The Relationship Between Learned Sexual Values and Adjustment in a Prison Setting.

James William Robinson

Louisiana State University and Agricultural & Mechanical College

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The relationship between learned sexual values and adjustment in a prison setting

Robinson, James William, Ph.D.
The Louisiana State University and Agricultural and Mechanical Col., 1988
THE RELATIONSHIP BETWEEN LEARNED SEXUAL VALUES AND ADJUSTMENT IN A PRISON SETTING

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfilment of the requirements for the degree of Doctor of Philosophy in The Department of Sociology

by
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B.S., Louisiana State University, 1970
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December 19, 1988
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The writer takes full responsibility for all short-comings and errors that this study may contain.
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ABSTRACT

The degree of environmental control exerted by female inmates was examined as a function of gender role identity. The sample was obtained at the Louisiana Correctional Institute for Women, the only female prison in the state. The prison environment was assumed to offer very few control options. The options studied were those under the direct authorization of the social services division of the prison, and from individuals external to the prison. It was assumed that the flexibility found in androgynous individuals would allow for a greater level of perceived control than with either the masculine or feminine gender role identity people. It was also predicted that a congruent feminine or androgynous gender role identity would enable the women more perceived control than would be found with those with a masculine gender role identity. A locus of control in Likert format and the Bem Sex Role Inventory scored using the androgynous T-ratio were used to assess control beliefs and gender role identity.

Results indicated a curvilinear relationship between gender role identity and environmental control. The masculine gender role identity had the lowest level of control, followed by the feminine, and apexing at the androgynous gender role identity.
CHAPTER I
INTRODUCTION TO THE STUDY

Background

This study will explore the relationship between female inmates' gender role identity and their perceived autonomy in a prison setting. Perceived autonomy in a prison setting may help negate an inmate counterculture and facilitate acceptance of treatment programs by inmates (Osgood, Gruber, Archer, & Newcomb, 1985). The goal of reducing illegal behavior is hindered with inmate opposition to institutional rules and goals, and norms prohibiting the aiding of authorities to curb rule violations, and the employment of physical coercion by inmates to influence behavior among their peers (Clemmer, 1958; Sykes, 1958; Osgood, Archer, & Newcomb, 1985).

Osgood et al. (1985) proposed that autonomy, as related to independence and self determination, facilitated inmate's support of institutional goals. The choice of what an individual wants to do, how and when they wish to do it, must be relevant to the inmate. Staff and inmate perceptions of available autonomy were found to differ considerably, with inmate perceptions of control in their environment being significantly related to a decreased support of counterculture values and an increased acceptance of treatment programs. Osgood et al. (1985) noted that autonomy may be used as a reward for inmate adaptation to institutional norms and goals. That
is, autonomy may be granted as a result of staff approval of inmate's adaptations.

The ability to control one's environment, such as seeing prison personnel like doctors or counselors, obtaining desirable work or vocational opportunities may become problematic in a total institution such as a prison. The resources are much more limited and are controlled externally to a greater extent in this environment than would be found in the "free" society. There are both state and individual prison guidelines governing the accessibility of goods, services and privileges within the prison setting (Edwards, Phelps, Rivers, & Nipper, 1985; Edwards, Phelps, Rivers, & Niper, 1986). The prison staff in interpreting these rules and guidelines and assessing the circumstance of the individual inmate, will determine what services are rendered to the inmate. Though the inmate's influence may be relatively limited, their interaction with prison staff and fellow inmates may enable some of the inmates to obtain these resources easier than other inmates.

Generally, the ability to adapt to situations has been shown to vary with an individual's gender role identity (Bem, 1975). This may also be true in a prison setting. Gender role identity becomes established near the beginning of early childhood (Zuckerman & Sayre, 1982). This can be determined by the proportion of instrumental and affective components within the individual's schema. An individual with a feminine gender role identity displays predominantly affective components in their personality (Bem, 1977). The individual with a masculine gender role identity has more instrumental components in their approach. The androgynous individual
contains a balance of both the masculine instrumental nature and the feminine affective component in their personality. Thus, the individual's gender role identity predisposes the person with a general approach to manipulate the environment to their needs in certain ways (Bem, 1977).

It has been suggested that androgynous individuals are more flexible individuals as they have the repertoire of both masculine and feminine gender role identity (Bem, 1975). Therefore, this may facilitate their adaptive ability, enhancing their autonomy through various services and privileges granted to them by prison staff.

**Gender Role Identity**

Personality is influenced by two major factors. First there exists a psychological and genetic predispositions. People have been found to consistently respond differently at birth to various stimuli (Thomas, Chess, & Birch 1970; Petrie, 1967; Ellis, 1982). Secondly, socialization experiences also impinge on personality development. All societies have various norms for appropriate behavior, and biological sex is generally used as a means to assign the roles. The socialization for boys and girls is thus substantially different (Maccoby & Jacklin, 1974). Boys have fewer barriers. For example, 70 percent of the people feel that it is good for boys, but not girls to get into a few fights (Stark & McEvoy, 1970).

Though the socialization of people is based on their biological sex, the gender role identity of both males and females is not restricted to their physical characteristics. Gender role identity refers to social psychological differences, i.e. the cultural and
psychological state of being masculine, feminine, or androgynous (Tresemer, 1975). This entity can be different from either the biological differences (possession of a penis or vagina) or sexual orientation (homosexual, bisexual, or heterosexual). Its manifestations can vary considerably between cultures. Margaret Mead (1935; 1963) found cultures in New Guinea to possess sex roles radically different from our own. Both the men and women of the Arapesh exhibited what our society considers to be very feminine characteristics, being very gentle, nurturant and home loving. In contrast, both sexes of the neighboring Mundugumor exhibited exaggerated machismo, or "compulsive masculinity". The third tribe of Mead's study, the Tchambuli, had role reversals according to our cultural standards. The women were the economic force of the community, fishing, trapping, and working on crafts to exchange with other tribes. The men focused on self adornment, "languishing looks and soft words", and exhibiting emotional fluctuations which led the women to look on men with "kindly toleration and appreciation", but not taken seriously.

Individuals can be raised as a member of either sex easily if appropriate surgery and parental counseling is initiated prior to the onset of the child talking, about eighteen months (Green & Money, 1969; Money & Ehrhardt, 1972). By nursery school age, children generally behave in accordance with assigned sex roles (Fagot & Patterson, 1969; Money & Tucker, 1975; Albert & Porter, 1982). They are aware that their parents expect appropriate sex role behavior, and are capable of "role-playing" the opposite sex (Fauls & Smith, 1956; Schell & Silber, 1968). A most illustrative case
involved the accidental removal of one twin's penis during circumcision (Green & Money, 1969). Following a "corrective surgery" of this child at Johns Hopkins School of Medicine, the parents raised this individual as a female and the other twin as a male. Both children accepted the assigned roles without any difficulty, indicating that gender role is almost exclusively a learned phenomena taking place after birth. (Green & Money, 1969). This further implies that one's gender role can be modified in any culture. It has been demonstrated that men can be taught to display feminine characteristics such as empathy (Cleaver, 1987), and women can display characteristics such as leadership skills similar to males (Koberg, 1985).

Masculinity and Femininity.

This society has generally recognized the masculine and feminine extremes of the continuum as the only social psychological healthy orientations for either sex (Spence & Helmreich, 1978). These expectations permeate throughout almost all aspects of an individuals life, (Bem, 1974; 1975; Bem & Lenny, 1975; Schultz & Rodgers, 1975) affecting values and consequent norms (Hoult, 1974). The sexual stereotypes have remained consistent in nature over a considerable time (Fernberger, 1948; McKee & Sherrifs, 1957; Rosenkrantz, Vagel, Bee, & Broverman, 1968; Broverman, Vogel, Broverman, & Rosenkrantz, 1970; Spence & Helmreich, 1978; Deaux & Lewis, 1984; Eagly, 1983). Masculinity generally embodies instrumental qualities, and femininity is associated with expressive attributes.

The expressive and instrumental qualities are fundamental
dimensions of human behavior (Parsons & Bales, 1955). The expressive behaviors deal with interpersonal relationships such as nurturance, tenderness, warmth, or showing affection through words and gestures. Instrumental qualities relate to work and activities, as epitomized by autonomy, creativity, activity, drive, ambition, courage, or leadership potential.

Freud (1933; 1964) likewise delineated "masculine" to mean active and "feminine" to be passive. Masculinity was arrived at by the male in resolving the Oedipal conflict. Femininity evolved as a female learned to love her father upon entering the Electra conflict (Stoller, 1976).

Once we identify ourselves as male or female, we strive to conform to the stereotypes appropriate to that gender (Money and Ehrhardt, 1972). A masculine individual also avoids stereotypic feminine behavior, and a feminine individual avoids stereotypic masculine behavior (Bem, 1974; Bem & Lenny, 1976). These stereotypes have the power of "self fulfilling prophecies" wherein individuals perfect attributes internally defined as good and appropriate for themselves (Merton, 1968).

**Androgyny.**

Androgyny is a recurring theme in myths, religion, and explanations of the creation of mankind (Bazin & Freeman, 1974). The concept of humans that were simultaneously male and female is common in many non-western cultures (Francoeur & Francoeur, 1974). Within the western culture, Genesis has been interpreted to mean that God and Adam were androgynous (Heilbrum, 1973), and the Christian
Virgin-Mother in conceiving a son through the "power of the spirit within her" has been interpreted as a female androgynous being (Gelpi, 1974:152).

Freud (1933; 1964) considered people to be basically of a bisexual disposition. He viewed the individual as a fusion of two symmetric halves with an unmistakable bisexual disposition. With the embryo evolving from a bisexual entity to one with an unequal development of male and female structures, rudimentary sexual components of the opposite sex reside within each individual, (Freud, 1933). People were not just a man or a woman, but in his opinion, a mixture of each in varying degrees. This concept of bisexuality is similar to androgyny. While acknowledging anatomical differences, Freud felt the psychology of maleness and femaleness blended into one of activity and passivity. Singer (1977) interpreted Freud to mean that individuals are a blending of both male and female characteristics and that the biological differences are due entirely to the undifferentiated embryo's unequal development of the male and female structures.

The idea of a blending of masculinity and femininity within the person continues to explain the concept of androgyny (Bem, Martyman, & Watson, 1976). This implies that either or both aspects can be expressed at any given time depending upon the circumstances (Bem, 1974; Wilson, 1975). As such, the full range of human behavior can be expressed by the androgynous individual rather than those delineated solely by sexual polarization (Heilbrum, 1973).

A trend of increasing androgyny in the Western culture has been evident (Bazin, 1973; Bazin & Freeman, 1974; Bem, 1975; 1977; Bem
Locus of Control

It is useful to consider human learning on a continuum of internal to external control (Rotter, 1966). Those who believe that they exercise control on events affecting their life are classified as having an "internal" locus of control. Individuals who attribute extrinsic forces as regulating their life events are considered "external" in nature. This can have behavioral consequences. Most learning situations for people are perceived as skill controlled (Rotter, 1966). The individual assumes that their effort and ability are crucial to the outcome. Behavior differences may emanate from individual perceptions of perceived control:

The individual who has a strong belief that he can control his own destiny is likely to (a) be more alert to those aspects of the environment which provide useful information for his future behavior; (b) take steps to improve his environmental condition; (c) place greater value on skill or achievement reinforcements and be generally more concerned with his ability, particularly his failures; and (d) be resistive to subtle attempts to influence him" (Rotter, 1966:25).

If an individual ascribes luck or the intervention of others as the cause for a reinforcement, their expectations for future reward are not raised much with continuing rewards, nor lowered much with their absence. However, if an individual perceives his own skill and action as responsible for reinforcement, extinction of his behavior was much more resistant on following a lesser reinforcement schedule (James & Rotter, 1958; Rotter, Liverant, & Crowne, 1961). When an
individual feels that the tasks he performs are based on his skill rather than fate, he takes more time and care in making his decisions (Julian & Katz, 1968; Lefcourt, Lewis, & Silverman, 1968; Phares, 1957).

An internal locus of control provides a wide range of benefits. Internals achieve a greater success rate as they are accustomed to engaging in long range plans (Lefcourt, 1976). People who believe that their behavior will effect outcomes react to situations differently than those who do not. With the perceived ability to act in one's own behalf, they put forth greater effort and determination and accept the more challenging goals (Lefcourt, 1976; Light, Purcel, & Martin, 1986). Internals ask more questions regarding tasks they believe are skill controlled (Davis & Phares, 1967). Both the motivation to succeed and actual success has been found to be higher with internal inmates (Wright, Holman, Steele, & Silverstein, 1980).

Internals offer greater resistance to social pressure, relying on their own judgment more even when it was in conflict with others. They have been found to be less conforming to confederates in an Asch type paradigm wherein subjects are pressured into agreeing with an obviously wrong judgement based on the unanimity of an incorrect response by confederate subjects in the experiment (Crowne & Liverant, 1963). Internals focus more on the content of information presented rather than the prestige of the person presenting the information (Biondo & MacDonald, 1971; Ritchie & Phares, 1969; Ryckman, Roddin & Sherman, 1972).

Buffering the effect of life stresses, internals also seek
outside support to a greater degree than externals (Grace & Schill, 1986). Prison inmates perceive themselves as being more efficacious within the prison when they feel positive toward, and maintain friendships outside the prison, (Larson & Nelson, 1984).

Experiencing a traumatic failure may produce an anomaly with internals (Rotter, 1979). They may continue to have a high pressure for achievement and internalized high goals, yet espouse an external belief. In this culture because of gender role expectations, females have been found less prone to this reversal. Girls are expected to revere motherhood, stressing the importance of attachment to others and not expected to surpass economically or intellectually (Gilligan, 1983). In contrast, boys are expected to be in full control, manipulate the environment to their own ends, and value individual achievement.

Richardson (1988:14) delineates the pervasive effect of gender role expectations:

In this culture, males and the "masculine" are considered superior to females and the "feminine". Indeed, androcentrism exists in all industrialized societies - socialist and capitalist, democratic and authoritarian. Patriarchalism is to culture as a rhythm section is to a band. Sometimes it overrides the melodic theme and sometimes it is hushed - but it is always there. When we have been listening to a band for hours and hours, we loose awareness of the rhythm as distinct from the totality of the music. Similarly, the principle of male superiority after hundreds of years has become so embedded in the culture that we unconsciously behave in ways that perpetrate it.

Women have been found to perceive less internal locus of control than men (Rotter, 1966; Crump & Hickson, 1985). Cross culturally, men have used their greater physical strength to assert their
dominance in relations with women (Barry, 1957; Friedl, 1975). Precipitantly, women are viewed as less competent in performing identical (Goldberg, 1968), or comparable tasks (Bergman, 1986; Ilchman, 1985; Reskin, 1985). The median earnings for women is only about 60 percent of that earned by men (Bureau of the Census, 1983). As women enter predominantly male occupations, such as law or medicine, they are generally relegated to the positions of least prestige far more than are men entering these professions (Richardson, 1988). Women have had a higher unemployment rate than men (Bureau of Labor Statistics, 1986). Our cultural norms allow for women to remain at home. In contrast, men are expected to obtain valued resources (Reskin, 1985). This lack of parity with men in many such phases of human activity may allow proportionately less environmental control by women and may adversely influence their locus of control.

