1987

Reinforcing functions of androgyny delay of reinforcement

Kimberly Faye Helzer

Follow this and additional works at: https://scholarworks.lib.csusb.edu/etd-project

Part of the Gender and Sexuality Commons, and the Psychology Commons

Recommended Citation
https://scholarworks.lib.csusb.edu/etd-project/246

This Thesis is brought to you for free and open access by the John M. Pfau Library at CSUSB ScholarWorks. It has been accepted for inclusion in Theses Digitization Project by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.
REINFORCING FUNCTIONS OF ANDROGYNY:
DELAY OF REINFORCEMENT

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Psychology

by
Kimberly Faye Helzer
September, 1987
REINFORCING FUNCTIONS OF ANDROGYNY:
DELAY OF REINFORCEMENT

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

by
Kimberly Faye Helzer
September, 1987

Approved by:
Robert E. Cramer, Ph.D., Chair, Psychology 9/8/87
David J. Lutz, Ph.D.
Michael G. Weiss, Ph.D.
ABSTRACT

An approach Neal Miller termed "extension of the liberalized S-R theory" was utilized to examine the possibility that the opportunity to interact with an androgynous male displays the functional properties of reinforcement - specifically, delay of reinforcement. As predicted, the female subjects' instrumental responses evidenced a delay of reinforcement gradient. Self-report measures indicated that the subjects also rated the androgynous male more positively than his masculine counterpart on a number of personal dimensions. Discussion focused on: (a) the usefulness of employing social learning methodology in the investigation of important social processes; (b) the beneficial utility of an "interactive" debriefing process; (c) the project's implications for the clarification of the "modern" male sex-role; and (d) implications for therapists and researchers.
ACKNOWLEDGMENTS

To my professor, mentor and friend, Bob Cramer, I'd like to express my sincere gratitude for the many hours you've spent helping me become a better student and a better researcher. Your encouragement and your support during the difficult times, and your caring, inquisitive and frequently humorous nature have helped make the past five years some of the most rewarding and memorable years in my life.

I would also like to express my immeasurable gratitude to Maggie Dragna, who spent many hours assisting me during all phases of this project. Maggie, your friendship and your love have meant more than words can express.

I'd like to say a special "thank you" to Patty Bartell, my friend and colleague who assisted immensely not only in the completion of this project, but in the many "projects", both academic and personal, during the past five years.

I'd also like to thank Cassandra Lopez and Loryn Longbrake for their much needed charm and wit during the many hours in the lab, and to Bob Cupp and Ben Dragna for the loan of their ever "familiar" voices. I'm especially grateful to Sharon Younkin for her encouragement and support, to Michael Weiss for his much appreciated and special gift of creating warmth and laughter, and to Dave
Lutz for his patience, guidance and understanding.

Finally, I want to thank my entire family, especially my grandmother, for her encouragement and faith in me, and my mother and father, for all the years of encouragement, support and love that have helped me realize my potential and achieve my goals.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title Page</td>
<td>1</td>
</tr>
<tr>
<td>Signature Page</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>iv</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>vi</td>
</tr>
<tr>
<td>List of Tables</td>
<td>viii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>ix</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Sex-Roles</td>
<td>5</td>
</tr>
<tr>
<td>Traditional Sex-Role Theory</td>
<td>5</td>
</tr>
<tr>
<td>Penalties Associated with Cross Sex Behavior</td>
<td>6</td>
</tr>
<tr>
<td>Contemporary Sex-Role Theory</td>
<td>9</td>
</tr>
<tr>
<td>Correlates and Consequences of Androgyny</td>
<td>12</td>
</tr>
<tr>
<td>Behavioral Adaptability</td>
<td>12</td>
</tr>
<tr>
<td>Psychological Adjustment</td>
<td>13</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>15</td>
</tr>
<tr>
<td>Attraction and Liking</td>
<td>17</td>
</tr>
<tr>
<td>Clinical Judgements of Mental Health</td>
<td>21</td>
</tr>
<tr>
<td>Changing Sex-Role Sterotypes</td>
<td>23</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>24</td>
</tr>
<tr>
<td>Method</td>
<td>27</td>
</tr>
<tr>
<td>Subjects and Confederates</td>
<td>27</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Experimental Design</td>
<td>27</td>
</tr>
<tr>
<td>Deception and Masking Task</td>
<td>28</td>
</tr>
<tr>
<td>Apparatus and Materials</td>
<td>29</td>
</tr>
<tr>
<td>Procedure</td>
<td>34</td>
</tr>
<tr>
<td>Results</td>
<td>39</td>
</tr>
<tr>
<td>Effectiveness of Sex-Role Induction</td>
<td>39</td>
</tr>
<tr>
<td>Analysis of Escape Response Speeds</td>
<td>40</td>
</tr>
<tr>
<td>Evaluations of Speakers' Comments and Personalities</td>
<td>42</td>
</tr>
<tr>
<td>Subjects' Evaluations of Experiment</td>
<td>43</td>
</tr>
<tr>
<td>Discussion</td>
<td>48</td>
</tr>
<tr>
<td>Social Learning Effects</td>
<td>48</td>
</tr>
<tr>
<td>Post-Conversation Evaluations</td>
<td>48</td>
</tr>
<tr>
<td>Evaluations of The Experiment</td>
<td>50</td>
</tr>
<tr>
<td>Implication of Results for the Male of the 1980's and Beyond</td>
<td>53</td>
</tr>
<tr>
<td>Implications for Future Research</td>
<td>54</td>
</tr>
<tr>
<td>Appendices</td>
<td></td>
</tr>
<tr>
<td>A. Post-Conversation Questionnaire</td>
<td>59</td>
</tr>
<tr>
<td>B. Verbatim Transcripts of Speakers Dialogues</td>
<td>61</td>
</tr>
<tr>
<td>C. Demographic Questionnaire</td>
<td>71</td>
</tr>
<tr>
<td>D. Subject's Reaction Questionnaire</td>
<td>72</td>
</tr>
<tr>
<td>E. Consent Form</td>
<td>74</td>
</tr>
<tr>
<td>References</td>
<td>75</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1. Evaluations of Masculine and Androgynous
Speakers and Their Comments by Subjects
Who Received a Delay of Reinforcement......... 44

Table 2. Percent of Subjects' Response to
Questions About the Experiment................. 45
LIST OF FIGURES

Figure 1. Delay of Reinforcement Analog: Response Speed as a Function of Four Levels of Delay of the Reinforcing Opportunity to Listen to an Androgynous Male............... 41
INTRODUCTION

Social science research during the past three decades has demonstrated an intense interest in sex-role stereotypes, "a structured set of beliefs about the personal attributes of women and men" (Ashmore & Del Boca, 1979, p. 222). The surge of research accompanied the women's liberation movement, the heightened activism of the 1960s and 1970s regarding many social issues (i.e., civil and gay rights), the changing portrayals of men and women's roles in the media, modifications in the nature of employment in the United States, and the many changes which have occurred politically. Traditional sex-role stereotypes were challenged and the concept of psychological androgyny, the integration of both masculine (instrumental) and feminine (expressive) traits within a single individual (Bem, 1974), was introduced into a new, changing view of acceptable behaviors.

Harris and Lucas (1976), Hellbrun and Schwartz (1983), and McBroom (1984) have suggested that sex-role changes have occurred at a quicker pace for women than for men. Perhaps this accounts for the apparent trend of sex-role researchers to focus on the female sex-role as the target of their investigations. Since masculine and feminine roles are
complementary and interact, however, any long-term, pervasive change in one stereotype is likely to have led to changes in its counterpart (Harris & Lucas, 1976). The male sex-role, therefore, has begun to emerge as an important and complementary area of research (e.g., O'Neil, 1981; Pleck, 1976).

At first glance, the literature available regarding men's sex-roles in our society seems contradictory. For example, investigations which employed the traditional bipolar theory of sex-roles (e.g., Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Seyfried & Hendrick, 1975), the assumption that masculinity and femininity are opposite poles of a single dimension (as noted by Whitley, 1983), have clearly demonstrated that males who violated these traditional stereotypes and demonstrated cross-sex behaviors were penalized for doing so (Feinman, 1981; Fling & Manosevitz, 1972). However, more recent investigations that have implemented contemporary theories of androgyny, which view masculinity and femininity as separate, individual characteristics that coexist to some degree in every individual (Bem, 1974; Spence & Helmreich, 1978), have found that men who demonstrate androgynous behaviors are perceived as more adjusted, more competent, more intelligent, more successful, more popular and more interesting than the masculine counterpart (Major, Carnevale & Deaux, 1981).
Unfortunately, it appears that men continue to view any deviation from the masculine role as "a loss" rather than as a potentially beneficial incorporation of feminine characteristics into their attitudes, beliefs and behavioral repertoire (i.e., androgyny). O'Leary and Donoghue (1978) referred to this incorporation of masculine and feminine traits as "...the promise of freedom from artificial constraints imposed on all of us by sex-roles" (p. 25). Biggs and Fieber (1984) pointed out that this perceived "loss" of the traditional masculine role has resulted in feelings of "loss of face and power" (p. 115). O'Leary and Donoghue (1978) stated "If there is a tragedy associated with the adult male role as traditionally defined, it is perhaps men's belief that deviation from that role will result in negative consequences" (p. 25).

These misconceptions are likely contributors to the current "gender role conflict and strain (which) are part of men's changing roles in society" (O'Neil, 1981, p. 209). It is not surprising that men seem to be experiencing such strain, given that they associate deviation from the traditional masculine sex-role with negative consequences. Interestingly, as early as 1959, before the concept of androgyny had been formally introduced by social scientists, women described their "ideal man" as one who possessed both masculine and feminine characteristics and, perhaps more importantly, men were aware of these expectations (McKee &
Sherriffs, 1959). These results would seem to indicate that strong pressures were being exerted by women to "have men more oriented to interpersonal relations and more expressive of human (feminine in stereotype) feelings" (McKee & Sherriffs, 1959, p. 360).

Given the above results, a program of research was initiated to determine if a social interaction with an androgynous male can function as a social reinforcer. The implementation of an approach Neal Miller (1959) called an "extension of liberalized S-R theory" by Bartell (1986) has indicated that the opportunity to interact with an androgynous male displays the functional properties of reinforcement—acquisition and partial reinforcement effects. These results, however, are not sufficient to determine whether or not interaction with an androgynous male is, in fact, a social reinforcer. Thus, the present study sought to demonstrate another characteristic property of reinforcement: delay of reinforcement.

