$
			Preference Rating (Self-Report)	Males: MS & FM > AN & UN $p < .01$
			Embarrassment Rating (Behavioral)	ns

[a]AN = Androgynous

[b]MS = Masculine

[c]FM = Feminine

[d]UN = Undifferentiated

includes the major results associated with SRO. Sex differences are included where differences in SRO are associated differentially with the two sexes. In addition, only those dependent variables relevant to a discussion of behavioral flexibility are included.

As a result of Bem's assertions regarding behavioral flexibility, flexibility was generally defined as the ability to meet the situational requirements, be they masculine or feminine. The laboratory measure of flexibility used by Heilbrun and Pitman (1979) was flawed in this regard. Their laboratory conditions appeared to require masculine behavior (independence, self-enhancement, and competitiveness), not flexibility, which they defined as the ability to act in a masculine and feminine manner. Thus, flexibility was not necessarily an indication of an ability to meet the requirements of the situation and so their results should not be interpreted as supporting Bem's hypothesis.

Overall, however, an inspection of Table 1 indicates that the studies which assessed instrumental/expressive behaviors and which used behavioral situations appeared to support the hypothesis of greater behavioral flexibility for androgynous persons as compared to persons of other SROs. The data generally indicated that androgynous persons are more capable of responding in an instrumental or expressive fashion than persons of other SROs, depending on the requirements of the situation. The data presented in Table 1 also indicated that differences in males and females often were found even with SRO taken into account. Therefore, it would seem desirable to continue to assess sex differences in addition to the variable of SRO.

Behavioral Flexibility and Person Perception

At this point an important question must be raised: Why are androgynous persons more capable of behavioral flexibility? Bem and Lenney (1976) argue, in part, that sex-typed persons are motivated to avoid cross sex behavior. Helmreich et al., (1979) however, presented evidence to refute this hypothesis. They found that androgynous and masculine persons evidenced higher levels of comfort across three task situations (masculine, feminine, neutral) which led them to conclude that it is high levels of instrumentality and self-esteem which determine level of comfort, rather than motivational differences, as Bem and Lenney argue. Ickes (1981) as stated earlier, suggests a different hypothesis, that the difference in flexibility may be related to the greater person perception and social cognition skills of androgynous persons. Androgynous persons may be more accurate person perceivers than those of other SROs, and as a result can adapt their behavior accordingly. They accurately perceive whether a situation requires masculine or feminine behavior and then act in such a manner so as to meet these situational requirements.

This hypothesis regarding person perception has received little direct investigation. For example, Falbo (1975) did not study androgyny, per se. However, she found that those person who were less conforming to sex role stereotypes were more likely to rely on person related information to guide their behavior. This pattern may be related to perceptual accuracy and subsequent greater flexibility of androgynous persons. Non-sex-typed persons used perceptual information to guide their behavior.

In two studies, Heilbrun (1981) examined the social cognitive skills and personal defensiveness, respectively, of persons of different SROs in an attempt to determine the reasons behind differences in behavioral flexibility. In the first study, he combined two scores which were indicative of intraception and social insight to form a social cognition score. The data indicated the following pattern for males, androgynous males received the highest social cognition scores, masculine males received the next highest cognition scores, whereas feminine and undifferentiated males received the lowest scores. In contrast, female's SRO was not related to social cognition. Thus, this data indicates partial support (male data) for androgynous persons hypothesized greater social cognitive scores in comparison to persons of other SROs.

In the second study, using the same subject population, Heilbrun found that androgynous females were more defensive than other females, whereas androgynous males were the least defensive of the males. Defensiveness was defined as the inclination to repress, project, or rationalize information which would be distressing to a person or threatening to her or his self-esteem. Heilbrun argued that defensiveness served as a moderator variable between social cognition and behavioral flexibility. He argued further, that cross sex behavior is generally disapproved of in our society, particularly for males. Thus, androgynous males who have a low level of defensiveness are unable to overcome social barriers and perform cross sex behavior, even though their superior social cognitive skills suggest that they may be capable of performing cross sex behavior. Androgynous males may perceive the situation accurately and may recognize the needed behavior, but if this behavior is viewed as feminine, they are unable to perform such behavior as the

social disapproval which would result would be a threat to their self-esteem. Androgynous females, on the other hand, are able to protect themselves from social disapproval due to their high level of defensiveness and can, therefore, perform cross sex behavior. This data does not provide clear support for viewing behavioral flexibility of androgynous persons as a function of superior social cognitive skills.

Additionally, this study raised an important point. Androgyny may have differential implications for males and females. As Baumrind (1982) argues, masculine behaviors are generally viewed as more favorable in our society and, thus, it becomes relatively easier for women to behave in an instrumental fashion than for men to behave in a more feminine expressive manner. There is less stigma associated with the former. Results regarding androgynous persons should also examine the differences between androgynous males and females.

A study by Harackiewicz and DePaulo (1982) did attempt to assess differences in accuracy of person perception in relation to SRO. They assessed person accuracy, situation accuracy, and person X situation accuracy. They concluded that females, particularly feminine females were better at person predictions, while males (androgynous and masculine) were better at situation predictions. There were no significant results with respect to person X situation accuracy. However, some caution regarding these results appears warranted. Harackiewicz and DePaulo's assessment of accuracy appears to be problematic. They did not compare a judge's ratings of a person with the person's self-rating, rather they compared a judge's ratings of a stimulus person in a written scenario with the composite score of all those persons who were in the same SRO as the stimulus person. Thus, the stimulus person's profile and the scores

used as indicative of their behavior may not have been an accurate match. Additionally, there were no actual behavioral interactions.

The little research conducted in the area has neglected actual interaction and its resultant effect on accuracy of perception. Gage and Cronbach (1955) state that "social perception as measured is a process dominated far more by what the Judge brings to it than by what he takes in during it" (p. 420). When reading a brief statement about another, judges have relatively little information on which to base their judgment and may, as a result, rely more heavily on their own assumptions regarding persons than when they have more information at their disposal. An actual interaction would be likely to furnish this additional relevant information. The present study attempted to remedy the potential flaw of past work by having undergraduates actually interact with each other and a child and then rate these individuals and themselves on various instruments designed to assess their perceptual accuracy.

Conclusions

While there is a debate with regard to the construct of SRO as measured by such instruments as the BSRI and the PAQ, both of these instruments have been useful in examining the instrumental and expressive behavior generally associated with masculinity and femininity in our present-day society. A major area of investigation with regard to SRO as measured by these instruments has been behavioral flexibility. While the literature is rather inconsistent in its findings, those studies that employed actual behavioral situations and measured instrumental/expressive behavior have tended to support the hypothesis that androgynous persons are more flexible; that is, they can respond in an

instrumental or expressive fashion, depending on the requirements of the situation. Ickes' (1981) hypothesis regarding androgynous persons greater social cognition skills has received little investigation and it is to this end that this study was conducted.

Hypotheses

This study was designed to investigate the accuracy of person perception in relation to SRO. An interaction between two undergraduates and a child served as the basis for examining perceptual accuracy. Following the interaction, undergraduates predicted how the child would respond to an instrument assessing the undergraduate's behavior during the interaction with the child. In addition, undergraduates rated their partners on several items from a s-BSRI and their responses were compared to their partner's actual ratings. Specifically, this study was designed to examine the following hypotheses:

1) Undergraduate's inferences of children's perceptions of the undergraduates and the children's perceptions of the undergraduates will differ as a function of the undergraduate's SRO. Persons with an androgynous SRO will be more accurate person perceivers as compared to persons of other SROs.