Statement of the Problem

Increasing a sense of control within the inmates may allow for a more intensive participation in programs available in the prison that are designed to facilitate success for the prisoners once they are released.

It is the objective of this study to explore the relationship between prison inmates' gender role identity and their perceived control. That is, how much control is felt to be exerted by female inmates in relationship to their gender role identity. It was hypothesized that there would be a relationship between gender-role identity and locus of control. It was expected that along the continuum of gender role identity from feminine to androgynous, to
masculine, that a curvilinear effect on control would be found. The feminine group was expected to exhibit a moderate amount of control. This effect would increase as they displayed more androgynous characteristics. Androgynous individuals were hypothesized to have a more internal locus of control. This would be followed by a marked decrease in internal locus of control with the cross sexed masculine gender role identity.
CHAPTER II

REVIEW OF THE LITERATURE

The focus of the present research is the effect of gender role identity on locus of control in a prison setting. Gender role studies initially focused on the dimensions of masculinity and femininity (Clayton, 1970; Gall, 1969; Lefley, 1971; Phelan, Brooks, & Brashears, 1970; Sarni, 1976; Sherman, 1976; Tolor, Kelly, & Stebbins, 1976; Welsch, 1973). This has been expanded to include psychological androgyny as an integral part of gender role identification (Bem, 1977).

A person's locus of control may determine behavior, yet it itself is moderated by other social learning experiences (Phares, 1976). Liverant, Rotter, & Seeman, (1962) have developed a scale to measure this concept. Initially a scale of 100 forced choice items encompassing academic recognition, social recognition, love and affection, dominance, social - political events, and general life philosophy was developed. This was initially reduced to a 60 item version by Liverant, then to a 23 item version by Rotter (Phares, 1976). Items were retained based on a significant correlation with other items, validity data from two previous studies, a low correlation with the Marlowe-Crowne Social Desirability Scale, and endorsement by less than eighty-five percent of the subjects (Seeman & Evans, 1962; Rotter, Liverant, & Crowne, 1961; Rotter, 1966).

The present research focuses on literature that encompasses all
three gender role identities or their equivalent, and literature relevant to the measurement and effects of locus of control.

**Gender Role Identity**

It was postulated that the masculine and feminine dimensions were not simply end points on a single bipolar continuum, but independent orthogonal dimensions (Bem, 1974). This leads to the concept of androgyny whereby an individual can strongly exhibit both masculine and feminine attributes, behaviors, and self images (Bem, 1974). With the use of the Bem (1974) Sex Role Inventory, individuals were classified males and females as having masculine, feminine, or androgynous gender role orientations. This was accomplished using an "Androgynous T Ratio", a variant of the Student t test statistic. The subjects evaluated themselves using a seven point Likert type scale to describe the similarity of their personality with twenty "masculine", twenty "feminine", and twenty "neutral" descriptions. The subject's composite masculine score was subtracted from their feminine score. Individuals whose overall score deviated more than one standard deviation from zero were classified as having either a masculine or a feminine gender role according to the direction of sign. The group within plus and minus one standard deviation of zero was classified either as androgynous or undifferentiated, depending on intensity of their separate masculine and feminine scores. The undifferentiated were individuals with both a low masculine and feminine score. Bem & Lenny (1976) found the undifferentiated comprised only about one percent of their sample and generally could be classified as androgynous. A normally distributed population
would be expected to contain approximately sixty eight percent androgynous individuals, and the remaining equally divided between masculine and feminine gender roled groups.

In the Bem (1974) Sex Role Inventory, the masculine group was comprised of individuals that tended to be assertive and exhibiting leadership qualities. This group was further divided into high and low masculinity based on their scores on the masculine portion of the inventory. The feminine group were people inclined toward affectionate behavior. These individuals were likewise classified into high and low femininity groups based on the strength of their responses to feminine items. Masculinity and femininity existed as independent entities, and individuals could possess varying degrees of each. An androgynous individual possessed a balance of both the masculine and feminine values, which was considered to be the most adaptive (Bem, 1977).

**Masculinity, Feminity and Androgyny.**

Androgynous individuals are considered to be better adjusted because they adapt both masculine and feminine traits to a given situation (Chafetz, 1974; Lips & Colwill, 1978; Singer, 1977). Heilbrum (1973) felt this allowed the full range of human behavior to be expressed. Support for the existence of psychological androgyny was also found by Spence & Helmreich (1975) using the Personal Attribute Questionnaire. Individuals were assigned to one of four groups using the median split technique. These groups were low masculine - low feminine, high masculine - low feminine, low masculine - high feminine, and high masculine - high feminine. These
categories were comparable to Bem's (1977) undifferentiated, masculine, feminine, and androgynous groups. It was found that the high masculine - high feminine, or androgynous group scored highest in self esteem. This was followed by the high masculine - low feminine (masculine), low masculine - high feminine (feminine), and low masculine - low feminine (undifferentiated) groups. When rescored consistent to the five categories of the Bem (1974) Sex Role Inventory, the majority of the high masculine - low feminine and low masculine - high feminine remained in the masculine and feminine groups respectively. Approximately one half of the high masculine - high feminine and one third of the low masculine - low feminine groups were classified as androgynous. Using the Bem (1974) classification with these subjects, Spence and Helmrich (1975) found that the androgynous group's self esteem score lay between the masculine and feminine groups. This was attributed to combining the higher self esteem scores of the androgynous group with the low self esteem score associated with the undifferentiated group.

Heilbrum (1976) used a revised Adjective Check List (Gough & Heilbrum, 1965) and divided subjects using a median split method into undifferentiated, masculine, feminine, and androgynous groups. A ten week retest reliability of 0.91 was obtained for the Masculinity - Femininity scale. Heilbrum (1976) found that the androgynous group possessed better role consistence and better adjustment and achievement of ego identity.

Appropriate traits associated with a healthy female as described by psychologists (Broverman, Broverman, Clarkson, Rosenkrants, & Vogel, 1970) are the same that they describe an immature adult (Bem,
1972). These include submissiveness, being easily influenced, excitable in minor crises, susceptible to hurt feelings, a relative lack of characteristics such as independence, adventure, aggression, competitiveness, objectiveness, and inclinations toward math and science (Broverman, Broverman, Clarkson, Rosenkrantz, & Vogel, 1970). High femininity is associated with poorer adjustment such as high anxiety and low social acceptance (Cosentino & Heilbrum, 1964; Gray, 1957; 1959; Webb, 1963)

High masculine boys seventeen and eighteen years old were compared with cohort low masculine boys (Mussen, 1961). No differences were found in their motivations toward autonomy, achievement, aggression, abasement, or any masculine "instrumental" behavior. Twenty years later, these same individuals were evaluated (Mussen, 1962). The high masculine group had more ego control, but less dominance, less capacity for status, self-acceptance, introspection, self-assuredness, more need for abasement, and less likely to be leaders. Hartford, (1967) found high masculinity to correlate positively with anxiety, guilt-proneness, tough poise, neuroticism, and suspicion. Low masculinity correlated with warmth, brightness, emotional stability, sensitivity, and sophistication.

Individuals who are highly sex-typed are motivated to keep their behavior consistent with an internalized sex role standard (Kagan, 1964; Kohlberg, 1966). This involves a vigilant monitoring of their behavior to filter out anything that could be considered "sex-inappropriate". The androgynous individual is free of such constraints, and may engage in behavior that appears most appropriate relative to the constraints of the situation (Bem, 1972).
Greater intellectual development appears to be associated with cross-sex typing (Bem, 1972:6):

Boys and girls who are less sex-typed have been found to have higher overall intelligence, higher spatial ability, and higher creativity. In addition, a wide variety of intellectual activities have been found to be facilitated by a "masculine" personality pattern in girls and by a "feminine" personality pattern in boys. Thus, in girls, impulsiveness and aggressiveness are positive factors, whereas fearfulness and passivity are negative factors. In boys, the pattern of correlations is exactly the reverse.

Bem (1972:10) expresses the lack of behavior option available to the highly masculine and feminine individuals:

... masculine subjects will display primarily instrumental behavior and feminine subjects will display primarily expressive behavior, regardless of the nature of the situation. Thus, masculine and androgynous subjects should both "do well" when the situation calls for instrumental behavior; feminine and androgynous subjects should both "do well" when the situation calls for expressive behavior.

Less anomie was measured in females who are androgynous than the masculine or feminine role type individuals (Campbell, 1979).

Variables allowing for more freedom and personal control have been found to be associated with androgyne. Androgynous females were generally reared in larger communities where the bonds of traditionalism are broken easier (Allgeier, 1975). An increase in parental education and higher socioeconomic status (SES) was associated with more androgynous and masculine gender role females (Campbell, 1979; McBroom, 1981; Kiersey & Rice, 1981).

Employed mothers describe themselves in more masculine or androgynous terms than do unemployed mothers (Rodgon & Gralewski,
1979). This effect increased from part time to full time. This occurred despite differences in job satisfaction, or type of employment.

Since Bem's early studies of androgyny, there has been a change in the distribution of gender role types. In her two samples, Bem (1974; 1975) found that approximately one third of the females had a feminine gender role identity, and from eight to twenty percent were found to be "near feminine". Between one fourth and one third of her female subjects were classified as androgynous. Her samples contained seven to twelve percent "near masculine" females and eight percent "masculine".

In studying third through eighth grade children, Stericken & Kurdeck, (1982) found the majority had a congruent gender role, their gender and gender role identity were identical. About one third were found to be androgynous, and a slight minority had the reverse gender role identity. Campbell (1985) found forty percent of the females and thirty eight percent of the males in a sample of college students to be androgynous. Thus from Bem's early studies until the more recent studies there has been an increase in the percent of androgynous individuals. This positive trend toward androgyny over the course of time may be a result of the thrust of the current women's movement to equalize both the responsibilities and the privileges afforded each sex.

**Gender Schema**

Bem's (1974; 1976; 1979) earlier work on gender typing focused on measuring individual differences in the socially desirable aspects
of masculinity and femininity. Where masculinity and femininity had been considered as bipolar ends of a continuum, Constantinople, (1973) and Bem (1974; 1976; 1979) each demonstrated that these were two independent components. Implied was that an individual could vary in the intensity of each component. Individuals displaying a much greater intensity of one dimension over the other were delineated by that gender type. Those indicating a balance of masculinity and femininity were designated androgynous or undifferentiated, depending on the intensity of each component the person possessed.

In contrast, gender schema was a concept that ran on a single continuum (Bem, 1981). It was a concept related to sex role orientation, gender role identification, or gender saliency (Spence & Helmreich, 1981). Where Bem's (1974; 1976; 1979) earlier work focused on the degree to which one has become sex typed, her latter works (Bem, 1981; 1982) emphasized how individuals invoked a cognitive structure of sex related association to evaluate, assimilate, and interpret information. At one end of the continuum are the highly masculine males and highly feminine females who are gender schematic. The other end of the continuum is comprised of individuals with weak or cross sexed gender schema, the undifferentiated, androgynous, and cross sexed individuals (Bem, 1981). Rather than stressing how much masculinity and femininity one ascribes to themselves, gender schema theory accentuates how readily and reliably one can use a cognitive structure of sex-linked associations to categorize information, ideas, and one's self (Pyke & Graham, 1983). Bem (1981:356) states "... sex typed individuals ... (differ) ... from other individuals not primarily in terms of how
much masculinity or femininity they possess, but in terms of whether or not their self-concepts and behaviors are organized on the basis of gender." The theory assumes that masculinity and femininity are mutually exclusive antithetical constructs which gender schematic individuals use to evaluate and organize information about themselves.

Using two separate factor analyses of the Bem Sex Role Inventory, Larson and Seidman (1986) found that sex-typed individuals did in fact produce bipolar sex-linked factors. Masculine items loaded at one pole and feminine items at the other pole on all factors, along with the biological sex of the individual. The non-sex-typed individual produced what might be described as androgynous factors with both masculine and feminine items loading high and in the same direction. Masculine and feminine traits were neither opposite, nor mutually exclusive. It should be mentioned that the median split technique that is used to delineate the sex-typed and non-sex-typed ensures that Masculine and Feminine items would vary inversely with sex-typed subjects and covary with non-sex-typed subjects (Larsen & Seidman, 1986).

Using a word recall test Markus, Crane, Bernstein, and Siladi, (1982) found masculine schematics were more confident, remembered more, endorsed and took less time to process masculine items than feminine or neutral items. The same was true of females with female items. In the aschematic group, the high androgynous performed equally well with either masculine or feminine items, with a score midway between the schematic groups on each of the masculine and feminine items. They recalled as many masculine as feminine words
without differences in latency or confidence. The low androgynous individuals also scored within the range of the schematic groups, but had an overall average lower than any group. The low androgynous group was less confident in the "me" endorsements than the high androgynous group, suggesting to Markus et. al. (1982) that only this group should be considered truly aschematic with respect to gender.

Crane and Markus (1982) argue that where masculine sex-typed individuals can have masculine self schema, and feminine sex-typed individuals have a mirror image of this, only highly androgynous individuals can be truly gender schematic. They claim that only with androgynous individuals are both masculine and feminine stimuli equally available and processed with equal efficiency.

Bem's (1981) new approach uses a tautological argument (Pyke & Graham, 1983). It assumes that masculine men and feminine women possess well-developed and frequently utilized gender schema. It also assumes that people with well-developed, frequently utilized gender schema will regard themselves as masculine or feminine accordingly. It has also been argued that those who are typed gender schematic are individuals who themselves are "sex typers" and supporters of sex typing (Pyke, 1984).

McPherson & Spetrino (1983) found that sex rather than gender was an important determinant of sex-typing. In rating an "ideal man" and an "ideal woman" on the Bem Sex Role Inventory, both androgynous and feminine women rated the ideals in the same fashion. Androgynous and masculine men rated "ideal" men and women differently. These results may reflect women's hopes and men's fears of abandoning traditional sex roles.
Gender schema theory has similarities to the earlier androgyny theory proposed by Bem in 1974, "...the very act of describing oneself as sex-typed on the BSRI is, in part, a product of gender-schematic processing" (Bem, 1981:371). The major difference with the earlier androgyny theory and the gender schema theory involves how well androgynous individuals would function theoretically. Bem (1976:51) initially indicated that "... for fully effective and healthy functioning, both masculinity and femininity must be integrated into a more balanced, a more fully human, a truly androgynous personality." This theoretical postulate clearly delineates a non-sex-typed individual as experiencing greater psychological well-being, maturity, and freedom from pathology than the sex-typed person (Pyke & Graham, 1983). This is in contrast to the gender schema theory that the gender schematic individuals are the most adjusted (Bem, 1981; 1983).

