THE RELATIONSHIP BETWEEN SEX-ROLE, DEFENSES, AND CLIENT STATUS

By

CHRISTIANE BREMS

Bachelor of Science in Arts and Sciences
Oklahoma State University
Stillwater, Oklahoma
1982

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1984

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
July, 1987

THE RELATIONSHIP BETWEEN SEX-ROLE, DEFENSES, AND CLIENT STATUS

Thesis Approved:

Thesis Advisor

Dean of the Graduate College

ACKNOWLEDGEMENTS

I wish to express my gratitude to my advisor and friend Dr. Robert Schlottmann. I want to thank him not only for his support, but also for his encouragement and belief in my ability to finish this project. I also want to express my appreciation for the advice from Dr. Kenneth Sandvold, for the encouragement from Dr. Joan Holloway, and the support from Dr. Althea Wright. A relieved "thank you" goes to my entire committee for having persevered and for having stood by my side faithfully.

A very special thanks goes to Dr. Mark Johnson, my best friend. He provided support, encouragement, a sense of humor which helped me over the "rough spots", faith in my ability, and a generous amount of advice in the statistical analysis of the data for this project. He also gave emotional support, caring, and patience at a time in my life when I needed those desparately.

Finally, a thank you goes to my parents, whose support (emotional and financial!) has helped not only to complete this single project, but the entire degree.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

The area of ego defenses has been one of significant importance ever since the early days of clinical psychology. The theory of defenses was first introduced by Sigmund Freud (1916/17) and elaborated upon by Anna Freud (1946). Many psychoanalysts since then have devoted entire books to the topic (e.g., Haan, 1965; Laughlin, 1979; Miller, 1960). Freud defined defense mechanisms as systems shielding or defending against the possibility of the development of anxiety (Freud, 1916/17). He perceived them as a shield between unacceptable impulses and the satisfaction thereof, and as the attempt of the "I" (unfortunately usually translated as "ego") to flee from the libido which is perceived as a danger. Thus, defense theory according to Sigmund Freud is based on a theory of conflict and its focus usually is on pathology rather than mental health. Some of the primary defenses first described by Sigmund Freud include repression, displacement, substitution, sublimation, projection, reaction-formation,

rationalization, isolation, identification, and introjection (defined in the next chapter).

A similar, but more complete definition was provided by Laughlin (1979). He defined a defense mechanism as follows:

> A mental mechanism, dynamism, or ego defense is a specific defensive process, operating outside of, and beyond conscious awareness. It is automatically and unconsciously employed in the endeavor to secure resolution of emotional conflict, relief from emotional tension, and to avert or allay anxiety. A given [defense] is evoked by the ego as an attempted means of coping with an otherwise consciously intolerable situation (Laughlin, 1979, p. 6).

As with Freud's conceptualization, the focus is on the use of defenses within the realm of pathology rather than health.

It becomes evident that the concept of ego defense is important in psychology and that it deserves not only exploration through case study material and theory, but also via systematic research and experimentation. Yet, the area was initially not one considered available to such objective exploration.

Beginning in the 1960's, however, efforts were made to quantify defenses and to develop objective measures thereof (Gleser & Ihlevich, 1969; Haan, 1965; Schutz, 1962).

With the advent of such objective instruments for the measurement of a construct which before was entirely based on theory and clinical lore, a whole new area of research was opened up. Validation and reliability studies were conducted on the inventories. Taking these studies into consideration, Cooper and Kline (1982) concluded that the best effort at measuring defenses was represented by the Defense Mechanism Inventory (DMI; Gleser & Ihlevich, 1969).

The DMI is based on a definition of ego defenses which fits nicely into the model described above. Gleser and Ihlevich (1969) explain that:

> underlying the formulation of the Defense Mechanism Inventory (DMI) is the general assumption that the major function of defenses is the resolution of conflicts between what is perceived by the individual and his internalized values (p. 52).

Much research has been done with this instrument, indicating its importance in the area of applied

general psychology and psychopathology (Kahana, Fairchild, & Kahana, 1982; Walsh, 1972). Extensive research has been done using the DMI with substance abuse populations. Further, the DMI has been used to assess differences in defensive styles between men and women. One area that has not been well studied, is using the DMI to explore defensive patterns in psychotherapy client populations and to compare them to those of non-clients.

Another area of interest that has not received a lot of attention is the area of sex-role attitudes and their possible influences on the choice of defense mechanism. The general area of sex-roles is fairly new, but has already been widely researched, receiving a lot of attention since the 1960's. This interest has largely come about from a much stronger and more determined women's liberation movement.

Underlying the idea of sex-roles is the theory of androgyny. The term androgyny is derived from the Greek words <u>andros</u> and <u>gyne</u>, meaning male and female respectively (Bazin & Freeman, 1974). The theory is as much a political as a psychological system (Kaplan, 1976). Politically, it asks for the union of the masculine and the feminine within each person and in

society as a whole, claiming that such a union will provide humankind with a fairer, more open, freer society. This society would allow humans to grow up and fulfill their potentials without the limitations of rigid sex-role stereotypes.

Psychologically (which will be the focus of this paper), the two basic assumptions of this theory are that, 1) masculinity and femininity are not mutually exclusive, i.e., they are not opposite extremes of a continuum, and 2) sex-typing is disadvantageous for both men and women, or for both masculine- and feminine-typed individuals (Bem, 1981; Kaplan, 1976). Thus, the theory of androgyny claims that masculinity and femininity have to be tempered by each other, and must be integrated and balanced. Such a balance would result in an individual who would be much more flexible and adaptive in her or his behavior, due to having available a larger repertoire of "acceptable" behaviors from which to choose. Such an individual is what Sandra Bem (cited in Kaplan, 1976) labeled an androgynous person. Thus, androgyny is directly linked to mental health, whereas sex-typing is linked to psychopathology.

The theory of androgyny as defined by Bem (1974) and Kaplan (1976) was opened up to objective research with the development of the Bem Sex-Role Inventory (BSRI; Bem, 1974). Unlike previously designed scales (Campbell, 1966; Terman & Miles, 1936) to measure sex-role, this inventory is in line with androgyny theory in that it deals with masculinity and femininity as separate, possibly coexisting constructs. Further, the BSRI provides a measure of androgyny, a score which no previous scales had ever provided. Since its development, the importance of this concept has been demonstrated in various studies showing the influence of sex-role attitudes and stereotypes on mental health, personal and psychological adjustment, coping ability, and self-concept (e.g., Bem, 1975; Deutsch & Gilbert, 1976; Erdwins, Small, & Gross, 1980; Flaherty & Dusek, 1980).

In summary, both defenses and sex-role have been linked with psychological functioning. It is not yet clear whether certain patterns of defenses distinguish clients from non-clients, and/or whether level of androgyny distinguishes these two groups. Further, the interaction of defenses and sex role in that regard has never been clearly explored. Future research will have

to assess how a person's sex-role influences her or his choice of defenses, and how this influence differs for persons who are identified as psychotherapy clients from persons who have no history of mental health problems. These are issues which this investigation sets out to explore.

CHAPTER II

LITERATURE REVIEW

The Psychology of Ego Defenses

Much theoretical literature is available on defense mechanisms. There are numerous defenses of the ego. Some deal with conflict actively, some passively, and others rely on the rationality of the ego to solve conflicts. The consequences of defense utilization can be healthful or pathological, depending on how a defense is used. Pathological consequences are indicated when a defense is over-utilized at the expense of others, when a defense is rigidly utilized and has become compelling, and when a defense is no longer psychologically efficacious, i.e., no longer serves conflict resolution (Kroeber, cited in White, 1963). Defenses can be classified into major (or primary) and minor (or secondary) categories (Laughlin, 1979). Primary defenses are those that are utilized foremost to deal with psychological conflict. It is unconscious in nature and often is maintained at any cost. Many neurotic symptoms can be included in the

list of primary defenses. Secondary defenses are those that are utilized to maintain and preserve the unconscious primary defense. Thus, it is the defense which is used by the individual to defend a primary defense itself, i.e., to prevent it from becoming conscious. Primary defenses include denial, repression, negation, reaction formation, idealization, displacement, identification, projection, rationalization, internalization, and masochism. Secondary defenses include externalization, intellectualization, isolation, replacement, splitting, and withdrawal (for a complete list refer to Laughlin, 1979, p. 7). Defenses can also be divided into lower (primitive) and higher (advanced) order. Lower order defenses have less adaptive value and are typically utilized by less mature, more impulsive individuals than higher order defenses. Examples include repression, denial and displacement. Higher order defenses are utilized more frequently by more emotionally stable, developmentally mature persons. They can have adequate adaptive value. They tend to operate on a more superficial level, i.e., are closer to conscious awareness. At times individuals may make conscious efforts at utilizing these mechanisms.

Examples include rationalization, projection, and intellectualization.

All of the specific defenses mentioned in this section are represented in the Defense Mechanism Inventory (DMI; Gleser & Ihlevich, 1969). This inventory was developed with the goal of providing an objective way of assessing a person's defense preferences. The DMI consists of five rationally developed defense clusters, which have different levels of adaptability, as defined above. Three clusters consist of lower order, and two clusters consist of higher order, defenses. Turning Against Object (TAO) includes defenses such as identification-with-the-aggressor and displacement. It is a cluster of externalizing defenses, and as such is considered lower order. Turning Against Self (TAS) is the second lower order defense cluster. It includes defenses that internalize anger and guilt, such as masochism and internalization. Reversal (REV) includes reaction formation, repression, and denial, also lower order defenses. Conflict is dealt with by responding positively or neutrally to a frustrating or anger-inducing event.

Higher order defenses such as rationalization and intellectualization make up the Principalization (PRN) cluster of the DMI. When these defenses are used, affect is split from content and is repressed. Finally, defenses in which external objects are accused of hostility or negative intent as a means of dealing with internal conflict make up the last, higher order defense cluster of the DMI, labeled Projection (PRO). A brief description of the major and minor defenses assessed by the DMI is given in Table I. Each defense will be identified in terms of the DMI defense cluster to which it belongs and its status as a major (1) or minor (2) defense.

It is apparent that the DMI gives access to a wide range of defenses. As such is a helpful instrument for the clinician and the researcher who needs to assess an individual's defense preferences. Of course, the usefulness of the instrument also depends on its validity. Several studies have been conducted to assess the validity of the DMI.

Gleser & Ihlevich (1969) predicted and revealed specific relationships between defense mechanism and MMPI scales. TAS was found to be positively correlated with the MMPI Depression scale, the Psychasthenia

Table 1

Description of Major and Minor Defenses of the DMI

Defenses	Class	DMI
Denial Disowning, disclaiming of awareness, responsibility, knowledge; refusal to accept conflictual reality.	1	REV
Repression Automatic, consciously effortless loss of memory; inhibition of certain ideas and affects.	1	REV
Reaction Formation Transformation of impulse or affect into opposite; disowning original drive and adopting antithesis.	1	REV
Displacement Unsuccessfully repressed impulse finds expression at other time or toward other object.	1	TAO
Identification w/ Aggressor Emotional joining with another person; incorporation of that person's thoughts, affects, ideas, etc..	1	TAO
Projection Attribution of an unacceptable affect or impulse of the self to another person.	1	PRO
Rationalization Redefinition or modification of unacceptable impulses or affects to render them more acceptable.	1	PRN
Intellectualization Turning away from disturbing affects and impulses to deal with them purely intellectually.	2	PRN
Isolation Severing or isolating an idea from its corresponding affect; detachment of emotional side.	2	PRN
Masochism Self-direction of unacceptable impulses, affects, or behaviors,originally directed toward another person.	1	TAS

(anxiety) scale, and the Social Introversion scale. It was negatively correlated with Barron's ego strength scale. TAO was positively correlated with the MMPI F scale, the Psychopathic Deviate scale, the Mania scale, and the Schizophrenia scale. These results provide construct validity by supporting the assumption that TAO involves the outward expression of blame and anger, whereas TAS indicates an inner- or self-directedness of anger and blame.

