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THE LINKAGE BETWEEN SEXUAL AND AGGRESSIVE
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RELATED TO PSYCHOSOCIAL
DEVELOPMENT

By

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ABSTRACT

THE LINKAGE BETWEEN SEXUAL AND AGGRESSIVE
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Previous research has demonstrated a relationship between sexual and aggressive motivation, whereby arousal of one motive results in arousal of the other motive. Eriksonian theory suggests that this relationship may be specific to a particular psychosocial level, Identity vs. Role Confusion. Persons who have not successfully resolved identity issues will have heterosexual relationships in which aggression is a salient element, and will confuse sexual and aggressive arousal. In addition, persons still resolving identity issues should be more defensive. These hypotheses were tested using a procedure developed by Barclay and Haber (1965), in which subjects were exposed to either a sexual, aggressive, or control arousal and later wrote stories in response to TAT-like stimuli that depicted male-female pairs. Subjects were assessed for psychosocial development using a measure developed by Constantinople (1969). Psychosocial level did not significantly effect overt imagery, although there were strong trends, but was a major determinant of defensive imagery. Results were interpreted in terms of

experimental procedure, societal change, and were viewed in a paradigm developed by Clark (1953).

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INTRODUCTION

Previous research has suggested a relationship between sexual and aggressive motivation, whereby arousal of one motive results in the arousal of the other motive (Clark, 1953; Barclay and Haber, 1965; Barclay, 1970). This research supports both psychological theory (Freud, 1938; 1959) and popular observation (Stoller, 1976; 1977).

In all empirical investigations of this sex-aggression linkage, college students have been the subjects. Generalizing these results would suggest that the relationship is invariant throughout development. If Erik Erikson's theory of psychological growth and maturation is considered, it is possible that the results of these studies may be related to the college subjects' specific developmental stage, rather than having validity for all stages. It is plausible that the majority of the subjects in previous studies were dealing with the issues of a particular stage of psychosocial development, Identity vs. Role Confusion, and that the connection between sexual and aggressive motivation resulted from life issues that the subjects were attempting to master, and the defensive orientation related to this stage.

Empirical and Theoretical Investigations
of a Sex-aggression

Primate neuroanatomy suggests a physical link between sexual and aggressive motivation. MacLean (1965) found that structures controlling sexual and aggressive behaviors were juxtaposed within the squirrel monkey's limbic system. MacLean found that stimulating one structure can result in the display of a neighboring structure's functions. Electrical stimulation could produce sexual or aggressive behavior when the electrode was moved within the space of a millimeter. However, juxtaposition of neural structures does not guarantee similarity in the functions controlled by these structures. It is possible that separate structures, uninfluenced by one another, control sex and aggression.

In addition, MacLean states that naturalistic observations of experimental monkeys further support the sexual-aggressive linkage: squirrel monkeys assume that the same penile display in courtship and aggression. A similar connection between sexual and aggressive posturing also occurs in other species. MacLean suggests that a sexual-aggressive linkage may be due to neural structures in primates. He generalizes this hypothesis to man by suggesting that the use of a loincloth was developed to ease social tension created by the display of male genitals, i.e., the display of aggressive impulses. A neurological framework is well suited to MacLean's interests, and while it may be one possible explanation of his observations, he does not discuss social causes that may be equally plausible.



Freud dealt with the issue of a sex-aggression linkage on an orthogenetic level. He suggested that, in prehistoric times, aggression was necessary for mating to occur, that man had to subdue his mate. From an evolutionary perspective it is possible that this, through time, could have resulted in a sexually active and aggressive population, sexual and aggressive instincts striving for the same aim and object in the mating situation, indistinguishable from one another. Here, the two instincts work together for gratification in this special situation. In Western society, open display of aggression in a sexual encounter is forbidden, yet the linkage between the two may be present, although disguised. Freud indicated that in normal sexual activity, where the woman (Circa 1900) was resistant to sexual encounters, both sexual and aggressive drives are gratified for the male as he attempts to force a sexual liason, although in a less obvious way than his ancestors.

Late psychoanalytic thought has further elaborated on this problem, and has arrived at several conclusions of significance to the present research. Eidelberg (1948) noted that many people attempt to satisfy sexual and aggressive needs in one action, although he states that combined satisfaction of the instincts is less effective due to a weakening of aggression through the concomitant presence of sexuality, and the risk of social or superego censure of sexual expression when it is paired with aggression. However, dual gratification still takes place because, "the earliest prohibitions simultaneously inhibit the sexual instinct and destroy the narcissistic feeling of omnipotence." The individual



struggles to regain feelings of power, self-worth and to satisfy sexual needs by a single action. Following this, it seems a reasonable hypothesis that actions to satisfy both sexual and aggressive drives would be more likely to occur in certain stages of a person's life when power and sexuality are threatened or in turmoil. Adolescence seems to be such a period. Freud believed adolescence to be a time of refighting the battles of childhood, of coming to grips with the unresolved concerns of the past. In particular, unresolved anal conflicts seem especially magnified in adolescence. The adolescent is concerned with autonomy and independence, much as he was during the anal period. As in the anal period, sexuality is connected with veiled aggression. Whereas the child used erotic functions (defecation) to display independence and aggression, the adolescent uses his genital sexuality as a means to break away from parental influence and express aggression toward his heterosexual peers.

Previous research on the linkage between sex and aggression has used adolescents as subjects. Of importance to the methodology of the proposed research is Eidelberg's assertion that "there is one realm in which the two gratifications can be sought simultaneously without disadvantage, namely, the realm of fantasy. Experiences that eventually induce the individual to separate the two gratifications occur only in the realm of reality. In fantasy situations, the risk to sexuality and the weakening of aggression is negligible."

Clark (1952) was the first to lend empirical support to the sex-aggression linkage in Freudian theory. To investigate the effects of inhibition on the measurement of sexual motivation by the TAT, Clark measured sex and guilt in the TAT protocols of male college students who had been exposed to a sexual stimulus prior to the TAT administration. Clark designated three categories of response as being indicative of the presence of guilt: a) someone is ashamed, guilty, sorry, anxiety-ridden, morally concerned, embarrassed, etc. over sexual activity; b) someone is punished, criticized, ostracized for sexual activity; and c) someone punished himself in some concrete fashion as a result of a sexual activity. From observation, it is clear that two of the three categories contain aggressive elements. Clark reported increases in TAT guilt following a sexual arousal. However, a portion of what Clark labeled guilt cannot be separated from aggression, giving support to a sex-aggression linkage in his subjects.

Whereas Clark investigated the effects of sexual arousal on the presence of aggression (guilt) in fantasy, later explorations of the linkage between sex and aggression concerned the effects of aggressive arousal, using a content analysis of TAT responses for the dependent variable (Barclay & Haber, 1965). However, in order to assess the manner in which these motivations are expressed, special TAT-like stimuli were photographed. These stimuli depicted heterosexual scenes; for one half of the cards the female was dominant, for one half, the male. Subjects were male and female college students. The experimental group was aggressively aroused



by insults from the professor and the experimenter. Both sexual and aggressive imagery in that TAT response were greater in the aroused group, when compared to the unaroused group, suggesting a relationship between sex and aggression. Males displayed more defensiveness than females in their responses. In addition, the large majority of stories told in response to female dominant stimuli had a change in the dominance relationship. In short, a relationship between sex and aggression, through aggressive arousal, was demonstrated and the nature of imagery and defensiveness was influenced by the dominance relationships present in the stimuli. In addition, sex differences are found in the expression of these motivations.

Barclay explained these results in terms of the general norms of American middle class society. Results that seem variant with the accepted norms are attributed to the uniqueness of the role of college students in relation to the parent culture. The explanations for the differences are given in terms of norms for the college student culture, rather than in terms of a specific level of psychological development among the subjects.

An alternative explanation for the proposed linkage between sex and aggression could be that the female subjects found the aggressive behavior of the male experimenter sexually arousing. Unlike the male subjects who were made angry and then projected sexual imagery in their TAT protocols, the angry male experimenter may have been directly sexually arousing to the female subjects. To rule out this explanation, Barclay (1970a) employed a female experimenter. As in the previous study, both males and females responded

with increases in sexual motivation following arousal by the hostile experimenter, Barclay concluded that there was indeed a linkage between sex and aggression, regardless of the sex of the experimenter. As in the previous study, males responded sexually, not aggressively but with greater defensiveness, to female dominant stimuli. Aggression is a component of sexuality in both sexes, rather than primarily in males.

The methodology of these studies creates the implicit assumption that a state of arousal exists within the subject. Schacter and Singer (1962) propose that situation cues elicit emotional expression when preceded by a general arousal. Hullian theory postulates that an increase of one organismic drive leads to an increase in all other drives. In relation to both of Barclay's two investigations, it is possible that the arousal condition, instead of eliciting anger, caused an increase in general arousal. The cues produced by the experimenter would generate a sexual response. Barclay suggests, however, that this does not explain why subjects of the same sex as the experimenter also show an increase in sexual imagery on their TAT responses.