Empirical evidence suggests that only males exhibit high self esteem when sex-typed (Bem, 1977; Deutsch & Gilbert, 1976; Erdwins, Small and Gross, 1980; Flaherty and Dusek, 1980; Jones, Chernovetz, & Hansson, 1978; Orlofsky 1977; Silvern & Ryan, 1979). Additional evidence indicates that androgynous individual's esteem is at least as high or higher than their sex-typed counterparts (Kelly, Caudill, Hathorn, & Obrian, 1977; Nevill, 1977; Orlofsky & Windle, 1978).

Summary

Gender role identity is not a simple unidimensional variable as it is derived from two dynamic components that interact with one
another, subject to pressures of existing social norms. Our society values females with a feminine gender role more than a male gender role (Richardson, 1988). Parents, schools, and the mass media all teach the "appropriate" sex role behavior. Children are rewarded through these vehicles for displaying the "correct" behavior (Defleur, 1983). Once grown, women are legally or socially pressured into "ideal" feminine roles. Androgynous individuals possessing both masculine and feminine gender role identity may exhibit either or both roles as situations dictate. As such, females with either feminine or androgynous gender roles are likely to be accepted by society. The masculine gender role identity should be the least functional for women. The cross sexed role allows neither the flexibility of the androgynous gender role, nor the social acceptance of the androgynous or feminine gender role identity.

Androgynous individuals are considered more adaptable to any environmental circumstances as they possess an integrated form of both masculine and feminine qualities. As such, we would expect that they are most likely to exert control whenever possible. When one examines the criteria for masculine or feminine gender role identity, it can be assumed that both the masculine and feminine gender roled individuals are in fact incomplete, with a lack of their particular complementary gender role. Androgynous individuals are presumed to be a blending of the characteristics needed for maximal adjustment in society. This may occur in any situation, including total institutions that tend to be very restrictive, such as a prison. This idea is in contrast to the concept that the degree of the assertiveness of an individual, as epitomized by a masculine gender
role, is most adaptive to oppressive environments such as found in a prison.

Gender schema theory assumes that individuals that are gender schematic are the best adjusted. The androgynous individual is considered aschematic and thus deficient. There are numerous studies that indicate that the androgynous group, though categorized aschematic differs considerably from the cross sexed or undifferentiated gender roles, and is at least as well or better adjusted than the schematic individuals.

How one adjusts to restrictions may be influenced by gender role identity. Androgynous individuals may exhibit greater environmental control due to their greater adaptability and flexibility. Feminine or masculine gender role individuals would exhibit less control, depending upon their departure from androgyny. The cross sexed gender role would be expected to provide less control still, having neither the adaptability and flexibility possessed by the androgynous group, nor the general social acceptance of the gender schematic group.

Locus of Control

Outcome control exists only when an individual's voluntary action can change the probability that the outcome will occur (Lacey, 1979; Gatchel, 1980). The perception of control may be based in reality, but there are individual differences in this perception, and these may markedly alter behavior. (Averil, 1973; Langer, Janis, & Wolfer, 1975). Rotter (1966) proposed that the effects of reinforcement on behavior would partially depend upon an individual's
perception of events as being either dependent on their behavior, or independent of it. He introduced the personality construct "locus of control" to delineate the degree to which an individual feels that he controls his environment. At one end of the continuum, "internal" locus of control subjects perceive a high degree of personal control. At the opposite pole, the "external" person perceives rewards as being independent of their own behavior, that is due to chance. This construct has been found to differentiate between individuals on a variety of tasks (Rotter, 1966; Hiroto, 1974; Freidman & Roseman, 1974; Krause, 1986; Larson, 1984; Crum & Hichson, 1985; Light, Purcell, & Martin, 1986).

Perceived and Actual Control

An event may be perceived as skill or chance controlled depending on factors independent of the actual contingency (Cohen, 1964; Feather, 1969; Kelly, 1967; Langer & Roth, 1975; Streufert & Streufert, 1969; Weiner, Frieze Kukla, Reed, Rest, Rosenbaum, 1971). Perception of control is so important that people experience it in situations where no objective efficacy existed, such as with shooting dice, lotteries, or roulette (Langer, 1983). People may selectively seek and gather information supporting their hypothesis, while ignoring disaffirming evidence (Witt, 1971; Crocker, 1981; Nisbet and Ross, 1980; Kahneman, Slovic & Tversky, 1982). Such biased information provides an "illusory" correlation which provides a relationship that would not be indicated statistically. Demonstration of effort and concentration appear to increase feelings of control while shooting dice (Henslin, 1967).
Dealers in Las Vegas gambling establishments risk losing their jobs should they experience a run of bad luck, (Goffman, 1967). The objective reality of the situation can only influence one's perception of control.

Conversely, individuals may not experience a sense of control when the opportunity for such actually exists (Rotter, 1966; Overmeir & Seligman, 1967; Oakes, 1984). As a person begins to feel helpless in one or more specific situations, it may readily generalize to other aspects of their life (Alloy, Peterson, Abramson, & Seligman, 1984; Fleming & Kinghorn, 1984).

**Effects of Control**

Without any perception of control, individuals may suffer adverse effects (Richter, 1957; Seligman, 1975). Extreme cases could be seen with the Muselmaner, or "walking corpses" of Nazi concentration camps, many of which died of no organic cause (Bettelheim, 1943). Their death was attributed to a sense of helplessness and despair in an adverse environment. Intense stress and lack of personal control has been termed "learned helplessness" (Gatchel, 1980). More recently, this phenomena has been observed in prisoner of war camps in Vietnam (Seligman, 1974). In a series of studies conducted with dogs, inescapable averse stimuli were administered to the animals (Overmeir & Seligman, 1967; Seligman & Maier, 1967). This hindered their subsequential learning. When introduced to a situation that offered little opportunity to control their environment, nursing home residents commonly develop physical symptoms (Schultz & Aderman, 1973). Both increased drug use,
(Segal, 1976) and increased frequency of alcohol consumption (Apaq & Pama, 1982; Nadich, 1975) have been associated with a higher (more external) locus of control score.

A sense of helplessness appears to create a feeling of depression. Activity, aggression, sex drive, and appetite are all lowered, additionally the individual sees themselves as a failure (Miller, Rossellini, & Seligman, 1977). It is easy to see that some of these reactions would be welcomed by prison staff who are required to maintain order over the inmates.

Conversely, increasing an individuals perception of control may enhance their well being. Patients in hospital have been found to reduce their need for pain-relief drugs and sedatives with programs designed to enhance their sense of control (Langer, Janis, & Wolfer, 1975). Nursing home residents respond to enhanced personal responsibility and choices with increased general alertness, more active participation, an enhanced sense of well being, and a much higher survival rate (Langer & Rodin, 1976; Schultz, 1976, Rodin & Langer, 1977).

With the chronic loss of control, individuals cease to take risks, preferring to retreat and withdraw, producing negative psychological and physical consequences (Langer, 1983). As seen with the elderly, a negative label, (aged), which implies a loss of control can produce a negative self-concept and reduce sociability (Rodin & Langer, 1980). Through counseling these individuals as to the true nature of some of their difficulties, (slippery tiled floors causing falls, and being awakened at 5:30 inducing afternoon drowsiness), they experienced a greater sense of control and more
actively participated in social activities.

**Demographic Variables**

Age, race, marital status, education, and geographic density have been associated with a varying locus of control. Increased economic independence allows for increased personal control. This corresponds with an increase in an internal orientation with advancing age up to the time of retirement. At that time, with a decrease in income, a decrease occurs in a person's internal locus of control (Linder, 1986; Light, Purcell, & Martin, 1986; Lumpkin, 1986).

Lower socioeconomic classes have been found to have higher external scores (Battle and Rotter, 1963). Middle class positions with greater control and responsibility have individuals with more internal scores (Brehm & Brehm, 1981). Minority groups have been found to have a great deal more external locus of control than do Caucasians (Stephens & Delys, 1973; Lefcourt, 1982). This may be due in part to the covariation of socioeconomic status and race (Young, & Shorr, 1986). The climate of the lower class produces a fatalism and helplessness that is difficult to overcome.

The more social bonds one establishes in society, the less they suffer from anomie. Marriage provides an exceedingly powerful emotional bond, as does the bonding with the resultant offspring. Conjugal anomie produces derangement that is quite painful. Associated with marital dissatisfaction are feelings of loneliness, depression, general dissatisfaction, and a feeling that life was meaningless (Mestrovic, & Brown, 1985).
An intact home has been found to contribute to an internal locus of control. Individuals coming from homes with both parents present tend to be more internal (Hetherington, 1972; Duke, & Lansaster, 1976; Sroufe, 1979; Cook, Novaco, & Sarason, 1980; & Wiehe, 1984). Internals have been found to have greater marital satisfaction because they encounter marital conflict with a problem solving approach. They communicate more effectively, actively engage in a discussion of marital issues, and achieve their desired goals. In contrast, externals tend to use destructive marital interactions, poor problem solutions, and avoidance of issues (Miller, Lefcourt, Holmes, Ware, & Saleh, 1986).

There is a general consensus that internal beliefs are significantly related to academic achievement (Phares, 1976; Perlmuter, & Monty, 1979,). This was found while controlling for the effects of socioeconomic status and sex (Young & Shorr, 1986). This is hardly surprising in light of our technologically based society that requires a mastery of basic educational prerequisites for many of the positions of responsibility in it.

Lastly, it has been found that increased social density has been associated with a decrease in one's internal locus of control. (Fleming, Baum, & Weiss, 1987). Race and town size one originates from tend to be highly correlated in prison (Toch, 1977). Blacks tend to originate from urban areas, Whereas proportionately more white inmates emanate from the rural parts of the country. The South has a reverse distribution of the races, with Blacks concentrated in rural areas, particularly in river agrarian parishes.
Control Within a Female Prison

Prison imposes many restrictions on individual choice and control. Sykes (1958) observed that prisonization goes beyond the deprivation of freedom. There exists a sense of rejection by the free community. There is extreme material deprivation in prison. Heterosexual relationships are denied. Autonomy is exceedingly curtailed. Rules and regulations govern virtually every aspect of a prisoner's existence. The inmate is forced to associate with other criminals for long periods of time under conditions of extreme deprivation. Additionally, prison tends to provide a very crowded environment to work and live in. High density conditions have been found to contribute to a more external locus of control (Fleming, 1987; Paulus, Annis, Seta, Schkade, & Mathews, 1976; Saegert, Mackintosh, & West, 1975).

The difficulties confronted in a female prison are less life threatening than in a male prison (Mann, 1984). Nevertheless, the rules regulating their behavior may be stricter than in a male prison. The small size of the female inmate population necessitates a single prison for women. Thus inmates from minimum to maximum security are confined together with the same restrictions. Regardless of the infractions that brought them to prison, many women must abide by stricter rules than their male counterpart, with the interpretation of these rules designed to govern the worst of the offenders. For example, a rule designed to curb theft manifests itself in the women's prison with the inmates not being allowed any "transactions", exchanging or giving away items or any commodity, regardless of value such as food or cigarettes (Campbell, 1987). In
contrast, the inmates of the male prison find the rule governing "transactions" to be restricted to more expensive or important items, such as stereos or blankets. Such a situation in the women's prison may result in an environment in which inmates may feel quite powerless to affect even minor events significant to their own lives.

There are several areas where an individual may perceive that they might exercise control over their environment (Lefcourt, 1976). In a prison this could include interactions with other inmates, with work supervisors, social service workers, or other prison staff.

Social workers have the greatest power, but not necessarily the most influence on a prisoner's life (Glasser, 1969). They have actual control over most of the activities engaged in by the inmate, such as job assignments, therapy, or rehabilitative programs. Though the inmate may not have actual control over these situations, they may acquire indirect control through rapport with the social worker, supervisors, guards, or by engaging in designated prerequisites for a specific desired result.

In a prison situation where many activities are controlled by rules and prison staff, the ability to effectively communicate a request is essential to control. Rules imply a degree of interaction. There can exist discretion on both the interpretation and enforcement of rules on the part of prison staff. The ability to manifest a greater flexibility and tolerance from others may be seen with the most adaptable individuals in such a highly restrictive environment. To obtain a positive result from a request may depend partly on how it is asked. In the interchange, the inmate has some control. An interaction between the legitimacy of a request, and whether the
requester focuses on either the poor condition of themselves, "victim orientation" or upon the constraints of the person who is the object of a request, "subject orientation" has been found to exist (Langer & Abelson, 1984). When an experimenter (E) attempted to elicit a desired response from a subject (S) by emphasizing the terrible state they, (E) were in, "victim orientation", legitimate requests were responded to positively three times as much as illegitimate requests. When the experimenter focused on the person who is the object of the request, such as by first asking for a favor from S, this allowed the S to evaluate his own situation and decide if he wished to comply. The positive response rates for both legitimate and illegitimate requests in this "subject oriented" approach were midway between the "victim oriented" condition (Langer & Abelson, 1972), indicating the saliency of the legitimacy of the request in determining the most effective approach to use. Accessing the best approach would be important in a prison setting where nearly all requests are evaluated for legitimacy. This may be perfected to a greater degree by individuals who are most adaptable.

Theoretical and Conceptual Framework

Social Learning Theory

An individual's gender role identity and locus of control are both the result of an ongoing learning or socialization process (Bem, 1981, 1983; Rotter, 1966,). The concepts both embody social learning theory (Hilgard, 1975; Phares, 1976, Lefcourt, 1976). There are several major assumptions to this theory (Rotter, 1954; Lefcourt,
It is assumed that "the unit of investigation for the study of personality is the interaction of the individual and his meaningful environment" (Rotter, 1954:85). The individual responds to their environment based on their own interpretation of the stimuli around them. The focus of the theory is learned social behavior rather than biological predeterminant. It is assumed that there is a relative consistency to personality which can be inferred across situations. Change is possible, but each experience is effected by the accumulated knowledge of past experiences. Both the general and specific determinants of behavior are emphasized. That is, behavior is assumed to be determined by both situation-specific and dispositional elements. Behavior is assumed to be motivated. It is goal directed and purposeful. An individual's behavior "is determined not only by the nature or importance of goals or reinforcement but also by the person's anticipation or expectancy that these goals will occur" (Rotter, 1954: 102). These expectancies are learned from past outcomes. In novel situations generalized rather than specific expectancies determine the individual's expectancy. In highly structured circumstances with explicit situational cues (instructions) behavior will vary very little. But in situations with little structure that permit varying conceptualizations by the individual, the nature of the individual's personality will be salient.

Socialization agents such as the family teach the child at birth appropriate gender role behavior. The particular stereotypes held by a society may influence this process considerably (Bem, 1974; Spence
As the mother is initially the meaningful environment for both male and female infants, both typically identify with her initially. Males identify with the father at a later time. This role shift produces anxiety for males not experienced by females. The anxiety is channeled into rigidly abiding by the socially defined norms of masculinity, making them more sex-typed than females (Lips, 1978; Lynn, 1966). The individual's gender role identity serves as a major component of their personality, (Bem, 1972).