According to psychodynamic theory, self-directed anger and blame is indicative of depression and suicide. Thus, a study conducted by Scholz (1973) provides further support for the construct validity of this scale. Scholz (1973) revealed that suicide attempters endorsed TAS defenses significantly more often than non-psychiatric subjects.

Ihlevich & Gleser (1971) examined the relationship between defense mechanisms and field dependence and independence. Field dependence, the more global inner directed style, was found to be significantly correlated with TAS and REV, the inner directed defense clusters. Field independence represents a more articulated and externalizing stance. A significant relationship was revealed between it and the defense

clusters of TAO and PRO, the externally directed defenses. Again, construct validity for the DMI scale was provided.

Kipper & Ginot (1979) reached the same conclusion. They had utilized a sample of 50 undergraduates who had to rate their own behavior and others' behavior on a videotape. Results showed high correlations between distortion and PRO, and between negative self evaluation and TAS.

In summary, much satisfactory construct validity has been reported for the DMI scales. The issue of content validity was addressed by Blacha & Fancher (1977). They asked 30 students who had graduate training in psychology to evaluate the DMI items as representative of one of 15 defense mechanisms. The mean percentages of rater agreement with the DMI key indicated 72% agreement for PRN items, 71% for TAS items, 72% for REV items, but only 39% for TAO items, and 29% for PRO items. These findings suggest that the DMI has good validity on three of its scales, but that the TAO and PRO scales need revision. Despite these somewhat discouraging findings for DMI content validity, the high construct validities reported by many investigators appears to indicate that use of the

DMI is appropriate. Further, Gleser & Sacks (1973) report high concurrent and predictive validity. Taking all of these data into consideration, Cooper & Kline (1982) concluded that the DMI represents one of the best efforts at constructing an objective instrument to measure defense mechanisms. Dudley (1978) indicates that the DMI not only has satisfactory reliability and validity, but also clinical significance which warrants the use of this scale.

Studies using the DMI, that have as their primary focus defenses and their relationship to various personality variables, are few in number, but the results are consistent. By having defense clusters which are differentially representative of higher or lower order defenses, information can be derived about a person's emotional adaptability and maturity, depending on their preferred defense cluster. Thus, certain defenses have been identified empirically as more adaptive than others. These research findings are consistent with theoretical predictions. Several studies investigated this issue by assessing the relationship between DMI scales and personality variables indicative of a person's level of adaptability or mental health.

In the original DMI sample, Gleser & Ihlevich (1969) found that TAS was significantly correlated with the depression scale on the MMPI. Consistent with this, Scholz (1973) investigated the relationship between suicidal ideation and defenses in a sample of 47 hospital patients. He reports that suicide attempters scored significantly higher on TAS than non-patients.

Viney & Manton (1974) assessed correlations between defenses and levels of anxiety in a student sample (n=54). PRN was found to correlate significantly with low level of anxiety as measured by four different anxiety scales. This is consistent with data from the original DMI sample (Gleser & Ihlevich, 1969), which indicated a significant negative correlation between PRN and the MMPI Psychasthenia scale, an indicator of anxiety, and a significant positive correlation of TAS with the same MMPI scale. Ross and Johnson (1976) found support for these results, using two different measures of anxiety. They found that PRN and REV were negatively, and TAS was positively correlated with both measures.

Massong, Dickson, Ritzler, & Layne (1982) assessed assertiveness, using the Dominance Scale of the

California Personality Inventory, and defensiveness in 216 college students. They report that PRN was correlated positively with assertiveness, whereas both TAO and TAS were correlated negatively.

In a study with 118 psychiatric outpatients, Gleser & Ihlevich (1979) explored the relationship between defenses and a number of personality variables as assessed by the 16 PF, Form A. They report that for both men and women TAO and PRO are negatively, and REV is positively, correlated with intelligence, sensitivity, emotional lability, nonconformity, and aggressiveness. For women, PRN was found to correlate with aloofness, emotional stability, conscientiousness, lack of guilt, and self-control, but PRN was not correlated with any of the 16 PF factors for males. TAS was found to be correlated with guilt, tension, emotional lability, and unaggressiveness for women, but with low intelligence, aloofness, conformity, and uncriticalness for men. It would appear from this study that there are differences in defense utilization in males and females.

Consistent gender differences have been found on three of the five DMI scales. Using data from the original sample of 406 college students, 114 adults,

and 234 psychotherapy clients, Gleser & Ihlevich (1969) report that males score significantly higher on TAO than females, and females score significantly higher on TAS than males. Male college students also score consistently higher on PRO than females.

In a replication study, Weissman, Ritter, and Gordon (1971) found the same pattern of sex differences in the endorsement of TAO, PRO (males higher), and TAS (females higher). Yet, they also found that women scored significantly higher on PRN than men. Bogo, Winget, & Gleser (1970), in a study which did not primarily focus on sex differences, report similar findings.

Cramer & Carter (1978) investigated the influence of gender and sex role as measured by the masculinity-femininity scale on the Strong Vocational Interest Blank (SVIB) on defense patterns in a college student population. Cramer & Carter (1978) reported that in their sample men scored significantly higher than women on TAO and PRO ($p<.001$). Women scored significantly higher than men on TAS ($p<.001$). No other statistically significant results were obtained in this study, yet Cramer and Carter (1978) found some tendencies which they considered of great enough

importance to include in their results. First, women tended to score higher on REV. Second, subjects who scored high on TAO and PRO, showed a tendency (no statistical significance) to obtain SVIB scores which were in the masculine direction. Third, subjects who scored high on Principalization (PRN), showed a tendency to score in the feminine direction on the SVIB. Finally, Cramer and Carter (1978) report that no statistically significant relationship was found between defenses and masculinity/femininity as measured by the SVIB. Since the scores obtained on the SVIB are not in line with androgyny theory, i.e., do not view masculinity and femininity as separate entities, they can not be directly compared to sex role scores which are of relevance to this investigation.

Carter (1979) replicated this study with 80 high school students. The same patterns were found. Boys selected TAO and PRO more often than girls, and girls chose TAS and PRN more often than boys.

Thus, gender patterns appear to be consistent across several studies. It is important to note, however, that in spite of the significant gender differences, there are two studies (Gleser & Ihlevich, 1969; Cramer & Carter, 1978) which report that <u>both</u>

gender groups endorse PRN as their most frequently chosen defense. Findings such as these might shed a different light on the clinical interpretation of the significant differences in the use of TAO, PRO, and TAS by men and women. These differences may exist, yet may be of lesser clinical importance if the primary defense is indeed PRN for both gender groups.

The Psychology of Androgyny

The theory underlying the sex-role issue is that of the psychology of androgyny. Early research with the BSRI has been supportive of the underlying assumptions of the androgyny theory. Empirical evidence has been developed for: 1) the assumption that the constructs of masculinity and femininity are separate and independent of each other; 2) the assumption that sex-typing is disadvantageous to males as well as females; and 3) the assumption that androgyny is a mediator of mental health.

Various different theories have been developed to account for the development of sex-roles and androgyny. One of the earliest conceptualizations is the biological theory of androgyny (Astin, Parelman, & Fischer, 1974; Rosenberg, 1973). The basic assumption of this theory is that sex-roles are biologically or physiologically determined. More recently though, efforts have been made to show that the human biological makeup could also be consistent with the theory of androgyny (Kaplan, 1976). Another theory of sex-role development is socio-cultural (Bardwick, 1971; Block, 1973). It postulates that socialization of

children, and cultural expectations and norms influence sex-role development and typing (Minuchin, 1965). Finally, a more recent theory was developed by Bem (1981), called gender schema theory. It is hypothesized that in our society, biological sex is used as a major organizing principle, that behaviors and personality traits are subdivided into feminine versus masculine, and that every person develops some associations to this male/female dichotomy (Pyke & Graham, 1983). The associations can vary widely over time and between and even within persons. According to Bem (1981), this theory can account for rigid sex-role typing, as well as flexible androgynous adjustment. A more detailed discussion of the theories of sex-role development is beyond the scope of this investigation, and the interested reader is referred to the above cited primary references.

The constructs of masculinity and femininity can be traced back to the very early stages of psychology. They were usually viewed as polar opposites of the same continuum, i.e., a person who was feminine could not simultaneously be masculine (Constantinople, 1973). In 1956, Jung publicized his theory of anima and animus, which appears to have become the precursor of modern

androgyny theory. His contention was that every person not only can, but must have parts of the feminine (anima) and the masculine (animus) within her- or himself to be mentally healthy (Jung, 1982). This is the first time in psychology that femininity and masculinity were seen as separate, independent entities. The theory of androgyny which developed in the 1970's never gave credit to its ancestry in Jungian psychology; yet, the parallels are obvious. What the 1970's provided was research, i.e., empirical evidence for the independence of the constructs of masculinity and femininity. This was done for the first time by Sandra Bem (1974). She reported scores of individuals on the newly developed Bem Sex-Role Inventory (BSRI) which were high on masculinity as well as on femininity. These persons were labeled androgynous. The concept was expanded by Spence, Helmreich, and Stapp (1975), who identified individuals who scored low on both femininity and masculinity on the newly developed Personal Attributes Questionnaire (PAQ). These individuals were labeled undifferentiated, and this gave further support to the notion that the two sex-roles are indeed independent of each other. Other research supported these findings (Bem & Lenney, 1976;

Berzins, 1975; Block, 1973; Constantinople, 1973; and others). Thus, the first pillar of the psychology of androgyny was established.

Even before the development of bipolar sex-role instruments such as the BSRI and the PAQ, i.e., in the 1950's, 1960's, and the early 1970's, research on sex-roles has shown that strongly sex-typed individuals suffer in terms of mental health and psychological well-being (Hoffmann & Fidell, 1979). Mussen (1962) reports that men who are more strongly masculine-typed tend to have more need for abasement, less self-assurance, less sociability, less ability for introspection, less self-acceptance, less dominance, and less capacity for social status. Yet, he also reported that these males showed better adaptivity to stress and better sexual adjustment than less masculine stereotyped men (Mussen, 1962). Harford, Willis, and Deabler (1967) found masculinity in men was positively correlated with increased levels of anxiety, guilt-proneness, tough poise, neuroticism, and suspicion; and with decreased levels of warmth, emotional stability, and sensitivity. Feminine-typed women are found in many studies to be more anxious (e.g., Gray, 1957; Webb, 1963; etc.), lower in self-concept (Sears, 1970),

and lower in social acceptance (Gray, 1959) than less feminine-typed women. Further, Maccoby (1966) reports that strong same gender sex-typing appears to have a negative effect on the intellectual development of both boys and girls. Thus, even pre-androgyny era research pointed toward negative effects of sex-role stereotyping, and gave support to the second pillar of the psychology of androgyny.