The questions posed in this investigation require a review of the literature concerning the theories, empirical findings and changing perspectives of sex-roles. In addition, a brief review of social learning methodology will be presented.
Sex-Roles

**Traditional Sex-Role Theory**

Early theories conceptualized sex-roles as being bipolar, that is, masculinity and femininity were assumed to be at opposite ends of a single continuum, and therefore would be negatively correlated (See Constantinople, 1973). Whitley (1983) noted that a person was assumed that to have either a masculine or a feminine sex-role because these orientations were mutually exclusive and incompatible. This assumption led to the definition of psychological well-being as congruency between one's sex-role orientation and one's gender (Kagan, 1964; Mussen, 1969). These assumptions also led to the development of a number of psychological measurements which utilized the bipolar model of sex-role conceptualization, such as: The Attitude-Interest Analysis Test (M-F Test: Termin & Miles, 1936); The Strong Vocational Interest Blank (MF Scale: Strong, 1943); The Minnesota Multiphasic Personality Inventory (M-F Scale: Hathaway & McKinley, 1943); The California Psychological Inventory (Femininity Scale: Gough, 1964, 1966); and The Guilford-Zimmerman Temperament Survey (Guilford & Guilford, 1936; Guilford & Zimmerman, 1949).

Traditional masculine roles, as generally defined, included aspects of "instrumentality," characterized by attributes such as assertiveness, independence, a goal-directed orientation, competitiveness and dominance
(Shapiro & Shapiro, 1985). The traditional female role was defined as "expressiveness," distinguished by traits such as dependency, passivity, softness, warmth and gentleness, understanding, sensitivity and noncompetitiveness (Johnson, 1963; Shapiro & Shapiro, 1985). Not only were these stereotypes clearly defined by researchers for empirical purposes, but it was shown that male and female college students were in agreement about the different traits which characterized the masculine and feminine sex-role stereotypes (Rosenkrantz, Bee, Vogel, Broverman & Broverman, 1968).

Penalties Associated with Cross-Sex Behavior

Many of the empirical investigations which employed the bipolar conceptualization of sex-role stereotypes sought to examine the penalties associated with a deviation from traditionally stereotyped roles. For example, several studies have demonstrated that sex-typing is reinforced in childhood and when deviation from these sex-role norms occurred, punishment was often directed against boys more than girls (Feinman, 1974, 1981; Hartley, 1959; Lansky, 1967). The penalties boys incur for demonstrating cross-sex behaviors include greater parental discouragement (Fling & Manosevitz, 1972; Lansky, 1967) and differential reward allocations from teachers (Fagot, 1977). In addition, it appears that penalties for cross-sex behavior were provided from other children as young as three to five years old in
the form of punishment, such as verbal criticism (Fagot, 1977; Lamb, Easterbrooks & Holden, 1980; Lamb & Roopnarine, 1979), and withdrawal from interaction with children who displayed cross-sex behavior (Lamb, Easterbrooks & Holden, 1980; Lamb & Roopnarine, 1979). In fact, children who demonstrated cross-sex behaviors were found to play alone almost three times as often as other children (Fagot, 1977).

After sex-role stereotypes are acquired, their maintenance may depend on continued reinforcement, which seems to be achieved by expectations of rewards or penalties for culturally acceptable behaviors. Researchers who utilized the bipolar paradigm have demonstrated that cross-sex behavior is also penalized during adulthood, again, more so for males than for females (Tilby & Kalin, 1980). For example, males portrayed as engaging in cross-sex behavior have been judged as less likable than sex-role congruent males by female raters (Malchon & Penner, 1981; Seyfried & Hendrick, 1975). The masculine, rather than the feminine person, has also been described as more characteristic of an "ideal" person (Broverman et al, 1972). Feminine males have been described as less socially valued than masculine males by male and female raters (Maccoby & Jacklin, 1974; Mischel, 1966; Sherriffs & McKee, 1957). Shaffer and Johnson (1980) found that college student considered gender consistency in their ratings of attractiveness of a person as a potential employee, such
that sex-role stereotyped men and women were more likely to be chosen. This finding, however, was not supported in a study in which personnel administrators were asked to rate stimulus persons who were cross-sexed on job suitability (Sharp & Post, 1980).

Given the evidence of penalties associated with cross-sex behavior, researchers began to express concern about the possibility that the sex-role attitudes of mental health professionals may be affecting their distinctions between "health" and "pathology". The pioneer study associated with this issue was conducted by Broverman, Broverman, Clarkson, Rosenkrantz and Vogel (1970). Broverman et al. modified the Sex Role Stereotype Questionnaire (SRSQ: Rosenkrantz et al., 1968) to measure bipolar, mutually exclusive characteristics of masculinity and femininity. They administered this questionnaire to 79 clinically trained psychologists, psychiatrists and social workers, 45 of whom were male and 33 female. Respondents were asked to describe a mature, healthy, socially competent male, female and adult (sex-unspecified). Their results indicated no significant differences as a function of sex of the therapist but it was demonstrated that clinical judgement of mental health varied with the sex of the person judged in a manner that paralleled traditional sex-role expectations. In addition, they found that these mental health practitioners were more likely to attribute traits
characteristic of the healthy adult to a healthy man than to a healthy woman. Thus, the hypothesis that the concept of mental health for the adult, sex-unspecified, would be "more influenced by the greater social value of masculine stereotypic characteristics than by the lesser valued feminine stereotypic characteristics" (Broverman et al., p. 1) was supported. Similar findings supporting a dualistic concept of mental health were obtained by Neulinger and Schillinger, Stein and Welkowitz (1970) and Nowacki and Poe (1973). Given these findings, it is not surprising that, traditionally, men who deviated from their roles received more social penalties than women, as previously noted.

**Contemporary Sex-Role Theory**

The 1970s brought a wave of criticism of the bipolar, traditional theory of sex-role stereotypes by researchers such as Bem (1974), Block (1973) and Constantinople (1973). Constantinople (1973), in her detailed critique of the traditional measurement of sex-role characteristics, concluded:

"While it is clear that something is being measured by the tests of M-F, namely, sex differences in response, the theoretical explication that would tie sex differences, regardless of content, to masculinity and femininity is absent" (p. 405).

She went on to say:

"In all probability, the length of the big toe would discriminate men and women, but does having a longer big toe than most women make a woman less 'feminine', and can one have more confidence that she is less
'feminine' because she scores deviantly on a number of items with similarly critical content?" (p. 405).
Obviously, the utility and validity of the bipolar conceptualization could no longer be taken for granted.

One of the first investigations to contest the utilization of traditional, bipolar theories of stereotypes was conducted by Jenkin & Vroegh (1969). These researchers proposed that masculinity and femininity are not a single bipolar dimension but two separate dimensions, each pertaining to only one sex, and that the appropriate criterion groups are not males or females but imaginary or "ideal" most and least masculine and feminine concepts. They used an 187-item checklist and a 23-scale semantic differential form in order to obtain descriptions and measurements of the concepts of masculinity and femininity. They concluded that masculinity and femininity are not opposite ends of a bipolar variable. Rather, their findings indicated that most masculine and feminine persons had some traits in common as well as different ones.

The dissatisfaction with the bipolar conceptualization of sex-role stereotypes led to the development of the androgyny theory of sex-role conceptualization (Bem, 1974; Spence & Helmreich, 1978). This theory assumes that masculinity and femininity are independent and complementary, rather than incompatible, dimensions. Persons of either gender can incorporate a high degree of both masculinity and femininity into their sex-role
orientations (an androgynous orientation), incorporate a high degree of one sex-role orientation and a low degree of the other (a masculine or feminine orientation) or incorporate a low degree of both (an undifferentiated orientation) (see Whitley, 1983). Furthermore, the androgyny theory proposed that psychological well-being was maximized when one had an androgynous sex-role orientation. Specifically, Bem (1974, 1975 & 1977) suggested that when individuals no longer are expected to adhere to socially prescribed roles of sex-appropriate behaviors, they should be able to be more adaptive and psychologically healthier as a result of being less restricted in the range of behaviors available to them in various situations.

Although the term "psychological androgyyny" is relatively new in the social and behavioral science literature, the concept has been addressed by some of psychology's most prominent personality theorist's (i.e., Erikson, 1963; Jung, 1960; Maslow 1962). Nor is the concept novel in society in general. One only needs to examine the stories, tales, and practices of practically any culture to find beliefs in androgynous gods and goddesses (see Mead, 1935), which seems to attest to the dual nature of men and women.

With the new terminology came an unprecedented growth in the number of measurement scales designed to incorporate the unidimensional conceptualization of the androgynous
theory of sex-roles. These included the Personal Attributes Questionnaire (PAQ: Spence, Helmreich & Stapp, 1974), the Adjective Check List (ACL: Heilbrun, 1976), and the Personality Research Form ANDRO scale (Berzins, Welling & Wetter, 1978). Perhaps one of the most widely used measurements of sex-role orientation which utilizes the unipolar conceptualization, is the Bem Sex Role Inventory (BSRI: Bem, 1974). Bem explained that she developed the BSRI "...(in) hopes of encouraging investigators in the areas of sex differences and sex-roles to question the traditional assumptions that it is the sex-typed individual, who typifies mental health and to begin focusing on the behavioral and societal consequences of more flexible, sex-role concepts" (p. 161).

Correlates and Consequences of Androgyny

The empirical evidence which follows suggests that there are numerous correlates and consequences associated with psychological androgyny, many of which lend support to the idea that androgynous behavior is socially reinforcing.

**Behavioral Adaptability**

Behavioral adaptability, or behavioral flexibility, refers to the ability of an individual to adapt his or her behavior to the situation without regard to sex-role appropriateness concerns. Psychologically androgynous individuals have been found to exhibit greater sex-role adaptability. For example, Bem (1975) found that androgynous men and women displayed higher levels of independence (a male trait) when under pressure to conform,
and they also displayed a high level of playfulness (a female trait) when given the opportunity to interact with a tiny kitten. Bem and Lenney (1976) reported that androgynous individuals claimed to experience less psychological discomfort than sex-typed individuals when they were required to perform cross-sex behaviors. Helmreich, Spence and Holahan (1979) reported that androgynous males and females expressed the greatest comfort when asked to perform role-congruent and role-incongruent tasks while being videotaped. Orlofsky and Windle (1978) also provided some support for the relationship between psychological androgyny and behavioral flexibility. Androgynous subjects displayed greater behavioral adaptability than sex-typed or undifferentiated subjects when they were evaluated on measure of interpersonal assertiveness and emotional expressivity.

**Psychological Adjustment**

Bem (1974) suggested that psychological androgyny may become the new measure for psychological adjustment. Since then, the question of how and if personal adjustment and androgyny relate to one another has been an important topic of investigation. To date, however, the results of empirical studies seem inconclusive. Spence, Helmreich and Stapp (1975), when examining the relationship between a self-report measure of adjustment and the PAQ, used a t-test criterion for sex-typing and found different results for
women and men. Among women, but not among men, androgynous subjects had higher self-esteem (one measurement of adjustment) than sex-typed subjects, while among men, traditionally sex-typed subjects revealed more self-esteem. The authors discussed their results in terms of the type of scoring procedure they used (t-test criterion) which does not differentiate individuals high in both masculinity and femininity from subjects who score low on both scales. They proposed that the androgyny model was valid in the case of self-reported adjustment as long as their criterion for sex-typing eliminated persons low on masculinity and femininity from the androgyny category.