2) Undergraduates' perceptions of their partner's responses will differ as a function of the perceiver's SRO. Persons with an androgynous SRO will be more accurate at assessing their partner's responses than will persons with other SROs.

METHODS

Overview

The first part of this study consisted of children and undergraduates interacting in a play encounter for one-half hour. Following this period each child was interviewed about her or his perceptions of the two undergraduates with whom he or she interacted. The pairs of undergraduates then interacted for another one-half hour in various hypothetical "marital" psycho-dramas to assess how persons of varying SROs interact with one another. Following this period, each undergraduate filled out several questionnaires, among which were those relevant to the present study. One instrument measured his/her perceptions of the child, and his/her behavior with the child, as well as his/her inferences of the child's perceptions. Another questionnaire assessed his/her perceptions of his/her adult partner.

Subjects

Children

First grade children from the East Lansing public schools were recruited to participate in this study. A letter (see Appendix A) was sent to parents describing the study. The letter was accompanied by a postcard which the parents returned to Michigan State University if they were interested in having their child participate. A follow-up phone call was made to answer any further questions parents might have had about the research. A total of 24 children were recruited in this manner, 10 females and 14 males.

Undergraduate Subjects

Students in Introductory to Psychology courses were recruited to serve as subjects. Following a brief discussion of the study, 1780 interested students filled out the s-BSRI (see Appendix B). From this subject pool, 96 subjects (one-half males and one-half females), who both best represented the various SROs and were available for the actual interaction, participated in the play encounter and "marital" psycho-dramas.

Measures

Short Form of the Bem Sex Role Inventory (s-BSRI)

The s-BSRI (Bem, 1981) was used to identify the subject's SROs. This instrument was chosen because of its wide use in the literature examining SRO, particularly with regard to behavioral flexibility. Earlier concerns with regard to the factor structure of the BSRI (e.g. Gadreau, 1977; Pedhazur & Tetenbaum, 1979) concerning the number of factors present and the use of the items labeled masculine and feminine led to its revision. Factor analyses of the s-BSRI have shown it to have a better factor structure with instrumentality, expressivity, and social desirability or neutral scales (Lubinski et al., 1983; Jackson et al., Note 1). This questionnaire was scored on a five-point Likert scale and was coded 1-5.

Perception of Adult Playmate Inventory (PAPI)

To obtain children's perceptions of the undergraduates and the undergraduates' inferences about their own behavior, as well as their view of their own behavior and finally, their view of the child, a shortened version of the PAPI was used for all subjects (see Appendices C & D for

children and undergraduates, respectively). The PAPI was developed by Gerald Michaels specifically for use in obtaining young children's perceptions of adults. A study by Michaels, Messé, & Stollak (Note 3) examined 7-year old children's perceptions of undergraduates and a subsequent factor analysis revealed five factors, (a) adult competence, (b) adult sociability, (c) adult child centeredness, (d) adult altruism, and (e) adult permissiveness. These factors are very similar to other characteristics or factors which have been found to be relevant and salient for children in regard to their perceptions of others, for example, sociability, affiliative tendencies and potentially hostile acts (Yarrow & Campbell, 1963) and loving, punishing and demanding (Siegelman, 1965). The PAPI was shortened for this study as the original was considered to be too long for the children in the present research.

The revised PAPI consists of bipolar responses arranged such that a person chose one response and then qualified the degree to which it applied. The items were arranged so that sometimes a positive response occurred first and sometimes a negative one. Each item was coded 1-4, with a higher score indicative of a more positive response.

Post Session Questionnaire (PSQ)

This questionnaire was developed for the larger study to obtain undergraduates' perceptions of their partners along a variety of dimensions. For this study, 23 items from the s-BSRI (8 from the M scale, 7 from the F scale, and 8 from the NE scale) were used (see Appendix E). The items were reduced to one word descriptors of a bipolar nature and persons were rated on a 7-point Likert scale. Responses were coded 1-7 in the same directions as the s-BSRI was coded.

Design

Each child interacted with a pair of undergraduates, first alone with each one and then with both, together. The following seven groups of SRO pairs were included in this study:[1] (a) androgynous male with androgynous female, (b) masculine male with feminine female, (c) androgynous male with feminine female, (d) androgynous male with masculine female, (e) undifferentiated male with undifferentiated female, (f) masculine male with androgynous female, and (g) masculine male with masculine female. The children were randomly assigned to undergraduate pairs, with some children participating with more than one pair of undergraduates over the course of the study.

Procedure

After obtaining parental permission for the child's participation in the study, he or she was transported from home to the research site by an experimenter. If the parents agreed, the child was also paid $1 for participation in the study. Also, if the parents so wished, they could accompany the child to the university.

Once at the research site, the child was introduced to one of the pair of undergraduates with whom he or she would interact. The child and first undergraduate played together for five minutes. Following this five-minute segment, the child played alone with the second undergraduate. After the second five minutes had elapsed, both of the undergraduates and the child were instructed to "imagine they were a family and to play together" for 10 minutes. After this 10 minutes had expired, the trio was asked to continue to imagine they were a family and to "draw a picture of a family doing something."

After the drawing session the child was taken to another room to be interviewed while the undergraduate continued to interact in six "marital" psycho-dramas. In this phase of the encounter the undergraduates were instructed to pretend that they were married and enact six different scenes depicting typical marital problems. Upon completion of these tasks the undergraduates filled out various questionnaires. They received either $5 or research participation credit. The playroom encounter lasted approximately one-half hour and the psycho-dramas were of approximately the same duraction.

The questionnaires answered by the children were read to them by an experimenter. They were administered in a counter-balanced manner. Upon completion of her or his participation, the child was taken home.

Statistical Analyses

A confirmatory factor analysis using communalities in the diagonals was performed on the PAPI to assess whether the factors that were present in the Michaels et al., (Note 3) study were also present in this study. To assess unidimensionality, clusters were examined for internal consistency and external parallelism. The resultant PAPI score served to form the dependent variable for hypothesis 1; the comparison of the undergraduates' inferences and children's perceptions as a function of SRO.

The three summary scores from the s-BSRI and the PSQ (M, F, NE) were used to form the dependent variables for hypothesis 2. Three accuracy or discrepancy scores were formed, with a lower discrepancy score indicating greater accuracy. These three discrepancy scores were formed by taking the absolute difference between the undergraduates' ratings of their partners on the M, F, and NE scales, and their partner's

actual responses on each of the respective scales.

For both hypotheses stepwise multiple regression analysis was performed to determine the best model for predicting perceptual accuracy. In addition, analysis of variance (ANOVA) was utilized to expand on the findings from the regression analysis.[2]

Several independent variables were considered to be important in the regression analyses. These were sex (e.g. Heilbrun, 1981), M, F, and NE scores, the M X F interaction which served as an index of androgyny (Lubinski et al., 1983), and assumed similarity (AS) (Gage and Cronbach, 1955). Assumed similarity consists of the degree to which a person assumed the other is like him or herself and is assessed by comparing a person's actual responses with their predictions regarding the other. For hypothesis 1, AS consisted of the absolute difference between the undergraduates' self-perceptions and their inferences regarding the children's perceptions. For hypothesis 2, AS scores were formed for each dependent variable by taking the absolute difference between the undergraduates' self-ratings and their ratings of their partners. In addition, real similarity (RS) (Gage and Cronbach, 1955), which is the degree to which two people are actually similar, was included for hypothesis 2. Real similarity was assessed by taking the absolute difference between each pair of undergraduates' actual self-ratings. Three RS scores were formed one for each of the three dependent variables, based on the M, F, and NE scales.