Continued research with the newly developed Bem Sex-Role Inventory (BSRI) and the Personal Attributes Questionnaire (PAQ; Spence et al., 1975) gave further evidence for the potentially negative effects of strong biologically consistent sex-typing. This fact, combined with the new theoretical approach toward masculinity and femininity (the independence of the constructs) led Bem (1975) and Spence et al. (1975) to the conclusion, that androgynous individuals should score higher on measures of mental health and psychological adjustment and well-being. Much research since the late 1970's has supported this third pillar of the psychology of androgyny. Bem (1975) provided the first empirical evidence that androgynous individuals are able to engage in situationally appropriate, i.e. , effective, behaviors without regard

to the labeling of these acts as masculine or feminine. In her study, Bem first designed a situation which typically evoked a stereotypically masculine behavior (independence from social pressure), and then a situation which typically evoked a stereotypically feminine behavior (nurturant playfulness with a kitten). She predicted, and her results confirmed, that androgynous subjects would not only be less influenced by peer pressure, but also be able to interact in a nurturant and playful manner, whereas sex-typed individuals would perform well only in the situation consistent with their sex-role, i.e., masculine subjects would be less influenced by peer pressure than feminine subjects, and feminine subjects would be more playful and nurturant. Bem found that, indeed, androgynous persons performed better overall, but also that feminine women performed worse than masculine men in <u>both</u> conditions.

Several additional studies by the same investigator gave further support to these findings. Bem and Lenney (1976) investigated discomfort with, and readiness to, engage in cross-sex behavior. They provided the opportunity for subjects to engage in cross-sex behavior or same-sex behavior, consistently

paying the subject more money if she or he chose the cross-gender activity. The subjects were told they would be photographed while performing these behaviors. Sex-typed individuals consistently chose to engage in the activity consistent with their sex-role stereotype, in spite of earning less money for it. Androgynous persons not only engaged in cross-gender behavior more frequently, but also with much less discomfort.

Bem (cited in Kaplan, 1976) found that in a situation requiring active/assertive playfulness and nurturance in a spontaneous interaction with an infant, androgynous individuals were most nurturant and spontaneous with the infant, masculine men and women were somewhat less nurturant and spontaneous, yet within acceptable limits, and feminine women behaved least spontaneous and nurturant of all! Bem, Martyna, and Watson (1976) found that feminine women performed best of all groups only when the required behavior was one which was stereotypically feminine as well as passive (also a stereotypically feminine concept). In this situation subjects were required to listen to a confederate speak about his/her problems of loneliness. The subjects were advised not to speak of themselves and to remain passive in the interaction, but to give

ample support through listening. Feminine women performed best on this passive listening task; yet, even in this situation, androgynous persons performed well, and better than other sex-typed groups.

It can be concluded from these results that androgynous individuals are comfortable with any type of behavior, including cross-gender behavior. This apparently results from greater flexibility and adaptability and a larger repertoire of available behaviors for the androgynous person, maximizing her or his personal potential and chance of actualization (Bem, 1975). By contrast, the adherence to rigid sex roles of the sex-typed individual inhibits the development of a full adaptive and flexible behavioral repertoire, minimizing the sex-typed person's potential. Gayton, Havu, and Barnes (1978) explored the relationship between androgyny and fear of success in female college students. Fear of success was measured by a 29-item instrument developed by Good and Good in 1973 (cited in Gayton et al., 1978). The same pattern of results was found. Gayton et al. report that androgynous as well as masculine typed women showed significantly less fear of success than feminine women. They reached the conclusion that

> . . . the discomfort associated with success for women may result from the perception of success as a masculine behavior. If so, androgynous females would be expected to manifest less fear of success because of less discomfort associated with adopting cross-sex behavior (Gayton et al., 1978, p. 758).

Again, openness to alternative, non-sex-typed behaviors resulted in better adaptability and in a decrease in or avoidance of anxiety.

Similar results are also reported by O'Connor, Mann, and Bardwick (1978), and by Spence, Helmreich, and Stapp (1975). These studies explored self-esteem and self-concept of sex-typed versus androgynous persons and report favorable results for the androgynous group. Bem (1977) reported that androgynous persons had the highest level of self-esteem, with increasingly lower levels represented by masculine, feminine, and undifferentiated individuals, in that order. Flaherty and Dusek (1980) replicated these earlier results. They concluded that due to the less restricted view of themselves, androgynous individuals obtain higher mean scores on achievement,

leadership, sociability, and congeniality. Better adjustment is suggested by these research findings for androgynous men and women.

> These subjects not only view themselves as adjusted and in a harmonious balance with their environment, but also see themselves positively in instrumental and expressive aspects of the self. Moreover, they do not view themselves as rigidly sex typed (Flaherty & Dusek, 1980).

Thus, many research studies in the area of androgyny make a strong point for its psychological benefit to the individual.

Some recent studies and research interpretations have pointed toward an alternate way of explaining sex-role differences in the area of psychological adjustment, mental health, and self-concept. They suggest that it is not androgyny, but rather masculinity which mediates mental health. Jones, Chernovetz, and Hansson (1978) used a large college sample to assess influences of sex role on measures of personality and adjustment, intellectual competence, and helplessness. They report that in the area of personality and adjustment, significant differences for sex role were only found for males. Androgynous men

showed a greater externality of locus of control, more problems with drinking, more tendency toward introversion, and a higher level of neuroticism than masculine males. Their self-image was more negative and in no instance did they demonstrate better adaptability than masculine males. In the area of intellectual competence, Jones, Chernovetz, and Hannson (1978) report that androgynous males scored lower on political awareness and creativity than masculine males. In the female group, however, there was no difference in terms of political awareness and creativity between androgynous and masculine women. Feminine women scored lowest. In a situation where helplessness was induced in the subjects, sex type differences emerged for males. Androgynous males were more influenced by the helplessness manipulations and showed longer latencies and greater numbers of incorrect solutions to a problem-solving task (a series of five-letter anagrams), than masculine males under the same conditions. This study indicates that the 'superiority' of masculinity holds up well in many areas for males, but less well for females.

Silvern and Ryan (1979) utilized the Bem Sex-Role Inventory and the Miskimins Self-Goal-Other Discrepancy

Scale (MSGO) to assess relationships between self-rated adjustment and sex-role. They report that androgynous women rate themselves as better adjusted than both androgynous men and sex-typed women rate themselves. Masculine men, however, rate themselves as better adjusted than any of the other male and female groups. Deutsch and Gilbert (1976) reported similar results using the BSRI and the Revised Bell Adjustment Inventory. Their data showed that women who rated themselves high on masculinity were well adjusted relative to other women, and that men who rated themselves feminine were least well adjusted relative to other men. Adjustment was lowest for women who obtained a higher discrepancy between their real and their ideal sex role as measured by two response sets for the BSRI. Apparently, the women with these discrepant scores view themselves as slightly feminine and strive for androgyny, but see themselves as more desirable to men if they are more feminine. It is this conflict which may lower scores on the adjustment scale (Deutsch & Gilbert, 1976).

Heilbrunn (1981) reports that androgyny has greater adaptive value for women and that masculinity has greater adaptive value for men. Sex role was

assessed with the Adjective Check List developed by Gough and Heilbrunn in 1965 (cited in Heilbrunn, 1981, p. 1109). Self-concept was assessed with five 10-point self-rating scales. No significant differences in self-concept were found between different sex role groups in the male category. In the female category, androgynous females scored significantly higher on self-esteem than other women. In the second part of this study (Heilbrunn, 1981), another group of subjects which had been differentiated according to gender and sex role was administered the Chapin Social Insight Test to measure social competency. Results of this study indicate that sex role has no effect on social competence for women. Androgynous males on the other hand scored highest on social competence as compared to males who scored high on masculinity or femininity. In the third part of this study, Heilbrunn (1981) found that personal defensiveness (i.e., the extent to which the person protects him- or herself from ego-threatening information) as measured via various (non-described!) laboratory tests, was related to sex-role. Androgynous males demonstrated a very low level of defensiveness, whereas androgynous women demonstrated a high level. Heilbrunn (1981) concludes from these

rather controversial findings of his three reported studies that androgynous females are better defended, and therefore are able to override their concerns about cross-sex behaviors, i.e., can engage in them with less anxiety and more confidence. Androgynous males on the other hand are less well defended and perceive their feminine traits as problematic.

Two studies investigating self-concept also found that masculinity rather than androgyny is associated with better performance for males. Erdwins, Small, and Gross (1980) used the BSRI and the Tennessee Self Concept Scale (TSCS) to assess the relationship between sex role and self-concept in male and female college students. They report that masculine subjects reported the most positive scores on all subscales of the TSCS, relative to all other subject groups. Undifferentiated subjects scored lowest, and androgynous and feminine typed individuals scored in between. Lee and Scheurer (1983) assessed sex role and its relation to locus of control as measured by the Internal-External Locus of Control Scale, self-monitoring of one's behavior in a social context, as measured by the Self-Monitoring Scale (cited in Lee & Scheurer, 1983, p. 292), and expectation for achievement as measured by the

Expectation for Achievement and Affiliation Scale (cited in Lee & Scheurer, 1983, p. 292). They report that masculinity correlated positively with self-monitoring scores. High internal locus of control was also significantly positively correlated with masculinity. Expectation for achievement scores were positively correlated with masculinity, whereas expectation for affiliation scores were positively correlated with femininity. Masculine males scored highest of all groups on expectation for achievement, and lowest on expectation for affiliation.

This literature is used by the respective authors to challenge the psychology of androgyny. It provides results which are very inconsistent between gender groups. Women apparently benefit from androgyny more often than men, and men appear to benefit from masculinity more often than women. It appears that one shortcoming of these results lies in the fact that only college student samples were employed, and that for most of the dependent variables under scrutiny the masculine behavior was more socially desirable than the feminine behavior. Thus, perhaps all this literature really shows is that culturally, masculine behaviors are more highly valued. This does not necessarily have

implications for the helpfulness or the "healthiness" of these attributes. What this literature has in common with literature supporting the androgyny concept is the fact that it points out that sex role is indeed an important variable in personality research.

Thus, in the exploration of defensive styles, sex roles are an important concept to consider. Only few studies have been published which have looked at the influence of sex role on choice of defenses. None of these studies are comprehensive in the sense of having included both clients and non-clients, males and females, and the full range of defenses assessed by the Defense Mechanism Inventory (DMI). Subject pools were usually college students, sample sizes were relatively small, in two cases only one gender group was included in the study, and focus was directed toward only two of the five defenses provided by the DMI.

Evans (1982) asked a sample of 44 college students to complete the Defense Mechanism Inventory (DMI) and the Bem Sex-Role Inventory (BSRI). He hypothesized that taking sex role orientation into consideration might moderate the usual gender pattern on the DMI. He predicted that high Turning Against Object (TAO) scores would be associated with high masculinity and low

femininity, whereas the opposite sex role pattern would be true for subjects with high Turning Against Self (TAS) scores. The hypotheses were confirmed for TAS, but not for TAO where only trends in the predicted direction could be demonstrated. No effects for high masculinity/high femininity (i.e., for androgyny) were found. No sex role effect was found for Reversal (REV), Principalization (PRN), and Projection (PRO).

Lobel and Winch (1986) explored effects of sex-role on use of defense mechanisms in a male college student sample. Using the Bem Sex-Role Inventory and the Defense Mechanism Inventory, they found that in their sample of 30 subjects, masculine men were more likely than feminine men to employ both Turning Against Others (TAO) and Principalization (PRN) defenses. Feminine men were described as more likely to use the internalizing defense cluster of Turning Against Self (TAS). No significant sex-role differences were revealed for Projection (PRO) and Reversal (REV).