Deutsch and Gilbert (1976) examined the relationship between psychological androgyyny and adjustment using the Revised Bell Adjustment Inventory (Bell, 1963). They found that androgynous women's descriptions of themselves evidenced better adjustment than those of the feminine-typed woman. Sex-typed men, however, reported better adjustment than androgynous men. These findings led Deutsch and Gilbert to conclude that it is masculinity, not androgyny, which is predictive of mental health. Unfortunately, upon evaluating their procedure, Deutsch and Gilbert used the t-score criterion and their results should be interpreted with caution.

Another study, designed to assess the relationship between a measure of androgyyny (BSRI) and self-rated
adjustment addressed the problems associated with the use of the t-score criterion by utilizing both a t-scoring procedure and a factor-scoring procedure (Silvern & Ryan, 1979). The adjustment differences they found between the groups when utilizing the t-scoring criterion replicated the results of Deustch and Gilbert (1976). However, when they used the median-split method of scoring, they discovered that androgynous and masculine-typed men did not differ on measures of adjustment, although both groups indicated greater adjustment than undifferentiated men. In addition, they found that androgynous women reported higher levels of adjustment than feminine-typed or undifferentiated women.

Other investigations of the relationship between androgyny and adjustment also have demonstrated complex results. For example, Orlofsky & Windle (1978) found positive relationships between adjustment and androgyny, masculinity in males and femininity in females. Logan and Kaschak (1980), however, reported finding no differences between sex-role orientations and psychological adjustment. Finally, Lee and Scheurer (1983) reported that the presence of masculine traits in both men and women accounted for the most adaptive scores.

Self-Esteem

One component of most measures of psychological adjustment is self-esteem. However, this variable has been investigated independently, and the results of these
investigations are perhaps the most consistent found in the sex-role literature. Spence et al. (1975) correlated two self-report measures, the PAQ and the Texas Social Behavior Inventory (TSBI: Helmreich, Stapp & Ervin, 1974), and found that androgynous males and females demonstrated the highest levels of self-esteem relative to other sex-role outcomes. Bem (1977) found a somewhat different relationship when she examined self-esteem scores using the TSBI and sex-roles as measured by the BSRI. That is, while both androgynous and masculine subjects reported higher levels of self-esteem than did feminine or undifferentiated subjects, sex differences were found. Men who scored high in masculinity were also high in self-esteem, regardless of their femininity scores. In contrast, women who scored high in both femininity and masculinity were highest in self-esteem, while women who were low in both masculinity and femininity were lowest in self-esteem, and women who scored high in one and low in the other fell in between, with the masculine women scoring slightly higher. O'Connor, Mann and Bardwick (1978), who utilized the PAQ and the TSBI, reported the same pattern of results. Overall, it appears that better self-esteem is correlated with androgyny in females, while for men, masculinity is related to self-esteem. Given the results of Spence et al. (1975), mentioned earlier, more investigations would be warranted.
Attraction and Liking

The effect of sex-role orientation on interpersonal relationships and attraction and likability has been widely studied. One method of assessing attraction is to provide subjects with the opportunity to evaluate protocols designed to reflect either a sex-typed or androgynous orientation. Pursell and Banikotes (1978) presented male and female subjects with four BSRI protocol forms which had been constructed to represent a stereotyped female, an androgynous female, a stereotyped male and an androgynous male. Subjects were asked to rate these protocols using a separate Interpersonal Judgement Scale (IJS; Byrne, 1971) for each protocol. The sex-role orientation of the subject was also identified by the BSRI (Bem, 1974). A significant interaction was found between the sex-role of the protocol and the subjects’ sex-role, such that androgynous subjects tended to rate androgynous protocols significantly higher in attraction than stereotyped protocols, while stereotyped subjects rated stereotyped protocols as significantly more attractive than androgynous protocols. This finding, however, was moderated by the sex-of-the-subject by stereotype-of-protocol interaction. Female subjects, both stereotyped and androgynous, found the androgynous protocols more attractive than stereotyped protocols. Similar results with female subjects were found by Bridges (1981) in judgements of likability. She provided subjects with
protocols of androgynous, masculine and feminine persons. Females were found to demonstrate clear preferences for the androgynous stimulus person protocols, regardless of whether their subjects were sex-typed or androgynous.

Kulik and Harackiewicz (1979) examined whether the androgynous individual was more desirable as a friend and/or romantic partner than the sex-typed or undifferentiated individual. They, too, found that females preferred the androgynous males more than the sex-typed or undifferentiated males. Conversely, males preferred androgynous females slightly more than feminine females for platonic liking, but reversed their preferences on the romantic liking scales. These results led the authors to conclude that males may be somewhat more traditional than females in their views toward the opposite sex.

Korabik (1983) presented her subjects with descriptions of stimulus persons varying in gender and sex-role orientations. Male subjects tended to deprecate descriptions of stimulus persons which were inappropriate to their gender (i.e., feminine males and masculine females). In addition, they tended to infer the gender of the sex-unspecified descriptions based on the sex-typing of the description, rating the no-gender feminine description similarly to their ratings of a feminine female and the sex-unspecific masculine descriptions similarly to the way they rated a masculine male. Female subjects, in contrast,
consistently rated the masculine descriptions as the least favorable, regardless of the gender ascribed to the stimulus person description. These results led the author to the conclusion that "males are more rigidly sex-typed than females" (p. 160).

Major et al. (1981) provided subjects with PAQ protocols constructed to be androgynous, masculine, feminine or undifferentiated. They found that subjects rated androgynous stimulus person protocols as more adjusted, more competent, more intelligent and more successful than the masculine stimulus persons. Similarly, Jackson (1983) utilized protocols to assess subjects' judgements about androgynous, masculine and feminine stimulus persons. However, they also included photographs of either an attractive, moderately attractive or unattractive stimulus person. She found that, regardless of physical attractiveness, the androgynous stimulus person was rated as better adjusted and more likable than the masculine stimulus person.

Another commonly used method of assessing judgements of attractiveness and likableness is by providing subjects the opportunity to describe an "ideal" person. Relationships between sex-roles, as measured by the BSRI, and the ideal sex-role of persons of the opposite sex, as measured by a modified BSRI, were investigated by Kimlicka, Wakefield and Goad (1982). They found that the androgynous, feminine and
masculine men overwhelmingly described the ideal woman as feminine. Feminine or undifferentiated women were described as the ideal by undifferentiated male subjects. Interestingly, female subjects, whether they had an androgynous, masculine or feminine orientation, described the ideal man as androgynous or masculine. The authors concluded that "females allow for more variation in the ideal sex-role behaviors of males than males allow in the ideal sex-roles of women" (p. 521).

Silvern and Ryan (1983) asked male and female subjects to describe their "ideal person" by rating them on characteristics taken from the BSRI on a 5-point scale, ranging from "not at all" to "extremely." They found that both men and women characterized the ideal person as significantly more feminine than masculine.

Deutsch and Gilbert (1976) asked subjects to describe their "real self" and "ideal self," "ideal other," and beliefs about the opposite sex's "ideal other," using a BSRI for each description. They found that subjects rated their real self as slightly sex-typed in the direction of their own gender. Males reported sex-typing in their reports of ideal self, whereas females described an androgynous ideal self. The females' ideal other was androgynous. As was found by McKee and Sherriffs (1959), males' perceptions of women's ideal other were accurate. That is, they were aware that women described the ideal other as androgynous.
Orlofsky (1982) examined the degree of sex-typing or androgyny that college students wanted in their ideal dating partners and potential spouses. He found that female subjects, regardless of their sex-role orientations, described the ideal partner as androgynous. Other studies have also demonstrated women's preference of someone who displayed both masculine and feminine traits. For example, Buss and Barnes (1986) asked subjects to describe their ideal mates. Women reported that they preferred a mate who was considerate, honest, kind, dependable, understanding, fond of children, ambitious career-oriented and well liked. Howard, Blumstein and Schwartz (1987) conceptually replicated Buss and Barnes' study and found that women reported preferences for mates that were expressive and ambitious.

Given the above findings, one may be tempted to assume that the clear advantage the androgynous male has over his sex-typed and undifferentiated counterparts reflects a change in attitude. However, recall that almost three decades ago, it was reported that females indicated the "ideal male" was someone possessing both masculine and feminine characteristics (McKee & Sherriffs, 1959). With few exceptions, it appears that this "ideal" still holds true.

Clinical Judgements of Mental Health

Recall that Broverman et al. (1970), cited earlier,
reported clinical judgements of mental health paralleled those of traditional sex-roles. The results of a replication study conducted almost two decades later (Phillips & Gilroy, 1985) demonstrated that clinicians have incorporated more healthy concepts into their descriptions of a healthy person, regardless of gender. Thus, the "double-standard" of mental health that Broverman et al. described no longer appears to apply. Researchers such as Gomes and Abramowitz (1976), Marwitt (1981), Sherman (1981) and Whitley (1979) have also failed to replicate the early findings of Broverman et al.. Rather, these and other studies, such as Shapiro and Shapiro (1985), found that individuals in the health and helping professions now ascribe to a definition of psychological health which corresponds to current unipolar conceptualizations of androgyny.

It seems clear that changes have occurred in the attitudes of mental health professionals regarding men and women. As Phillips and Gilroy (1985) comment:

"...clinicians seem no longer to be confined by the limitations of earlier stereotypes and define a wider variety of permissible traits which conceivably translate into greater behavioral alternatives" (p. 190).

Rossi (1964) predicted that there would come a time when appropriate behaviors as defined for men and women would include positively valued characteristics that in the past had been linked only with the opposite sex. The
research presented thus far suggests that the time Rossi spoke of has arrived.

Changing Sex-Role Stereotypes

It has been suggested that there has been a change in the valuation of the two sexes over the past several decades (see Werner & LaRussa, 1985). These changes seem to have taken the form of increased valuation of femininity (Der-Karabetian & Smith, 1977). Perhaps this was a direct reflection of the women's liberation movement which openly challenged the traditional assumptions about the roles that men and women were expected to adhere to. As a result of women's dramatic changes in their definitions of themselves and their expectation of others to redefine "a woman's place," Pleck (1976) suggested that men have had to examine their own roles and recognize the need for change, particularly in their relationships with women. And yet, some prominent questions remain as to what these changes encompass. That is, there appears to be ample evidence that women's sex-role attitudes have changed (Huston-Stein & Higgins-Trenk, 1978; Mason, Czayka & Arber, 1974; Petro & Putnam, 1979; Thorton & Freedman, 1979) yet questions remain about whether the overt behavioral responses have followed. If androgyny is now the standard by which women judge men, do women respond positively to this type of behavior when it occurs?
Statement of the Problem

Previous research examining sex-roles and androgyny has relied extensively on self-report measures. These measures have been used to assess subjects' evaluations of other people usually by using bogus sex-role protocols. Investigations have given little attention, however, to sex-role actions. Thus, the present study seeks to add to the wealth of information provided by self-report measures by exploring behavioral responses to sex-role orientation. Specifically, the research tested the prediction that a man's sex-role orientation, particularly androgyny, serves as a positive and potentially reinforcing social stimulus for women.