RESULTS

Hypothesis 1

Confirmatory Factor Analysis of the PAPI

The correlation matrix for all 15 items was quite flat (within sampling error) which is indicative of internal consistency and therefore, unidimensionality. Additional examination of various cluster structures as indicated by Michaels et al.'s (Note 3) factor analysis and examination of internal consistency and external parallelism also indicated that only one factor was present in this questionnaire. This factor was entitled Adult Sociability and the resultant factor score was used to form the dependent variable. The same pattern was evident in both the children's perceptions of the undergraduates and the undergraduates' inferences of the children's perceptions, lending further support to the robustness of this one factor. The means and SDs for both children and undergraduates are presented in Appendix F. The responses tend to be positively skewed.

Stepwise Multiple Regression Analysis

Stepwise multiple regression analysis was employed to examine the best model for predicting accuracy of undergraduates' predictions. Discrepancy scores, the absolute difference between the undergraduates' inferences and the children's perceptions served as the dependent variable. A lower discrepancy score was indicative of greater accuracy. Table 2 contains the relevant data. Only two variables contributed significantly to R^2, androgyny (M X F) which was entered on step one, R^2 change = .26, $p < .001$

TABLE 2

PAPI Discrepancy Scores:

Multiple Regression Analysis

Step	Variable Entered	F to Enter	Multiple R	R^2	R^2 Change	Simple R	Partial R	Overall F
1.	M X F	21.80**	.51	.26	.26	-.51	-.51	21.80**
2.	AS	8.07*	.59	.34	.09	-.35	-.34	16.16**
3.	NE	.91	.59	.35	.01	-.13	-.12	11.06**
4.	F	1.15	.60	.36	.01	-.42	-.14	8.61**
5.	Sex	.11	.60	.37	.00	.01	.04	6.81**
6.	M	.04	.61	.37	.00	-.29	-.03	5.59**

*$p < .01$

**$p < .001$

and AS, R^2 change = .09, $p < .01$. These two variables account for a large proportion of variance (R^2 = .34). To determine whether androgyny remained significant with AS controlled, the partial regression coefficient for androgyny was examined following the inclusion of AS and androgyny remained significant (B = .53, $p < .001$).

ANOVA

A three-way ANOVA was performed using a 2(sex) by 2(masculinity scores, low and high) by 2(femininity scores, low and high) design.[3] The results (see Table 3) indicate that the main effects for masculinity scores, $F(1, 65) = 7.30$, $p < .01$, and femininity scores $F(1, 65) = 17.34$ $p < .001$, were significant, as well as the interaction between sex and masculinity scores $F(1, 65) = 7.85$, $p < .01$.[4] Examination of the means (see Table 4), with a lower mean indicative of a lower discrepancy, indicated that those with high femininity scores ($\overline{M}$ = 7.33) were more accurate than those with low femininity scores ($\overline{M}$ = 12.07) and those with high masculinity scores ($\overline{M}$ = 8.35) were more accurate than those with low masculinity scores ($\overline{M}$ = 12.12). While the interaction between M and F scores was not significant, the regression analysis found this interaction to be significant and so post hoc comparisons were performed to examine this discrepancy. Androgynous persons were more accurate than masculine and feminine persons, $t(63) = 5.32$, $p < .001$, and in turn androgynous persons were more accurate than undifferentiated persons $t(32) = 2.40$, $p < .01$, while the latter group did not differ significantly from masculine and feminine persons $t(37) < 1$, ns.

TABLE 3

PAPI: ANOVA Results

Source of Variation	Sum of Squares	DF	Mean Square	F
Main Effects				
Sex	.41	1	.41	.02
M	158.59	1	158.59	7.30*
F	376.80	1	376.80	17.34**
Interactions				
Sex X M	170.54	1	170.54	7.85*
Sex X F	31.09	1	31.09	1.43
M X F	10.65	1	10.65	.49
Residual	1412.68	65	21.73	

*$p < .01$

**$p < .001$

TABLE 4

PAPI ANOVA: Means and Number of Subjects

	Sex		Masculinity Score		Femininity Score	
	Male	Female	Low	High	Low	High
M	9.10	9.41	12.12	8.35	12.07	7.33
n	(40)	(32)	(17)	(55)	(29)	(43)

		Masculinity		Femininity				Femininity	
		Low	High	Low	High			Low	High
Sex	Male					Masculinity Scores	Low		
	M	9.60	9.03	11.16	7.24		M	13.14	11.40
	n	(5)	(35)	(19)	(21)		n	(7)	(10)
	Female						High		
	M	13.17	7.15	13.80	7.41		M	11.73	6.09
	n	(12)	(20)	(10)	(22)		n	(22)	(33)

Hypothesis 2

Masculine Discrepancy Scores

Stepwise Multiple Analysis. All the variables except NE scores contributed significantly to R^2 (see Table 5). A large proportion of the variance in masculine discrepancy scores was accounted for by this model (R^2 = .76). While AS entered first, the other variables continued to contribute to the explanation of the variance. Examination of the directions of the partial correlations coefficients indicates that females are more accurate than males ($r_{y2.1}$ = -.37), and that higher feminity scores ($r_{y4.123}$ = -.31) and lower masculinity scores ($r_{y3.12}$ = .30) were also associated with accuracy. The partial correlation for the androgyny index ($r_{y6.12345}$ = .68) indicated that the relationship between androgyny and accuracy was opposite to that predicted; as androgyny increased so did residual inaccuracy.

ANOVA. The same three-way ANOVA as was used for hypothesis 1 was employed for all ANOVAs. The results (see Table 6) indicated that the main effects for sex $F(1, 84) = 15.72$, $p < .001$ and for M scores, $F(1, 84) = 10.07$, $p < .01$ were significant. In addition, the interaction between sex and M scores $F(1, 84) = 4.31$, $p < .05$, and between M and F scores, $F(1, 84) = 20.13$, $p < .001$ were significant. Examination of the means (see Table 7) indicated that females (M = 1.19) are more accurate than males (M = 1.74) and that those with high M scores (M = 1.35) are more accurate than those with low M scores (M = 1.71). Post hoc comparisons revealed that androgynous persons were more accurate than undifferentiated, $t(46) = -4.20$, $p < .001$, but androgynous persons were less accurate than masculine and feminine persons, $t(67) = 2.12$, $p < .05$.

TABLE 5

Masculine Discpreancy Scores: Multiple Regression Analysis

Step	Variable Entered	F to Enter	Multiple R	R^2	R^2 Change	Simple R	Partial R	Overall F
1.	AS	24.96**	.50	.25	.25	.50	.50	24.96**
2.	Sex	11.41**	.59	.35	.10	-.20	-.37	19.92**
3.	M	7.10*	.64	.41	.06	-.25	.30	16.74**
4.	F	7.80*	.68	.47	.06	-.19	-.31	15.68**
5.	RS	13.67**	.74	.55	.09	.37	.40	17.49**
6.	M X F	59.88**	.87	.76	.21	-.23	.68	36.64**
7.	N	1.33	.87	.76	.00	-.18	.14	31.74**

*$p < .01$

**$p < .001$

TABLE 6

Masculine Discrepancy Scores:

ANOVA Results

Source of Variation	Sum of Squares	DF	Mean Square	F
Main Effects				
Sex	10.12	1	10.12	15.72***
M	6.49	1	6.49	10.07**
F	2.38	1	2.38	3.69
Interactions				
Sex X M	2.78	1	2.78	4.31*
Sex X F	.67	1	.67	1.04
M X F	12.96	1	12.96	20.13***
Residual	54.83	84	.64	

*$p < .05$

**$p < .01$

***$p < .001$

TABLE 7.