In another study, Frank, McLaughlin, and Crusco (1984) reported that "sex roles interact with sex in determining defenses" (p. 182). They administered the PRF-Andro masculinity and femininity scales (cited in Frank et al., 1984, p. 185) and the Defense Mechanism

Inventory (DMI), as well as a symptom check list, to 174 male and female subjects. They predicted that masculine and androgynous persons would score lower on symptom distress, that certain defenses would be more highly correlated with symptom distress, that androgyny would be correlated with PRN, and that male-female patterns found by Gleser and Ihlevich (1969) would be replicated for masculinity and femininity, i.e., that sex role rather than gender would mediate defense choice. They found that feminine students reported the highest amount of symptom distress, androgynous subjects scored somewhat lower, and masculine subjects scored lowest of all. Of the defense clusters, only TAS was correlated positively with symptom distress. PRN and REV were negatively correlated with symptom distress. As predicted, TAS was chosen by women more often than by men. Moreover, feminine men and women chose this defense more frequently than masculine men and women. More men than women chose TAO. Masculine and feminine men, however, did not differ in their level of choice of TAO, but masculine and feminine women differed significantly, with masculine women scoring consistently higher. No differences in choice of PRN were found between the female sex role groups.

In the male category, androgynous subjects chose PRN more often than either feminine or masculine men. Thus, in this study the androgyny-equals-mental health hypothesis was not upheld. Rather, masculinity was a mediator for reduced self-reported symptom distress. Also, once again sex role may have had differential implications for men and women. It remains to be explored, if these findings can be upheld in a client sample (rather than using self-reported symptom distress). Differences in terms of defense choices and their possible mediation by sex role may exist between clients and non-clients. Further, these differences also need to be viewed with gender in mind. These will be some of the primary issues of the present investigation.

Statement of the Problem

Due to their implications for mental health, the psychology of defenses and the psychology of androgyny are important concepts in the field of clinical psychology and psychotherapy. In all psychodynamic systems of psychotherapy, defense mechanisms play an important role in the definition of mental health and pathology (Laughlin, 1979). Theoretical assertions have been made which claim that there are lower and higher level defenses which are differentially associated with degree of psychopathology manifested (Haan, 1965). Research utilizing the DMI, one of the first instruments to measure defenses in an objective way (Gleser & Ihlevich, 1969), supports these assertions. Research using this instrument has reported significant relationships between various defense clusters and personality variables such as anxiety (Gleser & Ihlevich, 1969; Viney & Manton, 1974), emotional control (Viney & Manton, 1974), assertiveness (Massong, Dickson, Ritzler, & Layne, 1982), and aggressiveness, suspiciousness, and intelligence (Gleser & Ihlevich, 1979). Thus, not only theoretical assumptions and case study material, but

also objective investigation points toward the importance of defenses in the area of psychological adjustment and mental health.

Sex-role orientation has also been demonstrated to be related to psychological adjustment and mental health. As Bem (1974, 1975, 1977), Bem and Lenney (1976), Bem, Martyna, and Watson (1976), Block (1973), Flaherty and Dusek (1980), and others have pointed out, androgyny appears to be a mediator for better psychological adjustment, increased self-esteeem, and better self-concept. Deutsch and Gilbert (1976), Heilbrun (1973), Silvern and Ryan (1979), and others have provided evidence that one's sex role is indeed an important mediator of mental health, but that the effects may differ for men and women. They pointed out that consistently positive effects of androgyny have only been found for women, whereas masculinity appears to be more highly correlated with positive adjustments scores for men.

The interaction of defenses and sex roles remains minimally researched, despite its potential usefulness to the clinician and, therefore, to the client. Studies which have combined the effect of sex role and choice of defense have not been very conclusive and

have been limited in their focus (Evans, 1982; Frank et al., 1984). The reason for further investigation into this area is that gaining an understanding of a person's sex role attitudes may be predictive of certain defenses. Along this line it would be helpful to investigate whether the influence of sex role varies depending on whether the individual is in therapy. Having this knowledge will make predictions of defense utilization more meaningful in clinical settings.

Based on the results which have been obtained in this realm of psychological research, the following questions have been formulated for the present investigation:

1) Will clients and non-clients differ from one another with regard to sex role preference? Further, will sex-roles of clients versus non-clients be affected by the gender of the person, e.g. may female clients be less androgynous than female non-clients, and may masculine men be more highly represented in the non-client group than in the client group? However, due to the controversy in the literature about androgyny versus masculinity as a mediator of mental health, no directional predictions are being made.

2) Will female and male clients and non-clients demonstrate different patterns of defense preferences? Further, will these patterns be affected by the sex-role of the individual. Again, no directional predictions are being made.

In summary, this study will provide comprehensive data about sex role influences on the choice of defenses, about sex role differences between clients and non-clients, and about defense preferences of clients as compared to non-clients as mediated by sex role attitude.

CHAPTER III

METHOD

Subjects

This study used 104 subjects, fifty-two males and fifty-two females. Half of each gender group consisted of clients, and half of non-clients. The clients were drawn from a population at a Psychotherapy Services at a large Southwestern university health sciences center. All clients had either neurotic or personality disorder diagnoses. No psychotic clients were included. The non-clients were selected from a student population enrolled in undergraduate psychology courses at another university in the same town. All subjects were approached individually or in small groups to assess their willingness to participate in this study. Participation was entirely voluntary, without any compensation being offered. Average age and socioeconomic status are listed in Table 2 below. A definition of the index used to assess SES is given below (see Four Factor Index of Social Status in the Measures section).

Table 2

Means and Standard Deviations for Age and Socioeconomic Status (SES) of Subjects by Sex and Status

	Male		Female	
	M	SD	M	SD
Client				
Age	37.4	8.7	32.4	5.8
SES	48.8	8.4	49.3	8.8
Non-Client				
Age	28.5	8.1	26.6	9.9
SES	53.9	4.2	50.1	7.5

Measures

Bem Sex-Role Inventory (BSRI). The Bem Sex-Role Inventory (BSRI; Bem, 1974) was developed in 1972 by Sandra Bem. This instrument was designed to measure masculinity, femininity, and androgyny. It does not view femininity and masculinity as polar opposites of the same continuum, but rather as two separate categories. A later revision of the scoring procedures (Bem, 1977) added a fourth category of individuals labeled undifferentiated. Persons who score below the

medium on both masculinity and femininity are grouped into this category. The BSRI also includes a Social Desirability scale which is completely neutral with regard to sex. It was included to provide a neutral background for the masculine and feminine items of the BSRI. It is generally not used in research with the BSRI.

The instrument requires a person to indicate on a seven-point scale how well each of 60 items (20 masculine, 20 feminine, 20 neutral) describes her or him. The seven point range is labeled at each point, with 1 being defined as "Never or Almost Never True", and 7 as "Always or Almost Always True". Two types of scores can be obtained from the BSRI: category and non-category scores. Four major non-category scores are obtained: a masculinity score, a femininity score, an androgyny (difference) score, and a social desirability score. The masculinity (non-category) score equals the average of all the ratings on the masculine items; the femininity (non-category) score equals the average of all the ratings on the feminine items. Thus, scores on both scales can range from 1 to 7 and are completely independent. The Social Desirability score is calculated like the masculinity and femininity scores

and has the same range of 1 to 7. The androgyny (difference) score is merely the difference between a person's femininity and masculinity non-category score. BSRI category scores can be computed by two different methods. In the original Bem category scoring method, a femininity, a masculinity, and an androgyny score are obtained. This method was not used in this study. Instead a superior, newer method was utilized. This new scoring procedure, called the median split method, provides a way of calculating both an androgyny and an undifferentiatedness score. Medians are calculated for the sample's masculinity and femininity non-category scores. If an individual subject's masculinity and femininity scores are above the sample medians, the subject obtains the label androgynous. If both scores are below the median, the label undifferentiated is used. A subject is classified as masculine (category score!), if only the masculinity score is above the median, and feminine (category score!), if only the femininity score is above the sample median. Both scoring methods were utilized and compared in this study.

Bem (1974) reported high internal consistency scores for the scales on the BSRI (femininity, .80;

masculinity, .86; androgyny, .86). Test-retest reliabilities over a four-week interval were equally high (femininity, r=.90; masculinity, r=.90; androgyny, r=.93). Construct validity of the BSRI was assessed via a factor analysis (Gaudreau, 1978). This analysis showed that the BSRI items fall into three categories, corresponding to the masculine, feminine, and socially desirable items. Thus, support was provided for the claim that the BSRI measures two separate concepts with its masculinity and femininity scores. Additional descriptive data are available in Bem's original article (Bem, 1974).

Defense Mechanism Inventory (DMI). The Defense Mechanism Inventory (DMI; Gleser & Ihlevich, 1969) was developed to identify five clusters of defenses. These defenses are: 1) Turning Against Object (TAO) - individuals using this type of defense deal with conflict by attacking a real or imagined external object (e.g., identification-with-the-aggressor and displacement); 2) Projection (PRO) - individuals using this type of defense deal with conflict by attributing to an external object negative intent, or hostility; 3) Principalization (PRN) - individuals using this defense deal with conflict by splitting off affect from

content and by then repressing the former (e.g., isolation, rationalization, and intellectualization); 4) Turning Against Self (TAS) - individuals using this defense deal with conflict by directing aggressive behavior toward themselves (e.g., masochism); 5) Reversal (REV) - individuals using this defense deal with conflict by responding positively or neutrally to a frustrating or aggression-inducing event or object (e.g., negation, denial, and reaction formation.

To assess these five defenses, subjects are given ten stories, tapping responses to the following areas of conflict: authority, independence, masculinity/femininity, competition, and situational. Each conflict area is assessed by two stories with four questions per story. These questions require subjects to indicate 1) their actual behavior, 2) their fantasized (impulsive) behavior, 3) their thoughts, and 4) their feelings in response to each individual story. Five multiple choice responses (corresponding to the five defense clusters) are provided for each of the four questions. The subject has to mark the one which is most representative of her or his action with a plus sign and the one least representative with a minus sign. Responses marked with a plus sign are assigned a

value of two points, responses without a sign are assigned one point, and responses with a minus sign receive zero points. Thus, the sum for any of the defense types can range from zero to 80, and the sum over all the defenses always equals 200. The administration of the test requires 30 to 40 minutes. Subjects are administered one of the parallel male or female forms of the DMI depending on gender. These parallel forms differ only with regard to the stories which deal with conflict in the area of masculinity (for males) and femininity (for females).

Test-retest reliabilities between the separate defense scores range from .85 for PRO to .93 for TAO, with an average of .89 over all five defense clusters over a one-week interval (Gleser & Ihlevich, 1969). Construct validity was assessed by providing ten mental health workers a list of 15 defenses and asking them to match them to each of the 240 responses of the DMI. There was satisfactory agreement (over 60%) for responses keyed TAS, REV, and PRN. Less agreement was reached on TAO and PRO (Gleser & Ihlevich, 1969). Later validation studies report even higher validity for the DMI (Dudley, 1978; Gleser & Sacks, 1973). In fact, one study concludes "few attempts have been made

to provide valid and reliable questionnaire assessments of defense mechanisms: the DMI may have succeeded" (Cooper & Kline, 1982, p. 213). Other descriptive data on the DMI are provided in the article by Gleser and Ihlevich (1969) that serves as a manual for the test.