The present study is part of a program of research designed to examine the similarity between known principles of conditioning and analogous principles in social psychology. Previous research (Bartell, 1986) examined the functional properties of androgyny as a reinforcer of a behavioral response in a procedure analogous to instrumental escape conditioning. Her results provided evidence for the reinforcing effects of androgyny in that both acquisition effects and partial reinforcement effects were found. While enticing, these results are not sufficient to establish an androgynous male as a social reinforcer.

In discrete-trials conditioning, the subject learns to make an instrumental response (IR) upon presentation of a
conditioned stimulus (CS) which is followed by a reinforcing stimulus. Response speed (100/latency), measured from the presentation of the CS until the instrumental response, is the pertinent dependent variable. In this experiment, the female subject’s response of pressing a switch (IR) when a signal light (CS) was presented was followed by the opportunity to hear a male who expressed androgynous characteristics and interests.

Specifically, the present research investigated whether or not there is a regular gradient of delay of the reinforcing opportunity to listen to an androgynous male speaker following the presentation of information by a masculine male speaker. If androgyny functions as a reinforcer of an instrumental switch-pressing response, then the time interval between the instrumental response and the opportunity to listen to the comments of an androgynous speaker should be functionally analogous to delay of reinforcement. Delay of reinforcement consistently results in a monotonic delay gradient in animal research (Fowler & Trapold, 1962; Tarpy & Koster, 1970) and in human research (Steigleder, Weiss, Cramer & Feinberg, 1978; Weiss, Boyer, Colwick & Moran, 1971; Weiss, Lombardo, Warren & Kelley, 1971). It was hypothesized that female subjects given the opportunity to listen to the androgynous male speaker immediately after pressing the instrumental response would
perform the response faster than subjects experiencing a short delay.
METHOD

Subjects and Confederates

Thirty-nine female undergraduate volunteers recruited from several general education courses at California State University, San Bernardino served as subjects. The subjects ranged in age from 18-45 (M = 26). All subjects were naive to the experimental task and were randomly assigned to one of three experimental conditions. Five female research assistants served as experimenters, and two male research assistants served as the masculine and androgynous speakers.

Experimental Design

The experimental design can be described as a 3 x 10 (Groups x Trials) repeated measures. The first independent variable was the delay of reinforcement: the time between pressing the instrumental response and the opportunity to listen to an androgynous male. This variable had three levels (1 s, 5 s, 10 s) with 13 subjects per cell. Because of the experiment's use of an elaborate deception, and because the research was part of a broadly defined program of experiment, it was decided to run as few subjects as possible, in as few groups as possible, to test the learning hypotheses (See Carlsmith, Ellsworth & Aronson, 1976, Chp. 3). Hence, the 0 s delay group (n=22) was run in parallel.
to the delay groups reported here and was previously reported as part of a partial reinforcement experiment conducted by Bartell (1986). For clarity of exposition, response speeds from the 0 s delay group will be included in the Results section. The second independent variable was the 10 conversation trials. The primary dependent variable was the subject’s response speed (100/latency) measured from the time the conditioned stimulus was presented ("Press switch when ready to hear Speaker 2") to the time the instrumental response was made (pressing switch). The response resulted in the subject having the opportunity to hear the androgynous speaker.

Deception and Masking Task

The experiment was presented to all subjects as a study of interpersonal communication. The subject was led to believe that there were 3 participants (two "Speakers" and one "Listener"). Each subject was told that they were to be the "Listener" by virtue of being the first subject to arrive at the laboratory waiting rooms.

The illusion that there were two other participants in the experiment was maintained by labelling two adjacent waiting rooms and two laboratory cubicles with signs reading "Speaker 1" and "Speaker 2". The instructions were also carefully crafted as if there were actually to be three participants. In addition, the illusion was furthered by having the subject "overhear" the experimenter deliver the
initial greeting instructions to each of the two confederates. During the experimental phase, the subject was led to believe that she was listening to two other subjects respond to questions posed by the experimenter, though she was actually listening to a series of prerecorded statements delivered by two male confederates.

The subject was told that the variable of interest was her estimation of the likelihood that her behavior would change in the future as a result of having listened to the speakers' comments. The subject was asked to indicate her estimation of future behavior change by pressing one of five buttons following each conversation trial. Each button represented a statement that reflected the likelihood of behavior change. This measurement served only to support the logic of the masking task and was of no theoretical importance.

Apparatus and Materials

The subject's room was furnished with a chair and a large table. The experimental apparatus consisted of an intercom system (amplifier, Coulbourn S82-24; microphone/headset, Califone, 2960) and a module (45.72 cm x 30.48 cm x 7.62 cm) positioned on the table approximately 50 cm from the subject. The module was constructed of plywood and contained a toggle switch with a spring-back return, 4 transparent mirror-glass windows, and five behavior change buttons. When the opaque windows were illuminated, the
following instructional signals were discernible: "Listen to Speaker 1," "Press switch when ready to hear Speaker 2," "Listen to Speaker 2," and "Behavior Change." Beside each of the buttons was a statement representing the likelihood of behavior change ("Very likely to change my behavior" to "Not very likely to change my behavior").

A list of possible questions for discussion was taped on the table directly in front of the subject. This list included the 10 questions used during the experiment and 5 distractor questions. Attached to the right side of the table was a clipboard with a manilla envelope containing a 12-item post-conversation questionnaire (see Appendix A). This questionnaire included items intended to assess the subject's reactions to each of the speakers' comments as well as their personalities. Subjects were asked to respond to the following statement: "After listening to Speaker 1's (Speaker 2's) comments, I found them to be...". Subjects indicated their choices by checking a 7-point scale anchored with the phrases: very unclear-very clear, traditionally masculine-not traditionally masculine, very inappropriate-very appropriate, very honest-very dishonest, and not traditionally feminine-traditionally feminine. In order to assess the subjects' attitude about the speakers' personalities, they were asked to answer the following question: "After listening to Speaker 1 (Speaker 2), I found Speaker 1 (Speaker 2) to be...". As before, the
subjects indicated their opinion by checking a 7-point scale anchored with the phrases: very likeable–not very likeable, not very masculine–very masculine, very intelligent–not very intelligent, very immoral–very moral, very feminine–not very feminine, not very mentally healthy–very mentally healthy, and heterosexual–homosexual.

The experimenter's room contained a control module, an earphone/microphone headset, and a cassette tape recorder/player (Sanyo, Model RD-W44). The experimenter's module contained the controls necessary for illuminating the instructional signal windows on the subject's module, an electronic delay (1 s, 5 s, 10 s) control switch which was automatically triggered when the instrumental response was made, and a 1/100 s clock timer (Coulbourn, Model R11-25) that automatically measured the subject's button pressing latency. Auxiliary equipment included an audio mixer (Sony, Model MX-300) and a white-noise generator (Coulbourn, Model S81-02). The white-noise generator was kept on a minimal output level in order to mask any audible cassette "tape hiss."

Ten common situations were presented as items for discussion (e.g., responding to a sad movie, babysitting, deciding what to do with free time). Two sets of comments were written for each situation: one representative of stereotypical masculine responses and another conveying androgynous responses (see Appendix B). Each dialogue was
constructed to be approximately 30 s in length when verbally expressed. The 10 situations and their corresponding dialogues were selected from a total of 14 that had been rated in order to determine whether the transcripts were, in fact, representative of stereotypical masculine and androgynous behavior. Selection was determined by 115 undergraduate volunteers who rated the dialogues on a 7-point Likert-type scale. Each dialogue was independently rated for masculinity and femininity. Criteria for selection of the situations to be used included: (a) the corresponding masculine dialogue exceeded a mean rating of 5.0 on the masculinity scale and did not exceed a mean rating of 3.0 on the femininity scale, and (b) the corresponding androgynous dialogue received a mean rating of 5.0 on the femininity scale and did not exceed a mean rating of 3.0 on the masculinity scale. The criterion for the androgynous dialogue was biased towards femininity since it was argued that the presentation of the dialogue by a male speaker would increase the perceived masculinity of the speaker, thus diluting the subject's perception of the speaker's femininity. This assumption was supported by the results reported by Bartell (1986) and information reported below.

Each transcript was recorded on a master audio cassette tape (Memorex, dB series Normal, type 1, 120 s EQ) by the two male confederates. The male confederates serving as
Speaker 1 and Speaker 2, responding in a masculine and an androgynous manner, respectively, were completely counterbalanced. The order of presentation of the situations to be discussed was determined randomly.

The post-experiment questionnaires included a 4-item demographic questionnaire (see Appendix C) and an 11-item attitude questionnaire which was adopted from Schwartz and Gottlieb (1980) and Pantin and Carver (1982) (see Appendix D). Items included in the demographic questionnaire included: age, educational level, academic major, and highest degree planned on obtaining. The attitude questionnaire was designed to assess the subject's reactions to participating in an experiment involving deception. Subjects were asked to indicate on a 7-point scale (anchored with the phrases: 0 = Not at all and 6 = Very Much) their responses to the following statements: "I enjoyed participating in this experiment," "I found the experiment instructive about the social sciences," "I found the experiment instructive about myself," and "I am willing to participate in another experiment in the future." Each subject also indicated on a 7-point scale (1 = Much Less, 7 = Much More) if she was more or less likely to trust authority, and more or less positive about her evaluation of experimental research. Finally, subjects indicated "Yes" or "No" to the following questions: "Should this research be permitted to continue?", "Is the research justified?", "Did
the explanations of the experiment satisfy you?", "Do you regret having participated in the experiment?" and "Are you resentful about having been deceived?"

Procedure

Each subject was instructed to report to a suite of waiting rooms where three waiting rooms, one labelled "Listener" and two adjacent waiting rooms labelled "Speaker 1" and "Speaker 2," were located. The subject was escorted into the waiting room labelled "Listener." After the subject had read and signed the consent form (see Appendix E), the experimenter explained that the experiment, which involved three people, was designed to investigate interpersonal communication. The experimenter further explained that the variable of interest was self-reported behavior change as a result of having listened to two other people comment on their behavior in a variety of familiar situations. At this point, the subject was told that she was the listener by virtue of being the first person to arrive. The subject was also told that the research was also interested in discovering how the Speakers' behaviors may change as a result of having expressed their actions verbally. The experimenter explained that none of the participants would not be permitted to meet in order to ensure confidentiality so that all participants would feel free to express themselves. The experimenter then left the Listener's waiting room, presumably to greet the other.
participants, closing the door behind her. In a few minutes, the experimenter returned to the waiting rooms, ostensibly escorting Speaker 1 and Speaker 2 to their respective waiting rooms. The close proximity of the waiting rooms permitted the subject to overhear the experimenter deliver the instructions to the bogus speakers. After the instructions were "read" to the speakers, the experimenter returned to the listener's waiting room in order to escort her to the main laboratory.

Once inside the laboratory, the experimenter pointed out the two cubicles labelled "Speaker 1" and "Speaker 2" and led the subject into a room which was labelled "Listener." The subject was seated before the listener's module and asked to review the list of possible questions for discussion which were taped to the table. The experimenter also instructed the subject to put on the headset, explaining that further instructions would be delivered after the other participants had been escorted to the laboratory. The experimenter then left the Listener's room, leaving the door ajar.