Barclay (1969) found some evidence to refute this alternative hypothesis. If there is an increase in general drive caused by the arousal condition, the arousal should equally elicit other "irrelevant" motivation. A hostile experimenter aroused the subjects and their TAT protocols were analysed for need for affiliation and need for achievement, as well as sex and aggression. Only sexual motives increased after arousal. Although this lends

support for a specific connection between sexual and aggressive motivation, it is possible that this resulted from time limits imposed on the TAT responses. Subjects may have responded with sexual motives first, and did not have time to include other motives. For clarification, Barclay (1971) administered a more complete test of the nonspecific arousal hypothesis. By using several types of arousal (sexual, anxiety, laughter, and neutral) Barclay found an increase in sexual and aggressive imagery only in the sexual arousal condition. Both males and females responded with aggression to this arousal. The results of this study support the proposed connection between these motivations in the experimental subjects. They also coincide with the results of Barclay's previous studies.

Fantasy, expressed in a TAT response, is only one method with which to measure arousal. Sexual arousal can also be demonstrated through physiological measures. Barclay (1968) used urinary acid phosphatase (AP) as an indicator of sexual arousal in male subjects. Angered males had greater amounts of AP in their urine and also expressed more sexuality in their TAT responses than unangered males. The physiological results validate the TAT measure and support a sexual-aggressive connection. However, the results are not definitive. Barclay (1971) found that subjects have some cognitive control over AP secretion. The amount of information male subjects had about the experimental procedure (which included a collection of urine samples and the viewing of a sexual film) was related to AP secretion. The greater the amount of information, the less the AP secretion, caused by a reduction in anxiety concerning

the procedure. Anxiety, therefore, may be a factor controlling AP levels. For a closer examination of this possibility, Barclay (1972) replicated the "multi-arousal" experiment, using males, and measured AP secretion. He found that AP secretion is an indicator of sexual arousal even though part of the response can be traced to an element of general arousal or a link between sex and anxiety. A pairing of sex and anxiety, through experience, may be present. If emotions are viewed as consisting of two components, a general drive, and a specific, directing element, it is possible that anxiety may represent the general component, as anxiety in the traditional sense is unlabeled arousal. The absence of AP change from pre- to post-arousal in the group viewing the anxiety film lends support to this idea. The subjects may have been anxious upon arrival to the experiment and their anxiety was maintained by the film. The postulate of an unconfounded, definite linkage between sexual and aggressive motivation is weakened by these results.

The only investigation of the relationship between sex and aggression in fantasy that did not use a college population, used prison inmates as subjects (Beit-Hallamhi, 1971). Using a specialized TAT that consisted of pictures of either a sexual or aggressive nature, and no arousal condition, Beit-Hallamhi found a positive correlation between sexual and aggressive fantasy. In addition, subjects were more likely to respond with sexual, rather than aggressive imagery, to an aggressive picture, and were also more likely to respond with aggressive, rather than sexual imagery, to a sexual picture. Beit-Hallamhi also scored for achievement motive

and found no correlation between that motive and sex or aggression. Therefore, his results cannot be explained according to a theory of general arousal. If there had been a general expressiveness, there would also have been an increase in the achievement motive, and this was not found.

Eriksonian Theory: An Alternative Explanation

Unlike Freudian theory, Eriksonian theory attributes greater flexibility to the developing individual across a broader time-span. Although an individuals' successes or failures in mastering life issues influence future development, the person's needs, motivation, and interactions with the environment change both in form and expression throughout development.

The guiding principle in human development, according to Erikson, is epigenesis. Epigenesis refers to an unfolding of the personality, so that a certain aspect of the personality becomes of greatest concern, and has least resistance to change, during a specific period of a person's life. Erikson labeled these periods as "psychosocial stages" (Erikson, 1950), and specified eight stages as the major periods in development. Chronologically, these stages stretch from infancy through old age. At each stage the individual is confronted with a new issue that must be resolved. Erikson believes that these concerns are in the form of polarities; the individual may either master the new issues, or he may not. Whatever the result, it has influence on further personality development and from that point on, characterizes the individual. Most importantly, at each stage there are significant changes in a person's



orientation toward himself, towards others, and toward the environment.

In terms of the present research question, it is plausible that the relationship between sexual and aggressive motivation may be determined by the psychosocial development of the individual. In specific, it seems a reasonable hypothesis that students in their first two years of college, who constituted the large majority of subjects in the studies reported here, are leaving adolescence and attempting a final resolution of the issues and concerns of Erikson's Stage of Identity vs. Role Confusion, as experience and maturation draws them to deal with the issues of the next stage, Intimacy vs. Isolation. This is supported by several investigators, who describe the stage of Identity vs. Role Confusion as a period of identity or ego diffusion, which they found to be characteristic of college age populations (Constantinople, 1969; Donovan, 1970; Douvan, 1966; Waterman, Geary & Waterman, 1974; Marcia, 1966; Stark & Traxler, 1974; Orlofsky, Marcia, & Lesser, 1973). It is likely that the issues of the stage of Identity vs. Role Confusion have a significant impact on the connection between sexual and aggressive motivation in the reported research, and that resolution of the issues of the period of identity diffusion will result in a weakening of the relationship between these two motivations. Orlofsky, Marcia and Lesser (1973) have demonstrated that the resolution of the identity crisis is related to the successful exploration, rather than avoidance, of intimacy. The hypothesis of the proposed research states that a linkage between sexual and aggressive

motivation is weakened when an individual resolves identity issues and begins to focus on the stage of Intimacy vs. Isolation.

How can an individual who is dealing with the concerns of the stage of Identity vs. Role Confusion be described? Most generally, the person is in a period of transition between childhood and adulthood. The person is now physically ready to enter adulthood, yet he has not developed the sense of identity that is needed to choose the tasks that will be approached in adulthood and to determine one's position in adult society. Munley (1975) found that strong ego identity was positively related to adjusted vocational choice, defined as a vocation that was in concordance with aptitude and interest. When one's self-perceptions have consensual validity, one has achieved identity.

Identity is confirmed through relationships with others. Partially due to the dictates of society, and primarily caused by the powerful sexual feelings of the adolescent, many of these relationships are with members of the opposite sex. Erikson states that these relationships are, "an attempt to arrive at a definition of one's identity by projecting one's diffused ego image on another and by seeing it reflected and gradually clarified" (Erikson, 1950). Dignan (1963) defines identity as, "a complex of self-referent images which evolves through interpersonal relations and helps the individual define himself within a social reality." While the individual is looking for clarification, he is also searching for stability and attempting to avoid a loss of self-esteem. Bronson (1959) characterizes individuals in the stage of Identity vs. Role Confusion as having, "temporal instability of self-perceptions" and

being uncertain about their dominant personal characteristics. Relationships between people who are in this stage display pseudomutuality; they seem to contain the components of a genuine mutual relationship (sex, togetherness) yet they exist primarily to reinforce the member's newly forming identity. According to Douvan (1966) adolescent sexuality is pseudo or defensive sexuality, whose aim is to both ward off anxiety, which arises from the conflicts of the past that ascend in the turmoil of puberty, and to resolve these childhood conflicts, achieving identity.

Unfortunately, relationships are imperfect in meeting the needs of its members. It is inevitable that an individual's growing, yet uncertain identity will be contradicted within the relationship, creating anxiety. Anxiety in general appears to be related to ego diffusion. Bronson (1959) found that a high degree of inner tension and anxiety is a component of the identity crisis. Stark and Traxler (1974) and Dignan (1963) found a negative correlation between ego identity and anxiety in college students.

One common reaction against anxiety is to aggress toward the element of the environment that causes anxiety; in this case the anxiety of one member, caused by a weakness in identity, is externalized to the other member of the dyad. However, both the individual and society find the display of hostility in what is labeled a mutual affiliation unacceptable. As a result, it is necessary to veil the aggression. Joking and teasing within the relationship are vehicles for expression; for males, sex may also be a means of hostile expression. In short, one way in which sex

and aggression may be linked is through the presence of anxiety in heterosexual relationships. This anxiety is blamed on the other member, and hostile feelings arise in regard to that person. The anxiety is created by both the novelty of the affiliation and the nonconfirmation of identity within it.