Four Factor Index of Social Status. The Four Factor Index of Social Status (FFISS) was developed by Hollingshead (1975). It is based on a combination of the following scores: marital status, educational level, sex, and occupation. Hollingshead provides classification scores for occupation and for education. The scores on the educational factor range from 1 (less than seventh grade) to 7 (graduate professional training). The scores for the occupational factor range from 9 (higher executives, major professionals, and proprietors of large businesses) to 1 (farm laborers, menial service workers). Occupations are grouped into the nine categories and can be looked up in a table provided by Hollingshead (1975). The educational and occupational factors are then weighted by multiplying the former by 3 and the latter by 5. Marital status is then taken into consideration. Unmarried persons simply add the two weighted factors to obtain their social index scores. Married couples

add the weighted factor scores for both spouses and then divide by two to obtain their social index score. Thus, these scores can range from 8 to 66. High social index scores are indicative of high SES and vice versa.

Hollingshead (1975) reports encouraging validity and reliability scores. He compared the social index scores with prestige scores developed by the National Opinion Research Center (NORC) and obtained a correlation coefficient of .927. He asserts, however, that since this is a new scale more research is needed.

Biographical Datasheet. To obtain all the information needed to compute the FFISS, and to get some additional information about each subject, a brief biographical questionnaire was developed. It inquired each subject about age, marital status, educational level of self and spouse, occupation of self and spouse, race, and mental health history. For a copy of this questionnaire refer to Appendix A.

Procedure

Prior to beginning the actual research process, all subjects were informed that participation in the study was strictly voluntary, that all data were to be kept confidential and anonymous, and that subjects

could withdraw without penalty at any time. Also, they were told that some of the information asked would be personal and that participation required the completion of some psychological tests. Subjects from the Psychotherapy Services were also assured that whether or not they chose to participate would have no effect on their therapy. All subjects, clients and non-clients, were approached by the examiner to assess their willingness to participate. Once they agreed, they filled in the questionnaires either individually or in groups, with the examiner present to answer questions and to monitor the process. Subjects were debriefed and informed about the purpose of this study upon completion of their participation. Those interested could sign up to receive an abstract of the completed project (see Appendix A for the letter used for these puposes).

Data collected from each subject included biographical information (see Appendix A), the Defense Mechanism Inventory, and the Bem Sex-Role Inventory. The biographical information was always collected first. From this information, socioeconomic status was assessed according to the formal four factor procedure described above (Hollingshead, 1975). All subjects

completed the Defense Mechanism Inventory (DMI) and the Bem Sex-Role Inventory (BSRI) according to the standard administration procedures for each of these instruments. To prevent any order effects, half of the subjects completed the BSRI before completing the DMI, and the other half completed these instruments in the reverse order. Data of volunteers in the non-client group who indicated a history of mental health treatment were not used in this study. In the client group, data on each individual subject were collected within the first six weeks of psychotherapy to avoid possible treatment effects on defenses. Information about their diagnosis and their level of functioning was obtained from the individual's therapist. DSM III (APA, 1980) diagnoses were used and level of functioning was assessed with the Global Assessment Scale (GAS) developed by Spitzer, Gibbon, and Endicott (1978). Data of subjects who received DSM III diagnoses indicating psychotic disorders were not included in this study.

Design

In the preliminary analyses, this study used a fully crossed 2 x 2 factorial design. The independent

variables were gender (Male, Female) and status (Client, Non-Client). The dependent variables were age and SES as assessed by the FFISS. Chi-square tests were computed with the same independent variables for race and educational level, as these dependent variables were category variables.

In the first set of main analyses the Bem category scores obtained by the median split methods of scoring were analyzed. Due to the categorical nature of these dependent variables, i.e, femininity, masculinity, androgyny, and undifferentiatedness, chi-square tests were utilized. The independent variables remained the same as described above. Still using the same independent variables, the Bem non-category scores were analyzed to be able to compare patterns of category with non-category scores. A 2 x 2 ANOVA was calculated for each of the three Bem non-category scores (Masculinity, Femininity, and Androgyny). Alpha level was adjusted according to the Bonferroni method (Neter & Wasserman, 1975). According to this method the .05 alpha level is divided by the number of analyses. Thus, it was set at .016. Also, the significance of any extraneous variables (assessed in the preliminary set of analyses) as covariates was determined and

Analyses of Covariance were to be computed for analyses where the covariate effect was significant.

In the second set of main analyses, this study used a 2 x 2 x 4 fully crossed factorial design with unequal cells. The independent variables were gender (Male, Female), client status (Client, Non-Client), and sex-role preference (Masculinity, Femininity, Androgyny, Undifferentiatedness), as calculated by the median-split scoring method. The dependent variables were derived from the Defense Mechanism Inventory, i.e., TAO, PRO, PRN, TAS, and REV. For all of these analyses statistical adjustments were made for unequal cells. Also, the significance of any extraneous variables (assessed in the preliminary set of analyses) as covariates was determined and analyses of covariance were computed for analyses where the covariate effect was significant. The alpha level needed to be adjusted according to the Bonferroni method (Neter & Wasserman, 1975). Thus, the alpha level for these instances was set at .01.

Additional analyses included two sets of Pearson Product-Moment Correlations between: 1) GAS and the five DMI variables, and 2) masculinity (non-category), femininity (non-category), and androgyny (difference

score) and the five DMI variables. Based on the Bonferroni method of adjusting alpha levels, for the first set of correlations alpha level was set at .01, and for the second set at .003.

CHAPTER IV

RESULTS

Preliminary Statistical Analyses

To assess differences between groups relative to age and SES, 2 x 2 ANOVA's were calculated with sex (male, female) and status (client, non-client) as independent variables. Significant age differences were revealed for clients versus non-clients, $F(1,100)=20.00$, $p<.001$, with clients being older, and for men versus women, $F(1,100)=4.38$, $p<.039$, with women being younger (for cell means of age and SES, refer to Table 6, Appendix B). Consequently, the covariate effect of age had to be assessed for all the main analyses to determine whether Analyses of Covariance were necessary. No significant differences in SES were obtained (see Table 1, Appendix B for ANOVA Summary Tables).

To assess differences between groups relative to educational level and race chi-square-tests were calculated. No significant differences were found between men and women in regard to educational level, $\chi^2(6, N=104)=8.66$, $p=.193$, and in regard to race,

χ^2(2, N=104)=3.91, p=.141. No significant differences were found between clients and non-clients either for educational level, χ^2(6, N=104)=11.02, p=.088, or race χ^2(2, N=104)=.67, p=.716. Frequency data are displayed in Table 7, Appendix B.

First Set of Main Analyses

To be able to categorize the BSRI scores according to the median split method, the medians for the masculinity (4.9) and femininity (4.8) scores had to be calculated. Using this method of categorization, 24 subjects were feminine, 24 were masculine, 30 were androgynous, and 26 undifferentiated.

The analyses for the Bem sex-role scores were determined by the categorical nature of the variables. Thus, chi-square-tests were calculated for the four dependent variables obtained via the new scoring method of the BSRI. Client versus non-client differences were not statistically significant, χ^2(3, N=104)=.3, p=.96. Differences between males and females were also not statistically significant, χ^2(3, N=104)=7.52, p=.057.

So that a comparison between category and non-category sex-role scores can be made, 2 x 2 ANOVA's were calculated on the non-category scores derived from the BSRI. Thus, in this set of analyses the

independent variables were gender (male, female) and status (client, non-client), and the dependent variables were femininity, masculinity, and androgyny. The alpha level was adjusted according to the Bonferroni method, and was set at .016. The covariate effect of age was found not to be significant on any of the dependent variables (see Table 8, Appendix B), thus no ANCOVA's were necessary. Significant differences were revealed between males and females for masculinity, $F(1,100)=6.90$, $p<.01$, with males scoring higher than females; for femininity, $F(1,100)=12.27$, $p<.001$, with women scoring higher than men; and for androgyny, $F(1,100)=20.77$, $p<.001$, with women again scoring higher than men. No significant differences were revealed between clients and non-clients. (See Table 9, Appendix B, for ANOVA Summary Table) Means and standard deviations grouped according to sex and according to status are listed below in Table 3.

Table 3

Means and Standard Deviations for Sex-Roles Grouped According to Sex and Status

Variable	Sex		Status	
	Female	Male	Non-Client	Client
Masculinity				
M	4.4	4.9	4.8	4.5
SD	.9	.7	.7	1.0
Femininity				
M	5.0	4.6	4.8	4.8
SD	.7	.6	.6	.7
Androgyny				
M	1.1	-.03	.02	.3
SD	.6	.9	1.0	1.1

Second Set of Main Analyses

The statistical analyses used for the defense mechanisms obtained from the DMI were determined by the ipsative nature of the instrument used to obtain the dependent variables. Thus, a series of 2 x 2 x 4 analyses of variance (ANOVAs) were included on each of

the five dependent variables, i.e., TAO, PRO, PRN , REV, and TAS. The independent variables were sex (male, female), status (client, non-client), and sex-role as calculated by the Bem median-split method (femininity, masculinity, androgyny, and undifferentiatedness). To control for the inflated alpha level which results from this procedure of using five univariate analyses, the Bonferroni procedure (Neter & Wasserman, 1975) was utilized. Thus, by dividing the .05 alpha level by the number of analyses (5), the significance level was set at .01. Adjustment was made statistically for unequal cells. No significant covariate effect was revealed for age, making ANCOVA's unnecessary (see Table 2 in Appendix B for F values). Results are depicted in Table 3, Appendix B. Significant differences were revealed between clients and non-clients for PRO, $F(1,88)=10.54$, $p<.002$, with clients scoring higher than non-clients; and PRN $F(1,88)=15.60$, $p<.001$, with non-clients scoring higher than clients. Significant sex differences were obtained for PRO, $F(1,88)=7.47$, $p<.008$, with men scoring higher than women; and TAS, $F(1,88)=10.22$, $p<.002$, with women scoring higher than men. Means and standard deviations are presented in Table 4.

Table 4

Means and Standard Deviations for DMI Variables Grouped According to Sex and Status

Variable	Sex		Status	
	Female	Male	Non-Client	Client
TAO				
M	37.8	41.8	39.1	40.5
SD	7.9	8.5	7.9	8.9
PRO				
M	38.4	41.4	38.5	41.3
SD	5.3	5.8	5.4	5.7
PRN				
M	46.2	44.1	47.2	43.2
SD	6.5	6.6	6.3	6.3
TAS				
M	40.2	34.8	36.8	38.1
SD	8.2	7.7	7.2	9.5
REV				
M	37.5	37.9	38.5	36.9
SD	9.0	7.7	7.0	9.5

A significant sex-role effect was revealed for TAO only, $F(1,87)=3.915$, $p<.01$. Post hoc contrasts indicate that the significant differences are between the feminine and masculine, $F(1,101)=6.92$, $p<.01$, and the masculine and androgynous groups, $F(1,101)=9.71$, $p<.002$, in each case with the masculine group scoring higher. Means and standard deviations grouped by sex-role are listed in Table 5.