Masculine Discrepancy Scores ANOVA:

Means and Number of Subjects

	Sex		Masculinity Score		Femininity Score	
	Male	Female	Low	High	Low	High
M	1.74	1.19	1.71	1.35	1.69	1.27
n	(45)	(46)	(29)	(62)	(42)	(49)

		Masculinity Scores		Femininity Scores				Femininity Scores	
		Low	High	Low	High			Low	High
	Male						Low		
	M	2.47	1.61	1.88	1.60		M	2.58	.89
	n	(7)	(38)	(22)	(24)		n	(14)	(15)
Sex	Female					Masculinity Scores	High		
	M	1.46	.94	1.45	1.00		M	1.24	1.44
	n	(22)	(24)	(19)	(27)		n	(28)	(34)

Feminine Discrepancy Scores

Stepwise Multiple Regression Analysis. The only variables which contributed significantly to R^2 were RS and F scores, with the total model accounting for 22% of the variance. RS (r = .25) was positively associated with the discrepancy, while higher F scores were again associated with greater accuracy ($r_{y6.12345}$ = -.28).

ANOVA. The main effect for sex was significant, $F(1, 82) = 4.55$, $p < .05$ (see Table 9). The means reveal that females were more accurate than males (M = .75 and M = .99, respectively; see Table 10).

Neutral Discrepancy Scores

Stepwise Multiple Regression Analysis. Those variables contributing significantly to R^2 (see Table 5) were AS, NE and androgyny scores. The model accounted for a large proportion of variance (R^2 = .52). Again, androgyny's relation to inaccuracy was positive ($r_{y6.12345}$ =.31).

ANOVA. The F X sex interaction, $F(1, 80) = 4.51$, $p < .05$ and the M X F interaction $F(1, 80) = 10.18$, $p < .01$ were significant (see Table 12, means, Table 13). Post hoc comparisons revealed that androgynous and undifferentiated persons did not differ significantly, $t(44) = -1.29$, ns, nor did androgynous persons differ significantly from masculine and feminine persons, $t(67) = 1.43$, ns. However, undifferentiated persons were less accurate than masculine and feminine persons $t(50) = 2.46$, $p < .05$.

TABLE 8

Feminine Discrepancy Scores: Multiple Regression Analysis

Step	Variable Entered	F to Enter	Multiple R	R^2	Change	Simple R	Partial R	Overall F
1.	RS	4.88*	.25	.06	.06	.25	.25	4.88*
2.	Sex	3.45	.32	.10	.04	-.20	-.21	4.25*
3.	AS	1.99	.36	.13	.02	-.09	-.16	3.53*
4.	M	2.08	.39	.15	.02	.02	-.17	3.21*
5.	M X F	.53	.40	.16	.01	.04	.09	2.65*
6.	F	5.98*	.47	.22	.07	-.00	-.28	3.36**

N did not meet entry criteria

*$p < .05$

**$p < .01$

TABLE 9

Feminine Discrepancy Scores:

ANOVA Results

Source of Variation	Sum of Squares	DF	Mean Square	F
Main Effects				
Sex	1.31	1	1.31	4.55*
M	.32	1	.32	1.11
F	.03	1	.03	.11
Interactions				
Sex X M	.17	1	.17	.60
Sex X F	.39	1	.39	1.37
M X F	.23	1	.23	.79
Residual	23.54	82	.29	

*$p < .05$

TABLE 10

Feminine Discrepancy Scores ANOVA:

Means and Number of Subjects

	Sex		Masculinity Score		Femininity Score	
	Male	Female	Low	High	Low	High
M	.99	.78	.92	.87	.88	.90
u	(45)	(44)	(26)	(63)	(43)	(46)

		Masculinity Scores		Femininity Scores				Femininity Scores	
		Low	High	Low	High			Low	High
	Male						Low		
	M	.99	.99	.89	1.10		M	1.06	.76
	n	(7)	(38)	(23)	(22)		n	(14)	(12)
Sex	Female					Masculinity Scores	High		
	M	.90	.69	.87	.71		M	.79	.94
	n	(19)	(25)	(20)	(24)		n	(29)	(34)

TABLE 11

Neutral Discrepancy Scores: Multiple Regression Analysis

Step	Variable Entered	F to Enter	Multiple R	R^2	R^2 Change	Simple R	Partial R	Overall F
1.	AS	27.78**	.52	.27	.27	.52	.52	27.78**
2.	NE	20.22**	.65	.43	.16	-.06	.46	27.56**
3.	RS	3.60	.67	.45	.03	.18	.22	20.20**
4.	M	1.70	.68	.47	.01	-.06	-.15	15.70**
5.	F	.27	.68	.47	.00	.06	-.06	12.50**
6.	M X F	7.33*	.72	.52	.05	.04	.31	12.59**
7.	Sex	.38	.72	.52	.00	-.00	.07	10.75**

*$p < .01$

**$p < .001$

TABLE 12

Neutral Discrepancy Scores:

ANOVA Results

Source of Variation	Sum of Squares	DF	Mean Square	F
Main Effects				
Sex	.03	1	.03	.13
M	.10	1	.10	.50
F	.02	1	.02	.08
Interactions				
Sex X M	.25	1	.25	1.26
Sex X F	.88	1	.88	4.51*
M X F	1.98	1	1.98	10.18**
Residual	15.59	80	.20	

*$p < .05$

**$p < .01$

TABLE 13

Neutral Discrepancy Scores ANOVA:

Means and Number of Subjects

	Sex		Masculinity Score		Femininity Score	
	Male	Female	Low	High	Low	High
M	.74	.72	.77	.71	.75	.71
n	(41)	(46)	(28)	(59)	(41)	(46)

		Masculinity Scores		Femininity Scores				Femininity Scores	
		Low	High	Low	High			Low	High
	Male						Low		
	M	.92	.70	.80	.67		M	.97	.58
	n	(7)	(34)	(21)	(20)		n	(14)	(14)
Sex	Female					Masculinity Scores	High		
	M	.72	.72	.69	.75		M	.63	.77
	n	(21)	(25)	(20)	(26)		n	(27)	(32)

DISCUSSION

The analyses provided clear support for hypothesis 1. Androgynous persons were more accurate at predicting a child's response regarding adult sociability than were persons of other sex role orientations. In addition, the androgyny term accounted for a large proportion of the variance in discrepancy scores. While Lubinski et al., (1983) argue that the androgyny or the M X F interaction term should be entered following the main effects, the purpose for stepwise multiple regression is to determine what combination of variables in what order are the best predictors of accuracy. Clearly, the androgyny index was a good predictor of accuracy, as hypothesized.

This accuracy has implications for adult-child interactions. Androgyny may be beneficial with regard to parent-child interactions. As Bem et al., (1975) found, androgynous persons were more nurturant than masculine persons with a baby. Russell (1978) found that androgynous fathers reported spending more time in caretaking activities and play with their children than did masculine or undifferentiated fathers. Stollak, Jackson, & Ialongo (Note 3) found that androgynous persons were more accepting of a child's feelings as determined by scores on the Porter Parental Acceptance Scale, as compared to feminine and undifferentiated persons. When compared to undifferentiated persons, androgynous persons also had significantly higher scores indicative of Treating the Child as a Unique Person and Granting the Child Autonomy -- a mixture of both instrumental and expressive dimensions.