The heterosexual relationship is also a trial of a person's worthiness. The sense of inferiority is heightened in this stage, as the individual's worth is in constant question as he attempts to form an identity and plan for his position as an adult. In particular, an individual questions his attractiveness as a person and as a sexual partner. The individual may use the relationship as a proving ground. There may be continual stress to compete against the partner, and sex may become, as Erikson (1950) states, a "genital combat." In addition, anxiety due to feelings of unworthiness may occur because the individual who has not yet resolved identity issues brings an incomplete self to the relationship, and as a result is unable to meet the partner's expectations, causing hostility within the dyad. An incomplete self is formed by strongly sex-typed socialization in childhood. In general, females are programmed to "be." They attain a childhood identity by being; being beautiful, kind, quiet, etc. Males, in contrast, must achieve in order to create a childhood self-concept. Measured by accomplishment rather than existence, they must actively effect the environment. When people in this stage of identity formation engage in a heterosexual relationship, they both become dissatisfied and angry. The female sees herself as her father's little girl. She desires the nurturance



and emotional support that her father is adept at giving. However, her partner is unable to gratify her needs. He has not yet learned how to "be," and therefore cannot share his emotions with his partner which would lead to intimacy and emotional support. The male realizes that he is less competent than his mate's father, or her "ideal" father. Not only is he unable to meet her emotional needs, but he is less powerful and accomplished. This comparative incompetence causes anxiety and hostility. The female also feels hostility toward her partner, as she feels ill-cared for. She has not developed the "doing" aspect of her personality that would enable her to care for herself, just as her partner lacks the emotional "being" aspect that would allow him to be more supportive. This is yet another way in which a link between sexuality and aggression develops.

When an individual acquires a firm and relatively stable identity, much of the anxiety is removed from the heterosexual relationship. This is not to say that anxiety is nonexistent; it is quite certain that the individual will have doubts concerning the goodness or stability of the relationship, or that the interactions within it will illuminate some aspects of the personality that the person would rather ignore. However, there is a shifting of the issues of primary importance to the individual. Where in the stage of Identity vs. Role Confusion there is a heightened concern with avoiding contradictions of the growing identity, and an increased vulnerability of the self-concept to external judgment (Marcia, 1967; Waterman, Geary & Waterman, 1970), there is less potential

for anxiety when the individual enters the stage of Intimacy vs. Isolation, in which the primary issue is the merging of the newly acquired identity with another. This emerging identity is balanced in the "doing" and "being" aspects of personality, enabling each partner to equally contribute to both the emotional and active functions of the relationship, thereby reducing hostility. Most importantly, the person is willing and able to sacrifice and compromise for the sake of the relationship as he is significantly less vulnerable to threats to the self concept, or as Erikson writes, " . . . he is able to face the fear of ego loss." Never again will close relationships be as anxiety provoking as in the previous stage of Identity vs. Role Confusion. As a result, in heterosexual relationships, as well as other types of affiliations, there will be less hostility, as anxiety is no longer a pervasive characteristic of relationships. In addition, because the individual is striving for mutuality, as well as becoming less concerned with proving his worth, there will be less competition with the partner. Cooperation and sharing will be a hallmark of sexual, as well as other kinds of encounters, between the partners, replacing the combative elements of the previous stage. Lastly, heterosexual experiences will become less novel, thereby reducing anxiety. Erikson states that the achievement of an identity is a prerequisite for the development of intimate relationships:

True "engagement" with others is the result and the test of firm self-delineation. Where this is missing in the young individual, when seeking tentative forms of playful intimacy in friendship and competition, in social play and love . . . is apt to experience a peculiar strain, as if such tentative



engagement might turn into an interpersonal fusion amounting to a loss of identity . . . it is only after a reasonable sense of identity has been established that real intimacy with the other sex (or with any other person) is possible (1959).

The Relationship Between Defensiveness and Psychosocial Development

Defense mechanisms are, in general, ways in which individuals protect themselves from both internal and external pressures. All individuals have a defensive structure but this structure becomes more rigid as psychological pressures increase.

From the previous discussion it is apparent that an individual in the process of resolving identity issues, especially during adolescence, is experiencing internal and external pressure; the main task of this stage is self-discovery, tying in past identities and experiences with future goals. However, this process is undermined by several factors. Most basic is the individual's internal, physiological upheaval, the advent of puberty and the final stages of maturation into adulthood. The unpredictable and unfamiliar body seems to sabotage the individuals' struggle for stability and self-understanding. External factors also threaten the adolescent who is dealing with identity issues. Heterosexual relationships, as previously discussed in detail, are threatening to the individuals' self-esteem, yet are mandatory in the adolescents identity formation, as it is through relationships with others that one forms a realistic self concept. Heterosexual relationships help define the adolescents role as a sexual adult. The individual

must protect the emerging self in interpersonal relationships. The adolescent is also pressured by the adult world to make life-long career choices which are valued by the community in which he or she lives. The fear of "choosing too soon" and never fully discovering ones' potential is a constant threat to the adolescent, yet he or she also fears that the choice may never be made. The pull between individual and group desires, stability and adventurous self-discovery, isolation and exploration of the self through others, combined with the physiological changes of adolescence are a threat to the individuals' growing self. Here, probably more than any life-stage, the individual erects a strong defensive structure for self-protection. This high level of defensiveness is salient in heterosexual relationships and is related to the aggressive elements in adolescent sexuality. To discuss this relationship it is necessary to create a definition of defensiveness. In this context, it includes any mechanism by which a person protects the "self" from internal and/or external threat. These mechanisms may be studied in the context of classical psychoanalytic defense mechanisms, or simply as behavioral methods by which an individual avoids "pain." For an individual dealing with identity issues, defensiveness is a way through which a self-concept can develop with the least turmoil. In general, a too rigid and encompassing defensive structure will stifle personal growth, while a lack of defensiveness is anxiety provoking. The dilemma between comfort and growth is salient during adolescence. It is for this reason that maturation is difficult and heterosexual relationships are aggressive in nature. The adolescent

wants to have relationships with others, for the information they give in helping the individual form a self-concept, and the social pleasures that can be gained through interaction with others. Yet closeness brings the pain of self-doubt, the painful knowledge that one has weaknesses, and limited self-understanding. To ward off much of these painful feelings, the adolescent removes them from the self. This can be done by blaming, consciously or unconsciously, the partner for these feelings, bringing hostility into the relationship. The blaming can take several forms. One way of avoiding painful feelings is through a projective type of mechanism, "These are your problems, not mine." Another way is by "denial," "You seem to want me to think I'm such and such a person, but I'm not." The adolescent may feel angry that the relationship is making him or her uncomfortable; he or she may distance themselves from the relationship to "punish" the partner for evoking these feelings as well as to avoid these anxiety laden issues. Defensiveness is a component of aggression in sexuality, as it is related to other aspects of adolescence. The high level of defensiveness in adolescent relationships, with their resultant aggressive aspects, makes them unique.

Hypotheses

Hypothesis 1

Subjects in lower levels of psychosocial development will respond with sexual imagery on a projective task when aggressively aroused, and with aggressive imagery when sexually aroused.

This is due to a link between sexual and aggressive motivation for subjects of lower levels of psychosocial development, for reasons elaborated in the preceeding discussion. In brief, for these individuals, heterosexual relationships are situations for both sexual and aggressive interactions.

Hypothesis 2

Subjects lower in psychosocial development will be more highly defensive. The rationale is elaborated in the preceeding discussion. In brief, due to insecurity in their identity and the subsequent insecurity in relationships, subjects in lower levels of psychosocial development will be more defensive overall.

METHOD

Measures

Inventory of Psychosocial Development (IPD).

The measure to assess psychosocial development was constructed by Constantinople (1969). This measure uses a seven-point self-rating scale on items relating to the polar factors of Erikson's first six stages of psychosocial development. Each polar factor labels a subscale that is composed of five words or phrases that are rated by the subject. For example, Erikson's first stage is measured by a Basic Trust subscale and a Basic Mistrust subscale, the instrument consisting of a total of twelve subscales.

The instrument was derived from a Q-sort, devised by Wessman and Ricks (1966) who used it in a clinical setting to measure changes in self concept in college males. Constantinople changed the format to a rating system rather than a Q-sort to make it more facilitative for use in developmental studies employing a large N. Unfortunately, Wessman and Ricks give no data concerning the reliability of their Q-sort form of the measure. Neither were there validity estimates for subscales, although there is considerable congruence between personality data derived from the Q-sort and other psychological measures, including clinical judgment.

The psychometric status of Constantinople's measure appears to be adequate. In a six-week test-retest reliability study, median r was .70. However, for males, social desirability

response set does have some influence on obtained scores. A significant correlation was found between scores for Erikson's fourth, fifth, and sixth stages and the Marlowe-Crowne measure of need for social approval. Constantinople points out that it may be impossible to eliminate entirely the influence of social desirability from the measure, as it is correlated with personal adjustment. Clear bipolarities were found for only the first, fourth, and sixth stages, with stage 2 being the weakest. Constantinople did not find that there were differences in item applicability for males and females.