When the subject put the headset on, she heard the white noise intended to mask the cassette "tape hiss." Despite the white noise, she was also able to hear the experimenter exit and enter the laboratory twice, delivering the instructions, in turn, to the speakers. The experimenter then closed the listener's room door, to
presumably exit the laboratory for the last time and go to
the main control room; the experimenter was actually in a
room adjacent to the subject's room.

After approximately 60 s, the experimenter explained
that she was conducting an equipment check, and asked that
each participant verify that they were able to hear the
experimenter over the headsets. Following the taped
responses of each of the speakers and the response from the
listener, the experimenter delivered the experimental
instructions. The instructions were designed so that the
speakers were addressed prior to the delivering of the
listener's instructions in order to further the illusion of
the speakers' existence.

The experimenter explained that she would describe
several common situations selected from the list the
participants had been given the opportunity to review. It
was further explained that after the situation was read,
both of the speakers would be given the opportunity to
comment on how they had behaved or how they would behave in
this situation in the future. The speakers were instructed
to observe their "comment signal" lights in order to know
when to make their comments. They were also asked to keep
their comments to about 30 s in length. The subject was led
to believe that the speakers could not hear each other's
comments. The participants were also told that, following
the completion of Speaker 2's comments, the "Behavior

36
Change" signal would be illuminated and each participant would be asked to indicate the likelihood of changing their behavior in the future for the situation just discussed. The experimenter then asked the speakers and the listener if they had any questions. One prerecorded question was posed by each speaker prior to the subject being given the opportunity to ask a question.

Each conversation trial began with the experimenter indicating the number of the question on the list of possible questions for discussion, and then reading the question aloud. This was followed by the illumination of the "Listen to Speaker 1" signal and the initiation of the masculine speaker's tape recorded response. When Speaker 1's comments were completed, the tape was stopped and the "Listen to Speaker 1" signal was extinguished. The conditioned stimulus ("Press switch when ready to hear Speaker 2") was then illuminated, and the latency timer initiated.

When the instrumental response was performed by the subject, the latency timer stopped automatically. Depending upon the experimental condition, the instrumental response resulted in a 1 s, 5 s, or 10 s delay of the illumination of the "Listen to Speaker 2" signal and the presentation of the androgynous speaker's tape recorded comments. Following the completion of Speaker 2's comments, the tape was turned off and the "Listen to Speaker 2" window was darkened. The
"Behavior Change" signal was then illuminated, and the subject was given the opportunity to indicate the likelihood that she would change her behavior. Once completed, a new conversation trial was begun. This predetermined sequence was followed for all ten trials.

Following the completion of the ten conversation trials, the speakers and the listener were instructed to locate the clipboard located on their tables. Inside the subject's packet was a post-conversation evaluation questionnaire. When the subject indicated she had finished the questionnaire over the headset, the experimenter entered the subject's room and debriefed her. The subject was given an opportunity to ask questions and the experimenter offered to send her the results of the experiment upon its completion. The subject was then given the Subject Reaction Questionnaire and the short demographic questionnaire.
RESULTS

Effectiveness of Sex-Role Induction

As noted above, each of the speaker’s comments, as well as his personality, was rated on the dimensions of masculinity and femininity. The format of providing subjects with two separate sets of adjectives (comments and personality) on the evaluation questionnaire was designed to assess any distinctions the subjects may have made between what the speaker said and how he was "perceived." As expected, Speaker 1’s comments were rated as more traditionally masculine \( M = 6.49 \) than feminine \( M = 1.49 \). Speaker 2’s comments, on the other hand, were rated as approximately equal in masculinity \( M = 3.33 \) and femininity \( M = 3.46 \).

The subjects’ evaluations of the masculinity and femininity of each speakers’ personality reflected a similar pattern. Speaker 1 was rated as more masculine \( M = 5.87 \) than feminine \( M = 1.72 \), whereas the masculinity and femininity ratings of Speaker 2’s personality were approximately equal \( M = 4.28 \) and \( M = 3.33 \), respectively.

The present study hypothesized that the opportunity to listen to an androgynous male displays the functional properties of a conventional reinforcer. Since the ratings
of Speaker 2's comments and personality were approximately equal and high on the masculine and feminine dimensions, it would appear that the androgynous male was properly viewed according to the contemporary theories of androgyny.

**Analysis of Escape Response Speeds**

Figure 1 shows the response speeds for the 0 s, 1 s, 5 s, and 10 s delay of reinforcement groups. As predicted, the speed of the instrumental response was a decreasing function of the delayed opportunity to listen to an androgynous male.

Scoring and data analysis followed analogous procedures of conditioning research. The subjects' latencies were transformed into speeds by the reciprocal transformation (speed = 100/latency) for each trial. Typically, the different groups in a conditioning experiment begin at a similar low level of performance, with differences in performance developing over the course of trials. As a general rule, therefore, tests for differences between the response speeds of various experimental groups are made late in learning over a block of the last few trials. The results of an analysis conducted over the last three conversation trials, when learning effects are expected to be maximized, evidenced a significant delay of reinforcement effect, $F(3, 57) = 5.02$, $p < .01$.

Selected comparisons of the mean response speeds indicated that the 1 s and 5 s delay groups were not
Delav of Reinforcement Analog: Response Speed as a Function of Four Levels of Delay of Reinforcing Opportunity to Listen to an Androgynous Male.

Note. The 0 s delay mean (n = 22) is from a partial reinforcement analog experiment run parallel to the 1 s, 5 s, and 10 s delay conditions.
reliably different. However, the immediately reinforced group (0 s delay) responded significantly faster than the combined speed of the 1 s and 5 s delay groups, \( t(57) = 3.59, p < .001 \). The 10 s delay response speeds were also significantly slower than the combined speed of the 1 s and 5 s delay groups, \( t(57) = 1.84, p < .05 \). In summary, subjects experiencing a delayed opportunity to listen to the androgynous speaker performed the instrumental response significantly slower than the immediately reinforced subjects.

**Evaluations of Speakers' Comments and Personalities**

A 3 (delay conditions: 1 s, 5 s, and 10 s) x 2 (speakers: masculine and androgynous) repeated measures MANOVA was performed on the subjects' post-conversation evaluations. The evaluations made by subjects in the 0 s delay condition were reported by Bartell (1986) and therefore, will not be reported here. The MANOVA indicated that the combined post-conversation evaluations were significantly affected by the delay of reinforcement, \( F(24,50) = 2.04, p < .02 \), and the speakers' sex-role, \( F(12,25) = 9.99, p < .001 \); the interaction was not statistically reliable. Selected univariate tests were then performed to more precisely investigate the subjects' evaluations of the clarity and appropriateness of the speakers' comments, and the speakers' likeability, intelligence, morality, mental health and sexuality. The
The overall delay effect was explained by the finding that the subjects in the three delay conditions differed in their ratings of the appropriateness of the speakers' comments, $F(2,36) = 7.93, p < .002$. Subjects in the 10 s delay condition rated the speakers' comments as significantly less appropriate than subjects in the 1 s and 5 s delay cells: $M_{10} = 4.07$ vs $M_1 = 5.12$, $t(36) = 2.03, p < .05$ (2-tailed), and $M_{10} = 4.07$ vs $M_5 = 5.86$, $t(36) = 3.93, p < .01$ (2-tailed), respectively.

The overall sex-role effect was explained by several significant univariate tests. The means and standard deviations (SD) presented in Table 1 revealed that the androgynous speaker's comments were rated as more appropriate $F(1,36) = 27.90, p < .001$, and he was rated as being more likeable $F(1,36) = 52.42, p < .001$, more moral $F(1,36) = 23.50, p < .001$, and more mentally healthy $F(1,36) = 7.17, p < .01$, than his masculine counterpart. The masculine speaker, however, was rated as significantly more heterosexual than the androgynous speaker $F(1,36) = 4.40, p < .04$, but by no means was the androgynous speaker rated as homosexual.

Subjects' Evaluation of the Experiment

The subjects' evaluations of the experiment were very positive (see Table 2). Subjects reported that they enjoyed participating in the experiment ($M = 6.36$), found the experiment instructive about themselves ($M = 4.51$), and
Table 1

Evaluations of Masculine and Androgynous Speakers and Their Comments by Subjects Who Received a Delay of Reinforcement

<table>
<thead>
<tr>
<th>EVALUATION ITEM</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity of comments</td>
<td>5.82</td>
<td>1.37</td>
<td>5.79</td>
<td>1.40</td>
</tr>
<tr>
<td>Masculinity of comments</td>
<td>6.49</td>
<td>1.19</td>
<td>3.33</td>
<td>1.98</td>
</tr>
<tr>
<td>Appropriateness of comments</td>
<td>4.44</td>
<td>1.62</td>
<td>5.62</td>
<td>1.51</td>
</tr>
<tr>
<td>Honesty of comments</td>
<td>5.89</td>
<td>1.25</td>
<td>6.07</td>
<td>1.51</td>
</tr>
<tr>
<td>Feminity of comments</td>
<td>1.49</td>
<td>1.12</td>
<td>3.46</td>
<td>1.74</td>
</tr>
<tr>
<td>Likableness</td>
<td>3.79</td>
<td>1.84</td>
<td>6.18</td>
<td>1.12</td>
</tr>
<tr>
<td>Masculinity of person</td>
<td>5.87</td>
<td>1.59</td>
<td>4.28</td>
<td>1.82</td>
</tr>
<tr>
<td>Intelligence</td>
<td>5.10</td>
<td>1.39</td>
<td>5.33</td>
<td>1.06</td>
</tr>
<tr>
<td>Morality</td>
<td>4.69</td>
<td>1.36</td>
<td>6.00</td>
<td>1.15</td>
</tr>
<tr>
<td>Feminity of person</td>
<td>1.72</td>
<td>1.25</td>
<td>3.33</td>
<td>1.51</td>
</tr>
<tr>
<td>Mental Health</td>
<td>5.33</td>
<td>1.44</td>
<td>5.82</td>
<td>1.05</td>
</tr>
<tr>
<td>Heterosexuality</td>
<td>6.36</td>
<td>1.09</td>
<td>5.82</td>
<td>1.39</td>
</tr>
</tbody>
</table>

Note. N = 39. Mean ratings reflect a scale of 1 = Not Very to 7 = Very.
Table 2

Percent Of Subjects' Response To Questions About The Experiment.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>Some-what</th>
<th>Quite</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. enjoyed participating</td>
<td>0</td>
<td>0</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>2.6</td>
<td>15.4</td>
<td>15.4</td>
<td>64.1</td>
</tr>
<tr>
<td>2. instructive about social sciences</td>
<td>5.1</td>
<td>2.6</td>
<td>10.3</td>
<td>10.3</td>
</tr>
<tr>
<td></td>
<td>28.2</td>
<td>28.2</td>
<td>15.4</td>
<td></td>
</tr>
<tr>
<td>3. instructive about myself</td>
<td>5.1</td>
<td>2.6</td>
<td>23.1</td>
<td>10.3</td>
</tr>
<tr>
<td></td>
<td>30.8</td>
<td>20.5</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>4. willing to participate in another experiment</td>
<td>0</td>
<td>0</td>
<td>7.7</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>20.5</td>
<td>7.7</td>
<td>61.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Much less</th>
<th>Somewhat Less</th>
<th>Somewhat Less</th>
<th>Much more</th>
<th>More more</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. trust in authority</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>84.6</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.1</td>
</tr>
<tr>
<td>6. evaluation of experimental research</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>56.4</td>
<td>17.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.8</td>
</tr>
</tbody>
</table>

Percent based on N=39
Table 2 (cont’d)

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Should the research be permitted to continue?</td>
<td>100.0</td>
</tr>
<tr>
<td>8. Is the research justified?</td>
<td>100.0</td>
</tr>
<tr>
<td>9. Did the explanations satisfy you?</td>
<td>97.4</td>
</tr>
<tr>
<td>10. Do you regret participating?</td>
<td>0</td>
</tr>
<tr>
<td>11. Are you resentful about having been deceived?</td>
<td>0</td>
</tr>
</tbody>
</table>

Percent based on N=39
indicated that they were quite willing to participate in future experiments ($M = 6.13$). Subjects also reported that they found the experiment to be instructive about the social sciences ($M = 5.00$). Consistent with previous research (Bartell, 1986; Cramer, McMaster, Bartell & Dragna, 1986), subjects reported that their trust in authority was not affected by participating in an experiment involving deception ($M = 4.36$). In addition, most of the subjects reported that their evaluation of experimental research was as positive or somewhat more positive after having participated in this experiment ($M = 4.82$).