Michaels, Messé, & Stollak (1983) report a positive relationship between parental accuracy and children's adaptive behavior. It may be that an androgynous person's greater accuracy would have positive consequences for the child. Baumrind (1982) reported, however, greater competency for children of sex-typed rather than androgynous parents. For example, daughters of sex-typed parents were somewhat more cognitively competent and significantly more optimally competent than daughters of androgynous parents. Further research in this area is indicated to more fully explain the relationship between perceptual accuracy and its resultant effects on behavior. Sex role orientation does appear to be a useful dimension in this regard.

Assumed similarity played an important role in predicting accuracy in regard to masculine discrepancy scores, although not to the detriment of the other variables. Females tended to perceive masculine characteristics in their male partners as would be expected by the socialization process. The results also indicated that a high femininity score and a low masculinity score are associated with perceptual accuracy, substantiating the accuracy of feminine females. Androgynous persons' lower accuracy may be explained by Bem's (1979) assertion that sex-typed characteristics are less relevant to androgynous persons when processing information about others. Undifferentiated persons, due to their low level of masculine and feminine characteristics, may also view these characteristics as unimportant when processing information about others, as well as themselves. Although it may be that their lack of accuracy in discerning these traits in others may explain their lack of those characteristics in themselves; if they are unable to perceive these traits they are unable to acquire them.

The regression model accounted for less variance in feminine discrepancy scores than was the case for masculine discrepancy scores, suggesting that other factors not assessed in this study were influencing the perceptual accuracy process in regard to feminine discrepancy scores. The results indicate that females and those with high femininity scores are more accurate in their perceptions regarding their partners. This data, along with the data for the masculine discrepancy scores, suggests that feminine persons, and females in general, have well-developed person perception skills. This is in support of Harackiewicz and DePaulo's (1982) results which indicated that females were more accurate at person predictions. Clearly, hypothesis 2 was not supported by this data. The androgyny index was not an important variable in explaining feminine discrepancy scores.

With regard to neutral discrepancy scores, the importance of assumed similarity was again noted. In addition, the androgyny index was associated with accuracy, but in the opposite direction to that predicted. However, the results from the ANOVA indicate that androgynous did not differ significantly from masculine and feminine persons. This suggests that the nature of the dependent variables may be an important factor in the prediction of accuracy as a function of sex role orientation.

The differences in the results across the analyses appear to be due, in large measure, to the nature of the dependent variable. Androgynous persons appear to have superior social cognition skills when their sociability is assessed following a positive interchange with a child. However, when androgynous rate persons on sex-typed and neutral characteristics, they do not retain this superiority over persons of other sex role orientations. For predicting sex-typed characteristics,

those who are higher on sex-typed characteristics themselves, particularly those who are high on feminine characteristics, are more accurate. They are more aware of sex-typed characteristics. However, persons who were high on both masculinity and femininity were not as accurate as those who were high on only one. This was not the case with regard to neutral discrepancy scores. For neutral discrepancy scores, self-perceptions regarding one's own neutral traits were the important factor in the prediction of accuracy.

Taken as a whole, the data from hypothesis 2 suggests that one's self-perception regarding a characteristic is an important variable in predicting perceptual accuracy. In addition, the importance one ascribes to a variable effects the ability to perceive that variable. As stated above, Bem (1979) argues that sex-typed characteristics are not important variables to androgynous persons when processing information about others. The data regarding masculine and feminine discrepancy scores supports Bem's assertion. Androgynous persons were not accurate perceivers of sex-typed characteristics in comparison to masculine and feminine persons. The data also suggests that being high on masculinity and/or femininity is generally more beneficial than being low on both sets of characteristics. The lower accuracy of undifferentiated across all three conditions indicates that those who are low on both sets of characteristics are quite inaccurate in comparison to those of the other SROs. While the regression analysis for hypothesis 2 suggests that androgynous persons are less accurate than undifferentiated, the ANOVA results do not support this. When masculinity and femininity are removed from the M X F interaction term in the regression analysis, what may be left to explain the variance in scores are other interpersonal variables. Undifferentiated

persons appear to be the most inaccurate and previous research suggests that undifferentiated persons are shy (Wiggins & Holzmuller, 1978; Jackson et al., Note 1) and it may be shyness dimension which is correlating positively with inaccuracy. It would be expected that those who are shy and uncomfortable in interactions would not actively attend to characteristics of the other and, therefore, they are less accurate.

While this study was important as perceptual ratings followed actual interaction, one of the limitations was the lack of assessment of the effects of the context of the interactions on the subsequent perceptions. This may have been particularly important with regard to feminine discrepancy scores which remained largely unexplained. The fact that these interactions were "marital" may have pulled for certain behavior. The full repertoire of a person's behavior may not have been presented so that the partner's perceptions were based on one kind of behavior and may have been accurate in this regard while not reflecting the person's more diverse view of themselves. A greater range of interactions and assessment of their effects on accuracy would be helpful in more fully understanding the process of perceptual accuracy.

Further, the undergraduates' ratings of the children's perceptions and the children's ratings of the undergraduates were directly connected to the play encounter. However, the undergraduates' ratings of their partners were not directly connected to their previous encounter. They were not ratings of the actual behavior of the other in the encounter, but they were extracting sex-typed and neutral characteristics on the basis of the interchange. Ratings which assessed actual behavior may have led to different results. Thus, the limited range of the dependent variables affects the generalizability of these results.

Summary and Implications

The data presents equivocal support for the hypothesis that androgynous persons are more accurate person perceivers. The data from the children's portion of the study tends to support this hypothesis, while the undergraduates' data does not. As this data is equivocal with regard to accuracy, a clear relationship between accuracy and behavioral flexibility cannot be drawn. Variables such as contextual variables, characteristics of the perceiver (e.g. sex), characteristics of the object of the perceptions (e.g. child or adult) and perceptual rating variable (e.g. sociability, M & F scores) must be assessed. Studies by Wiggins & Holzmuller (1978) and Jackson et al., (Note 1) suggest that sex role orientation is related to interpersonal variables; undifferentiated persons placed on the shy dimension of the interpersonal circle, androgynous person on the extraverted dimension. These dimensions may be related to behavioral flexibility. Undifferentiated persons are less flexible due to their uncomfortableness in interactions which may also effect the accuracy process; they attend less to other's characteristics. Androgynous persons who are extraverted may jump right into a siguation behaving appropriately as they are not sorely lacking in perceptual skills. In addition, due to their extraversion, they may also be more accurate on such variables as sociability.

Additional research which assesses a broader range of interpersonal variables in relation to sex role orientation would be beneficial. The expansion of our definitions of masculinity and femininity could lead to a more thorough understanding of the relationship between sex role orientation and other variables such as perceptual accuracy. Additionally, perceptual accuracy cannot be viewed as an all-encompassing concept. Thus,

a person's accuracy with regard to one variable or characteristic is not necessarily indicative of their accuracy with regard to a different variable or characteristic. Both sex role orientation and perceptual accuracy are multi-dimensional phenomena and assessment procedures must take this into account.

APPENDICES

APPENDIX A

LETTER TO PARENTS

MICHIGAN STATE UNIVERSITY

DEPARTMENT OF PSYCHOLOGY
PSYCHOLOGY RESEARCH BUILDING

EAST LANSING • MICHIGAN • 48824

Dear Parent(s):

I am a faculty member in the Psychology Department at Michigan State University. Some of you have previously helped and participated in our past research efforts. Some of you have helped us in our training of future mental health professionals. We need help again.