Thompson (1975) tested the validity of the IPD on a population of college honor students. Like Constantinople, she found the strongest polarities to exist in stages 1, 4 and 6, with stage 2 the weakest. She also found that ego identity, as measured with this instrument, to be negatively correlated with three measures of anxiety and positively correlated with six measures of self esteem. She states that the IPD seems to be an adequate indicator of ego development as defined by Erikson.

Partial indications of validity for the IPD comes from Constantinople's own study, which showed a longitudinal increase in identity over the college years; from Waterman et al. (1970) who found successful resolution of the Identity Scale related to successful resolutions of prior crises; and from Munley (1975) who found that adjusted vocational choice (the choice of a vocation that coincides with actual abilities and interests) and vocational

maturity were related to successful resolutions across stages, as measured by the IPD.

The IPD contains several items that may be difficult for certain populations to clearly understand, although they might have been comprehensible for Constantinople's and Thompson's honors and career oriented students. Because the subjects in the proposed experiment have varied levels of ability, the vocabulary used in certain items has been simplified, to help all subjects understand the meaning of all items. The revised measure is presented (see Appendix A). All entries with an asterik have been changed, the original item in parentheses below the revised item.

Rasmussen's Ego Identity Scale (EIS)

This scale consists of 72 statements (see Appendix B) to which the subject deems applicable to him (by responding "true") or unlike him (by responding "false"). The items for each stage can be used to examine various derivatives of health and ill-health, as described by Erikson. For example, a derivative of stage 5 (Ego Identity vs. Ego Diffusion) is "sense of psychological well-being; being at home in one's body". Certain items that measure stage 5 reflect this particular derivative. Each stage can be divided into 3 derivatives either healthy or not healthy with 4 items reflecting each derivative. In selecting items, Rasmussen attempted to use derivatives from Erikson in a literal or concrete manner, and avoid interpreting the original text. As the criteria for satisfactory or unsatisfactory resolution of psychosocial

conflicts was taken directly from Erikson, Rasmussen states that content validity is not a problem. However, to control for possible misunderstandings and ambiguities in wording, the statements Rasmussen devised were subjected to the test of being unanimously agreed upon by two judges as accurately reflecting a stage of psychosocial development and a particular derivative. The reliability of the measure which was used on two groups of Navy recruits, was .85 in both cases.

Measurement of Sexual and Aggressive Motivation

Sexual and aggressive motivation was measured by fantasy responses to eight specially prepared TAT-type photographs (Barclay & Haber, 1965) (see Appendix C). These cards depict four heterosexual scene and are one of two forms: female dominant (FD) or male dominant (MD). Each subject received a test booklet containing four pictures, one of each scene. Two of the pictures were MD, two FD. Two sets of booklets were constructed, differing only in the form of each picture. Half of each group of subjects received a different set. Paper was provided in the test booklet for writing responses.

Instructions were printed on the cover sheet to the booklet, and also read aloud:

"This is a test of creative imagination. In order to get the best possible response, look at each picture for ten to twenty seconds. Try to see what is taking place, then use the following page to write a story about it.

Try to answer:

- (1) What led up to the events taking place?
- (2) What is happening now?
- (3) How are the people feeling?
- (4) How will it turn out?

It is important that your story contains answers to these questions. However, don't just answer the questions--write a complete, continuous story. You will have five minutes to write each story. The experimenter will let you know when it is time to go on to the next picture.

It has been found that the best stories are written by people who relax, let themselves go, and write whatever comes into their heads, even though some parts of the story may not make much sense at the time. Naturally, there are no "right" or "wrong" stories so relax and have a good time.

Protocols were scored for sexual and aggressive imagery and defense using Barclay's (1967) revised scoring system. Judges were blind as to which arousal generated the protocol.

Measures of Arousal Effectiveness

The purpose of these measures was to assess the effect of the different arousal conditions to be used. The "Own Feelings Checklist" measures the specificity of each arousal, for example, whether the sexual arousal elicited sexual feelings and only sexual feelings. This checklist also measures the level of general arousal in each condition. The "Behavioral Checklist" measures behavioral manifestations of arousal, and serves as another measure of general arousal. The control condition should be less arousing than the sex or aggression condition.

1. "Own Feelings Checklist." Each subject will rate his/her reaction to the videotape.

Instructions: Rate the degree to which the words below agree with your feelings during the film. Do this by circling the correct number. 1 means "not at all," 4 means "moderately" and 7 means "extremely."

For example, if you were moderately sad during the film, you would answer:

	1	2	3	④	5	6	7
sad	<hr/>						
	not at all		moderately		extremely		

Now rate your feelings using the feeling words below:

affectionate, aggressive, amused, angry, anxious, apathetic, bored, delighted, disgusted, elated, embarrassed, enraged, envious, fearful, guilty, hostile, hungry, indifferent, jealous, lighthearted, nauseous, nervous, resentful, sexually aroused, shameful, sleepy, tense, terrified, thirsty, tired.

To determine the level of arousal, subjects' numerical ratings of relevant words were totaled, and divided by the number of words. The words relevant to each arousal are as follows:

Sex: affectionate, sexually aroused
 Aggression: aggressive, angry, enraged, hostile
 Control: apathetic, bored, indifferent
 General: anxious, tense

2. "Behavioral Checklist." On a scale of 1 to 5, subjects rated their experience of certain behaviors during the film. Instructions were:

It is also important to examine the extent to which behavioral states are related to a person's feelings. Therefore, we are asking you to describe other reactions you may have had while watching the film.

To what extent did you experience the following behaviors? 1 means "not at all," 3 means "medium," and 5 means "to a great extent."

The behaviors listed are: banging the table, butterflies in stomach, crying, genital sensation, hiding your eyes, hunger

pangs, impulse to run, increased heart rate, laughter, making a fist, fist, nausea, sweating palms, verbal exclamations (Look Out! Help! Run! Oh!) To determine the level of arousal the subjects' numerical ratings of each experience was totaled. This score will be referred to as "action potential" arousal.

Procedure

Subjects were recruited through introductory psychology classes, where participation in psychological experiments can be used for extra credit. No financial compensation was offered. Approximately one third the subjects were exposed to a sexual arousal, one third were exposed to an aggressive arousal, and one third were exposed to a neutral arousal. The total number of subjects was 239. Therefore, there were three experimental groups: sexual arousal, aggressive arousal, and control (neutral arousal).

Subjects were tested in large groups. The experimenter and assistants were introduced as graduate students from the Michigan State University Department of Psychology, working under the supervision of faculty members.

The experimenter informed the subjects that there would be two activities during the hour. First, they would be rating a videotape that will be used in future research. Next, they would be taking a test on "creative imagination," followed by some "general personality tests," which allow an understanding of the process of imagination.

After the introduction, subjects viewed a videotape of either sexual, aggressive, or neutral (control) content. All three

videotapes have been used in previous research, although with somewhat different instructions (Barclay, 1969). They have been found to elicit arousal-specific feelings; feelings matched to the videotape (Barclay, 1972). All three videotapes depict scenes relating to a psychology experiment, and are about 12 minutes in length. In the sexual film, a male and female are waiting for a psychology experiment to begin. They had their first date the evening before and are very attracted to each other. When the experimenter leaves the room, they kiss and fondle each other for the remainder of the videotape. The aggressive arousal shows two males participating in a psychodrama involving a father and son. The "son" becomes violent and abusive, and refuses to let the "father" leave the experiment; the psychodrama becomes real-life aggression. At the end, there is a fist-fight. The control (boring) videotape shows three male students building a toy building, in an experiment measuring "teamwork." There is little dialog in this videotape.

After the film subjects completed the arousal measures the "Test of Creative Imagination," and the measures of psychosocial development. As stated in the directions, the experimenter timed the test, allowing five minutes a story for the "Creative Imagination Test." After these measures were collected, subjects were debriefed.



RESULTS

Arousal Effectiveness

Table 1
Self-Report of Arousal

Condition	Sex	Agg	Cont	F	P
Sex Arousal (SF)	2.62 a	1.26 b	1.35 b	42.34	.001
Aggressive Arousal (AF)	1.89 c	3.43 d	1.95 c	40.20	.001
Control Arousal (CF)	4.33 e	3.21 e	5.18 f	27.45	.001
General Arousal (G)	4.75 g	5.56 h	4.02 g	11.97	.001
Action Potential Arousal (AC)	6.97 i	7.38 j	6.48 i	2.63	.074

Note: Same letters indicate no difference between groups.