Two approaches to this variable have been developed. Initially, the individual was viewed along a continuum of masculine to feminine gender role identity. Between the two were the androgynous individuals (Bem, 1972). The individual's response to environmental circumstances would be influenced by the degree the individual possessed each of the two gender role characteristics. Androgynous individuals, possessing both masculine and feminine characteristics were assumed most adaptable. Individuals with only a male or female gender role identity were limited in their behavioral repertoire.

The second approach to gender role identity stressed both the sex and sexual orientation of the individual. An individual was considered aschematic if the two were not the same. Presumably, gender schematic individuals responded more "appropriately" to their environment as they conformed to societal expectations.

It was also argued that the only truly gender schematic individuals were androgynous, as they alone had choice. They had the ability to respond in a "masculine" or "feminine" manner. In fact they had the ability to combine both types of response into an
integrated "androgynous" response that was both compassionate and instrumental.

The initial gender role identity approach acknowledges the more flexible nature of the androgynous individual in dealing with their environment. The gender schema approach however, indicates that only the gender schematic individuals are truly adjusted.

Prison Adaptation

One difference between the "free world" and prison involves the limitations of personal control allowed in the prison setting. Goodstein, MacKenzie, and Shotland, (1984) propose that there are four different models for understanding adaptation to prison.

Locus of control differs most in situations that are not highly structured, permitting varying conceptualizations by the individuals. Such an environment allows for a superior mastery and coping abilities of "internals". They make more efforts to acquire information, pay greater scrutiny to relevant cues, and make more optimal use of acquired information when the opportunity arises (Phares, 1976).

The first model proposed by Goodstein et. al. (1984) suggests an "environmental / learned helplessness" condition as existing in prison. The repressive environment of a prison can be viewed by the prisoners as to be so overwhelming as to suppress any initiative on the individuals part. Creative approaches to personal control are suppressed by the lack of choice, outcome control, and the overpredictability of one's environment (Abramson et al., 1978;
Goffman, 1961; Seligman 1975; Seligman et al., 1976). This may result in a learned helplessness response on the part of the inmates. From this perspective, individual differences, such as may be found in different gender role identities, or demographic variables would be expected to have little or no effect on the overall control one might exert in this restrictive environment.

The next three models proposed by Goodstein et. al. (1984) involve individual initiative in the actual response made by the subject, regardless of the oppressive circumstances. The "individual difference / self efficacy" model of personal control proposes that there are individuals who, regardless of the situation, will adjust favorably to any situation and exert the maximum control feasible (Bandura, 1977; Rotter, 1966). Seeman (1963) found internal inmates to be able to remember relevant information concerning parole and other relevant information better than externals. Their self efficacy allowed them to seek out and exercise control through their own efforts and ability (Lefcourt, 1976; Lefcourt et al., 1968; Phares, 1976; Rotter, 1966; Rotter & Mulry, 1965; Strickland, 1977). This perspective would indicate that androgynous individuals with their high adaptability may exercise and thus perceive greater control than individuals of feminine or cross sexed gender role identities. Additionally, demographic variables previously associated with an internal perception in locus of control should continue to show their positive effects.

The second individual initiative model, the "incongruency / reactance model of personal control", allowed for an interaction of both the situation and the individual differences (Goodstein et.
al., 1984). This model proposed that congruent situational opportunities and control expectancies enhance the adjustment of the individuals involved. That is, individuals with needs for high outcome control would function best when exerting maximal control in an environment that allowed for such behavior. Conversely, those individuals whose psychological needs dictate a low outcome control, as possibly found in a prison setting, function best in limiting situations. People with a non-agreement of needs and environmental opportunities suffer the greatest in terms of adjustment problems (Brehm, 1966, 1972) and may feel quite frustrated (Perlmutter et. al., 1974). As both feminine and androgynous gender roles can incorporate passivity and acceptance of situations as components of the "ideal feminine" individual, these women may be best equipped to handle the paucity of situational opportunities for perceived control within a prison. With this model, it may be expected that a feminine gender role identity, with a low outcome expectancy may perceive maximal control. A decline would be expected with an increased masculine gender role identity.

Lastly, an integration of the previous two individual initiative models considers the perceptions an individual may have of the possibilities for exerting personal control and the need they have for outcome control (Goodstein, et. al., 1984). It is the individual's perceptions for control, irregardless of the objective situation, that will shape the ensuing psychological adjustment. A congruent high control expectancy and a perceptions of a high degree of control will result in self efficacy. A congruent low expectancy and a perception of a low degree of control manifests itself in
institutionalization of the individual. The "integrative" model combines aspects of both of the dynamic models. Favorable adjustment results in a congruence of control expectancies and perceptions for adequate control. These perceptions are generally reflective of the objective situational opportunities. Individuals with a male gender role identity may be expected to perform poorly in a prison situation as their control expectancies would be high, yet opportunities for control are quite lacking. Considering the two gender role identities that have a feminine component, we would expect the androgynous to fare better. Both the androgynous and feminine gender roles may hold low control expectancies in a prison situation. The feminine group may be expected to hold a low control expectancy in light of their lack of assertiveness and esteem (Bem, 1977, Spence et. al. 1975; Felton & Kahana, 1974; Schulz & Hanusa, 1979). However, the control expectancy of an androgynous individual may vary with the situation. In a highly restrictive circumstance, such as with incarceration, one might reasonably expect a very low level of control. The androgynous person's perception for adequate control may be quite realistic and initially reflect a very low level. With time they may realize what opportunities are actually available and take advantage of them where possible. These opportunities may then be perceived as adequate for the given situation by the androgynous individual.

With a non congruent expectancy and perceived possibility for adequate control, adverse psychological effects occur (Goodstein et. al., 1984). Those with a high expectancy and a perception of inadequate control, such as would be expected from inmates with a
masculine gender role identity would suffer from alienation, aggressiveness and stress. This in turn would provide additional adverse consequences. Alienation further reduces help from peers or supervisors in obtaining control over their environment. Aggressiveness in a prison environment is deliberately restrained by prison staff through denial of privileges (Louisiana Department of Public Safety and Corrections, 1986). Thus the androgynous inmate may end up with maximal adjustment and perceived control, followed by the feminine and masculine gender role prisoners in the female prison.

**Hypotheses**

This research was designed to examine the relationship between gender role identity and environmental control as perceived by the female inmates at a state correctional facility.

It was expected that the androgynous group, who possessed a balance of both male and female gender role characteristics, would perceive more control over the events in their prison setting and, therefore have less mental distress. They would initially expect little control and later perceive the true limits possible. Individuals deficient in either gender role characteristic would be less able to cope with the prison situation and consequently be less able to exert influence on their surroundings. As a result, both male and female gender role identity individuals would exhibit less control over external events, depending upon their departure from androgyny.

As we look at the overall gender role continuum, we expect that the feminine extreme being gender schematic, and having a low control
expectancy should have a greater positive impact on control than the aschematic masculine extreme who possess higher control needs. They would expect less control and perceive that there is little available. The masculine gender roled individual may expect more control, and suffer from the perceived lack of it. A resultant curvilinear relationship, peaking at androgyny and tapering off more with the masculine gender role identity than found with the feminine gender role is expected. Such results would be predicted by the "integrative" model of control as proposed by Goodstein et. al. (1984). In contrast, the "environmental / learned helplessness" model would suggest equal, virtually non-existent control exhibited by all gender roles.

The following hypotheses express proposed relationships between gender role identity and locus of control:

Hypothesis 1. There will exist individuals who perceive a greater degree of control than others. This may be delineated by demographic variables and gender role identity.

Hypothesis 2. The more androgyny an inmate expresses, the more control they will perceive that they experience in prison. This will result in a curvilinear relationship with gender role identity and locus of control. It is predicted that, starting with the feminine extreme gender role identity, advancing to androgyny will show an increased locus of control. Control will drop precipitously as the inmates are found to possess increasing cross sexed male gender role identity, to a control level below the extreme feminine group.

Hypothesis 3. Gender schematic females will perceive more control in prison than cross sexed individuals. This would result in
the apex of perceived control occurring with the "feminine" prisoners, continuously decreasing through the "androgynous" to the "masculine" prisoners.
CHAPTER III

METHODOLOGY

Sample

All inmates incarcerated at the Louisiana Correctional Institute For Women, Louisiana's only prison for adult female offenders were asked to participate in the study. The prison is located in St. Gabriel, a largely rural community approximately fifteen miles south of the state capital, Baton Rouge. There are normally about 360 inmates residing at the facility. Numerous activities and rehabilitative programs are available for the inmates, allowing for contact with the outside and some degree of control over their own lives. This includes the "Caring Parent Program" which allows mothers of children up to twelve years old to maintain direct parental involvement with their children with visitation in the prison. The big sister program involves orientation of new inmates to their new environment. A newspaper, the Hunt Walk Talk, published by the inmates since 1979, allows for literary expression. Various forms of entertainment, such as a band, record hops, movies, television, and recreational activities help alleviate the boredom and allow some outside contact. Job training and leave for job interviews are provided by the institution to productively reintegrate the inmates into society, and to encourage the inmate to control her destiny.

The description of the sample provided is based on inmate responses to the questionnaire. As the inmates did not always answer
all questions, the total for each category may not always be the same. The percentages reported in each category may not total 100% due to rounding error.

The subjects in the sample ranged in age from eighteen to forty nine, with an average of 30.0 years. This compared with an average age of 29.9 years for the population of the Louisiana Correctional Institute For Women.

The sample consisted of 35 percent white, 63 percent black, and 2 percent other races. This compares with a 37 percent white and 63 percent nonwhite prison population. This difference was not statistically significant, $\chi^2 = .30$, 1 df., $p > .5$.

Most women sampled were single upon entering the prison ($n = 47$, 34%). The sample contained 43 (31%) married individuals, 22 (16%) separated, 14 (10%) divorced, and 8 (6%) widowed women.

No change in marital status occurred with 89 (70%) of the inmates. Eighteen (25%) had either sued or had been sued for divorce or separation. Eight (6%) individuals responded that they had become widowed since incarceration. As several inmates were serving time for murder, this change in marital status could conceivably have been of their own making prior to incarceration. Ten (8%) acquired a new "sugar daddy" or married since incarceration.

The education level of the sample ranged from grade 4 to completion of four years of graduate work at a university. The average amount of education was 10.7 years. This level was due in part to an ongoing program in the prison that enables inmates to obtain their Graduate Equivalency Diploma (GED). Four individuals (3%) only had a primary school education. Seventy three (53%)
received only some secondary education. Forty five (33%) either graduated or received their GED. Sixteen (12%) have earned college credit, one (1%) completed four years of college, and 1 (1%) completed four years of graduate studies.

Most subjects sampled came from large cities such as New Orleans (n = 37, 27%). This was followed by small cities such as Alexandria, or Monroe (n = 38, 28%), medium sized cities such as Baton Rouge (n = 30, 22%), rural areas (n= 24, 17%), and finally towns such as Eunice or Denham Springs (n = 9, 7%).

Procedure

All inmates except those in maximum security were asked to report to the prison gymnasium to participate in the study. The researchers gathered the data with the consent of prison officials, but without their immediate presence. In the gymnasium of the prison, a verbal description of the research, a written explanation of the study, a consent form and the questionnaire were given to each subject. Coffee and cookies were offered as an incentive to participate, though participation was not required to partake of the refreshments. The inmates are provided with one cup of coffee in the morning by the prison. This coffee is regarded as poor by the inmates. They may purchase instant coffee at their canteen once a week. Thus, as suggested by prison personnel, the prospect of freshly brewed coffee and cookies supplied throughout the experimental procedure would be a meaningful incentive for the inmates, and was thus provided as an inducement to participate.
Initially a random sample was selected. Approximately one third of these subjects were willing to participate. To increase sample size all inmates who wanted to were allowed to participate. Of the 360 inmates in the institution 141 (36%) consented to fill out the questionnaire. However, only 25% of the total prison population completed the questionnaire sufficiently for use in this study. The potential sampling bias clearly exists, thus this study must be considered exploratory in nature.

The proportion of inmates participating was low due in part to a "couple" of inherent problems. The study was conducted on weekends to avoid interfering with normal prison operations. However, the weekends were the normal time periods for inmates to meet their visitors, including their children. Moreover, this was the only time period prisoners were completely free of work during the day. Many simply stayed in their cells and rested. Some later stated that they had been unaware of the experiment as they were asleep at the time of the announcements.

The excuses given for nonparticipation were explored to determine if any systematic bias in the sample may have been present. Subjects not participating cited a conflict in visitation, or "sleeping during the announcement". First, visitation was restricted to four hours a month per visitor. This was customarily broken into one, two, or four hour blocks. Usually an inmate would see all their visitors at once as they usually travel together to the prison (Campbell & Perkins, 1987). Actually, many inmates rarely had visitors, particularly those whose family resides outside the St. Gabriel area. Two consecutive weekends provided ample opportunity for
anyone wishing to participate to avail themselves of the opportunity. In fact, several inmates participated in the study and saw their visitors on the same day without difficulty.

Not hearing the announcement was unlikely as it was given during the morning "count". At this time all inmates were restricted to their cells where the daily announcements and instructions for participation in the study were made through the loud speakers.

Two groups actually would not have been able to participate. First those who had lost the privilege of "Yard and Recreation" through repeated minor violations would have been restricted from the study area. The loss of this privilege involves repeated minor violations such as "malingering" or being in a "restricted area" without permission or a single major violation that was deemed not sufficient to place the inmate in maximum security, such as a minor argument or nonaggravated disobedience. If it was determined that a suspended sentence was not appropriate, a normal restriction period was two weeks. As the experimenters were not aware of this restriction, individuals beginning a "Yard and Recreation" restriction at the very onset of the experiment were not directly asked to participate, which would not have allowed them to participate in the study.

The second group involved individuals confined in maximum security. This included individuals who broke major rules such as aggravated disobedience wherein a direct order was ignored, or individuals segregated to provide psychological sanctuary for these individuals upon recommendation of the prison psychiatrist. These individuals were directly contacted by the experimenters who obtained
approximately the same degree of consent rate for filling out the questionnaire as was found in the prison at large.

The questionnaire took approximately one hour to complete. The more literate inmates completed it within about thirty minutes. The questionnaire was read aloud to illiterate inmates, taking more time. This involved less than five percent of the sample. To insure anonymity, their questionnaires were not delineated in any fashion precluding separate analysis of these individuals. As previously mentioned, the prisoners not confined to maximum security had the option of participating on either one of two Saturdays between 9:00 A.M. and 4:00 P.M. This was a period of no scheduled work activities. Inmates in maximum security were administered the questionnaire alone in their cells after a verbal description of the research was given. The researchers later collected these instruments and consent forms.