A significant interaction effect was revealed between sex and sex-role for PRO, $F(3,88)=6.33$, $p<.001$. Post hoc contrasts indicate the significant differences are between feminine men and feminine women, $F(1,101)=10.36$, $p<.001$), and feminine men and undifferentiated men, $F(1,101)=8.51$, $p<.01$, in both cases with feminine men scoring higher; and between undifferentiated women and undifferentiated men, $F(1,101)=7.98$, $p<.01$, and undifferentiated women and feminine women, $F(1,101)=9.32$, $p<.009$. In both cases undifferentiated women scored significantly higher. No other significant interaction effects were obtained. Cell (Sex x Sex-Role) means and standard deviations for PRO are listed in Table 6.

Table 5

Means and Standard Deviations for DMI Variables by Sex-Roles Using the Median Split Method of Scoring

Variable	Feminine	Masculine	Androgynous	Undiff
TAO				
M	38.6	44.5	37.6	39.1
SD	7.0	8.5	7.5	8.5
PRO				
M	38.8	42.0	39.6	39.3
SD	5.9	5.1	5.7	5.9
PRN				
M	44.8	43.1	46.4	46.1
SD	7.6	6.0	5.9	6.7
TAS				
M	39.9	33.7	37.0	39.4
SD	7.4	7.1	8.6	9.1
REV				
M	38.2	36.8	39.4	36.1
SD	7.4	5.8	8.7	10.7

Table 6

Means and Standard Deviations for Sex-Roles (Median Split Method) by Sex for PRO

Variable	Feminine	Masculine	Androgynous	Undiff
Male				
M	44.6	42.7	41.6	37.7
SD	5.3	5.6	5.0	5.3
Female				
M	35.9	40.0	38.0	41.1
SD	3.5	2.9	5.8	6.1

Additional Analyses

To assess the relationship between DMI variables and GAS level ratings, Pearson Product-Moment Correlations were calculated. As shown in Table 4, Appendix B, no significant relationships were revealed.

Similar correlations were calculated between DMI variables and masculinity (non-category), femininity (non-category), and androgyny (difference score). They are displayed in Table 5, Appendix B. Only four significant relationships were found. There were negative relationships between masculinity and TAS,

r=-0.39, p<.001, and femininity and TAO, r=-.31, p<.001. Positive relationships were revealed between androgyny and TAS, r=.33, p<.001, and femininity and REV, r=.29, p<.003.

CHAPTER V

DISCUSSION

Results indicate that the expectations that sex-role would serve as a mediator of client status were not supported. There were no significant differences between clients and non-clients in their endorsement of sex-roles. This may indicate that if people are at ease with their own sex-role orientation it does not matter whether it is masculine, feminine, or androgynous. It may be the case that sex-role in and of itself does not determine whether a person will have a history of, or a tendency toward, mental health problems. Rather, it may be that only individuals who are unhappy in their sexual self-definition may develop psychological or emotional problems. This may be a reflection of a changing society, where feminine and masculine traits are now more equally socially valued. Thus, sex-role may no longer be a cause for feeling less accepted or equal.

With regard to gender differences in sex-roles interesting results were revealed, particularly in the area of androgyny. There was a significant difference

between men and women in their androgyny non-category score. Women had a significantly higher average androgyny score than men (mean scores of 1.1 and -.3, respectively). This difference indicates that women in this sample leaned more in the direction of a (feminine) sex-role stereotype than men, as the truly androgynous individual scores close to zero. However, when categorized according to sex-role via the median split method, no significant differences were found between gender groups, indicating that an equal number of men and women tend to endorse androgyny. These findings combined indicate that androgynous women still endorse more feminine traits, in addition to having accepted a wide range of masculine values for themselves. Men, on the other hand, appear somewhat more balanced in that they are more likely to endorse equal numbers of feminine and masculine traits when they do ascribe to an androgynous self-definition. Further, these findings suggest that different scoring methods of the BSRI produce different results. Clearly, some information would have been lost, had only one scoring method been utilized in this study.

With regard to differential use of defense mechanisms, some significant differences were revealed

between status groups (i.e., clients vs. non-clients). As would be predicted by the adaptiveness of the principalization defense cluster (PRN), clients scored lower on this defense than non-clients. This is not surprising since earlier research has shown significant correlations between PRN and lower levels of anxiety and depression, higher emotional stability and greater assertiveness. However, this is the first time that PRN has been shown a valuable defense cluster to distinguish between client and non-client groups.

Another significant status difference was revealed for the projection defense (PRO). Clients scored significantly higher on this defense than non-clients, indicating its less adaptive value. This finding again is consistent with previous research that has shown PRO to be less positively related with indicators of good mental health than PRN. However, it is inconsistent with some previous research that indicates that TAO and TAS defenses are more highly correlated with psychological problems than PRO. In the present sample, however, PRO was the "unhealthy" defense cluster that was helpful in differentiating clients and non-clients. Previous findings on the PRO defense were thus consistent with the conceptualization of

projection as suggested by Laughlin (1979) and by Gleser and Ihlevich (1969). Findings of this study suggest that perhaps PRO needs to be reconceptualized more in line with Object Relations Theory. Here it is suggested that projection is the most primitive defense, used by individuals with more severe, chronic psychopathologies such as borderline and narcissistic disorders (Greenberg & Mitchell, 1983). Future investigations need to shed more light on this issue. In this study such an attempt was made by correlating all DMI defense clusters with GAS levels of the psychotherapy clients. However, possibly due to the restricted sample size, no significant relationships between defenses and GAS levels were revealed.

PRO was not only differentially used by clients and non-clients, but also by men and women, with men being more likely to use projection defenses than women. This main effect cannot be interpreted in and of itself, as endorsement of PRO was also significantly mediated by sex-role depending on the gender of the person. Thus, feminine men scored higher on PRO than any other male or female sex-role group. Feminine women, on the other hand, scored lower on PRO than any other male or female sex-role group. Undifferentiated

men scored lower on PRO than any other same-gender sex-role group, whereas undifferentiated women scored higher than any other same-gender sex-role group. Masculine and androgynous men and women scored in between, with men slightly higher in each category. Thus, feminine men and undifferentiated women appear to share some dynamic which results in greater, i.e., more pathological, use of PRO. Feminine women and undifferentiated men appear to share a dynamic process which results in decreased, i.e., less pathological, use of projection. It is not possible from this study to conclude what this shared dynamic is, but it may be related to acceptance of and satisfaction with one's own sex-role. It can be speculated that feminine women and undifferentiated men feel less need to project unacceptable parts of themselves onto other people, possibly because of self-acceptance and comfort with their chosen sex-role. Undifferentiated women and feminine men might not experience the same comfort with their sex-role orientation and may deal with resulting anxieties via projection. It will be interesting to explore the validity of these speculations or hypotheses further in future research.

Significant (main effect) sex differences were revealed for use of only one defense mechanism. Women scored significantly higher on Turning Against Self (TAS) than men. Here results clearly confirmed previous research findings, and stereotypic beliefs about men and women.

Sex-role differences regardless of gender were also revealed for TAO, the externalizing defense cluster. Masculine subjects were more likely than feminine subjects to make use of TAO. Masculine subjects also used TAO more often than androgynous subjects.

Thus, it appears to be masculinity which mediates the more healthy usage of TAS (lower TAS scores, negative correlation with TAS) and the less healthy usage of TAO (higher TAO scores). The androgyny category score mediates the less healthy use of TAS. Femininity mediates defense usage in the same way as androgyny, but in a somewhat more extreme degree. This difference between androgyny and femininity was not statistically significant, but raises the question whether it is not the feminine component of androgyny which is responsible for the way it influences use of defenses.

This speculation about the unhealthy influence of femininity on androgyny is supported by Pearson Product Moment correlations between defense mechanisms and sex-role non-category scores. Correlations demonstrated that there is a significant negative relationship between masculinity and TAS and a significant positive relationship between androgyny and TAS. Surprisingly, no significance was revealed between TAS and femininity. However, it is likely that the relationship between TAS and androgyny can be explained by the fact that the higher this androgyny score of an individual, the more feminine traits he or she endorsed (this is not the androgyny category score, but rather the difference score between femininity and masculinity which would not necessarily classify this person as androgynous). However, there was a significant positive relationship between femininity and REV and a significant negative relationship with TAO. Both of these findings suggest a more adaptive adjustment of feminine subjects, but unfortunately are not replicated when using the femininity category score.

Finally, it is important to point out that in spite of status and sex differences in the usage of certain defense clusters, all groups use

principalization as their primary, or most commonly endorsed, defense. Non-clients merely used this defense more often, whereas clients were more likely to resort to less adaptive coping strategies. Thus, the main factor which distinguishes these two groups is frequency or rank order of use of various defenses. Clients are more likely than non-clients to resort to unhealthy defenses. This may occur particularly during times of stress. This latter idea would be interesting to pursue in future research.

In summary, this study has revealed significant sex role differences among gender groups, but not between clients and non-clients. Thus, the hypothesis that sex-role differentiates clients from non-clients was not upheld. Rather, its mediating effect on defenses was the same in the client and non-client population. The study did show a positive relationship between client status and PRO, and a negative relationship between client status and PRN. Thus, a differentiation between client and non-clients based on the use of defense mechanisms is possible. Relationships between gender and PRO and TAS were in the predictable direction of higher use of PRO among men and of TAS among women. Sex-role differences were

demonstrated for TAO. It is not clear how sex-role mediates defenses. But, as opposed to many findings in previous literature, there is only limited indication that androgyny is more significantly involved in healthy mediation than masculinity. It is important to note that none of the sex-role categories were significantly correlated with the healthy PRN defense cluster. Thus, there is no clear evidence that sex-role mediates healthy use of defenses. There is merely an indication that masculinity may have a negative effect in terms of being correlated with TAO defenses, and that high androgynous difference scores are correlated with increased usage of TAS defenses. Further, neither of these two clusters was identified in this study as helpful in differentiating clients from non-clients. Thus, their less adaptive value is here merely assumed from prior research findings.

Neither gender nor status differences were revealed for Reversal defenses (REV). As this defense cluster is also the most ambiguous one as far as previous research findings are concerned, a reanalysis of the items for this cluster may be indicated. It does not appear to be helpful in making any kind of discriminations.

In spite of the fact that the answers to a few questions were provided by this investigation, it appears that it has raised even more. Much more future research will be needed to establish the adaptive values both of certain defenses and of sex-role orientations. It appears less likely from this study that the claim of the psychology of androgyny can be supported in the future. It may be necessary to replace it with a psychology of self-satisfaction and acceptance. This means that maybe society needs to move toward accepting each individual as he or she desires to be regardless of gender or sex-role. Perhaps even the attempt to be androgynous is restrictive in that it prescribes a certain way of being and behaving. The absence of a relationship of any of the sex-role categories with PRN defenses supports this assertion.

From the results of this study it appears valuable to continue to explore defense mechanism as ways of evaluating mental health. Two defense clusters were identified which clearly differentiated clients and non-clients. This is encouraging for future use of the DMI in research and perhaps even in clinical settings. Maybe attempts should be made to test clients more

routinely with instruments such as the DMI to obtain a larger data base that can be used to deduce information about an individual's emotional or psychological adjustment. This may have important implications for outcome studies in psychotherapy.

REFERENCES

American Psychiatric Association (1980). The diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D.C.: Author.

Astin, H.S., Parelman, A., & Fischer, A. (1974). Sex roles: A research bibliography. Rockville: National Institute of Mental Health.

Bardwick, J.M. (1971). Psychology of women: A study of biocultural conflicts. New York: Harper & Row.