All of the subjects reported that they thought the research should be permitted to continue, that they were not resentful about having been deceived, and that they found the research to be justified. None of the subjects reported regretting having participated in the experiment, and a large majority of the subjects (97.4%) also indicated that the explanations about the experiment were satisfactory.
DISCUSSION

Social Learning Effects

The results clearly evidenced a correspondence between instrumental conditioning and the reinforcing effects of androgyny, thus lending further support to the use of social learning methodology in the investigation of important social issues (see Steigleder, Weiss, Cramer & Feinberg, 1978; Weiss, Buchanan, Altstatt & Lombardo, 1971; Weiss, Lombardo, Warren & Kelley, 1971). Consistent with results reported by Bartell (1986), all subjects learned the instrumental switch-pressing response when, after listening to a masculine male speaker, they were reinforced with the opportunity to hear an androgynous male speaker. As in learning research, subjects in the present study evidenced a decreasing gradient of delay over a block of the last three conversation trials, when the group differences were expected to be maximized. Thus, the hypothesis that subjects given the immediate opportunity to listen to an androgynous male would perform the instrumental response faster than subjects experiencing a short delay was supported.

Post-Conversation Evaluations

It appears that the delay effects above resulted from the manipulation of the reinforcing opportunity to listen to
the androgynous speaker and not the subjects' different perceptions of the speakers' characteristics. The combined evaluations were affected by the delay of reinforcement and speaker effects. The delay of reinforcement effect was explained by the finding that the delay groups differed in their ratings of appropriateness of the speakers' comments. Subjects in the 10 s delay condition rated the speakers' comments as significantly less appropriate than subjects in the 1 s or 5 s delay groups.

The speakers main effect results seem especially important in light of the contribution this behavioral analysis has revealed in conjunction with the research previously reported, most of which utilized self-report measures. Based on previous findings, it was expected that the androgynous males would be judged more positively than the masculine males. Consistent with previously reported results, the androgynous male was rated more positively than his masculine counterpart on several dimensions. For example, the comments made by the androgynous speaker were judged more appropriate than the masculine speaker's comments. In addition, subjects reported finding the androgynous male more likeable, more moral, and more mentally healthy than the masculine male. The masculine male was judged to be more heterosexual than the androgynous male. However, it is important to note that by no means was the androgynous speaker judged homosexual.
The results of this study, along with others which have demonstrated the reinforcing nature of androgyny, give us more confidence that, not only has a change occurred in sex-role attitudes (Petro & Putnam, 1979), there is now empirical evidence to support the contention that women's overt behavior responses may be following suite. That is, women may be responding much more positively when given the opportunity to interact with an androgynous male.

Evaluations of The Experiment

The subjects' evaluations of this experiment are particularly relevant given that deception was used in this study. There has been a great deal of argument against the use of deception in social scientific research (see Baumrind, 1964, 1985; Campbell, 1969; Cook, 1975; Kelman, 1967) with protesters claiming that subjects experience negative feelings (i.e., resentment and regret) following their participation in an experiment involving deception. It has also been argued that deception instills in subjects a learned distrust of authority, and that potential subjects may be unwilling to participate in future research as a result of this distrust. The present study, however, does not support these claims.

In general, subjects' evaluations of this experiment were very positive. Subjects reported that they enjoyed participating in the experiment. None of the subjects indicated any resentment about having been deceived, nor any
regret about their participation in a study involving deception. In addition, subjects in the present study reported that their trust in authority was not affected by their participation in an experiment involving deception and indicated that they were quite willing to participate in future experiments. Furthermore, all of the subjects in this experiment reported that they felt the research was justified and should be permitted to continue. Critics of the use of deception in social scientific investigations may be tempted to argue that these results are spurious. However, the same pattern of results were found by other researchers who's investigations contained deceptive components (Bartell, 1986; Cramer, McMaster, Bartell & Dragna, 1986;).

The positive evaluations by subjects in this study are likely to reflect the care that was taken in designing the experimental debriefing. Tesch (1977) outlined several goals for effective debriefing. He argued that debriefing serves an ethical function in "insuring that participants do not leave experiments feeling less positive or more negative about themselves than when they did when they entered the experimental setting" (p. 218). He also argued that post-experimental debriefing serves as an educational function in that "participants receive an educational benefit in return for their efforts on our behalf" (p. 220). The debriefing designed for this experiment sought to
achieve these goals by employing an "interactive debriefing session", one in which a reciprocal exchange of information was facilitated. Subjects were asked about their impressions and feelings regarding the experiment prior to being informed of the true nature of the study. Thus, each subject was given the opportunity to establish an informal rapport with the experimenter in hopes that the subject would feel comfortable about expressing any negative feelings or attitudes she may have had. Subjects were encouraged to ask questions or add insights at any time. Information about the hypothesis being tested was provided, the reasons of the deception were explained and the importance of their contribution to the study of sex-roles was emphasized. In addition, subjects were assured of the confidentiality of their responses and the safeguards taken when employing deception (i.e., adherence to the ethical principles set forth by the American Psychological Association) were explained. The debriefing session, which took approximately 20 minutes per subject, was concluded when each subject indicated that all of her questions had been answered to her satisfaction.

Apparently, our attempts at meeting the goals outlined by Tesch (1977) were successful. Not only did subjects report that they enjoyed participating, as previously mentioned, they also reported that they found the experiment instructive about themselves and instructive about the
social sciences. In addition, most subjects reported that the explanations about the experiment were satisfactory and indicated that their evaluation of experimental research was as positive or somewhat more positive after having participated in this study. Clearly, the "interactive debriefing session" was effective in ameliorating the negative consequences of participating in an experiment involving deception.

Implication of Results for the Male of the 1980's and Beyond

The findings of this study that females will direct action toward an androgynous male, find interactions with androgynous males reinforcing and judge these males more favorably than masculine males would seem to have far-reaching implications. This is especially true for men currently experiencing conflict and/or sex-role strain as a result of the changing social expectations of the male-role. In a survey of over 28,000 male and female respondents, men indicated that they were in the process of "rejecting the John Wayne model of masculinity" (Tavris, 1977, p. 36). However, these men also indicated that they were more unclear than women about what should replace this masculine role.

Women have described the "ingredients" of a "modern male" as including both instrumental and expressive characteristics such as physical strength and gentleness, emotional strength and sensitivity, expressiveness and
stability (see Pleck, 1976; Tavris, 1977). This clarification of women's expectations, as well as the evidence presented here regarding positive behavioral interactions, could serve to lessen the confusion and strain many men now experience. Furthermore, this information could be utilized by men who recognize that there may be "considerable gains to make in loosening and changing their roles" (Pleck, 1976, p. 162). The woman's willingness to affiliate must precede the development of her attraction to a particular man. If we assume pressing a switch serves as an indicator of females' willingness to approach androgynous males, we have promising evidence for the possibility that the androgynous male role will result in similar responses in real life. With the females increasing proximity, or at least no immediate withdrawal, men have the opportunity to communicate with a prospective mate so that she can learn about him or he about her.

Implications for Future Research

A more complete understanding of relationships between women and men will naturally require more research on the male sex-role. The results of the present research indicate that the androgynous male was reinforcing in a manner analogous to conventional reinforcers. Unfortunately, the present research can shed no light on the role played by the masculine male in the acquisition of the instrumental response. The present experiment, however, was part of a
long-term project and benefits from other experiments in the project. In particular, the work by Bartell (1986) indicated that the masculine male functions in a manner analogous to conventional aversive stimuli, such as shock and white noise. With the observations of partial reinforcement and shock effects, future research is obliged to focus attention on the motivational functions of the masculine sex-role.

Hopefully, this research will continue to exploit not only instrumental conditioning models, but other learning models as well. For example, conflict theory (Miller, 1944, 1959) seems especially relevant to the study of the masculine sex-role. In the experimental analysis of conflict, the subject experiences a complex stimulus that elicits competing response tendencies. Usually, an animal is reinforced for approaching and consuming food at a selected site. After the acquisition of the instrumental response, the subject is then shocked at the food site. Hence, the food site, usually the goal box in a runway apparatus, elicits conflicting response tendencies. The animal continues to consume food if its tendency to approach the goal box is greater than its tendency to avoid the goal box. If the tendency to avoid the goal box is made stronger, typically by increasing the level of shock, the subject will refrain from entering the goal box area. Theoretically, conflict is defined by the subject's tendency
to approach the goal box interacting with its tendency to avoid it. Miller (1944, 1959) has developed an impressive record of research on conflict.

Several predictions regarding the masculine sex-role are derivable by drawing analogies between conflict theory and masculine sex-role action. The simple predictions below follow, in form, the experimental method outlined above and are illustrative, rather than exhaustive. For example, if it can be assumed that within the masculine sex-role reside appetitive social stimuli (he does share some traits with reinforcing androgynous males) as well as aversive social stimuli, a female interacting with a masculine male should evidence both tendencies to approach and tendencies to avoid him. If the tendency to approach a masculine male is stronger than her tendency to avoid him, we would expect to observe attraction-like responses rather than avoidance or repulsion. On the other hand, if a female's tendency to approach a masculine male is weaker than her tendency to avoid him, then we would expect to observe avoidance or repulsion rather than attraction-liking responses. At the point her tendencies to approach equal her tendencies to avoid the masculine male, we would expect to observe social conflict.