As mentioned in the previously, examining the excuses for nonparticipation did not produce any overt indication of a systematic bias. Comparing the racial makeup of the sample with that of the prison, no significant difference was found ($\chi^2 = .30, 1 \text{ df.}, p > .5$) The average age in the sample was 30.0 years compared with 29.9 years for the population (Campbell, MacKenzie, & Robinson, 1987; Campbell, Robinson, & MacKenzie, 1988), also indicating a lack of bias in the sample.

**Instruments**

The questionnaire included standard demographic items, including age, race, marital status, education, and size of residential town. These items are on page one of the questionnaire
(Appendix A). Race included three categories: White, Black, and other. Marital status included varying strengths of conjugal commitment: married legally and common law, widowed, separated, divorced, single, and "other" to be specified by the respondent. Education was identified by the highest grade completed. The size of residential town was a five level gradient ranging from large cities such as New Orleans to small towns or country areas. This provided a general description of the population under study.

Independent Variable

The Bem Sex Role Inventory was administered to measure gender role identity. The scale was scored basically according to the procedures outlined by Bem and Watson (1976) to ascertain the androgyny "T-ratio", which can be reduced to its respective categories, masculine, feminine, and androgynous. The questionnaire is comprised of sixty questions, scored on a seven point Likert type scale. The instrument included twenty items considered "Masculine", twenty items considered "Feminine" and twenty "Neutral" items. Respondents were asked to indicate the degree each of these personality characteristics reflected themselves. Choices ranged from "never or almost never", scored as one, to "always or almost always" scored as seven. Thus a person could have a raw score of 140 for the "masculine" or "feminine" components of the scale.

Two methods for determining gender role identity have been utilized by Bem (1974, 1977). The "split median" method involves determining if an individuals masculine and feminine scores are above or below the respective mean for that score in the sample they are
in. Those above the median on the masculine component would be classified "high masculine". Likewise individuals scoring above the median on the feminine scale would be classified "high feminine". Similarly, individuals scoring below the median for each scale would be classified "low masculine" or "low feminine". The composite of their gender masculine and feminine classification determined their gender role identity. Individuals with a "high masculine, low feminine" designation were considered to have a "masculine" gender role identity. Those with the converse, "low masculine, high feminine" were considered to have a "feminine" gender role identity. Those people with both a "high masculine" and a "high feminine" designation were considered to be "androgynous". This method may vary considerably from sample to sample as the median score for the masculine and feminine components on the scale can vary because of sample differences, and from random error.

The second scoring technique, the "Androgynous T ratio" measures androgyny at an ordinal level with a fixed zero point at pure androgyny regardless of sample. The basis for the scale is a variation of the Student t value. Masculine and feminine scores are first determined based on the response intensity of twenty items reflecting one's masculine traits and twenty items reflecting feminine traits. In computing a "T" value, the average masculine score was subtracted from the average feminine score. This basic score was then scaled by the standard deviation of the individuals. This can be expressed as follows:

\[ T \text{ ratio} = \frac{\text{Feminine Score} - \text{Masculine Score}}{\text{(Std. Deviation)}} \]
A person is classified androgynous if their "T" value falls between plus and minus one, that is, it is comprised of those individuals with a balance of both masculine and feminine traits. Individuals with a score of less than negative one were considered to have a masculine gender role identity because of excessive identification with masculine traits over feminine traits. Likewise, an individual was classified as having a feminine gender role identity with a "T" value of greater than one because of excessive identification with female traits over masculine traits. The exact delineation between masculine and androgynous as well as feminine and androgynous will change from individual to individual, depending upon the variance of each respective subject. However, the ordinal relationship will remain based on pure androgyne being zero. The further the absolute value of a person's androgynous "T" value deviates from zero, the more a person is either sex-typed or sex-reversed, indicating their "femininity" or "masculinity" (Bem, 1974). It is this scaling technique that was used in this study. Utilizing this technique, the sample was found to contain nineteen masculine, forty six androgynous, thirty two feminine, and forty three unclassified individuals.

A regression of environmental control onto gender role identity should not be affected by the slight scaling differences (Geter and Wasserman, 1974). As the scale defines "androgyny" as an exact balance of "masculine" and "feminine" characteristics, the parameter estimates can only be slightly modified in terms of slope intensity, not direction, regardless of sample variations.

Bem and Watson's (1976) scoring technique to rank one's "T ratio" was rewritten from SPSS to SAS. The new program duplicated
Bem's identically except that this new version required each individual to complete at least seventy five percent of the scale for each of the masculine and feminine portions of the questionnaire. Unlike the scoring method employed by Bem, this included individuals who did not complete one quarter of either the masculine or feminine questions of that respective scale. Any questions missed by subjects were scaled as the average score they obtained on the remaining variables measuring that gender role dimension. This allowed the inclusion of individuals with a limited vocabulary who answered most of the scale.

The continuum, rather than the categories, was the focus of the study in order to study the effects of the magnitude of either masculine or feminine gender role identity imposed on controls. The individual categories were used to further clarify results from the regression analysis.

The Bem scale to measure androgyny is not only quite long, but difficult to complete if the subject is marginally literate. The completion of at least seventy five percent of each of the masculine and feminine components of the gender role indices were regarded a minimum criteria for a subject's inclusion. Though this was necessary for a more accurate analysis, response rate for this scale was lower than most other scales in the questionnaire, with only one hundred and one subjects meeting this criteria. This was comparable to the completion of Toch's prison preference scale (Toch, 1977) which requires a much lower reading level, but equally long. This resulted in a slight reduction in power.
Dependent Variable

Variable Characteristics. The dependent variable involved the ability of the inmate to control her environmental milieu. An expansion of the Goodstein scale (1984) measured the control inmates exercised over their restrictive surroundings. The questions reflect specific actions that may be problematic in a prison situation by asking the level of difficulty the subject has in accomplishing such tasks.

In a prison situation, the ability to engage in many activities is restricted by many state and local prison rules and guidelines. The legitimacy of a prisoner's requests is determined by prison staff, particularly social workers. From the inmate's point of view, they must be able to convince a responsible staff member of the need and the legitimacy of such need of many requests. This situation, by its very nature would appear to provide a perception of an "external" locus of control. It would appear that the events in prisoners' lives are controlled largely by individuals other than the prisoners. However, each specific situation may have elements of control in it that a prisoner may perceive she possesses. Each situation may require a different approach by the prisoner for them to obtain the desired result and sense of efficacy.

The dependant variable is derived from seventeen items involving varying degrees of interaction with the staff. These items were factor analyzed to delineate the dimensions involved. This provided a scale for measuring the inmates' degree of perceived control (Kerlinger, 1973). These variables are listed in the appendix as they were presented to the subjects. To facilitate a more
comprehensive understanding of this scale, some of the underlying dynamics of the involved variables have been included\textsuperscript{1}.

The first, making an emergency phone call involved writing a letter to a social worker, who evaluates its merits. If deemed an emergency, the call can be granted by the social worker. If it is a long distance call, the social worker may allow the prison to bear the cost rather than the recipient of the call.

The second item, changing jobs was more difficult for the inmate to accomplish. The inmate had to have held her present job for three months and their record must be "report free" during this time. They can send then a letter to social services who forward it to "classification" who determine if a change is warranted. This procedure can be circumvented only if the staff psychologist feels that an emergency situation exists requiring transfer.

The third item, seeing a doctor quickly is important only in emergency situations. An inmate may request a normal visit by placing a request prior to 7:00 AM. After the normal request time, a doctor can be seen in an emergency situation. If the doctor determines that the situation was not an emergency, the inmate is written up and punished for misconduct.

Pressing ones clothes is an individual responsibility. Most inmates are limited here by their own initiative and the purchase price of an iron.

Getting the staff to do something about a complaint usually involves writing a letter to social services or asking a social worker who has ventured into a nonrestrictive area. Inmates complain that this is quite difficult. The source of the difficulty is
twofold. First, there was not enough staff to effectively deal with each request in depth. Secondly, the staff may be prohibited from providing the service requested because of the rules imposed by either the Department of Corrections or those imposed by the correctional institute.

Getting to see a counselor quickly involves writing a letter to social services, which is used to determine referral. Verbal skills or access to those who have them is a premium for this task. This procedure is still somewhat difficult as there are not enough counselors to see all clients that request one.

Getting a message to the outside is not too difficult. Unlimited contact with legal counsel was allowed, but had to be formally requested and granted. Collect calls and letters to other people outside the prison were also allowed with additional restrictions.

Getting a cell change was a staff option exercised when an inmate changed her "classification level" irregardless of the inmate's desires. This procedure can be circumvented only if the staff psychologist feels that an emergency situation exists requiring modification in the procedure.

An inmate may request a cell change within a "classification level". However, changing one's cell for any reason, except when deemed necessary by the staff psychiatrist, was unlikely. Not getting along with one's roommate was not considered sufficient cause for a cell change.

Getting the food one wants to eat can occur in one of three ways. First the staff doctor can request a special diet for medical reasons. Secondly, the inmate can visit the prison canteen once a
week if they have canteen privileges. These can be denied, usually for two weeks for minor infractions, or allowed once a month if confined on "extended lockdown". Here items such as instant soup, coffee, cokes, or "junk food" are available. Thirdly, visitors may purchase up to four items from the visiting room for the inmate or they may bring anything eatable to be consumed during visitation. What is available at the prison is quite limited, and may seem monotonous after a long incarceration.

To talk to the warden, a letter must first be sent designating the purpose of the conference. The problem delineated is usually delegated to the appropriate staff member. There are times when the warden may come in contact with the inmates while he is walking around the grounds of the prison. They may ask to speak with him and, at his discretion, he may discuss their problems with them rather than refer them to other staff.

Legal advice or help was obtained from either "counsel substitutes" provided by fellow prisoners, provided free of charge or from one's own attorney.

After 2:30 PM most inmates are allowed to watch television. Those earning a minimal security rating have the option of purchasing a television which they can watch for a minimal electric fee. Others are obliged to watch communal televisions, requiring some consensus on what is watched.

During nonworking hours, inmates are allowed to utilize the library. The selection is limited however. This can be supplemented by ordering books through mail order companies if an inmate incurs the expense.
There are three forms of educational experience available to the inmates. First, those without a high school diploma may submit a written request to take classes for their graduate equivalency diploma. This proves doubly advantageous to inmates as they attend classes during "work hours" as well as obtain their GED.

Second, vocational training, such as welding, upholstering, or microfilming teaches a usable skill and also takes place during "work hours". This may be available to inmates approaching the end of their sentence, but with enough time to complete the course.

Third, some college courses are offered. Frequently, many are not transferable to other institutions of higher learning as they are only provisionally accredited. These courses are taken during the inmates "free time", making this option less attractive than others.

Emergency visits are granted in a limited sense. If the imminent death of an inmate's parent or child has been diagnosed by a doctor, the inmate may see them prior to death, and may also attend the funeral. These decisions are ultimately the prison's option, however the inmates request in the matter is seriously considered.

There are some jobs that are either meaningful or relatively enjoyable, such as working in the garment factory or the library. However, there are a lot of inmates that spend all day wiping walls, or weeding gardens. There are more inmates than there are jobs that the inmates consider useful, making a job a valuable asset.

Lastly, as mentioned previously, there are both challenging and boring jobs in the prison. To obtain a transfer, an inmate must remain "report free" for at least the last three months at their present job, then they can request a transfer in writing. This
request will be evaluated with all others. Naturally, the jobs considered challenging or useful are the most sought after.

These measures of the inmate's perception of control reflect their ability to interact effectively with prison staff. Most items specifically require a written request emanating from the inmate to be evaluated by the staff. As the request could be drafted by an inmate's peers, individuals more skilled in writing techniques often write many of the requests. The social worker must evaluate the merits of the request in light of the inmate's situation. The social workers have a great many interactions with the inmates both in their offices and on "the grounds". They generally consult with an inmate personally regarding any written request received. Thus their decision for any request may be partially determined by their ongoing and immediate interaction with the inmate. Inmates able to successfully interact with the social workers may have more requests granted. They will have a less limited degree of control of events in their life while in the prison if prison staff can be persuaded to grant requests that change their life in a favorable manner. As all inmates at this prison are female, the effect of their gender role identity may be more clearly delineated.

Factor Analysis of Perceived Control

The control items were factor analyzed using the principal components method with a varimax rotation to determine the underlying dimensions of the scale. It was then reduced, producing a single component of control. This was based on two techniques. First a scree test indicated one nonarticulated factor and a single
SCREE PLOT OF FACTORS ONE AND TWO OF THE
DEPENDENT VARIABLE

FIGURE 1
significant factor existed (Figure 1). Eigenvalues for the first four factors were 7.6, 1.1, 0.92, and 0.80 respectively.

Secondly, the "optimization process" described by Sweetser (1974) to arrive at the most meaningful factors was utilized. This included scrutinizing the factor matrix for (1) low commonalities (below 0.50), (2) dispersion of variance across rows (the square of the highest coefficient should be twice as large as the square of the next highest factor coefficient), (3) redundancy (variables whose factor coefficients are above +0.85 for the same factor are often closely correlated), and (4) overdetermination (a very large number of variables with factor coefficients above +0.50 in a single factor indicates a more parsimonious definition of the factor may be available).