Using MANOVA (see above Table 1) it was found that subjects reported sexual, aggressive and control feelings (SF, AF, CF) differed between conditions, as measured by the "Own Feelings Checklist." Sheffe's test performed on the mean reported feelings for each condition showed that subjects reported feelings were



congruent with the arousal condition. Sexual arousal was significantly higher in the sex condition ($p = .05$) whereas the reported aggressive and control feelings did not differ significantly from each other in this condition. For the aggressive arousal condition, Sheffe's test showed that reported aggressive feelings were significantly higher than either sexual or control feelings. In the control condition, control feelings were significantly higher than either sexual or aggressive feelings, between which there was no significant difference.

There was no significant difference in the degree of reported general arousal between the sexual and aggressive conditions, but general arousal was significantly higher in the aggressive condition when compared to the control condition.

There was no main effect for condition for the subjects reported action potential arousal, but a strong trend was noted. Action potential arousal is strongest in the aggressive condition, with the greatest difference between the aggressive and control condition.

No significant sex differences in the self report variables were found but females tended to report fewer sexual feelings than males ($p = .064$) when sexually aroused.

No other significant main effects were found or were there any interactions.

Measures of Psychosocial Development

Through MANOVA, a significant sex difference was found for all but one psychosocial developmental measure, Constantinople's



measure of identity (C5). In all instances, females had a higher mean score; their reported psychosocial development was higher than that of the male.

Table 2
Mean Psychosocial Scores

		M	F	\bar{X}
Identity Resolution	C5	7.69	8.53	8.10
Intimacy Resolution	C6	10.30	13.64	12.04
Identity and Intimacy Resolution	X	12.00	14.79	

There was no significant main effect for condition; condition did not have a significant effect on the measures of psychosocial development. In addition, no significant interaction between sex and condition was present; sex differences were not effected by condition.

Reliabilities

For sexual and aggressive imagery, reliabilities were computed by Pearson correlation, between the two raters who scored each test booklet. All reliabilities were acceptable and some were very strong.



Table 3
Sexual and Aggressive
Imagery Reliabilities

Raters	1	2	3	4
1	-	.82 .82	.92 .85	.88 .72
2	-	-	.91 .76	-
3	-	-	-	.92 .73
4	-	-	-	-

Note: Sexual imagery reliability is reported above the aggressive imagery reliability. In two instances, due to scheduling problems, it was not possible to obtain completely crossed reliabilities. For the same reason it was not possible for all pairs of raters to score equal numbers of booklets.

Defensive imagery reliabilities were calculated in terms of percentage agreement, due to the nature of the data. Barclay's scoring system for defense contains five categories of defensiveness, with two levels of intensity for four of the categories. The labels for types of defense in Barclay's scoring system appear to coincide with the type of defense discussed previously but pilot scoring sessions found that it was not possible to establish adequate inter-rater reliability, however, reliability could be established on the total defense per booklet. For example, a phrase that one rater labeled avoidance might be labeled distancing by

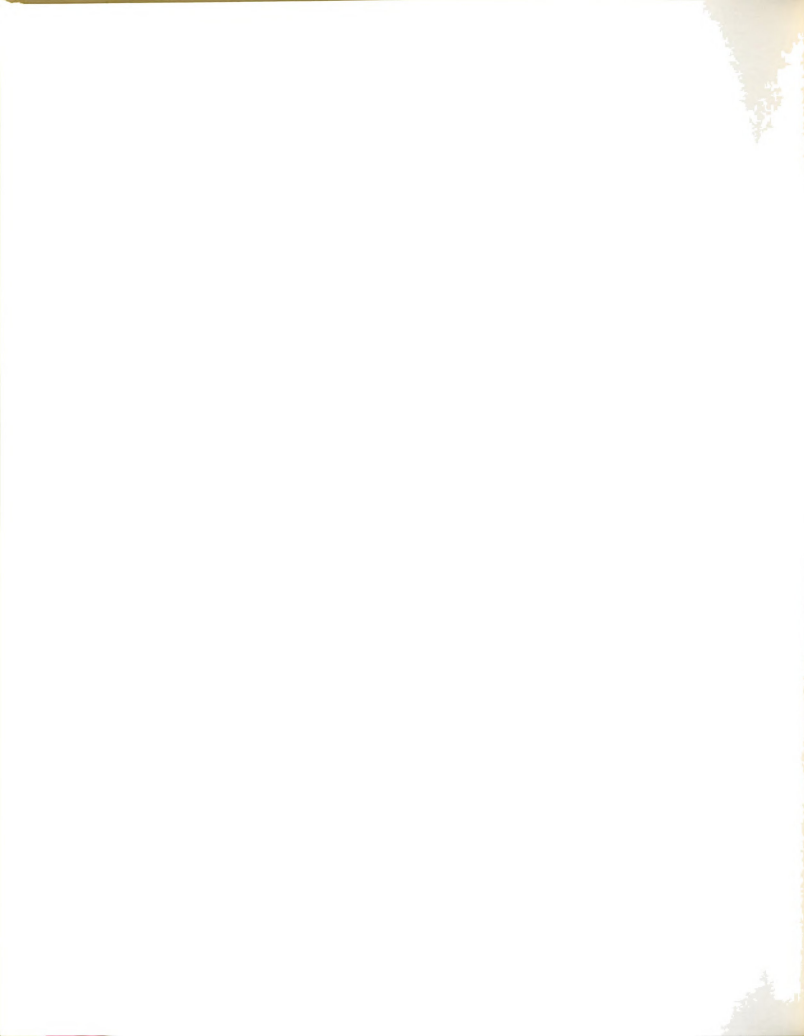
another, but they both agree that the phrase was defensive in nature. As the principle interest in this research is amount, rather than category of defense, each booklet was scored for all five types of imagery and was then given a summed score across the categories. This was done for both sexual and aggressive defense. The most important aspect of reliability for this study is congruency between raters judgment of the presence or absence of sexual and aggressive defense in a story. Reliability was computed in terms of matching type of imagery (sexual or aggressive defense) rather than category. Instances where there was a "match" but there was a difference in intensity between raters, raters were considered to have "half a match" and given a score of .5 in the following formula. When raters matched on sexual or aggressive defense, a score of 1 was given; when there was not a match, a zero score was given.

$$R_{ab} = \# \text{ of stories matched} / \# \text{ stories scored}$$

The reliability for sexual defense was .86, for aggressive defense was .82.

"Replication" Results

An underlying assumption of this investigation was that the experimental manipulation, especially the aggressive arousal, would have similar overall effects as compared to Barclay's previous studies (Barclay & Haber, 1965; Barclay, 1969, 1970). It was assumed that the majority of subjects in the previous studies could be described as individuals with poorly resolved identity and intimacy issues. For this reason, a linkage between sexual and aggressive motivation was found. It was here postulated that the imagery



of subjects of lower levels of psychosocial development would parallel the previous findings, while the paradigm would not hold for subjects of higher psychosocial levels. Because the influence of higher level subjects would be removed, it was assumed that the sex-aggression linkage would be stronger for subjects of lower psychosocial levels than the subjects of previous studies.

The overall results, not including the psychosocial dimension, can be considered to represent a replication of Barclay's previous studies. In the present study, unlike Barclay's, there was no effect for condition. In fact, the sexual imagery scores were almost equivalent for all three conditions, as were the aggressive imagery scores (see Table 5). The only significant overall results were a main effect for dominance, on sexual and aggressive imagery and sexual defense, a difference between the amounts of sexual and aggressive imagery, and a sex by condition by dominance interaction on sexual defense. Subjects displayed more sexual imagery to male dominant cards (\bar{X} female dominant = 3.48, male dominant = 3.76, $P = .042$) and more aggressive imagery to female dominant cards (\bar{X} female dominant = 4.52, male dominant = 4.26, $p = .044$). Overall, there was more aggressive than sexual imagery (\bar{X} agg = 8.77, \bar{X} = 7.23, $p = .001$). More sexual defense was evoked from male dominant cards (\bar{X} female dominant = .456, male dominant = .665, $p = .015$). The sex by condition by dominance interaction was significant at the .038 level for sexual defense.



Table 4
Sexual Defense Scores by Condition,
Sex and Dominance

	Sex	Aggression	Control
Male			
Male Dominant	.66	.47	.43
Female Dominant	.20	.41	.71
Female			
Male Dominant	.64	.86	.74
Female Dominant	.60	.51	.26

Regarding defensiveness, there was more overall sexual defense than aggressive defense (\bar{X} sexual defense = 1.12, aggressive defense = .75, $p = .001$).

Tables describing the overall results, sex by condition (by dominance) for sexual and aggressive imagery and sexual and aggressive defense are included (see Tables 5, 6, 7 and 8).