The sample predictions briefly described above naturally require the determination of what particular components of the masculine sex-role females find appetitive
and which particular components she finds aversive. That is, as a complex social stimulus, the masculine sex-role is likely to be comprised of characteristics and interests that vary along an attraction-repulsion dimension. It is not uncommon for two people to share information about what aspects of their personalities the other finds pleasant or unpleasant. It is also possible for a particular trait to be appetitive in one particular context and aversive in another. For example, competitiveness expressed while working is likely to be applauded and socially supported, while competition with a spouse would elicit animosity.

Research involving the use of conflict theory to study the masculine sex role would seem to promise a wealth of information applicable to the study of client-therapist relations. In addition, this theory seems particularly relevant in the investigation of long-term interpersonal relationships.

When a masculine male enters a therapeutic relationship, conflict theory would suggest that he may elicit competing response tendencies from a female therapist. His behavior and attitudes, because they comprise masculine characteristics that are theoretically appetitive or aversive, should elicit from the therapist both approach and avoidance behaviors. If it is true that the masculine male in therapy results in conflict for the therapist, clinical training would be necessary to improve
the therapist's awareness of the possibility of conflict. This awareness could then be utilized by the therapist during the therapeutic process.

Certainly, the presence of conflict would be expected to contribute to the deterioration of an interpersonal relationship over time. It is not difficult to imagine the effect conflict would have on someone's emotional well-being if a significant person in their life elicits both strong tendencies to be close and equally strong tendencies to be distant.
APPENDIX A

Post-Conversation Questionnaire

Listener, since you have had the opportunity to hear Speaker #1 and Speaker #2 comment, we would like you to complete these questionnaires. Please evaluate each of the Speakers by placing a check in the blank space that best describes how you feel. The Speakers will not be made aware of your evaluations.

1. After listening to Speaker #1 (#2)'s comments, I found them to be:

<table>
<thead>
<tr>
<th></th>
<th>Very</th>
<th>Very</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>unclear</td>
<td></td>
<td></td>
<td>clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>traditionally</td>
<td></td>
<td></td>
<td>not traditionally</td>
<td></td>
<td></td>
</tr>
<tr>
<td>masculine</td>
<td></td>
<td></td>
<td>masculine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inappropriate</td>
<td></td>
<td></td>
<td>appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>honest</td>
<td></td>
<td></td>
<td>dishonest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not traditionally</td>
<td></td>
<td></td>
<td>traditionally</td>
<td></td>
<td></td>
</tr>
<tr>
<td>feminine</td>
<td></td>
<td></td>
<td>feminine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. After listening to Speaker #1 (2), I found Speaker #1 (#2) to be:

<table>
<thead>
<tr>
<th>Likable</th>
<th>Very LiKable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculine</td>
<td>Very Masculine</td>
</tr>
<tr>
<td>Intelligent</td>
<td>Not Very Intelligent</td>
</tr>
<tr>
<td>Moral</td>
<td>Very Moral</td>
</tr>
<tr>
<td>Feminine</td>
<td>Not Very Feminine</td>
</tr>
<tr>
<td>Mentally Healthy</td>
<td>Very Mentally Healthy</td>
</tr>
<tr>
<td>Homosexual</td>
<td>Heterosexual</td>
</tr>
</tbody>
</table>

- very likable: ______ ______ ______ ______ ______ ______
- likable: ______ ______ ______ ______ ______ ______
- not very likable: ______ ______ ______ ______ ______ ______
- very masculine: ______ ______ ______ ______ ______ ______
- not very masculine: ______ ______ ______ ______ ______ ______
- very intelligent: ______ ______ ______ ______ ______ ______
- not very intelligent: ______ ______ ______ ______ ______ ______
- very moral: ______ ______ ______ ______ ______ ______
- very feminine: ______ ______ ______ ______ ______ ______
- not very feminine: ______ ______ ______ ______ ______ ______
- very mentally healthy: ______ ______ ______ ______ ______ ______
- not very mentally healthy: ______ ______ ______ ______ ______ ______
- heterosexual: ______ ______ ______ ______ ______ ______
- homosexual: ______ ______ ______ ______ ______ ______
APPENDIX B

VERBATIM TRANSCRIPTS OF SPEAKERS' DIALOGUES

Question 1: You are attracted to someone in one of your classes. What would you be likely to do?

Speaker 1 (confederate A): Well, let's see... I would... I'm kinda the outgoing type, what I'd probably do is go up to her at break and, you know, start talking about the professor, or possibly the homework, and... Just... I'm really not afraid to talk to girls, so I'd just probably tell her that I noticed her at break, and get her telephone number so that, you know, we could probably go out... uh, go out sometime. And... I usually like to take my dates to dinner or possibly a movie.

(confederate B): Well, let's see... I'm really outgoing, so you know, I'd probably just go up to her at the break and start talking about something... like the professor, or homework, or you know... whatever. I'm not afraid to talk to girls, and oh, I could tell her that I noticed her and ask her out on a date. You know, I... I like to take my dates out for... maybe a dinner and a movie or something like that.

Speaker 2 (confederate A): Well... I was afraid you were gonna ask that one. Well, I hate to admit it, but I... I'm kinda shy around girls. Oh, I really don't know what to do around them. Um... well, I'd probably just let her, uh, make the first move and come over and talk to me, you know. I'd hope she'd ask me out on a date, 'cuz I'm too afraid to talk to her.

(confederate B): Well, gee, I don't know. Uh... I doubt if I'd do anything, really... 'cuz, I'm, you know, a pretty shy kinda guy, so... I probably... I'd be afraid to let her know I was interested in her because she may not like me anyhow. I'd just, you know, kinda hope that she'd like me, too, and maybe she'd come and talk to me and ask me out on a date.
Question 2: You are watching a sad movie at home with your girlfriend and you feel as if you are about to cry. What would you do in this situation?

Speaker 1 (confederate A): Well, let's see...in the first place I don't even watch sad movies. The kind of movies I like to watch are probably western, science fiction...comedies I like. But if I had to sit there and watch a sad movie I'd probably be bored to death, and I wouldn't...uh...I wouldn't cry. 'Cuz I don't think that would do any good anyway...because it's only just a movie.

Speaker 2 (confederate A): Oh, crying at sad movies, huh? I, you know...I usually don't hide my emotions. You know, it really doesn't matter who I'm with or where I am, you know. I...I've always kinda been that way, you know. I've been in a lot of movies and movies bring out a lot of sad emotions sometimes. And, you know, if it's real sad, my girlfriend and I'd probably both be crying. Uh...you know, afterwards we could talk about it.

Speaker 1 (confederate B): That's a real easy question. Um...you know, I don't watch sad movies. I like westerns and, uh, science fictions. I really enjoy comedies though...they're my favorites. But, you know, if I had to sit there and watch a sad movie, man, I'd really be bored. I'd never cry. What good would that do? It's only a movie.

Speaker 2 (confederate B): Well, you know, I usually don't hide my emotions, and it really doesn't matter where I am or who I'm with...so, I usually just go ahead and cry. Um...some of the movies bring out a lot of different emotions anyway, so, you know, if it was a real sad movie me and my girlfriend would probably both be crying, you know. But then we could talk about it afterwards.
Appendix B (cont’d)

Question 3: You are required to complete some community volunteer work for a class you are enrolled in. What would you like to do?

Speaker 1 (confederate A): Well, let’s see...being the ambitious type person, I’ve always been interested in firefighting. So I’d, you know, probably choose to do something like that, or I could...I could coach a Little League team, either football or baseball would be alright. Let’s see...what else? I’d also be good in probably the Sheriff’s Reserves.

(confederate B): What would I like to do? Um, you know, I’m really ambitious and I’ve always been interested in firefighting, so I think I’d choose to do something like that. Or, um, I could coach a Little League football team or a basketball team...that’d be kinda neat. Um, I think I’d also be good in the Sheriff’s Reserves.

Speaker 2 (confederate A): Oh, volunteer work, huh? Well, whatever I do, I’d like to be a part of something where I get to help people, you know. You’ve seen those rape hotlines they have downtown, or suicide hotlines...that would be interesting. Or...what else could I do? Oh, I could work as a nurse’s aide, or you know, even help out at a daycare center.

(confederate B): Well, let’s see...what would I like to do? Uh, you know, I’d like to probably be a part of something where I could help people. Uh, maybe answering phones at a crisis hotline, or let’s see...one of those rape or suicide hotlines. You know, something like that where you can spend time helping people. Or, you know, even maybe as a nurse’s aide...or in a hospital. Or, you know, I guess I’d maybe like to help out at a daycare center or something.
Appendix B (con't)

Question 4: Your car breaks down and the gas station mechanic says that it will cost $500.00 to fix it. What would you do in this situation?

Speaker 1 (confederate A): Gosh, five-hundred dollars! What the heck happened? Um, I don't have much faith in those gas station mechanics, and I'm pretty good with cars anyway...so I would just tell him to forget it and I'd take it home and go to the junkyard and maybe buy the parts there...and save some money.

(confederate B): Oh, five-hundred dollars, huh? Oh, something must have happened to that poor old car. Uh, fortunately, you know, I'm pretty good with cars and I've got a whole garage full of tools, so...you know, that's really not that big a problem for me. Um...I'd tell the mechanic just to forget it and just fix it myself, and um, I could go to the junkyard and get some of the parts and save some money.

Speaker 2 (confederate A): Oh, you know, I really don't know anything about cars and I'm always afraid this is going to happen and some mechanic is just going to really take advantage of me. Uh...you know, in the end, I'd just have to let him go ahead and fix it. I really feel pretty helpless, you know. I can't fix it myself...I just hope he wouldn't take me for every penny I had.

(confederate B): Well, you know, I have a pretty old car so I'm always afraid that's going to happen and some mechanic is really going to take advantage of me. Uh...I just don't know anything about cars and I guess I'd just have to go ahead and fix it and, you know, I'd have no other choice, I guess. Uh, sometimes I feel pretty helpless 'cuz I don't...because I can't fix it myself. I just hope that he wouldn't take me for every penny that I have.
Appendix B (cont’d)

Question 5: You have the opportunity to use a VCR. What programs would you tape for later viewing?

Speaker 1 (confederate A): Oh, this is an easy one to answer, ‘cuz I just got one for Christmas last year. Uh...and what I do with it is, just tape all the football games and boxing matches. And, it makes it kinda neat, ‘cuz when my buddies come over and you have a few beers, you always have something to watch.

Speaker 2 (confederate A): Oh, you know, having a VCR... oh, that’d really be great, you know. Then I could...I could tape the soaps I miss, you know, ‘cuz I’m in school all day. And as it stands right now, I have to call my mom and, you know, ask her what’s happening to Marlena on “Days of Our Lives”...and that’s really a pain. So, you know, having a VCR would really be a big help. I only wish I had the money to buy one.

Speaker 1 (confederate B): That’s an easy question to answer. I’ve already got one. I got it last year for Christmas. Now I get to tape all the basketball games and all the boxing matches that are on. Uh, you know, and it’s really great having these tapes because now when my buddies come over, we sit down and have a few beers and we always have something to watch.