As indicated in Table I, getting one's clothes pressed well loaded higher on factor two than factor one. It was deleted as its squared variance in factor two was not twice that in factor one. Additionally, "watching the TV programs they wanted", and "reading the books or magazines they wanted" were also eliminated based on their squared variance in factor two not being twice that found in factor one. Omission of these variables resulted in a single principal component factor. These remaining items reflected intense inmate-staff interactions affecting the inmate's ability to control their environment as seen in Table II. Items eliminated reflected the inmate's economic status. Each item, ironing, viewing television, and reading books require money, a scarce commodity for many inmates at the prison. There is not only the purchase price for the items involved, but, as with a television, there is also a monthly
## TABLE I

**INITIAL PRINCIPLE COMPONENTS VARIMAX FACTOR**

**PATTERN OF THE CONTROL VARIABLES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>FACTOR I</th>
<th>FACTOR II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make emerg. phone call</td>
<td>0.66380</td>
<td>0.30392</td>
</tr>
<tr>
<td>Change jobs</td>
<td>0.71026</td>
<td>0.00394</td>
</tr>
<tr>
<td>See doctor quickly</td>
<td>0.75302</td>
<td>-0.13999</td>
</tr>
<tr>
<td>Get clothes pressed well</td>
<td>0.48168</td>
<td>0.60576</td>
</tr>
<tr>
<td>Get staff to handle complaint</td>
<td>0.78167</td>
<td>0.03466</td>
</tr>
<tr>
<td>See counselor</td>
<td>0.73981</td>
<td>-0.10071</td>
</tr>
<tr>
<td>Get message to people outside</td>
<td>0.75326</td>
<td>0.04571</td>
</tr>
<tr>
<td>Get cell change</td>
<td>0.75608</td>
<td>-0.14545</td>
</tr>
<tr>
<td>Get food you want to eat</td>
<td>0.72836</td>
<td>-0.06680</td>
</tr>
<tr>
<td>Talk to warden</td>
<td>0.79277</td>
<td>-0.20900</td>
</tr>
<tr>
<td>Get legal help</td>
<td>0.73656</td>
<td>-0.22703</td>
</tr>
<tr>
<td>Watch TV programs you want</td>
<td>0.66257</td>
<td>0.47274</td>
</tr>
<tr>
<td>Read books you want</td>
<td>0.52180</td>
<td>0.49986</td>
</tr>
<tr>
<td>Take classes in school</td>
<td>0.64023</td>
<td>-0.02261</td>
</tr>
<tr>
<td>Have emergency visit</td>
<td>0.70464</td>
<td>0.04890</td>
</tr>
<tr>
<td>Get useful job</td>
<td>0.73716</td>
<td>-0.38322</td>
</tr>
<tr>
<td>Get challenging job</td>
<td>0.70316</td>
<td>-0.28149</td>
</tr>
</tbody>
</table>
### TABLE II

**FINAL SINGLE FACTOR PATTERN OF THE CONTROL VARIABLES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>FACTOR I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make emerg. phone call</td>
<td>0.64718</td>
</tr>
<tr>
<td>Change jobs</td>
<td>0.71308</td>
</tr>
<tr>
<td>See doctor quickly</td>
<td>0.76221</td>
</tr>
<tr>
<td>Get staff to handle complaint</td>
<td>0.77570</td>
</tr>
<tr>
<td>See counselor</td>
<td>0.75339</td>
</tr>
<tr>
<td>Get message to people outside</td>
<td>0.74758</td>
</tr>
<tr>
<td>Get cell change</td>
<td>0.76179</td>
</tr>
<tr>
<td>Get food you want to eat</td>
<td>0.72670</td>
</tr>
<tr>
<td>Talk to warden</td>
<td>0.81357</td>
</tr>
<tr>
<td>Get legal help</td>
<td>0.75334</td>
</tr>
<tr>
<td>Take classes in school</td>
<td>0.64124</td>
</tr>
<tr>
<td>Have emergency visit</td>
<td>0.70214</td>
</tr>
<tr>
<td>Get useful job</td>
<td>0.76215</td>
</tr>
<tr>
<td>Get challenging job</td>
<td>0.72114</td>
</tr>
</tbody>
</table>
"electric usage" fee to be paid. A couple of dollars for electricity is considerable when you are paid five cents an hour. This second factor effectively delineates inmates with economic support emanating outside the prison.

A promax (nonorthogonal) rotation increased the loadings on variables loading principally in factor two Table III. With this technique, making an emergency phone call was included in factor two. However, should a social worker determine a situation is an emergency, they may allow the inmate to make calls at the prison's expense.

Both the "full" scale and a "partial" scale of perceived control will be utilized as a dependent variable. The full scale will be comprised of all seventeen control items, reflecting the inmate's ability to interact with both prison officials and individuals outside the prison. The partial scale will reflect their ability to deal with their immediate environment, the prison officials.

The measure of perceived personal control was regressed onto the degree of masculine, androgynous, or feminine gender role identity an individual possessed. It was also regressed onto the absolute value of the Androgyny T ratio of these individuals to determine if the degree of androgyny was salient in bringing about personal control. Demographic variables were also used as independent variables with this regression.

The feminine scores are numerically positive values greater than one, the androgynous range from negative one to positive one, and the masculine scores are less than minus one. By taking the squared value of the Androgyny T ratio, we are simply measuring the squared
TABLE III

NONORTHOGONAL FACTOR PATTERN OF THE CONTROL VARIABLES
WITH PROMAX ROTATION

<table>
<thead>
<tr>
<th>Variable</th>
<th>FACTOR I</th>
<th>FACTOR II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make emerg. phone call</td>
<td>0.17117</td>
<td>0.58951</td>
</tr>
<tr>
<td>Change jobs</td>
<td>0.61311</td>
<td>0.15318</td>
</tr>
<tr>
<td>See doctor quickly</td>
<td>0.81649</td>
<td>0.04860</td>
</tr>
<tr>
<td>Get clothes pressed well</td>
<td>0.00161</td>
<td>1.00000</td>
</tr>
<tr>
<td>Get staff to handle complaint</td>
<td>0.56817</td>
<td>0.18297</td>
</tr>
<tr>
<td>See counselor</td>
<td>0.76839</td>
<td>0.06893</td>
</tr>
<tr>
<td>Get message to people outside</td>
<td>0.54919</td>
<td>0.19631</td>
</tr>
<tr>
<td>Get cell change</td>
<td>0.82242</td>
<td>0.04629</td>
</tr>
<tr>
<td>Get food you want to eat</td>
<td>0.72210</td>
<td>0.09108</td>
</tr>
<tr>
<td>Talk to warden</td>
<td>0.88185</td>
<td>0.02557</td>
</tr>
<tr>
<td>Get legal help</td>
<td>0.91333</td>
<td>0.01652</td>
</tr>
<tr>
<td>Watch TV programs you want</td>
<td>0.05804</td>
<td>0.80131</td>
</tr>
<tr>
<td>Read books you want</td>
<td>0.01567</td>
<td>0.92700</td>
</tr>
<tr>
<td>Take classes in school</td>
<td>0.65984</td>
<td>0.12483</td>
</tr>
<tr>
<td>Have emergency visit</td>
<td>0.53908</td>
<td>0.20361</td>
</tr>
<tr>
<td>Get useful job</td>
<td>1.00000</td>
<td>0.00043</td>
</tr>
<tr>
<td>Get challenging job</td>
<td>0.96359</td>
<td>0.00529</td>
</tr>
</tbody>
</table>
distance from pure androgyny. The value indicates the magnitude of the deprivation of either masculine or feminine gender role within the individual. When the measure of personal control was regressed onto this value, the effect of this deficit can be determined. Thus, as the squared value of the Androgyny T ratio also measures departure from androgyny, the measure of perceived control was regressed onto the quadratic measurement of the Androgynous T ratio for a succinct model.

Analysis Of The Data

The principal evaluation of the inmates' locus of control was based upon regression analysis. Regression analysis makes it possible to analyze the contributions of one or more independent variables in a linear relationship with a dependant variable.

Regression analysis has the following assumptions: (a) linear relationship between variables, (b) interval level data, (c) random sampling and, (d) a normally distributed population (Curtis, Perkins, and Sheehan, 1977). The data do not meet all these assumptions. The data were recorded at interval or high ordinal level. With regard to the variables under consideration, the sample was assumed to be random, and the population assumed to be normally distributed. The variables are also assumed to be measured with linear relationships. The test of significance was ascertained with an F test. The F test has the same assumptions as regression analysis. As previously indicated, the data in the present study did not meet all these assumptions. Gender role identity and locus of control were measured at a high ordinal level. The linear
relationships of dependent and independent variables were assumed to be normally distributed. The robustness of the F test may insure validity even with the assumptions marginally violated, allowing its use with confidence for this study (Curtis, Perkins & Sheehan, 1977). Statistical significance was established at the 0.05 level. To ascertain potential bias with this sample in regard to the subjects that did not complete the Bem scale sufficiently, t tests were run with demographic variables (Table IV). Additionally, the dependent variable was also regressed onto these demographic variables (Table V). Stepwise regression was run to determine the greatest number of significant variables the model should contain.

The researcher expected to find that as the level of androgyny increased, a greater degree of control would be perceived by the inmate. Also, as inmates displayed a greater degree of cross-sexed gender role identity, the less control they would perceive they possessed. A model was determined utilizing the regression procedure of SAS (1985). As the squared value of one's gender role identity is an expression of androgyny, the model's independent variable could be expressed succinctly as a second degree polynomial. The level of significance utilized was the default option of $F = 0.05$. 
CHAPTER IV
RESULTS AND DISCUSSION

Demographic Variables

To determine if a bias existed between those subjects completing the gender role identity scale and individuals who did not, t tests were used to determine if any difference existed with respect to the demographic variables (Table IV). A difference was found with the percent white, and the percent married. Gender role identity, the absolute value of gender role identity, and the squared value of gender role identity were each regressed onto the demographic variables to determine the relationship of these variables with an individual's gender role identity, or departure from androgyny (Table V and Table VI). A significant relationship was indicated with the size of an individual's town of origin with gender role identity. Lastly, these same demographic variables were entered with measures of gender role identity into a regression model with perceived locus of control to determine the effect of each variable (Tables VII and VIII). A stepwise regression of these variables indicated that only two independent variables were significant, gender role identity, and departure from androgyny. These results indicate the absence of a spurious relationship of these demographic variables with gender role identity and perceived locus of control.
TABLE IV
DIFFERENCES OF INDIVIDUALS COMPLETING
AND NOT COMPLETING THE BEM SEX ROLE INVENTORY

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>T</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete</td>
<td>41</td>
<td>29.54</td>
<td>6.63</td>
<td>-0.49</td>
<td>0.6215</td>
</tr>
<tr>
<td>Complete</td>
<td>97</td>
<td>30.20</td>
<td>7.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete</td>
<td>42</td>
<td>0.05</td>
<td>0.21</td>
<td>-5.29</td>
<td>0.0001</td>
</tr>
<tr>
<td>Complete</td>
<td>97</td>
<td>0.47</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Married</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete</td>
<td>41</td>
<td>0.20</td>
<td>0.40</td>
<td>-2.09</td>
<td>0.0386</td>
</tr>
<tr>
<td>Complete</td>
<td>93</td>
<td>0.38</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete</td>
<td>42</td>
<td>10.43</td>
<td>1.71</td>
<td>-0.95</td>
<td>0.3458</td>
</tr>
<tr>
<td>Complete</td>
<td>96</td>
<td>10.82</td>
<td>2.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Town Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete</td>
<td>42</td>
<td>2.52</td>
<td>1.44</td>
<td>-0.75</td>
<td>0.4524</td>
</tr>
<tr>
<td>Complete</td>
<td>96</td>
<td>2.72</td>
<td>1.38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE V
REGRESSION OF GENDER ROLE IDENTITY ON DEMOGRAPHIC VARIABLES

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>5</td>
<td>2.97</td>
<td>1.5</td>
<td>0.1933</td>
<td>0.0274</td>
</tr>
<tr>
<td>ERROR</td>
<td>84</td>
<td>168.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.9906</td>
</tr>
<tr>
<td>RACE</td>
<td>1</td>
<td>0.61</td>
<td>0.31</td>
<td>0.5789</td>
</tr>
<tr>
<td>MARRIED</td>
<td>1</td>
<td>0.10</td>
<td>0.05</td>
<td>0.8240</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>1</td>
<td>1.06</td>
<td>0.54</td>
<td>0.4645</td>
</tr>
<tr>
<td>TOWN OF ORIGIN</td>
<td>1</td>
<td>10.66</td>
<td>5.43</td>
<td>0.0221</td>
</tr>
<tr>
<td>SOURCE</td>
<td>DF</td>
<td>MEAN SQUARE</td>
<td>F VALUE</td>
<td>PROBABILITY</td>
</tr>
<tr>
<td>-----------------</td>
<td>----</td>
<td>-------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>MODEL</td>
<td>5</td>
<td>7.37</td>
<td>0.70</td>
<td>0.6214</td>
</tr>
<tr>
<td>ERROR</td>
<td>84</td>
<td>10.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>1</td>
<td>0.45</td>
<td>0.04</td>
<td>0.8370</td>
</tr>
<tr>
<td>RACE</td>
<td>1</td>
<td>19.89</td>
<td>1.90</td>
<td>0.1718</td>
</tr>
<tr>
<td>MARRIED</td>
<td>1</td>
<td>11.53</td>
<td>1.10</td>
<td>0.2967</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>1</td>
<td>9.17</td>
<td>0.88</td>
<td>0.3518</td>
</tr>
<tr>
<td>TOWN OF ORIGIN</td>
<td>1</td>
<td>2.81</td>
<td>0.27</td>
<td>0.6058</td>
</tr>
</tbody>
</table>
TABLE VII
REGRESSION OF THE PARTIAL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY AND DEMOGRAPHIC VARIABLES

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>7</td>
<td>291.47</td>
<td>1.73</td>
<td>0.1126</td>
<td>0.13</td>
</tr>
<tr>
<td>ERROR</td>
<td>84</td>
<td>168.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANDROGYNOUS T</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RATIO</td>
<td>1</td>
<td>498.37</td>
<td>2.96</td>
<td>0.0890</td>
</tr>
<tr>
<td>RATIO SQUARED</td>
<td>1</td>
<td>615.79</td>
<td>3.66</td>
<td>0.0592</td>
</tr>
<tr>
<td>AGE</td>
<td>1</td>
<td>12.57</td>
<td>0.07</td>
<td>0.7853</td>
</tr>
<tr>
<td>RACE</td>
<td>1</td>
<td>256.23</td>
<td>1.52</td>
<td>0.2208</td>
</tr>
<tr>
<td>MARRIED</td>
<td>1</td>
<td>101.12</td>
<td>0.60</td>
<td>0.4405</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>1</td>
<td>69.81</td>
<td>0.41</td>
<td>0.5214</td>
</tr>
<tr>
<td>TOWN OF ORIGIN</td>
<td>1</td>
<td>42.30</td>
<td>0.25</td>
<td>0.1675</td>
</tr>
</tbody>
</table>
### TABLE VIII

**REGRESSION OF THE FULL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY AND DEMOGRAPHIC VARIABLES**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>7</td>
<td>368.34</td>
<td>1.74</td>
<td>0.1098</td>
<td>0.13</td>
</tr>
<tr>
<td>ERROR</td>
<td>84</td>
<td>168.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ABSOLUTE VALUE OF ANDROGYNOUS T RATIO</td>
<td>1</td>
<td>1077.64</td>
</tr>
<tr>
<td></td>
<td>ANDROGYNOUS T RATIO SQUARED</td>
<td>1</td>
<td>637.77</td>
</tr>
<tr>
<td></td>
<td>AGE</td>
<td>1</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>RACE</td>
<td>1</td>
<td>204.99</td>
</tr>
<tr>
<td></td>
<td>MARRIED</td>
<td>1</td>
<td>7.89</td>
</tr>
<tr>
<td></td>
<td>EDUCATION</td>
<td>1</td>
<td>98.19</td>
</tr>
<tr>
<td></td>
<td>TOWN OF ORIGIN</td>
<td>1</td>
<td>117.23</td>
</tr>
</tbody>
</table>
Gender Role Identity And Perceived Control

There were slightly more androgynous women (48.0%) imprisoned than were found in previous studies in gender role identity, (Table IX and Table X), (Bem, 1974, 1975, Stericken & Kurdeck, 1982, Campbell 1979a, 1979b, 1985). This may reflect a trend toward androgyny in society as a whole, a selective non-incarceration of feminine gender roled females, an anomaly due to this particular sample variance, or a combination of these factors.