We are about to begin a study of the child caregiving attitudes and behavior of a group of undergraduates. Along with each student completing tests and questionnaires we would like to videotape each student engaging in a 1/2 hour unstructured play encounter with a young child. We need a large number of 5-6 year old children to help in this part of the research.

Specifically, one of our assistants would pick-up a volunteering child at his/her home (and at his/her and the family's convenience), bring him/her to one of our University playrooms where s/he would spend 1/2 hour in a free and unstructured play encounter with one and then two undergraduates. The play encounter will be videotaped through a one-way mirror so that we can later rate and analyze the undergraduate's behavior. We are <u>not</u> specifically interested in the child's actions. After the play session one of our assistants will then drive the child back to his/her home.

If the parent(s) permit us we would like to pay each child $1.00 for his/her help. Whether we pay the child or not will be up to the child's parent(s).

If your child might be interested in volunteering to help and you will permit it or if you are interested in learning more about our research, please complete the enclosed post card and return it via the U.S. mail. Your completion and return of the card does <u>not</u> mean your child is committed to help. It only means that we will call you and answer all questions. At the conclusion of the phone call you and your child can make a final decision to help or not.

Of course, all returned cards and all material collected in our research will remain confidential and will not be shared with anyone without your written permission.

Along with our thanks to you for reading this note and considering our request we would like to thank the East Lansing Public School Administration for their help in distributing this letter to children to bring home to you.

Sincerely,

Gary E. Stollak, Ph.D.
Professor of Psychology

Telephone Numbers: 353-8877 or
355-9561

APPENDIX B

S-BSRI

INSTRUCTIONS

All the questions in this booklet are to be answered on the printed answer sheet. You must use a #2 pencil.

Before you begin, fill in the information requested on the answer sheet. Do not fill in any number or letter under FORM. Please write your telephone number in the bottom right hand corner of the answer sheet.

The items below inquire about what kind of a person you think you are. Each item consists of the end points of a personality characteristic, with the letters A, B,C,D,E, in between. For example:

Not at all artistic A.....B.....C.....D.....E Very artistic

The letters form a scale between the two extremes. You are to choose a letter which describes where you fall on that characteristic. For example, if you think you have no artistic ability, you would choose A. If you think you are pretty good, you might choose D. If you are only medium, or think you are in the middle on that characteristic, you might choose C, and so forth.

Now go ahead and answer the questions on the answer sheet. Be sure to answer every question, even if you're not sure, and use a #2 pencil.

REMEMBER TO ANSWER QUICKLY: YOUR FIRST IMPRESSION IS THE BEST.

1.	Almost never defend my own beliefs	A.....B.....C.....D.....E	Almost always defend my own beliefs
2.	Not very affectionate	A.....B.....C.....D.....E	Very affectionate
3.	Not very conscientious	A.....B.....C.....D.....E	Very conscientious
4.	Not very independent	A.....B.....C.....D.....E	Very independent
5.	Not very sympathetic	A.....B.....C.....D.....E	Very sympathetic
6.	Not very moody	A.....B.....C.....D.....E	Very moody
7.	Not very sensitive to the needs of others	A.....B.....C.....D.....E	Very sensitive to the needs of others
8.	Not very assertive	A.....B.....C.....D.....E	Very assertive
9.	Not very reliable	A.....B.....C.....D.....E	Very reliable
10.	Not a very strong personality	A.....B.....C.....D.....E	A very strong personality
11.	Not very understanding	A.....B.....C.....D.....E	Very understanding
12.	Not very jealous	A.....B.....C.....D.....E	Very jealous
13.	Not very forceful	A.....B.....C.....D.....E	Very forceful

14.	Not very compassionate	A.....B.....C.....D.....E	Very compassionate
15.	Not very truthful	A.....B.....C.....D.....E	Very truthful
16.	Not much leadership ability	A.....B.....C.....D.....E	Much leadership ability
17.	Not too eager to soothe hurt feelings	A.....B.....C.....D.....E	Very eager to soothe hurt feelings
18.	Very secretive	A.....B.....C.....D.....E	Not very secretive
19.	Not willing to take risks	A.....B.....C.....D.....E	Willing to take risks
20.	Not very warm	A.....B.....C.....D.....E	Very warm
21.	Not very adaptable	A.....B.....C.....D.....E	Very adaptable
22.	Submissive	A.....B.....C.....D.....E	Dominant
23.	Not very tender	A.....B.....C.....D.....E	Very tender
24.	Conceited	A.....B.....C.....D.....E	Not conceited
25.	Not very willing to take a stand	A.....B.....C.....D.....E	Very willing to take a stand
26.	Not very fond of children	A.....B.....C.....D.....E	Very fond of children
27.	Not very tactful	A.....B.....C.....D.....E	Very tactful
28.	Not very aggressive	A.....B.....C.....D.....E	Very aggressive
29.	Not very gentle	A.....B.....C.....D.....E	Very gentle
30.	Very conventional	A.....B.....C.....D.....E	Not very conventional

APPENDIX C

CHILDREN'S PAPI

Date:_____ Child's Name:_____

Interviewers Instructions

Read the following instructions to the child, "I'm going to ask you some questions about how you felt about the people you just played with. Some children feel the same way about both the people they played with, they think the man was a lot of fun and the woman was a lot of fun too. Some children think that the woman was a lot of fun and the man was unfriendly. Other children think that the man was a lot of fun and the woman was unfriendly. I want you to tell me how you felt about the man and the woman. It's OK if you feel the same about both of them and it's OK if you feel different about both of them. First I'm going to ask you about the woman(man)_____ who you just played with".

After giving them the first questionnaire give them the second one and say, "Now, I want you to tell me how you felt about the man(woman)_____ who you just played with. Remember to tell me how you really feel."

To administer the questionnaire you read the statements in capital letters to the child and circle the child's answer. Then read the qualifying statements to the child that are underneath the child's first response and circle the child's response.

HE WAS NICE	OR	HE WAS MEAN
____Was he very nice		____Was he very mean
or		or
____Was he a little nice		____Was he a little mean

HE WAS WORRIED	OR	HE WAS CALM
____He was a little worried		____He was a little calm
or		or
____He was very worried		____He was very calm

HE WAS ANGRY	OR	HE WAS CHEERFUL
____Was he a little angry		____Was he a little cheerful
or		or
____Was he very angry		____Was he very cheerful

HE WAS IMPATIENT	OR	HE WAS PATIENT
___Was he very impatient		____Was he very patient
or		or
____Was he a little impatient		____Was he a little patient

YOU LIKE HIM	OR	YOU DON'T LIKE HIM
____Do you like him a little		____You don't like him a little
or		or
____Do you like him very much		____You very much don't like him

HE ASKED STUPID QUESTIONS	OR	HE ASKED GOOD QUESTIONS
____A little		____A little
or		or
____A lot		____A lot

HE DIDN'T LAUGH OR SMILE	OR	HE LAUGHED AND SMILED
____Some of the time		____Some of the time
or		or
____Most of the time		____Most of the time

HE MADE FRIENDS WITH YOU	OR	HE WASN'T YOUR FRIEND
____A lot		____Not at all
or		or
____A little		____Usually not

HE WANTED YOU TO PLAY WHAT HE WANTED	OR	HE LET YOU PLAY WHATEVER YOU WANTED TO
____A little		____A little
or		or
____A lot		____A lot