Speaker 1 (confederate B): Uh, use a VCR? Yeah, that’d be great. Um, then we could, you know, tape the soaps that I miss while I’m in class. Since school started, I usually have to call my mom and find out what’s happened to Marlena on “Days of Our Lives.” Hey, that’s a really good idea. I wish I had the money to buy one.
Appendix B (cont’d)

Question 6: You have a Saturday afternoon free from all commitments. How would you spend this time?

Speaker 1 (confederate A): Well, let’s see...free time...I’ve almost really forgotten what that is. Oh, no not really, just joking. Uh, let’s see, if I had the afternoon to myself, I’d probably call up a couple of my friends and see if they’d want to go out motorcycle riding, or maybe even play a game of football.

(confederate B): Hmmmm...free time. Well, I’m taking an overload this quarter and I just don’t have any free time anymore. Um...if I had an afternoon free, though, ...you know, I’d call up some of my buddies and ask them if they want to go dirt bike riding, or something like that. Or, see if they wanted to go play a football game.

Speaker 2 (confederate A): Oh, let’s see, you know, I’m taking so many classes this quarter I really don’t have any time at all. Man, I am so busy! But, you know what I really miss doing? It sounds kinda silly, but I’d like to curl up next to a fireplace and just read a good book. Or, let’s see...what else could I do? You know, if the weather’s nice, I don’t get a chance to see my mom much anymore, so I’d probably ask her out to lunch, or to go shopping, or maybe take her to a movie.

(confederate B): Well, let’s see, you know, being a student I really don’t have a whole lot of free time. Uh, well I guess what I’d really probably like to do is curl up by the fireplace and just read a good book. Or, you know, if the weather was nice, I’d probably call up my mom and see if she’d like to, you know, go out to lunch. We could go shopping or even go to a movie.
Appendix B (cont’d)

Question 7: Your sister is going out of town for the weekend and she needs to leave her three-year old child with you. What would you do in this situation?

Speaker 1 (confederate A): Well, I...I don’t know what I’d do. The first thing, I don’t think my sister would even ask me to babysit ‘cuz, uh, she knows how I...knows how I am. Ah...I’m not that good around the kids anyway. Uh...I just, I guess I’d just have to tell my sister I couldn’t do it. But I guess if I absolutely had to...I’d probably have someone come over and babysit. I just, you know, find myself being too busy on the weekends and I couldn’t get much done with a three-year old under my feet.

(confederate B): Oh, babysitting a three-year old kid, huh? Um, I’m not sure I could handle that, uh, besides my sister wouldn’t even ask me. I mean, she knows how I am and she knows I’m not very good around the kids. Um, if she did ask I’d just tell her that I couldn’t do it. Or, you know, I mean if I absolutely had to, I’d find someone to come over and babysit. Uh, after all, I’m busy on the weekends and I don’t think I could get a whole lot done with a kid under my feel.

Speaker 2 (confederate A): Ooh...babysitting a three-year old kid, huh? Well, you know, that wouldn’t be so bad. As a matter of fact, I have a nephew who’s three and, man, he’s a real pistol. And I get along real well with him so...You know, to tell you the truth, I’d like to have kids of my own, so I’m really sure we could find plenty of things to do together. I mean, you know, we could go to the park or to the playground. And, you know, I can push him on the swings...he loves the swings...and, you know, if it was raining or something we could stay at home, and we’d sing songs and play games like ring-around-the-rosies. And he even likes to help me make cookies.

(confederate B): Uh, well, I guess that wouldn’t be too bad. Uh, as a matter of fact, I do enjoy spending time with my nieces and nephews. You know, I really can’t wait ’til I have my own kids. Uh, I’m sure we could find plenty of things to do together. You know, we could go to the park, or to the playground. Um, we could play on the swings over there. We could stay home and sing songs or play games, you know, like ring-around-the-rosie, or we could even bake cookies.
Appendix B (cont’d)

Question 8: You have just found out that your girlfriend is cheating on you. What would you do in this situation?

Speaker 1 (confederate A): Oh, you know, I’d really be mad and I’d confront her with it because nobody’s gonna make a fool out of me. You know, I would...I don’t know...I’d demand to know who she was seeing and then I’d talk to that guy about it later. And then I’d dump her for good, ‘cuz I don’t stand for that kind of stuff. And anyway, there’s plenty of other girls out there.

(confederate B): Oh...girlfriend’s cheating on me, huh? And, I’d confront her with it because nobody makes a fool out of me. I’d demand to know who she was seeing, and I’d deal with that guy later. Um...then I’d dump her for good ‘cuz I just don’t stand for that kind of stuff, and, you know, there are plenty of other girls out there anyways.

Speaker 2 (confederate A): Oh, these questions are getting tough, you know? Ah, heck...girlfriend’s cheating on me. Well, yeah, I really hate to admit it, but you know, I...I’d really be hurt. You know, I...I’d be hurt so much I’d probably even cry and uh...uh...really get depressed. Uh, you know...oh, what could I do? Oh, I’d probably, you know, try to talk to her and work things out, but, you know, in the end I’d probably just forgive her.

(confederate B): Oh, shoot...these are getting tough. Um, I don’t know. I guess...um...I might have to... uh...I’d probably...definitely...be hurt. I hate to admit it, but it probably...I’d probably just end up crying and be depressed. I’d probably, uh...try to talk to her and work things out and maybe in the end I’d find a way to forgive her.
Appendix B (cont’d)

Question 9: If you had unlimited time and money, what career would you pursue?

Speaker 1 (confederate A): Well, let’s see...what career would I pursue? Well, right now I’m working on a business degree with special emphasis on international banking. But, uh, in the future I think I’d like to be head of a large...a large corporation that has offices abroad. Or, possibly the Chief Executive of Wall Street.

(confederate B): Oh, unlimited time and money, huh? That’d really be great. Right now I’m an undergraduate and I’m working on a business degree. You know, I really get a kick out of international banking and financing. So, uh, in the future I’d like to be the head of a large corporation that has offices abroad. Or, ah, possibly even the Chief Executive on Wall Street.

Speaker 2 (confederate A): Hmmm...unlimited time and money...oh, that’s a favorite fantasy of mine. Right now, I’m just an undergraduate and I take mostly art courses so...uh, you know, what I really think about doing is working in the fashion industry, but you know, with my personality and everything, I...I’d stick to the creative end of the business and I’d have to find someone who could handle the business side of it. You know, I could even open up a...uh, you know, a fashion shop.

(confederate B): Well, let’s see...Uh, well right now I’m just an undergraduate taking mostly art courses. So...I’d really like to work in the fashion industry. I’d probably have to find a partner who could handle the business end of the deal while I handle the creative end. You know, maybe...shoot, maybe even...uh, I’d like to open up a small fashion shop.
Appendix B (cont’d)

Question 10: Your mother is ill and your father is out of town. You have just been called home to help out with this situation. What would you do?

Speaker 1 (Confederate A): Well, I guess I’d go home if they asked me to... Uh, but of course, you know, I couldn’t take Mom’s place ‘cuz I don’t know how to do those sorts of things. Uh, I’d probably end up calling my sisters to come over and do the cooking and the cleaning. You know, those type of things that mom’s do. Uh, but, you know, one thing I could do... I could take care of the yard or, you know, fix the car, pay the bills, or you know, fix anything that was broken. You know, the kinds of things that my father usually does.

(Confederate B): Oh, what would I do? Well if they asked me, I’d go home. But, of course, you know, I could never take Mom’s place because I don’t know how to do those sorts of things. I mean, you know, I’d have to call my sisters and have them come over to do the cooking and the cleaning... I am a terrible cook! Um... you know, but I’m pretty good at some things. I can take care of the yard and fix the car and make sure it’s O.K. And, you know, pay the bills and maybe fix something that got broken. Uh, you know, the things that my dad usually does.

Speaker 2 (Confederate A): Oh, what would I do... huh? Well... well I’d go home and, you know, help out, you know, if I could. Uh, well... what could I do? Uh, you know, I could do the cooking and the cleaning up after my little brothers. You know, basically the kind of stuff my mom does when she’s feeling better. Um, you know, it really wouldn’t bother me because, you know, I used to do that stuff when I lived at home anyways.

(Confederate B): Uh... let’s see... Mom’s ill and Dad’s out of town... uh, sure I’d go home and help. Uh... I could do the cooking. I could clean up, you know, after my little brothers... and basically just do the stuff that mom does. And I don’t mind because, uh, when I lived at home, I used to do it all the time... just to help mom out.
APPENDIX C

*Demographic Questionnaire*

1. How old are you? ____

2. Education
   
   A. Level (please check one)
      
      freshman ______
      
sophomore ______
      
junior ______
      
senior ______
      
gr (graduate) ______
   
   B. Major (please check one)
      
      Administration/Business ______
      
      Education ______
      
      Humanities ______
      
      Natural Sciences ______
      
      Social & Behavioral Sciences ______

   C. Highest degree you plan to obtain (please check one)
      
      B.A./B.S. ______
      
      M.A./M.S. ______
      
      Ph.D./M.D. ______
      
      Other ______
APPENDIX D

**Subject’s Reaction Questionnaire**

Please place a check in the blank space to the right of the statement presented on the left.

<table>
<thead>
<tr>
<th>Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>At All</td>
</tr>
<tr>
<td>Somewhat</td>
</tr>
<tr>
<td>Quite</td>
</tr>
<tr>
<td>Very</td>
</tr>
<tr>
<td>Much</td>
</tr>
</tbody>
</table>

1. I enjoyed participating in this experiment  
   [ ] [ ] [ ] [ ] [ ] [ ] [ ]

2. I found the experiment instructive about the social sciences  
   [ ] [ ] [ ] [ ] [ ] [ ]

3. I found the experiment instructive about myself  
   [ ] [ ] [ ] [ ] [ ] [ ]

4. I am willing to participate in another experiment in the future  
   [ ] [ ] [ ] [ ] [ ] [ ]
Appendix D (cont'd)

As a result of participating in this experiment I am:

<table>
<thead>
<tr>
<th>Much</th>
<th>Somewhat</th>
<th>Somewhat</th>
<th>Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>less</td>
<td>Less</td>
<td>less</td>
<td>Same</td>
</tr>
<tr>
<td>more</td>
<td>More</td>
<td>more</td>
<td>more</td>
</tr>
</tbody>
</table>

5. Trusting in authorities __ __ __ __ __ __ __ __

6. Positive about my evaluation of experimental research __ __ __ __ __ __ __ __

7. Should this research be permitted to continue?
   ___ yes ___ no

8. Is the research justified?
   ___ yes ___ no

9. Did the explanations about the purpose of the experiment satisfy you?
   ___ yes ___ no

10. Do you regret having participated in the experiment?
    ___ yes ___ no

11. Are you resentful about having been deceived?
    ___ yes ___ no
APPENDIX E

Consent Form

I understand that I am going to participate in a social psychology experiment and I understand that I can quit the experiment at any time. I also understand that my performance will be kept strictly confidential. I agree to participate.

NAME______________________________

(PRINT)

SIGNATURE__________________________

DATE______________________________
REFERENCES