Table 5
Sexual Imagery Scores by Condition,
Sex, and Dominance

	Male Dominant	Female Dominant		
Sex				
Males	3.69	3.59	7.28	
Females	3.62	3.69	7.31	7.30
Aggression				
Males	3.59	3.56	7.15	
Females	4.02	3.53	7.55	7.39
Control				
Males	3.48	3.33	6.81	
Females	3.98	3.05	7.02	6.95
	3.76	3.48		

Table 6
Aggressive Imagery Scores by Condition,
Sex, and Dominance

	Male Dominant	Female Dominant		
Sex				
Males	4.21	4.07	8.28	
Females	4.32	4.72	9.03	8.79
Aggression				
Males	4.29	4.44	8.74	
Females	4.17	4.71	8.88	8.82
Control				
Males	4.29	4.62	8.90	
Females	4.26	4.35	8.60	8.70
	4.26	4.52		



Table 7
Sexual Defense Scores by Condition,
Sex, and Dominance

	Male Dominant	Female Dominant		
Sex				
Males	.66	.21	.86	
Females	.64	.61	1.25	1.12
Aggressive				
Males	.47	.41	.88	
Females	.86	.51	1.47	1.18
Control				
Males	.43	.71	1.14	
Females	.74	.26	1.00	1.05
	.67	.46		

Table 8
Aggression Defense Scores by Condition,
Sex, and Dominance

	Male Dominant	Female Dominant		
Sex				
Males	.31	.24	.55	
Females	.41	.52	.93	.81
Aggressive				
Males	.32	.56	.88	
Females	.33	.45	.78	.82
Control				
Males	.33	.24	.57	
Females	.21	.35	.56	.56
	.33	.42		



Use of the Independent Variable

Subjects' comments written on the Rasmussen scale revealed that many subjects did not take the scale seriously or did not respond honestly. The true-false format appears to have increased social desirability biasing subjects' responses. In a forced choice situation subjects chose the more socially desirable response. In addition, the range was restricted to scores near the upper bounds of the measure which also supports the assumption of bias. Because of these problems, it was decided to exclude the Rasmussen measure from further analysis.

In order to investigate the specific effects identity and intimacy have on imagery and defense, the results were analyzed using three different criteria of psychosocial development. Constantinople's measure yields separate scores for identity resolution (C5) as well as intimacy resolution (C6). Combining these scores reflects the degree to which the subject has simultaneously resolved both identity and intimacy (C56). A subject's subscale score on either identity or intimacy reflects how well he or she has resolved conflicts directly attributable to the particular scale. Although in theory, psychosocial development is assumed to be epigenetic, Constantinople's measure meets this criterion only with some flaws. For example, a subject may have a poor resolution of conflicts associated with identity, but can have relative success with intimacy. As a result of this problem, three separate analyses were performed. In each analysis two different stages were created, poor resolution and good resolution; subjects were divided on the



median of the particular psychosocial score or the stage. To measure the effect of combined identity and intimacy resolution, subjects were divided on the median of the combined score.

Those subjects below the median of the distribution were labeled as minus, while those subjects above the median of a particular stage were labeled plus subjects. Because sex of subject differentially affected scoring on psychosexual measures, with females as a whole measuring as more advanced psychosocially, the medians of each sex's score distribution was used separately, rather than using the median of the combined distribution.

Identity Resolution (C5)

The original hypotheses were that subjects in stage C5-, or who had poorly resolved identity conflicts, would respond with sexual imagery to an aggressive arousal and with aggressive imagery to a sexual arousal, due to the linkage of sexual and aggressive motivation. The stage by condition interactions by sexual and aggressive imagery were nonsignificant, but there were definite trends in the hypothesized direction (see Table 9).

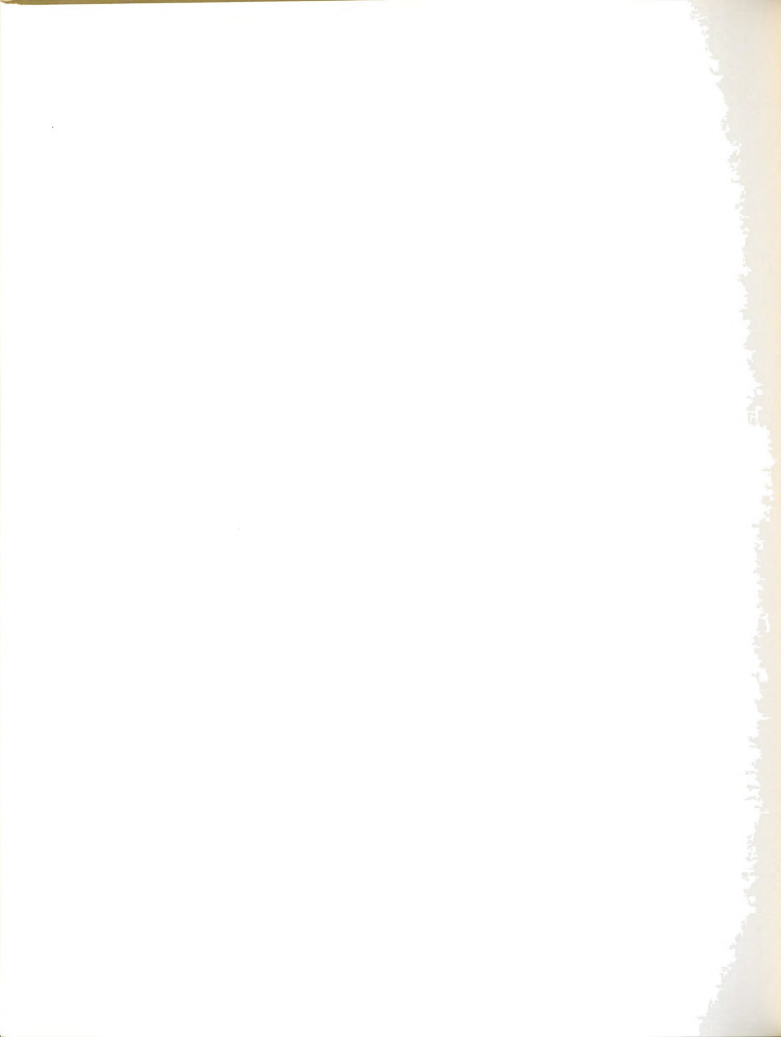


Table 9

Sexual and Aggressive Imagery Scores
by Stage and Condition
(Identity Resolution)

		Sex	Aggression	Control
Sexual Imagery				
Poor Identity Resolution	(C5-)	7.09	7.78	6.66
Good Identity Resolution	(C5+)	7.53	6.66	7.12
Aggressive Imagery				
Poor Identity Resolution	(C5-)	9.11	8.91	8.71
Good Identity Resolution	(C5+)	8.44	8.66	8.68

In addition, it was hypothesized that subjects in stage C5- would respond with more overall defense, with sexual defense being greatest in response to an aggressive arousal and aggressive defense being greatest in response to a sexual arousal. Subjects would defend against "inappropriate" feelings, such as sexual arousal when the overt situation is aggressive in nature. Stage C5- subjects would be more defensive overall due to their instability in identity. The stage by condition interactions for sexual and aggressive defense were nonsignificant (see Table 10), but there was a significant stage by condition by dominance interaction for aggressive defense ($p = .007$).



Table 10

Sexual and Aggressive Defense
by Stage and Condition
(Identity Resolution)

	Sex	Aggression	Control
Poor Identity Resolution C5-			
Sexual Defense	1.04	1.07	1.11
Aggressive Defense	.89	.96	.56
Good Identity Resolution C5+			
Sexual Defense	1.20	1.37	1.00
Aggressive Defense	.72	.60	.57

Table 11

Aggressive Defense Scores by Condition,
Dominance, and Stage
(Identity Resolution)

		Sex	Aggres- sion	Control	\bar{X}
Male Dominant					
Poor Identity Resolution	5-	.57	.33	.33	.42
Good Identity Resolution	5+	.16	.33	.19	.22
Female Dominant					
Poor Identity Resolution	5-	.32	.62	.22	.43
Good Identity Resolution	5+	.56	.27	.38	.42



Under a sexual arousal, Stage C5+, or good identity formation subjects, showed little aggressive defense to male dominant cards, but were highly aggressively defensive to female dominant cards. In response to female dominant cards, subjects in Stage C5-, or subjects with poor identity formation, were highly sexually defensive when aggressively aroused, an increase over their response under a sexual arousal. Stage C5+ subjects were not defensive, a decrease from their defense under a sexual arousal. In the control condition to male dominant cards, Stage C5- subjects showed no difference from the response under aggressive arousal. In contrast, they showed a large decrease in aggressive defense to female dominant cards. Stage C5+ subjects were slightly less defensive in the control condition, to male dominant cards, and slightly more defensive to male dominant cards.