HE LET YOU MAKE THE RULES	OR	HE MADE UP THE RULES
____A lot		____A lot
or		or
____A little		____A little
HE SEEMED LIKE HE WOULD RATHER BE SOMEWHERE ELSE	OR	HE LIKED TO PLAY WITH YOU
____A little		____A little
or		or
____A lot		____A lot
HE CARED ABOUT HOW YOU FELT	OR	HE DIDN'T SEEM TO CARE ABOUT HOW YOU FELT
____A lot		____Not at all
or		or
____ A little		____Usually not
IT DIDN'T MATTER TO HIM WHETHER YOU LIKED HIM	OR	HE WANTED YOU TO LIKE HIM
____It didn't matter much		____A little
or		or
____It didn't matter at all		____A lot
I WOULD LIKE TO PLAY WITH THIS PERSON AGAIN	OR	I WOULD NOT LIKE TO PLAY WITH THIS PERSON AGAIN
____Probably yes		____Probably not
or		or
____Definitely yes		____Definitely not
I HAD A BAD TIME	OR	I HAD A GOOD TIME
____Pretty bad		____Pretty good
or		or
____Very bad		____Very good

APPENDIX D

UNDERGRADUATE'S PAPI

Date_____ Student Number_____

INSTRUCTIONS

Please read the following statements carefully. Check the appropriate statement underneath the general question which best describes your behavior and feelings during the just completed playroom encounter with the child. These questions refer only to the period of time you spent with the child.

I WAS NICE	OR	I WAS MEAN
____I was very nice		____I was very mean
or		or
____I was a little nice		____I was a little mean

I WAS WORRIED	OR	I WAS CALM
____I was a little worried		____I was a little calm
or		or
____ I was very worried		____I was very calm

I WAS ANGRY	OR	I WAS CHEERFUL
____I was a little angry		____I was a little cheerful
or		or
____I was very angry		____I was very cheerful

I WAS IMPATIENT	OR	I WAS PATIENT
____I was very impatient		____I was very patient
or		or
____I was a little impatient		____I was a little patient

I ASKED STUPID QUESTIONS	OR	I ASKED GOOD QUESTIONS
____A little		____A little
or		or
____A lot		____A lot

I DIDN'T LAUGH OR SMILE	OR	I LAUGHED AND SMILED
____Some of the time		____Some of the time
or		or
____Most of the time		____Most of the time

I MADE FRIENDS WITH THE CHILD	OR	I DIDN'T MAKE FRIENDS WITH CHILD
____A lot		____Not at all
or		or
____A little		____Usually not

I WANTED TO PLAY WHAT I WANTED	OR	I LET THE CHILD PLAY WHATEVER SHE/HE WANTED TO
____A little		____A little
or		or
____A lot		____A lot

I LET THE CHILD MAKE THE RULES	OR	I MADE UP THE RULES
____A lot or ____A little		____A lot or ____A little
I WOULD RATHER HAVE BEEN SOMEWHERE ELSE	OR	I LIKED PLAYING WITH THE CHILD
____A little or ____A lot		____A little or ____A lot
I CARED ABOUT HOW THE CHILD FELT	OR	I DIDN'T CARE ABOUT HOW THE CHILD FELT
____A lot or ____A little		____Not at all or ____Usually not
IT DIDN'T MATTER TO ME WHETHER THE CHILD LIKED ME	OR	I WANTED THE CHILD TO LIKE ME
____It didn't matter much or ____It didn't matter at all		____A little or ____A lot
I HAD A BAD TIME	OR	I HAD A GOOD TIME
____Pretty bad or ____Very bad		____Pretty good or ____Very good

Student Number_____

INSTRUCTIONS

This questionnaire is very similar to the one you just completed. This time check the statements which best describe what or how you felt about the child in the preceding playroom encounter.

HE WAS NICE	OR	HE WAS MEAN
Was he very nice		Was he very mean
or		or
Was he a little nice		Was he a little mean

HE WAS WORRIED	OR	HE WAS CALM
He was a little worried		He was a little calm
or		or
He was very worried		He was very calm

HE WAS ANGRY	OR	HE WAS CHEERFUL
Was he a little angry		Was he a little cheerful
or		or
Was he very angry		Was he very cheerful

HE WAS IMPATIENT	OR	HE WAS PATIENT
Was he very impatient		Was he very patient
or		or
Was he a little impatient		Was he a little patient

YOU LIKE HIM	OR	YOU DON'T LIKE HIM
Do you like him a little		You don't like him a little
or		or
Do you like him very much		You very much don't like him

HE ASKED STUPID QUESTIONS	OR	HE ASKED GOOD QUESTIONS
A little		A little
or		or
A lot		A lot

HE DIDN'T LAUGH OR SMILE	OR	HE LAUGHED AND SMILED
Some of the time		Some of the time
or		or
Most of the time		Most of the time

HE MADE FRIENDS WITH YOU	OR	HE WASN'T YOUR FRIEND
A lot		Not at all
or		or
A little		Usually not

HE WANTED YOU TO PLAY WHAT HE WANTED	OR	HE LET YOU PLAY WHATEVER YOU WANTED TO
A little		A little
or		or
A lot		A lot

HE WAS NICE	OR	HE WAS MEAN
Was he very nice or Was he a little nice		Was he very mean or Was he a little mean

HE WAS WORRIED	OR	HE WAS CALM
He was a little worried or He was very worried		He was a little calm or He was very calm

HE WAS ANGRY	OR	HE WAS CHEERFUL
Was he a little angry or Was he very angry		Was he a little cheerful or Was he very cheerful

HE WAS IMPATIENT	OR	HE WAS PATIENT
Was he very impatient or Was he a little impatient		Was he very patient or Was he a little patient

YOU LIKE HIM	OR	YOU DON'T LIKE HIM
Do you like him a little or Do you like him very much		You don't like him a little or You very much don't like him

HE ASKED STUPID QUESTIONS	OR	HE ASKED GOOD QUESTIONS
A little or A lot		A little or A lot

HE DIDN'T LAUGH OR SMILE	OR	HE LAUGHED AND SMILED
Some of the time or Most of the time		Some of the time or Most of the time

HE MADE FRIENDS WITH YOU	OR	HE WASN'T YOUR FRIEND
A lot or A little		Not at all or Usually not

HE WANTED YOU TO PLAY WHAT HE WANTED	OR	HE LET YOU PLAY WHATEVER YOU WANTED TO
A little or A lot		A little or A lot

Student Number_____

INSTRUCTIONS

This is the same questionnaire you just completed. This time we would like you to imagine that you were the child in the preceding playroom situation. Answer the following questions about your behavior and feelings from the viewpoint of the child. Thus, the questions are about your behavior and feelings, but should be answered as you feel the child would have answered them if we asked him/her about your behavior.