Bazin, N.T., & Freeman, A. (1974). The androgynous vision. Sex Roles, 2, 184-215.

Bem, S.L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162.

Bem, S.L. (1975). Sex-role adaptability: One consequence of psychological androgyny. Journal Personality and Social Psychology, 31, 634-643.

Bem, S.L. (1977). On the utility of alternative procedures for assessing psychological androgyny. Journal of Consulting and Clinical Psychology, 45, 196-205.

Bem, S.L. (1981). Gender schema theory: A cognitive account of sex-typing. Psychological Review, 88,

354-364.

Bem, S.L., & Lenney, E. (1976). Sex-typing and the avoidance of cross-sex behavior. Journal of Personality and Social Psychology, 33, 48-54.

Bem, S.L., Martyna, W.A., & Watson, C. (1976). Sex-typing and androgyny: Further explorations of the expressive domain. Journal of Personality and Social Psychology, 34, 1016-1023.

Berzins, J.I. (1975). New perspectives on sex-roles and personality dimensions. Paper presented at the meeting of the American Psychological Association, Chicago.

Berzins, J.I., Welling, M.A., & Wetter, R.E. (1978). A new measure of psychological androgyny based on the Personality Research Form. Journal of Consulting and Clinical Psychology, 46, 126-138.

Blacha, M.D., & Fancher, R.E. (1977). A content validity study of the defense mechanism inventory. Journal of Personality Assessment, 41, 402-404.

Bogo, N., Winget, C., & Gleser, G.C. (1970). Ego defenses and perceptual styles. Perceptual and Motor Skills, 30, 599-605.

Block, J.H. (1973). Conceptions of sex-role: Some cross-cultural and longitudinal perspectives.

American Psychologist, 28, 512-526.

Campbell, D.P. (1966). Revised manual for Strong Vocational Interest Blanks. Stanford: Stanford University Press.

Constantinople, A. (1973). Masculinity-femininity: An exception to a famous dictum. Psychological Bulletin, 80, 389-407.

Cooper, C., & Kline, P. (1982). A validation of the Defense Mechanism Inventory. British Journal of Medical Psychology, 55, 209-214.

Cramer, P. (1979). Defense mechanisms in adolescents. Developmental Psychology, 15, 476-477.

Cramer, P., & Carter, T. (1978). The relationship between sexual identification and the use of defense mechanisms. Journal of Personality Assessment, 42, 63-73.

Deutsch, C.J., & Gilbert, L.A. (1976). Sex-role stereotypes: Effects on perception of self and others and on personal adjustment. Journal of Counseling Psychology, 23, 373-379.

Dudley, G.E. (1978). Effects of sex, social desirability, and birth order on the Defense Mechanism Inventory. Journal of Consulting and Clinical Psychology, 46, 1419-1422.

Erdwins, C., Small, A., & Gross, R. (1980). The relationship of sex-role to self-concept. Journal of Clinical Psychology, 36, 111-115.

Evans, R.G. (1982). Defense mechanisms in females as a function of sex-role. Journal of Clinical Psychology, 38,816-817.

Flaherty, J.F., & Dusek, J.B. (1980). An investigation of the relationship between psychological androgyny and components of self-concept. Journal of Personality and Social Psychology, 38, 984-992.

Frank, S.J., McLaughlin, M.A., & Crusco, A. (1984). Sex-role attributes, symptom distress, and defensive style among college men and women. Journal of Personality and Social Psychology, 47, 182-192.

Freud, A. (1946). The ego and mechanisms of defense. New York: International University Press.

Freud, S. (1916/17). Vorlesungen zur Einfuehrung in die Psychoanalyse. Frankfurt: Fischer Wissenschaft.

Gaudreau, P. (1977). Factor analysis of the Bem Sex-Role Inventory. Journal of Consulting and Clinical Psychology, 45, 299-302.

Gayton, W.F., Havu, G., Barnes, S., Ozman, K.L., &

Bassett, J.S. (1978). Psychological androgyny and fear of success. Psychological Reports, 42, 757-758.

Gleser, G.C., & Ihlevich, D. (1969). An objective instrument to measure defense mechanisms. Journal of Consulting and Clinical Psychology, 33, 51-60.

Gleser, G.C., & Sacks, M. (1973). Ego defenses and reaction to stress: A validation study of the Defense Mechanism Inventory. Journal of Consulting and Clinical Psychology, 40, 181-187.

Gleser, G.C., & Ihlevich, D. (1979). Personality factors and ego defenses. Academic Psychology Bulletin, 1, 171-179.

Gordon, N.G., & Brackney, B.E. (1979). Defense mechanism preference and dimensions of psychopathology. Psychological Reports, 44, 188-190.

Gray, S.W. (1957). Masculinity-femininity in relation to anxiety and social acceptance. Child Development, 28, 203-214.

Gray, S.W. (1959). Perceived similarity to parents and adjustment. Child Development, 30, 91-107.

Greenberg, J.R., & Mitchell, S.A. (1983). Object relations in psychoanalytic theory. Cambridge, MA:

Harvard University Press.

Haan, N. (1965). Coping and defense mechanisms related to personality inventories. Journal of Consulting Psychology, 29, 373-378.

Harford, T.C., Willis, C.H., & Deabler, H.L. (1967). Personality correlates of masculinity and femininity. Psychological Reports, 21, 881-884.

Heilbrunn, A.B. (1981). Gender differences in the functional linkage between androgyny, social cognition, and competence. Journal of Personality and Social Psychology, 41, 1106-1118.

Hoffman, D.M., & Fidell, D.S. (1979). Characteristics of androgynous, undifferentiated, masculine, and feminine middle-class women. Sex Roles, 5, 765-781.

Hollingshead, A.B. (1975). Four factor index of social status. New Haven, CT: 1965 Yale Station.

Ihlevich, D., & Gleser, G.C. (1971). Relationship of defense mechanisms to field dependence-independence. Journal of Abnormal Psychology, 77, 296-302.

Jones, W.H., Chernovetz, M.E., & Hansson, R.O. (1978). The enigma of androgyny: Differential implications for males and females? Journal of Consulting and Clinical Psychology, 46, 298-313.

Jung, C.G. (1982). Aspects of the feminine.

Princeton: Princeton University Press.

Kahana, E., Fairchild, T., & Kahana, B. (1982). Review of the Defense Mechanism Inventory. In D.J. Mangen & W.A. Peterson (Eds.), Research Instruments in Social Gerontology (Vol. 1) (pp. 162-164). Minneapolis: University of Minnesota Press.

Kaplan, A.G. (1976). Androgyny as model of mental health for women: From theory to therapy. In A.G. Kaplan & J.P. Bean (Eds.), Beyond sex-role stereotypes: Readings toward a psychology of Androgyny (pp. 352-362). Boston: Little, Brown.

Kipper, D., & Ginot, E. (1979). Accuracy of evaluating videotape feedback and defense mechanisms. Journal of Consulting and Clinical Psychology, 47, 493-499.

Laughlin, H.P. (1979). The ego and its defenses. New York: Jason Aronson.

Lee, A.G., & Scheurer, V.L. (1983). Psychological androgyny and aspects of self-image in men and women. Sex Roles, 9, 289-306.

Lobel, T.E., & Winch, G.L. (1986). Different defense mechanisms among men with different sex role orientations. Sex Roles, 15, 215-220.

Maccoby, E.E. (1966). Sex differences in intellectual

functioning. In E.E. Maccoby (Ed.), The development of sex differences (pp. 25-55). Stanford: Stanford University Press.

Massong, S.R., Dickson, A.L., Ritzler, B.A., & Layne, C.C. (1982). Assertion and defense mechanism preference. Journal of Counseling Psychology, 29, 591-596.

Massong, S.R., Dickson, A.L., Ritzler, B.A., & Layne, C.C. (1982). A correlational comparison of defense measures: The Defense Mechanism Inventory and the Blacky Defense Preference Inventory. Journal of Personality Assessment, 46, 477-487.

Miller, D.R., & Swanson, G. E. (1960). Inner conflict and defense. New York: Henry Holt & Co.

Minuchin, P. (1965). Sex role concepts and sex typing in childhood as a function of school and home environments. Child Development, 36, 1033-1048.

Mussen, P.H. (1962). Long-term consequences of masculinity in interests in adolescence. Journal of Consulting Psychology, 26, 435-440.

Neter, J., & Wasserman, W. (1975). Applied linear statistical models. Homewood, IL: Richard E. Irwin, Inc.

O'Connor, K., Mann, D., & Bardwick, J. (1978).

Androgyny and self-esteem in the upper middle class: A replication of Spence. Journal of Consulting and Clinical Psychology, 46, 1168-1169.

Pyke, S.W., & Graham, J.M. (1983). Gender schema theory and androgyny: A critique and elaboration. International Journal of Women's Studies, 6, 3-17.

Rosenberg, M. (1973). The biological basis for sex role stereotypes. Contemporary Psychoanalysis, 9, 374-391.

Ross, J.M., & Johnson, R.W. (1976). Social evaluative anxiety and defensive style. Psychological Reports, 38, 1075-1078.

Scholz, J. (1973). Defensive styles in suicide attempters. Journal of Consulting and Clinical Psychology, 41, 70-73.

Schutz, W. (1962). COPE: A FIRO awareness scale. Palo Alto, CA: Consulting Psychologists Press.

Sears, R.R. (1970). Relation of early socialization experiences to self concepts and gender role in middle childhood. Child Development, 41, 267-289.

Silvern, L.E. & Ryan, V.L. (1979). Self-rated adjustment and sex-typing on the Bem Sex-Role Inventory: Is masculinity the primary predictor

of adjustment? Sex Roles, 5, 739-763.

Spence, J.T., Helmreich, R., & Stapp, J. (1975). Ratings of self and peers on sex role attributes and their relation to self-esteem and conceptions of masculinity-femininity. Journal of Personality and Social Psychology, 32, 29-39.

Terman, L., & Miles, C.C. (1936). Sex and personality. New York: McGraw Hill.

Viney, L.L., & Manton, M. (1974). Defense mechanism preferences and the expression of anxiety. Social Behavior and Personality, 2, 50-55.

Walsh, J. A. (1972). Review of the Defense Mechanism Inventory. In O.K. Buros (Ed.), The seventh mental measurements yearbook (Vol. 1) (pp. 129-130). Highland Park, IL: Gryphon Press.

Webb, A.P. (1963). Sex-role preferences and adjustment in early adolescents. Child Development, 34, 609-618.

Weissman, H.N., Ritter, K., & Gordon, R.M. (1971). Reliability study of the Defense Mechanism Inventory. Psychological Reports, 29, 1237-1238.

White, R.W. (Ed.) (1963). The study of lives. New York: Atherton Press.

APPENDICES

APPENDIX A

MATERIALS GIVEN TO SUBJECTS

BIOGRAPHICAL DATA SHEET

Before filling in the questionnaires on the following pages, please provide the following data about yourself. Remember that all information you provide is confidential, and that you do not need to sign your name anywhere. Thank you.