Intimacy Resolution (C6)

The original hypotheses were that subjects in Stage C6-, or who had poorly resolved intimacy issues, would respond with sexual imagery to an aggressive imagery to a sexual arousal, due to the linkage of sexual and aggressive motivation. The stage by condition interactions for sexual and aggressive imagery were nonsignificant, but there were definite trends in the hypothesized direction (see Table 12).



Table 12

Sexual and Aggressive Imagery Scores
by Stage and Condition
(Intimacy Resolution)

	Sex	Aggression	Control
Sexual Imagery			
Poor Intimacy Resolution (C6-)	7.02	7.56	6.81
Good Intimacy Resolution (C6+)	7.63	7.21	8.68
Aggressive Imagery			
Poor Intimacy Resolution (C6-)	9.02	8.95	7.10
Good Intimacy Resolution (C6+)	8.51	8.71	8.73

In addition, it was hypothesized that subjects in Stage C5- would respond with more overall defense, with sexual defense being greatest in response to an aggressive arousal and aggressive defense being greatest in response to a sexual arousal. As identity formation and intimacy issues are related, each enhancing the other's development, Stage C6- subjects would respond similarly to C5- subjects. They would defend against "inappropriate" feelings, such as sexual arousal when the overt situation is aggressive in nature. Stage C6- subjects would overall be more defensive due to their instability in identity. The stage by condition interactions for sexual and aggressive defense were nonsignificant, but there were other significant results (see Table 13).



Table 13

Sexual and Aggressive Defense
by Stage and Condition
(Intimacy Resolution)

	Sex	Aggression	Control
Poor Intimacy Resolution C6-			
Sexual Defense	.88	1.14	.84
Aggressive Defense	.90	.74	.55
Good Intimacy Resolution C6+			
Sexual Defense	1.41	1.22	1.24
Aggressive Defense	.71	.90	.58

There was a main effect for stage, in a direction opposite that of the hypothesis; stage C6+ subjects were more sexually defensive than stage C6- subjects (C6- = .96, C6+ = 1.23, $p = .05$).

In addition, there was a significant interaction between sex, stage and condition for sexual defense ($p = .05$).

Table 14
Sexual Defense Scores by
Condition, Sex and Stage
(Intimacy Resolution)

	Sex	Aggres- sion	Control	\bar{X}
Poor Intimacy Resolution C6-				
Male	.29	1.05	1.40	.88
Female	1.11	1.21	.57	1.00
Good Intimacy Resolution C6+				
Male	1.40	.66	.90	1.00
Female	1.42	1.51	1.40	1.45
	1.12	1.18	1.05	

Under a sexual arousal, stage C6+ males, or males with good intimacy resolution, were highly sexually defensive, while C6- males, or males with poor intimacy resolution, were not. Both C6+ and C6- females were highly defensive. Aggressively aroused stage C6- males were highly sexually defensive, much more so than when sexually aroused, while C6+ males were moderately defensive, much less than when sexually aroused. As when sexually aroused, aggressively aroused females were highly defensive. In the control condition, males in stage C6- were most defensive, compared to other conditions, and C6+ males were also highly defensive, although not as defensive as when sexually aroused. Stage C6+ females showed no

significant change from the other conditions, which C6- females were much less defensive in the control condition.

There was a significant interaction between sex, condition and stage, and the difference scores between sexual and aggressive defense ($p < .022$).

Table 15
Difference Scores between Sexual and
Aggressive Imagery by Condition,
Sex and Stage

Condition	Sex	Aggression	Control
Poor Intimacy Resolution C6-			
Male	-.50	.42	1.00
Female	.17	.38	-.12
Good Intimacy Resolution C6+			
Male	1.01	-.53	.18
Female	.50	.77	.91

Sexually aroused males in stage C6- respond with more defensive aggression than defensive sex. Males in stage C6+ respond with more defensive sex than defensive aggression to a sexual arousal. Females in both stages C6- and C6+ respond with more defensive sex than defensive aggression, although this is stronger for females in stage C6+. Aggressively aroused males in stage C6- respond with more sexual defense than aggressive defense, while



males in stage C6+ respond with more aggressive defense than sexual defense. Females in stage C6- and C6+ respond with more sexual than aggressive defense, although this is again stronger for stage C6+ females. In the control condition, stage C6- males respond with more sexual than aggressive defense. Stage C6+ males do the same, but to a much less extent. Stage C6- females respond to the control condition with slightly more aggressive than sexual arousal, while stage C6+ females respond with more sexual than aggressive defense.

Combination of Identity and
Intimacy Resolution (C56)

The original hypotheses were that subjects in stage C56-, or who had poor resolution of both identity and intimacy issues, would respond with sexual imagery to an aggressive arousal, and with aggressive imagery to a sexual arousal, due to the linkage of sexual and aggressive motivation. The stage by condition interactions for sexual and aggressive imagery were nonsignificant, but there were definite trends in the hypothesized direction (see Table 16).

Table 16
Sexual and Aggressive Imagery Scores
by Stage and Condition
(Identity and Intimacy
Resolution)

	Sex	Aggression	Control
Sexual Imagery			
Poor Identity - Intimacy (C56-)	6.90	7.55	6.86
Good Identity - Intimacy (C56+)	7.66	7.13	7.03
Aggressive Imagery			
Poor Identity - Intimacy (C56-)	8.91	8.92	8.59
Good Identity - Intimacy (C56+)	8.68	8.66	8.80

In addition, it was hypothesized that subjects in stage C56- would respond with more overall defense, with sexual defense being greatest in response to an aggressive arousal and aggressive defense being greatest in response to a sexual arousal. Subjects would defend against "inappropriate feelings," such as sexual arousal when the overt situation is aggressive in nature. Stage C56- subjects would be more defensive overall due to their instability in identity. The stage by condition interactions for sexual and aggressive defense were nonsignificant, but there were other significant findings (see Table 17).



Table 17

Sexual and Aggressive Defense
by Stage and Condition
(Identity and Intimacy
Resolution)

	Sex	Aggression	Control
<hr/>			
C56-*			
Sexual Defense	.81	1.06	.97
Aggressive Defense	.93	.85	.51
C56+*			
Sexual Defense	1.40	1.37	1.11
Aggressive Defense	.70	.78	.60
<hr/>			

*C56- and C56+ represent poor and good resolution, respectively, of both identity and intimacy issues.

There was a significant main effect for stages for sexual defense: C56+ subjects were more defensive than C56- subjects (C56+ = 1.30, C56- = .95, $p = .03$). This finding is in the opposite direction of the hypothesis.

In addition, there was a significant sex by stage interaction ($p = .04$) for sexual defense.



Table 18
Sexual Defense Scores by
Sex and Stage

	C56-*	C56+*	\bar{X}
Males	1.00	.87	.94
Females	.92	1.54	1.21
	.95	1.30	

*C56- and C56+ represent poor and good resolution, respectively, of both identity and intimacy issues.

Using Sheffe's test it was found that stage C56+ females are significantly more sexually defensive than the other groups ($p = .05$).

There was a significant interaction for aggressive defense, between stage, condition, and dominance ($p = .05$).