The androgynous T-ratio is a continuum of masculine and feminine gender role identity, centered at zero with pure androgyny. Below -1.0, the individual possesses masculine gender role traits. Above +1.0, the individual expresses feminine gender role identity. Thus the second power of this variable is an expression of the departure from pure androgyny. This makes interpretation of the second power of this variable simple, departure from androgyny.

The data indicated a positive relationship between gender role identity and perceived environmental control (see Table XI and Table XII). When subjects with an androgynous gender role identity were deleted to eliminate any masking effects by the androgynous group, a highly significant (p = 0.0019) slope of 2.6 with the partial scale of control and (p = 0.0037) slope of 2.7 with the full scale indicates that the femininity gender role identity enabled one to perceive greater control than the cross sexed masculine gender role identity (Table XIII and Table XIV). This effect was present even with the androgynous group in the analysis. These results were masked somewhat, with a lesser slope, yet still indicated the deficits of exhibiting a male gender role in this female prison situation.
<table>
<thead>
<tr>
<th>Gender Role Identity</th>
<th>N</th>
<th>%</th>
<th>Full Scale Perceived Control</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>140</td>
<td>100</td>
<td>41.20</td>
<td>18.98</td>
</tr>
<tr>
<td>Masculine</td>
<td>19</td>
<td>21</td>
<td>35.89</td>
<td>12.29</td>
</tr>
<tr>
<td>Androgynous</td>
<td>46</td>
<td>48</td>
<td>49.39</td>
<td>16.07</td>
</tr>
<tr>
<td>Feminine</td>
<td>32</td>
<td>32</td>
<td>44.41</td>
<td>11.32</td>
</tr>
<tr>
<td>Unknown</td>
<td>43</td>
<td></td>
<td>32.40</td>
<td>23.64</td>
</tr>
<tr>
<td>Gender Role Identity</td>
<td>N</td>
<td>%</td>
<td>Perceived Control</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>----------------------</td>
<td>----</td>
<td>-----</td>
<td>-------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>100</td>
<td>32.93</td>
<td>16.25</td>
</tr>
<tr>
<td>Masculine</td>
<td>19</td>
<td>21</td>
<td>26.74</td>
<td>19.45</td>
</tr>
<tr>
<td>Androgynous</td>
<td>46</td>
<td>48</td>
<td>39.54</td>
<td>14.25</td>
</tr>
<tr>
<td>Feminine</td>
<td>32</td>
<td>32</td>
<td>35.38</td>
<td>10.65</td>
</tr>
<tr>
<td>Unknown</td>
<td>43</td>
<td></td>
<td>26.77</td>
<td>19.91</td>
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</table>
### TABLE XI

**REGRESSION OF THE PARTIAL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>1</td>
<td>1160.00</td>
<td>6.71</td>
<td>0.0111</td>
<td>0.07</td>
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<tr>
<td>ERROR</td>
<td>95</td>
<td>175.07</td>
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<td></td>
<td></td>
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</tbody>
</table>

DF  

<table>
<thead>
<tr>
<th>ANDROGYNOUS T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATIO</td>
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<tr>
<td>1</td>
</tr>
</tbody>
</table>

### TABLE XII

**REGRESSION OF THE FULL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
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<td>1140.28</td>
<td>5.24</td>
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<tr>
<td>ERROR</td>
<td>95</td>
<td>217.71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DF  

<table>
<thead>
<tr>
<th>ANDROGYNOUS T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATIO</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
### TABLE XIII
REGRESSION OF THE PARTIAL SCALE OF PERCEIVED CONTROL ON MASCULINE AND FEMININE GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>1</td>
<td>1282.71</td>
<td>10.76</td>
<td>0.0019</td>
<td>0.18</td>
</tr>
<tr>
<td>ERROR</td>
<td>49</td>
<td>119.18</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANDROGYNOUS T RATIO</td>
<td>1</td>
<td>2.61</td>
<td>1282.70</td>
<td>10.76</td>
</tr>
</tbody>
</table>

### TABLE XIV
REGRESSION OF THE FULL SCALE OF PERCEIVED CONTROL ON MASCULINE AND FEMININE GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>1</td>
<td>1373.30</td>
<td>9.32</td>
<td>0.0037</td>
<td>0.16</td>
</tr>
<tr>
<td>ERROR</td>
<td>95</td>
<td>175.07</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANDROGYNOUS T RATIO</td>
<td>1</td>
<td>2.70</td>
<td>1373.30</td>
<td>9.32</td>
</tr>
</tbody>
</table>
Additionally, the absolute value of the subject's gender role identity regressed with perceived environmental control indicate an advantage of an androgynous gender role identity. A negative slope of \(-3.54\) (\(p < 0.03\)) for the partial scale and a slope of \(-4.49\) (\(p < 0.01\)) indicated the more one deviates from pure androgyny, the less control one perceives exists for themselves (Table XV and Table XVI). This was an even stronger relationship than was found with the masculine / feminine relationship. These effects were also found with the squared values of the androgynous T Ratio (Table XVI and Table XVII). This indicated the overriding positive effect of an integrative gender role identity over simply conformity to the socially acceptable gender role identity appropriate to one's biological sex.

Examining the average level of control exercised by each of the three gender role groups, a trend is clearly indicated. With nineteen subjects, the masculine group had the lowest average level of control on the partial scale at 26.73 (Table XIX). The forty six subjects of the androgynous group had the highest average level at 39.54. The thirty two subject of the feminine group had level of control between these two groups at 35.53. Similar results were indicated for the full scale, with significant differences found between "masculine" and "feminine" gender role identity, and also between the "androgynous" and "masculine" gender role identity (Table XX). This indicates both the enhancement of an integrative gender role identity, and the negative effects of embracing exclusively non schematic typed norms which run counter to societal expectations as found with a masculine gender role identity in females.

The dozen individuals perceiving the greatest amount of control
<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>1</td>
<td>954.57</td>
<td>5.45</td>
<td>0.0216</td>
<td>0.05</td>
</tr>
<tr>
<td>ERROR</td>
<td>95</td>
<td>175.07</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-3.54</td>
<td>954.57</td>
<td>5.45</td>
<td>0.0216</td>
</tr>
</tbody>
</table>
### TABLE XVI

REGRESSION OF FULL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>1</td>
<td>1529.81</td>
<td>7.16</td>
<td>0.0088</td>
<td>0.07</td>
</tr>
<tr>
<td>ERROR</td>
<td>95</td>
<td>213.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DF | b | TYPE III SS | F VALUE | PROBABILITY |
---|---|-------------|---------|-------------|
**ABSOLUTE VALUE OF THE ANDROGYNOUS T RATIO** | 1 | -4.49 | 1529.81 | 7.16 | 0.0088 |
<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Probability</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1</td>
<td>874.57</td>
<td>4.97</td>
<td>0.0281</td>
<td>0.05</td>
</tr>
<tr>
<td>Error</td>
<td>95</td>
<td>175.07</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>b</th>
<th>Type III SS</th>
<th>F Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-0.95</td>
<td>874.57</td>
<td>4.97</td>
<td>0.0281</td>
</tr>
</tbody>
</table>
TABLE XVIII

REGRESSION OF PARTIAL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>1</td>
<td>1435.90</td>
<td>6.69</td>
<td>0.0112</td>
<td>0.07</td>
</tr>
<tr>
<td>ERROR</td>
<td>95</td>
<td>175.07</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANDROGYNOUS T</th>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATIO SQUARED</td>
<td>1</td>
<td>-1.2</td>
<td>1435.90</td>
<td>6.69</td>
<td>0.0112</td>
</tr>
</tbody>
</table>
## TABLE XIX

**PARTIAL SCALE OF PERCEIVED CONTROL SCORES**

**BY GENDER ROLE IDENTITY**

<table>
<thead>
<tr>
<th>Comparison</th>
<th>N</th>
<th>Mean</th>
<th>Error</th>
<th>T</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>32</td>
<td>35.54</td>
<td>1.88</td>
<td>2.64</td>
<td>0.0110</td>
</tr>
<tr>
<td>Male</td>
<td>19</td>
<td>26.74</td>
<td>2.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Androgynous</td>
<td>46</td>
<td>39.54</td>
<td>2.10</td>
<td>1.40</td>
<td>0.1647</td>
</tr>
<tr>
<td>Female</td>
<td>32</td>
<td>35.54</td>
<td>1.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Androgynous</td>
<td>46</td>
<td>39.54</td>
<td>2.10</td>
<td>3.42</td>
<td>0.0011</td>
</tr>
<tr>
<td>Male</td>
<td>19</td>
<td>26.74</td>
<td>2.82</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE XX
FULL SCALE OF PERCEIVED CONTROL SCORES
BY GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>Comparison</th>
<th>N</th>
<th>Mean</th>
<th>Error</th>
<th>T</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>32</td>
<td>44.41</td>
<td>2.00</td>
<td>2.34</td>
<td>0.0234</td>
</tr>
<tr>
<td>Male</td>
<td>19</td>
<td>35.89</td>
<td>3.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Androgynous</td>
<td>46</td>
<td>49.39</td>
<td>2.37</td>
<td>1.51</td>
<td>0.1347</td>
</tr>
<tr>
<td>Female</td>
<td>32</td>
<td>44.41</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Androgynous</td>
<td>46</td>
<td>49.39</td>
<td>2.37</td>
<td>3.17</td>
<td>0.0024</td>
</tr>
<tr>
<td>Male</td>
<td>19</td>
<td>35.89</td>
<td>3.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
were all androgynous. At the lower end of the continuum, there were four masculine, two feminine, and no androgynous individuals. This further illustrates the overall trend of increased control with an androgynous behavioral pattern.

The inmates' perceived locus of control was regressed onto both gender role identity and departure from androgyny (Table XXI - Table XXIV). Both measures of departure from androgyny indicate significance with each measure of perceived control.

Combining these results, one can see that gender role identity has a non-symmetric curvilinear relationship with perceived environmental control. That is, the nadir of control was found with the masculine gender role identity. The apex of control was found with the androgynous gender role. The feminine gender role tapered off at a level between the masculine and androgynous gender role.

Those who did not fill out the Bem Sex Role Inventory correctly and were counted as missing had the lowest overall control level at 26.23. Though impossible to ascertain the cause, it was suspected that either difficulties in reading or an act of defiance may have produced these results. Some of the measuring instruments were returned with sarcastic comments written over the forced choice answers. This was more frequent with individuals who were confined to maximum security for disciplinary purposes. Whatever the reason, it was related to a perceived loss of environmental control for the inmate. As the gender role of these subjects was not able to be accurately determined, the data could only be utilized to further illustrate the effects of not functioning according to societal expectations.
TABLE XXI
REGRESSION OF THE PARTIAL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>2</td>
<td>1140.08</td>
<td>7.0</td>
<td>0.0015</td>
<td>0.13</td>
</tr>
<tr>
<td>ERROR</td>
<td>94</td>
<td>162.83</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANDROGYNOUS T</td>
<td>1</td>
<td>2.55</td>
<td>1325.60</td>
<td>8.14</td>
<td>0.0053</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSOLUTE VALUE OF ANDROGYNOUS T</td>
<td>1</td>
<td>-3.8483</td>
<td>1120.16</td>
<td>6.88</td>
<td>0.0102</td>
</tr>
</tbody>
</table>
**TABLE XXII**

REGRESSION OF THE FULL SCALE OF PERCEIVED CONTROL ON GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>2</td>
<td>1439.00</td>
<td>7.14</td>
<td>0.0013</td>
<td>0.13</td>
</tr>
<tr>
<td>ERROR</td>
<td>94</td>
<td>201.54</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANDROGYNOUS T</td>
<td>1</td>
<td>2.57</td>
<td>1348.20</td>
<td>6.69</td>
<td>0.0112</td>
</tr>
<tr>
<td>ABSOLUTE VALUE OF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANDROGYNOUS T</td>
<td>1</td>
<td>-4.79</td>
<td>1737.73</td>
<td>8.62</td>
<td>0.0042</td>
</tr>
</tbody>
</table>
TABLE XXIII

REGRESSION OF THE PARTIAL SCALE OF PERCEIVED CONTROL
ON GENDER ROLE IDENTITY

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DF</th>
<th>MEAN SQUARE</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
<th>R-SQUARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL</td>
<td>2</td>
<td>1017.68</td>
<td>6.15</td>
<td>0.0031</td>
<td>0.12</td>
</tr>
<tr>
<td>ERROR</td>
<td>94</td>
<td>165.43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANDROGYNOUS T</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RATIO</td>
<td>1</td>
<td>2.38</td>
<td>1160.78</td>
<td>7.02</td>
</tr>
<tr>
<td>ANDROGYNOUS T</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RATIO SQUARED</td>
<td>1</td>
<td>-0.95</td>
<td>875.35</td>
<td>5.29</td>
</tr>
<tr>
<td>VARIABLE</td>
<td>DF</td>
<td>MEAN SQUARE</td>
<td>F VALUE</td>
<td>PROBABILITY</td>
</tr>
<tr>
<td>-----------------</td>
<td>----</td>
<td>-------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>MODEL</td>
<td>2</td>
<td>1288.58</td>
<td>6.29</td>
<td>0.0027</td>
</tr>
<tr>
<td>ERROR</td>
<td>94</td>
<td>201.54</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>b</th>
<th>TYPE III SS</th>
<th>F VALUE</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ANDROGYNOUS T</td>
<td>RATIO</td>
<td>2.36</td>
<td>1141.26</td>
</tr>
<tr>
<td></td>
<td>ABSOLUTE VALUE OF</td>
<td>RATIO</td>
<td>-1.22</td>
<td>1436.89</td>
</tr>
</tbody>
</table>
To test for lack of fit, the Androgynous T ratio was collapsed to provide repeated measures. The nonsignificant probabilities of both the full ($p = 0.5906$) and partial ($p = 0.4217$) scale of perceived control indicates the existence of no other systematic influence on either measure of perceived control (Table XXV and Table XXVI).

The critical value for each scale was determined without collapsing the scale. For the "partial" scale, perceived control attained a maximum at a T ratio of 1.2491. This would be a feminine gender role identity bordering at androgyny. The "full" scale apexed at 0.9519, an androgynous gender role bordering at femininity.

As it is the exact point of demarkation between "feminine", "androgynous", and "masculine" that differs from sample to sample, it is safe only to say that the apex of perceived control occurs around the delineation of "feminine" and "androgynous" individuals for both scales.