SHE WAS NICE	OR	SHE WAS MEAN
Was she very nice or Was she a little nice		Was she very mean or Was she a little mean

SHE WAS WORRIED	OR	SHE WAS CALM
She was a little worried or She was very worried		She was a little calm or She was very calm

SHE WAS ANGRY	OR	SHE WAS CHEERFUL
Was she a little angry or Was she very angry		Was she a little cheerful or Was she very cheerful

SHE WAS IMPATIENT	OR	SHE WAS PATIENT
Was she very impatient or Was she a little impatient		Was she very patient or Was she a little patient

YOU LIKE HER	OR	YOU DON'T LIKE HER
Do you like her a little or Do you like her very much		You don't like her a little or You very much don't like her

SHE ASKED STUPID QUESTIONS	OR	SHE ASKED GOOD QUESTIONS
A little or A lot		A little or A lot

SHE DIDN'T LAUGH OR SMILE	OR	SHE LAUGHED AND SMILED
Some of the time or Most of the time		Some of the time or Most of the time

SHE MADE FRIENDS WITH YOU	OR	SHE WASN'T YOUR FRIEND
A lot or A little		Not at all or Usually not

SHE WANTED YOU TO PLAY WHAT SHE WANTED	OR	SHE LET YOU PLAY WHATEVER YOU WANTED TO
A little or A lot		A little or A lot

SHE LET YOU MAKE THE RULES	OR	SHE MADE UP THE RULES
A lot or A little		A lot or A little
SHE SEEMED LIKE SHE WOULD RATHER BE SOMEWHERE ELSE	OR	SHE LIKED TO PLAY WITH YOU
A little or A lot		A little or A lot
SHE CARED ABOUT HOW YOU FELT	OR	SHE DIDN'T SEEM TO CARE ABOUT HOW YOU FELT
A lot or A little		Not at all or Usually not
IT DIDN'T MATTER TO HER WHETHER YOU LIKED HER	OR	SHE WANTED YOU TO LIKE HER
It didn't matter much or It didn't matter at all		A little or A lot
I WOULD LIKE TO PLAY WITH THIS PERSON AGAIN	OR	I WOULD NOT LIKE TO PLAY WITH THIS PERSON AGAIN
Probably yes or Definitely yes		Probably not or Definitely not
I HAD A BAD TIME	OR	I HAD A GOOD TIME
Pretty bad or Very bad		Pretty good or Very good

APPENDIX E

PSQ

Student No. _____

PSQ

The purpose of this questionnaire is to measure your perception of your partner by having you judge him/her against a series of descriptive scales. Therefore, on a scale of one to seven please indicate how well you feel each of the following characteristics describes your partner. In completing this questionnaire, please make your judgments on the basis of your own personal impressions. You are to rate the person on each of these scales in order.

For example, if you feel that your partner is very sophisticated you would place an x-mark as follows:

Sophisticated very: X : ___ : ___ : ___ : ___ : ___ : ___ :not at all

On the other hand, if you feel that your partner is not at all sophisticated, you should place your x-mark as follows:

Sophisticated very: ___ : ___ : ___ : ___ : ___ : ___ : X :not at all

If you feel that your partner is somewhere "in-between" on sophistication, you should mark that space on the scale that best describes how sophisticated you feel he/she is. For example, if you feel that your partner is neutral on sophistication, equally sophisticated and unsophisticated, or if sophistication is irrelevant, unrelated to the person, then you should place an x-mark in the middle space, as shown below:

Sophisticated very: ___ : ___ : ___ : X : ___ : ___ : ___ :not at all

Make each scale item a separate and independent judgment. Work at a fairly fast pace through this questionnaire. Do not worry or puzzle over individual items. On the other hand, please do not be careless, because we want your true impressions.

IMPORTANT: (1) Place your x-marks in the middle of the spaces, not on the boundaries:

this not this
___ : X : ___ : ___ : ___ : ___ X ___ :

(2) Be sure you check every scale - do not omit any
(3) Never put more than one x-mark on a single space.

sensitive	very:____:____:____:____:____:____:____: not at all
reliable	very:____:____:____:____:____:____:____: not at all
strong personality	very:____:____:____:____:____:____:____: not at all
understanding	very:____:____:____:____:____:____:____: not at all
jealous	very:____:____:____:____:____:____:____: not at all
forceful	very:____:____:____:____:____:____:____: not at all
compassionate	very:____:____:____:____:____:____:____: not at all
truthful	very:____:____:____:____:____:____:____: not at all
leadership ability	very:____:____:____:____:____:____:____: not at all
eager to soothe hurt feelings	very:____:____:____:____:____:____:____: not at all
secretive	very:____:____:____:____:____:____:____: not at all
willing to take risks	very:____:____:____:____:____:____:____: not at all
warm	very:____:____:____:____:____:____:____: not at all
adaptable	very:____:____:____:____:____:____:____: not at all
submissive	very:____:____:____:____:____:____:____: not at all
tender	very:____:____:____:____:____:____:____: not at all
conceited	very:____:____:____:____:____:____:____: not at all
willing to take a stand	very:____:____:____:____:____:____:____: not at all
fond of children	very:____:____:____:____:____:____:____: not at all
tactful	very:____:____:____:____:____:____:____: not at all
aggressive	very:____:____:____:____:____:____:____: not at all
gentle	very:____:____:____:____:____:____:____: not at all
conventional	very:____:____:____:____:____:____:____: not at all
patient	very:____:____:____:____:____:____:____: not at all

fault-finding very:____:____:____:____:____:____:____: not at all

cooperative very:____:____:____:____:____:____:____: not at all

talented very:____:____:____:____:____:____:____: not at all

domineering very:____:____:____:____:____:____:____: not at all

unappreciative very:____:____:____:____:____:____:____: not at all

Answer the following questions by putting an X-mark in the appropriate scale.

1. How did you feel about your participation in these kinds of tasks?

   disliked it very much, liked it very much,
   very uncomfortable :___:___:___:___:___:___:___:very comfortable

2. How much would you enjoy working with your partner in a future experiment?

   very little:____:____:____:____:____:____:____:very much

3. How much did you like your partner?

   very little:____:____:____:____:____:____:____:very much

4. How much would your partner win personal affection and liking from others?

   very little:____:____:____:____:____:____:____:very much

5. How would your partner fit in with your circle of close friends?

   definitely not definitely
   fit in :____:____:____:____:____:____:____:fit in

6. How would you rate the interaction in terms of how comfortable you felt it was? Did you feel the interaction was awkward, forced, and strained; or was it smooth, natural, and relaxed; or was it somewhere in between?

   awkward, forced, smooth, natural,
   and strained :____:____:____:____:____:____:____:and relaxed

APPENDIX F

PAPI: MEANS AND STANDARD DEVIATIONS

TABLE 14

PAPI: Means and Standard Deviations

	Children		UG	
Question	M	SD	M	SD
1.	3.03	1.66	2.74	1.50
2.	2.89	1.65	2.43	1.48
3.	3.03	1.64	2.71	1.50
4.	2.81	1.66	2.72	1.58
5.	3.03	1.67	2.40	1.34
6.	2.79	1.63	2.06	1.28
7.	2.49	1.62	2.50	1.48
8.	3.00	1.66	2.39	1.35
9.	2.93	1.73	2.66	1.63
10.	2.33	1.76	2.64	1.58
11.	3.07	1.65	2.36	1.44
12.	2.83	1.75	2.44	1.57
13.	2.62	1.67	2.46	1.47
14.	2.89	1.63	2.24	1.27
15.	3.02	1.66	2.38	1.32

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FOOTNOTES

1. Although all possible SRO pairings were desired, the limited number of subjects in varying SROs resulted in only seven groups of pairs.

2. Analysis of covariance may have been desirable for these analyses, with assumed similarity serving as the covariate. However, due to mechanical difficulties associated with the analysis of covariance and the fact that assumed similarity did not explain all the variance in discrepancy scores, ANOVA was employed instead.

3. For this analysis, as well as subsequent ANOVAs, the majority of the results must be viewed as tentative due to the unequal cell frequencies.

4. The total lack of feminine males in this study precluded the investigation of all sex X M or sex X F interactions, as the high femininity male cell consists of only androgynous males and the low masculinity male cell consists of only undifferentiated males.

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