Age:_____

Marital Status:_____

Educational Level:

	yours	spouse's
Highschool	_____	_____
Some college	_____	_____
Associate's Degree	_____	_____
Bachelor's Degree	_____	_____
Some graduate training	_____	_____
Master's Degree	_____	_____
Doctorate Degree	_____	_____

Occupation: yours_____ spouse's_____

Mental Health Services History :

Have you ever received counseling for personal or family-related problems? Yes _____ No _____

If yes: When _____
Where _____
For how long _____

Dear Volunteer,

Thank you very much for considering the participation in this research project. Before you begin filling in the research questionnaires, I would like to let you know that I appreciate your help. If at any time during your participation, you want to discontinue filling in the questionnaires or answering the questions on the biographical data sheet you will receive, you are free to do so. Also, your participation is strictly anonymous. Some of the questions you will be asked to answer on paper are personal, but your responses will be kept confidential.

I hope you will enjoy your participation in this project. If after completion of all the instruments you have any questions, please let me know. Also, if you wish, you can sign up to receive a summary of the results of this study after it has been completed. If so, leave your name and address with me after you have completed all questionnaires. Please do not communicate about this project to anybody who might be a volunteer at a future time. It is important for the success of this research, that everybody who participates knows very little about the project before participation.

Again, thank you very much for your help with this project. I appreciate your cooperation.

Christiane Brems, Investigator
Robert Schlottmann, Research Advisor

I have read the above statement. I understand it completely and I agree to participate in this project.

_____ _____

Name Date

Dear Psychotherapy Service Client,

Thank you very much for considering the participation in this research project. Before you begin filling in the research questionnaires, I would like to let you know that I appreciate your help. If at any time during your participation, you want to discontinue filling in the questionnaires or answering the questions on the biographical data sheet you will receive, you are free to do so. Also, your participation is strictly anonymous. Some of the questions you will be asked to answer on paper are personal, but your responses will be kept confidential. Please let me assure you that your decision whether to participate in this project will in no way influence your psychotherapy. Your therapist will not be informed about your decision.

I hope you will enjoy your participation in this project. If after completion of all the instruments you have any questions, please let me know. Also, if you wish, you can sign up to receive a summary of the results of this study after it has been completed. If so, leave your name and address with me after you have completed all questionnaires. Please do not communicate about this project to anybody who might be a volunteer at a future time. It is important for the success of this research, that everybody who participates knows very little about the project <u>before</u> participation.

Again, thank you very much for your help with this project. I appreciate your cooperation.

Christiane Brems, Investigator
Robert Schlottmann, Research Advisor
Dept. of Psychology
OSU, Stillwater, OK 74078

APPENDIX B

TABLES

Table B-1

2 (Sex) x 2 (Status) ANOVA's for Age and SES

Variable Source	SS	df	MS	F	p
Age					
Sex (S)	304.6	1	304.6	4.389	0.039
Status (St)	1388.4	1	1388.4	20.005	0.000
S * St	64.6	1	64.6	0.932	0.337
Error	6940.6	100	69.4		
SES					
Sex (S)	69.4	1	69.4	1.241	0.268
Status (St)	219.2	1	219.2	3.916	0.061
S * St	118.4	1	118.4	2.116	0.149
Error	5598.0	100	55.9		

Table B-2

Covariate Effect for Age for the 2 (Sex) x 2 (Status) x 4 (Sex-Role) (Median-Split) ANOVA's for DMI Variables

Variable	Source	SS	df	MS	F	p
TAO						
	Age	374.1	1	374.1	6.137	0.015
PRO						
	Age	13.5	1	13.5	0.529	0.469
PRN						
	Age	115.2	1	115.2	3.200	0.077
TAS						
	Age	22.4	1	22.4	0.363	0.549
REV						
	Age	301.7	1	301.7	4.708	0.033

Table B-3

2 (Sex) x 2 (Status) x 4 (Sex-Role) (Median-Split) ANOVA's for DMI Variables

Variable Source	SS	df	MS	F	p
TAO					
Sex (S)	159.2	1	159.2	2.468	0.120
Status (St)	88.1	1	88.1	1.366	0.246
Role (R)	577.7	3	192.5	2.984	0.036
S * St	2.4	1	2.4	0.038	0.846
S * R	213.9	3	71.3	1.105	0.351
St * R	307.5	3	102.5	1.589	0.198
S * St * R	236.0	3	78.6	1.219	0.307
Error	5678.8	88	64.5		
Post Hoc for Sex-Role Effect (3 DF)					
TAO					
Femininity versus Masculinity					
	426.0	1	426.0	6.437	0.013
Masculinity versus Androgyny					
	648.6	1	648.6	9.801	0.002
Masculinity versus Undifferentiatedness					
	362.2	1	362.2	5.474	0.021

Table B-3 Cont.

Variable	Source	SS	df	MS	F	p
PRO						
	Sex (S)	190.3	1	190.3	7.472	0.008
	Status (St)	268.4	1	268.4	10.542	0.002
	Role (R)	50.1	3	16.7	0.656	0.581
	S * St	43.3	1	43.3	1.702	0.195
	S * R	483.9	3	161.3	6.334	0.001
	St * R	42.1	3	14.0	0.552	0.648
	S * St * R	34.0	3	11.3	0.446	0.721
	Error	2241.3	88	25.4		
PRN						
	Sex (S)	54.7	1	54.7	1.482	0.227
	Status (St)	576.1	1	576.1	15.604	0.000
	Role (R)	129.7	3	43.2	1.172	0.325
	S * St	3.6	1	3.6	0.100	0.753
	S * R	168.4	3	56.1	1.521	0.215
	St * R	299.2	3	99.7	2.701	0.050
	S * St * R	112.7	3	37.5	1.018	0.389
	Error	3249.1	88	36.9		

Table B-3 Cont.

Variable	Source	SS	df	MS	F	p
TAS						
	Sex (S)	629.3	1	629.3	10.218	0.002
	Status (St)	97.1	1	97.1	1.577	0.213
	Role (R)	384.3	3	128.1	2.080	0.109
	S * St	174.7	1	174.7	2.837	0.096
	S * R	55.2	3	18.4	0.299	0.826
	St * R	353.9	3	117.9	1.916	0.133
	S * St * R	164.6	3	54.8	0.891	0.449
REV						
	Sex (S)	29.8	1	29.8	0.447	0.505
	Status (St)	149.5	1	149.5	2.239	0.138
	Role (R)	252.2	3	84.0	1.259	0.294
	S * St	14.0	1	14.0	0.210	0.648
	S * R	605.8	3	201.9	3.024	0.034
	St * R	448.9	3	149.6	2.241	0.089
	S * St * R	78.3	3	26.1	0.391	0.760
	Error	5877.5	88	66.7		

Table B-4

Pearson Product Moment Correlations Between DMI Variables and GAS Level

Variable	r	p
TAO	.040	.775
PRO	.097	.488
PRN	.214	.123
TAS	.122	.385
REV	-.076	.591

Table B-5

Correlations between Masculinity, Femininity, and Androgyny (Non-Category Scores) and DMI Variables

Variable	r	p
Masculinity		
TAO	-.007	.944
PRO	.089	.366
PRN	.105	.288
TAS	-.394	.001
REV	.250	.010
Femininity		
TAO	-.311	.001
PRO	-.240	.014
PRN	.250	.010
TAS	-.003	.980
REV	.286	.003
Androgyny		
TAO	-.189	.054
PRO	-.288	.020
PRN	.071	.475
TAS	.327	.001
REV	-.029	.770

Table B-6

Cell Means and Standard Deviations for Age, SES, and Bem (Non-Category) Sex-Role Scores

	Female		Male	
Variable	Non-Client	Client	Non-Client	Client
Age				
M	26.7	32.4	28.6	37.4
SD	10.0	5.9	8.2	8.8
SES				
M	50.2	49.4	54.0	48.9
SD	7.5	8.9	4.2	8.4
Masculinity				
M	4.6	4.2	5.0	4.7
SD	.7	1.1	.7	.8
Femininity				
M	5.0	5.1	4.7	4.4
SD	.7	.6	.5	.7
Androgyny				
M	.4	.8	-0.3	-0.3
SD	1.1	1.0	.9	.9

Table B-6 Cont.

	Female		Male	
Variable	Non-Client	Client	Non-Client	Client
TAO				
M	37.2	38.4	41.0	42.6
SD	8.1	8.0	7.5	9.5
PRO				
M	37.5	39.2	39.4	43.4
SD	5.2	5.3	5.6	5.3
PRN				
M	48.5	44.0	45.9	42.4
SD	6.3	6.2	6.1	6.5
TAS				
M	38.6	41.8	35.0	34.5
SD	7.7	8.6	6.3	9.0
REV				
M	38.4	36.6	38.7	37.1
SD	7.6	10.3	6.4	8.9

Table B-7

Frequencies of Subjects as Grouped According to Educational Level and Race

	Sex		Status	
Variable	Female	Male	Non-Client	Client
Educational Level				
1	8	5	3	10
2	20	15	20	15
3	5	3	2	6
4	2	5	2	5
5	11	8	10	9
6	5	15	14	6
7	1	1	1	1
Race				
Hispanic	14	7	11	10
Black	5	3	5	3
White	33	42	36	39

1=High School; 2=Some College; 3=Associate's Degree; 4=Bachelor's Degree; 5=Some Graduate Training; 6=Master's Degree; 7=Doctorate.

Table B-8

Covariate Effect of Age for 2 (Sex) x 2 (Status) ANOVA's on Bem Sex-Role Scores (Non-Category)

Variable	Source	SS	df	MS	F	p
Masculinity						
	Age	0.03	1	0.03	0.043	0.836
Femininity						
	Age	0.00	1	0.00	0.012	0.840
Androgyny						
	Age	0.04	1	0.04	0.041	0.840

Table B-9

2 (Sex) x 2 (Status) ANOVA's for Bem Sex-Role Scores (Non-Category)

Variable	Source	SS	df	MS	F	p
Masculinity						
	Sex (S)	4.9	1	4.9	6.901	0.010
	Status (St)	3.4	1	3.4	4.834	0.030
	S * St	0.02	1	0.02	0.030	0.863
	Error	71.8	100	0.7		
Femininity						
	Sex (S)	4.7	1	4.7	12.267	0.001
	Status (St)	0.1	1	0.1	0.504	0.479
	S * St	1.1	1	1.1	3.012	0.086
	Error	38.6	100	0.3		
Androgyny						
	Sex (S)	20.1	1	20.1	20.772	0.000
	Status (St)	1.9	1	1.9	2.015	0.159
	S * St	1.3	1	1.3	1.347	0.249
	Error	96.8	100	0.9		

VITA

Christiane Brems

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE RELATIONSHIP BETWEEN SEX-ROLE, DEFENSES, AND CLIENT-STATUS

Major Field: Psychology

Biographical:

Personal Data: Born in Lampertheim, West Germany, January 17, 1961, daughter of Rosemarie and Bernhard Brems.

Education: Graduated from Gymnasium (Lyceum) Gernsheim, West Germany with Abitur, in May 1980; received Bachelor of Arts Degree in Psychology from Oklahoma State University in May 1982; received Master of Science Degree in Psychology (Mental Health Specialty) from Oklahoma State University in May 1984; completed requirements for Doctor of Philosophy Degree in Clinical Psychology from Oklahoma State University in July 1987.

Professional Experience: Teaching Assistant Department of Psychology, Lincoln University, Spring 1982, and Oklahoma State University, Academic Year 1985/86; Psychological Assistant, Oklahoma State University, September 1982 to May 1986; Mental Health Specialist Intern, Central State Hospital, January 1984 to June 1984; Child Guidance Intern, Payne County Guidance Center, September 1984 to June 1985; Clinical Psychology Intern, University of Texas Health Sciences Center, September 1986 to September 1987.