These results clearly indicate that individual difference significantly influenced control in a prison situation. This control depended partly on one's gender role identity. The non-symmetric curvilinear relationship with gender role identity and environmental control reflects the "integrative" model of control. The apex of control was found with the androgynous gender role identity and the lowest level of control was found with the masculine gender role, indicating both the adaptability of the androgynous group and the drawbacks to the rigidity of a non-androgynous gender role, particularly when combined with values running counter to the
### TABLE XXV

**RESPONSE SURFACE FOR THE PARTIAL SCALE OF PERCEIVED CONTROL**

<table>
<thead>
<tr>
<th>Regression</th>
<th>DF</th>
<th>Type I SS</th>
<th>R-SQUARE</th>
<th>F-Ratio</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>1</td>
<td>1100.36</td>
<td>0.06</td>
<td>6.64</td>
<td>0.0115</td>
</tr>
<tr>
<td>Quadratic</td>
<td>1</td>
<td>902.40</td>
<td>0.05</td>
<td>5.44</td>
<td>0.0218</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2002.77</td>
<td>0.11</td>
<td>6.04</td>
<td>0.0034</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residual</th>
<th>DF</th>
<th>SS</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Fit</td>
<td>24</td>
<td>4122.01</td>
<td>171.75</td>
<td>1.049</td>
<td>0.4217</td>
</tr>
<tr>
<td>Pure Error</td>
<td>70</td>
<td>11460.99</td>
<td>163.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Error</td>
<td>94</td>
<td>15583.00</td>
<td>165.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>DF</th>
<th>Estimate</th>
<th>Std Deviation</th>
<th>T-Ratio</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1</td>
<td>36.99</td>
<td>1.59</td>
<td>23.25</td>
<td>0.0001</td>
</tr>
<tr>
<td>Gender Role</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity</td>
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<td>2.45</td>
<td>0.95</td>
<td>2.58</td>
<td>0.0113</td>
</tr>
<tr>
<td>Gender Role</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity Squared</td>
<td>1</td>
<td>-1.02</td>
<td>0.44</td>
<td>-2.33</td>
<td>0.0218</td>
</tr>
</tbody>
</table>
TABLE XXVI
RESPONSE SURFACE FOR THE FULL SCALE OF PERCEIVED CONTROL

<table>
<thead>
<tr>
<th>Regression</th>
<th>DF</th>
<th>Type I SS</th>
<th>R-SQUARE</th>
<th>F-Ratio</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>1</td>
<td>1083.12</td>
<td>0.05</td>
<td>5.28</td>
<td>0.0238</td>
</tr>
<tr>
<td>Quadratic</td>
<td>1</td>
<td>1463.47</td>
<td>0.07</td>
<td>7.14</td>
<td>0.0089</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2546.33</td>
<td>0.12</td>
<td>6.21</td>
<td>0.0029</td>
</tr>
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<table>
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<tr>
<th>Residual</th>
<th>DF</th>
<th>SS</th>
<th>Mean Square</th>
<th>F-Ratio</th>
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<tr>
<td>Lack of Fit</td>
<td>24</td>
<td>4577.03</td>
<td>190.71</td>
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<td>0.5906</td>
</tr>
<tr>
<td>Pure Error</td>
<td>70</td>
<td>14699.35</td>
<td>209.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Error</td>
<td>94</td>
<td>19276.38</td>
<td>205.07</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Parameter</th>
<th>DF</th>
<th>Estimate</th>
<th>Std Deviation</th>
<th>T-Ratio</th>
<th>Probability</th>
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<tr>
<td>Intercept</td>
<td>1</td>
<td>46.99</td>
<td>1.77</td>
<td>26.56</td>
<td>0.0001</td>
</tr>
<tr>
<td>Gender Role</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identity</td>
<td>1</td>
<td>2.43</td>
<td>1.05</td>
<td>2.31</td>
<td>0.0232</td>
</tr>
<tr>
<td>Gender Role</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squared</td>
<td>1</td>
<td>-1.30</td>
<td>0.49</td>
<td>-2.67</td>
<td>0.0089</td>
</tr>
</tbody>
</table>
prevailing cultural values and norms.

The first and second degree polynomial of gender role identity had a very low explanatory power, slightly over one tenth of the variance produced with perceived control, yet demographic variables that have been shown to influence perceived control in previous studies (Battle & Rotter, 1963; Linder, 1986; Light, Purcell, & Martin, 1986; Lumpkin, 1986; Lefcourt, 1982; Brehm & Brehm, 1981; Young & Shorr, 1986; Mestrovic & Brown, 1985; Weihe, 1984; Miller, Lefcourt, Holmes, Ware, & Saleh, 1986; Fleming, Baum, & Weiss, 1987). indicated no effect in this prison environment.

The data shows that individual differences have allowed for varying control, regardless of the oppressiveness of the environment. The greatest control was exercised by the most adaptive, androgynous group. This was followed by the lesser adaptive highly feminine subjects and further followed by the cross schematic, masculine groups. This indicated that the "individual difference / self efficacy" model of personal control reflects the female prison situation better than the "environmental / learned helplessness" model which would have predicted a uniformity of control by all groups. Those individuals with a congruent sex and gender role identity, particularly the androgynous group, are best able to succeed by virtue of adaptability, despite the oppressiveness of the situation.

The masculine group, expecting more than they can obtain in this restrictive situation may suffer greater frustration than their cohorts, and thus perform less adequately than the feminine group with lower expectations. The androgynous group not only have the
lower expectations of the feminine group, but also the greater ability to manipulate their environment with their integrated masculine dimension. This apparently served to maximize control without raising expectations to the point of incapacitation.

In conclusion, the "integrative" model was supported by the curvilinear relationship of the women's gender role identity and environment control. Those individuals with a cross schematic male gender role identity, having highest control expectations, in a situation with a low control environment, perceived the least control. Both the feminine and androgynous groups may be expected to hold a low control expectancy, yet the androgynous group may also utilize their "masculine" component and realistically realize and maximize the opportunities that actually exist, optimizing control.

A test for lack of fit indicated no systematic variance other than that encompassed by the model existed (Table XV and Table XVI). The model indicated a critical T-Ratio at the delineation of feminine and androgynous gender role identity. This value indicates that the subjects that perceive the maximum control actually exists with gender schematic subjects having a feminine gender role, but with strong androgynous tendencies, or its converse.

It was then concluded that the "best" model included the first and second power of androgyny as independent variables. This form can be expressed as:

$$E(Y) = \beta_0 + \beta_1 X_i + \beta_2 X_i^2 + \varepsilon_i$$
Where: \( Y \) = environmental control
\( \beta \) = slope
\( X_i \) = gender role identity
\( X_i^2 \) = (gender role identity)\(^2\)

This overall model produced a significant relationship (\( p = 0.0028 \)), all parameters were significant, and the variance inflation factors were all below 1.00, indicating orthogonality. Cook's D also indicated a lack of influential variables and outliers, with a maximum value of 0.184. An R square of 0.13 indicated that approximately one tenth of the variation existing in environmental control was parsimoniously explained by this variable.
CHAPTER V

SUMMARY

Conclusions

Since about one quarter of the total inmate population completed the questionnaire sufficiently for use in this study, the potential for bias was present. Thus we must consider this study exploratory, and treat the results and implications as tentative in nature.

Locus of control was measured with two scales. A full scale, included items reflecting an inmate's ability to perceive effective interaction with prison personnel and to attain economic support externally from the prison. A partial scale included only items involving the inmate's perception of control with situations requiring a prisoner-social worker interaction. Similar results were found with each scale for all the statistical relationships explored.

It appears that demographic variables normally influencing an individual's locus of control have very little effect in a prison situation. This reflects the oppressive nature of the prison environment, indicating an "environmental / learned helplessness" condition may exist. The effect of the prison did not completely suppress all individual differences however, supporting hypothesis 1. Gender role identity did influence the inmates' perceived locus of control. This result did not appear to be a spurious effect, nor did there appear to be any remaining unexplained variance with perceived
locus of control once gender role identity and departure from androgyny were accounted for.

Gender role identity, though measured on a single continuum, is a composite of two forces. Individuals exhibiting predominantly either masculine or feminine traits are restricted in their repertoire of interpersonal behavior. This limitation was found to significantly reduce one's perceived control in the prison setting of this study. With the integration of male and female characteristics, an androgynous individual combines aspects of masculine and feminine gender role identity to fit within their given environment at a given time. Whether measured as the absolute value of the androgynous "T ratio", or the square of the individual's gender role identity score, the departure from androgyny was significantly related to the inmate's perceived locus of control. The further one departed from androgyny, the less control was perceived to exist for the inmate, as proposed in hypothesis 2. Though the androgynous group perceived greater control than the other groups, the data does not support the "individual difference / self efficacy" model well because demographic variables that have been associated with an external locus of control appeared to have no effect in a prison situation.

A second component of gender role identity involves the departure from the expected norms of society. As a female increased in masculine gender role identity and correspondingly exhibited a decrease in stereotypic feminine gender role identity, a trend toward less perceived environmental control was observed supporting the last hypothesis. This trend was not linear however. Rather a curvilinear relationship was indicated. Maximal control was found with a balance
of masculine and feminine gender role identity found in the androgynous group, the apex of the perceived control occurred at the demarkation of "feminine" and "androgynous" individuals. Excluding this androgynous component, one observed this effect of a cross-sexed gender role identity more clearly refined. Decreased environmental control was found with women prisoners' departure from the accepted norms of behavior for females as expressed by the cross-sexed "male" gender role identity. As an increase in an external locus of control was clearly not found with the androgynous group, it could be implied that the androgynous group is not "cross-sex" roled like the "male" group. Rather, these individuals appear to be gender schematic consistent with their biological sex. The curvilinear effect of gender role identity does not support the "incongruency / reactance" model of personal control. It was assumed that both the androgynous and feminine group would have an approximately equally low need for outcome control, and would function equally well in this limiting environment.

Perception of control is dynamic, depending upon the situation. It was assumed that the androgynous individuals may have been better adapted to utilize their adaptive nature, perceived the situation in a more realistic light, and taken greater advantage of their interactions with the social workers at the prison. (Chafetz, 1974; Lips and Colwill, 1978; Singer, 1977; Heilbrum, 1973). They may have initially expected a low outcome control due to their "feminine" component. However, possessing a combination of both adaptive and conforming behavior, the androgynous individuals, may have adjusted better to the situation than the other groups. This may have allowed
them to exercise more control as the social workers responded to
the inmate's adjustment. The "masculine" component would then be
allowed to be incorporated in their interactions, allowing a gradual
increase in control. The curvilinear effect of gender role identity
on perceived control supports the "integrative" model of personal
control. There were individuals in the prison setting that
perceived themselves exerting a greater control than their cohorts.
These individuals were predicted to have the most adaptive
personality because of their gender role identity.

Gender role identity was found to approximate both a first and
second degree polynomial with respect to environmental control.
Psychological instability also indicated a significant relationship
with respect to environmental control. The composite model can be
succinctly expressed as:

\[ E(Y) = \beta_0 + \beta_1 X_i + \beta_2 X_i^2 + \epsilon_i \]

Where:
- \( Y \) = environmental control
- \( \beta \) = slope
- \( X_i \) = gender role identity
- \( \epsilon_i \) = error

This model explained thirteen percent of the variance.

Implications

The results indicate that the extreme feminine, and the
cross-sexed masculine gender role identity should be modified to
improve inmates' perceived control. This may be accomplished through assertive training for females with an extreme feminine gender role identity, and sensitivity training for those with a masculine gender role identity. This proposition could be examined by exposing a random sample to such training, while the remainder of the population serves as a control, receiving their normal counseling.

Success would be measured not only in the inmates change toward an androgynous gender role identity, but in their ability to reintegrate into society, as measured by a lack of repeat offenses and success at gainful employment.

Mastery training has been demonstrated effective in animal studies in curtailing learned helplessness (Volpicelli, Ulm, Altener, and Seligman, 1983). This is the guiding concept behind "Outward Bound" schools where people test themselves against the rigors of mountaineering, white-water canoeing, and wilderness survival. Training in assertiveness has also been demonstrated to alter women's sex role orientations from feminine to a more androgynous (Gulanick, Moreland, and Howard, 1979). With only one twelve-hour training session, initially feminine women were significantly more androgynous one year later. Should it be found that androgyny is associated with an increased sense of control, assertive training for highly feminine females, and sensitivity training for cross sexed females may be beneficial.

Secondly, it appears that a second dimension of control was emerging on the factor scales. This involved the ability for inmates to control things not directly under the social workers authority, but with an economic status derived externally from the prison
situation, such as reading books, ironing, and watching television. This reflects the inmates economic status. Only those affluent enough to purchase the items for such activities would have much control over these activities. This scale could be expanded to explore this dimension in greater detail.
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APPENDIX

PORTION OF THE QUESTIONNAIRE USED IN THIS STUDY
GIVEN TO PRISON INMATES
LONG TERM OFFENDER STUDY

Background Information

These questions are to see how background influences the issues with which this questionnaire is concerned. Please circle the one most appropriate answer or fill in the blank with the correct information for each question.

1. Age ________

2. My race is:
   a) White
   b) Black
   c) Other __________

3. Prior to my entering prison (on this charge), my marital status was:
   a) Separated
   b) Married (legally and common law)
   c) Divorced
   d) Widowed
   e) Single
   f) Other (please explain) __________

4. Has your marital status changed since being in prison?
   a) Yes, husband sued for separation or divorce.
   b) Yes, I sued for separation or divorce.
   c) Widowed.
   d) Acquired a new "sugar daddy"
   e) Married since being in prison
   f) No change.

5. Highest grade completed (circle correct number).

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6</td>
<td>7 8 9 10 11 12</td>
<td>13 14 15 16 17 18 19 20</td>
</tr>
<tr>
<td>or GED</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. What type of town did you live in at the time you were arrested for your present conviction?

- Large city (such as New Orleans)
- Medium sized city (such as Baton Rouge or Shreveport)
- Small city (such as Alexandria, Monroe or Lafayette)
- Town (such as Eunice or Denham Springs)
- Small town or in the country
## Locus of Control Scale

### IV.

If you wanted to, could you

<table>
<thead>
<tr>
<th></th>
<th>Definitely</th>
<th>Yes</th>
<th>Sometimes</th>
<th>Maybe Yes—Maybe No</th>
<th>Definitely No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Find a way to make an emergency phone call.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Change jobs in here.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Get to see the doctor quickly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Get your clothes pressed well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Get someone on the staff to do something about a complaint you have.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Get to see a counselor quickly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Get a message to your people on the outside quickly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Get a cell change.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Get the kind of food you want to eat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Talk to the warden/superintendent in person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Get legal help or advice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Watch the TV programs you want.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Read the books or magazines you want.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Take the classes you want in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Have an emergency visit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Get a job that would make you feel useful.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Work in a challenging job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
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These consist of pages:

127-128, BEM'S Sex Role Inventory
FOOTNOTES

1 Dr. Perkins, Head of Social Services for Louisiana State Correctional Institute for Women, and Dr. Campbell, a social service worker at the institution delineated the ramifications of each variable in the control scale enabling an understanding of the underlying dimensions involved in each factor.

2 Dr. Campbell has noted that she has received some of the "better" written requests from the less literate inmates due to their availing themselves of the capacities of the more erudite inmates. Granting a request ultimately depends on the inmate's ability to convince the social worker of the merits of the case.
VITA
VITA

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Candidate: James William Robinson

Major Field: Sociology

Title of Dissertation: The Relationship Between Learned Sexual Values and Adjustment in a Prison Setting

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

September 6, 1988