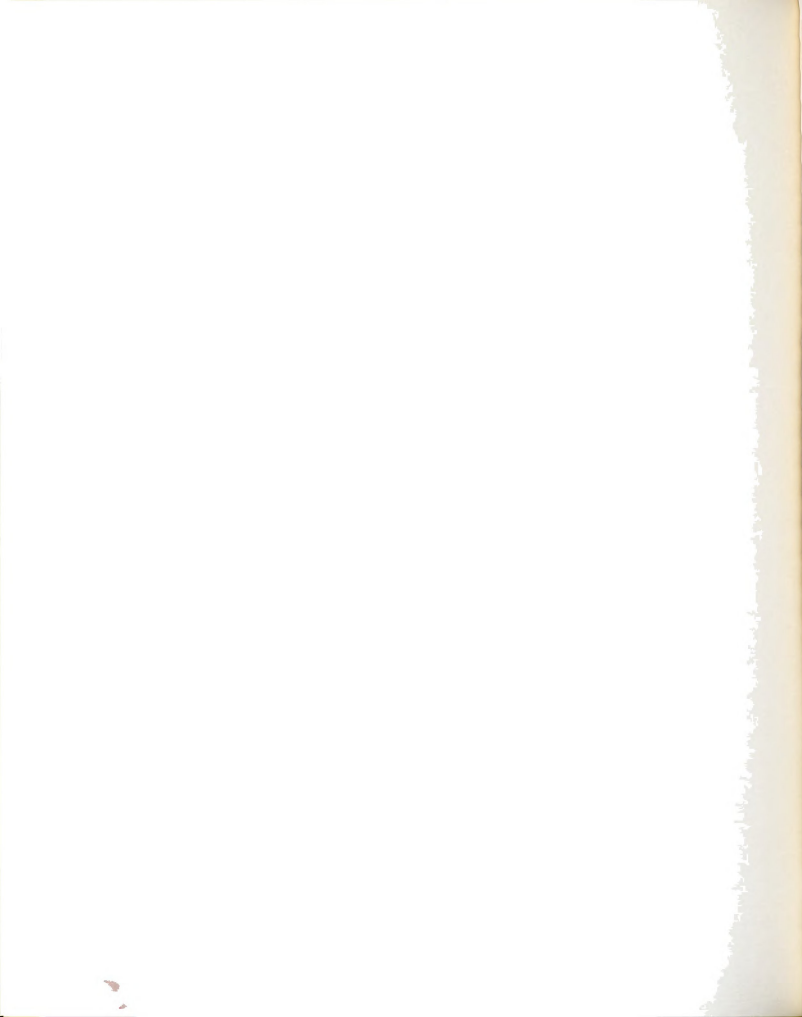


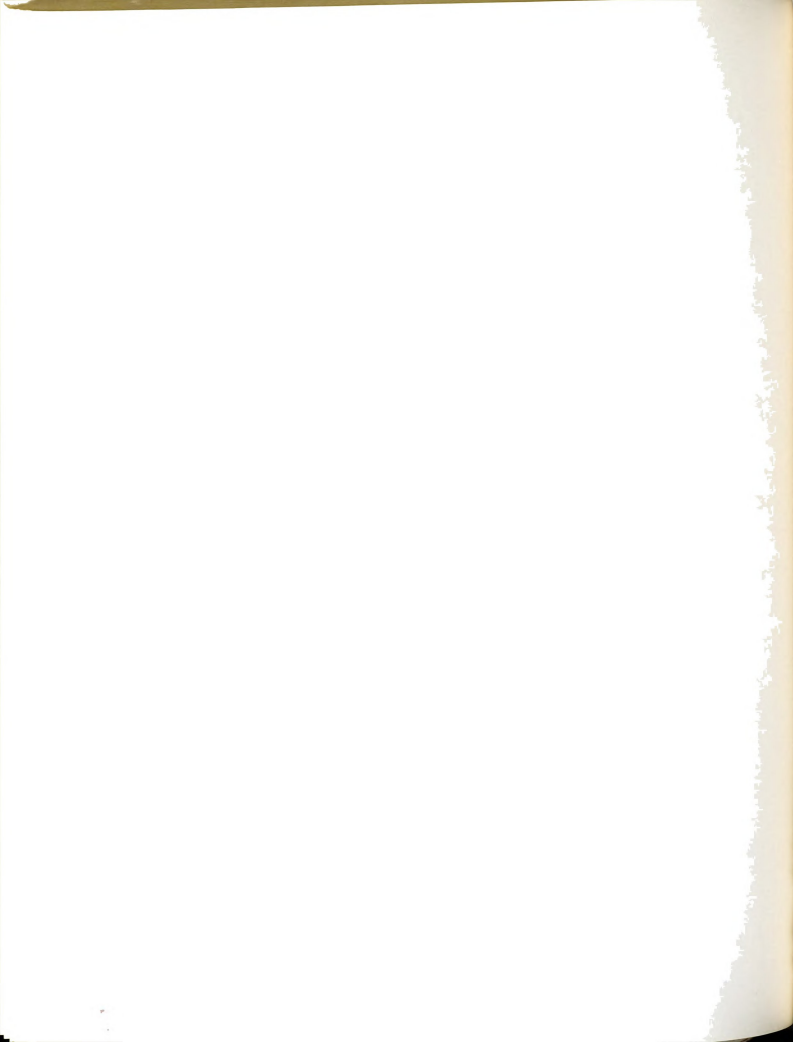
Table 19
Aggressive Defense Scores by
Condition, Dominance and
Stage

	Sex	Aggression	Control
Male Dominant			
C56-*	.58	.30	.31
C56+*	.19	.36	.35
Female Dominant			
C56-*	.34	.54	.20
C56+*	.51	.40	.40

*C56- and C56+ represent poor and good resolution, respectively, of both identity and intimacy issues.

Sexually aroused stage C56- subjects were more aggressively defensive to male dominant cards. This was reversed, in magnitude and direction, when subjects were aggressively aroused. In the control condition, C56- subjects responded to male dominant cards as if they were aggressively aroused.

Stage C56+ subjects responded oppositely of the C56- subjects. When sexually aroused, they were only slightly aggressively defensive to male dominant cards, and much more to female dominant cards. When aggressively aroused, their aggressive defense to male dominant cards increased, while their aggressively defensive responses to female dominant cards decreased. Stage C56+ responses



were equal in the control and aggressively aroused conditions, for responses to both male dominant and female dominant cards.

DISCUSSION

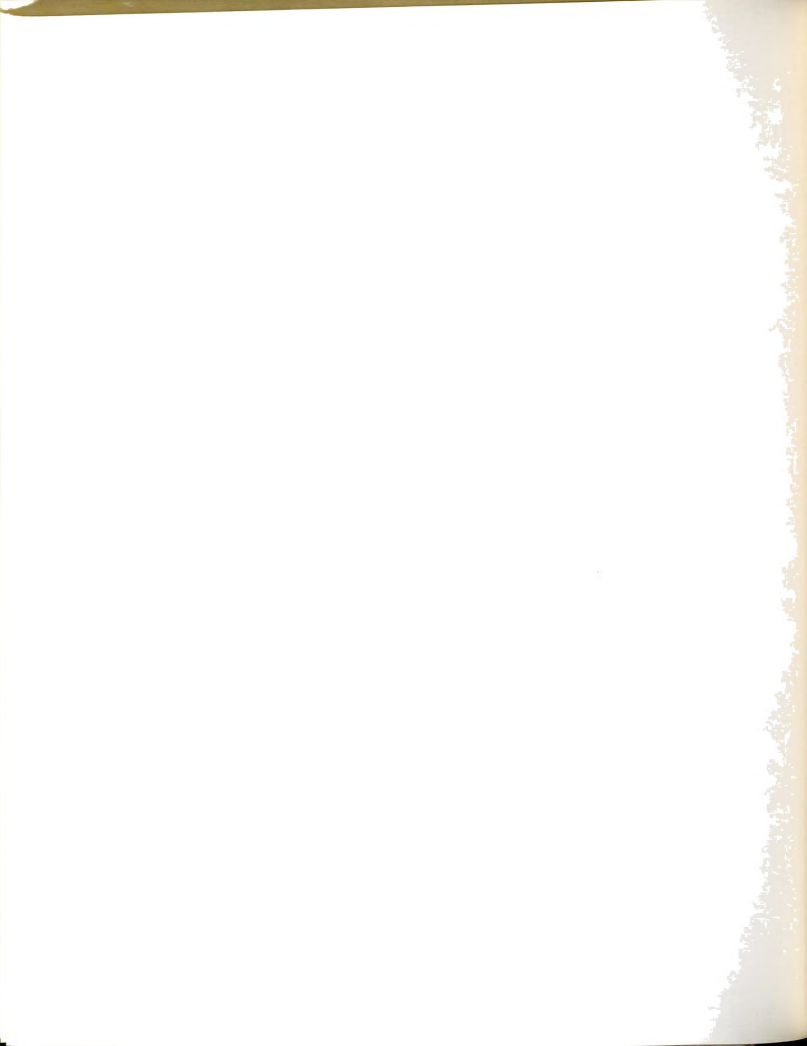
General Discussion

The primary focus of this investigation was to determine how psychosocial development affects the relationship between sexual and aggressive motivation. In general, it was hypothesized that the relationship would be found in individuals who have not resolved specific developmental issues. It was assumed that previous data were reflective of only a single developmental stage rather than incorporating subjects from several areas of the distribution.

Few of the hypotheses were directly supported, but the study yielded information on two issues. First, psychosocial development affects the relationship between sex and aggression. Second, not only does the development of an individual effect this relationship, but so do the changes within a society, through time. This is in line with Eriksonian theory, which proposes that an individual resolves developmental crises in a way particular to the culture, and although the basic progress of developmental epigenesis is uniform in all societies, the methods of resolution are related to the "outer world."

Although the hypothesized stage by condition interaction was not found for overt imagery, the cell means illuminate informative trends in the data. When sexual and aggressive imagery after a sexual arousal is considered, there are marked differences between psychosocial stages. Subjects of lower levels of

psychological development respond to a sexual arousal with considerably less sexual imagery than subjects of higher psychosocial levels. They also respond with more aggressive imagery. This is directly in line with the present hypotheses, which predict that lower level subjects will respond with more aggressive imagery to a sexual arousal than higher level subjects, and less sexual imagery. Comparing across conditions, subjects of lower psychosocial levels responded with less sexual imagery under sexual arousal than under aggressive arousal, while subjects of higher levels responded more "appropriately," giving more sexual imagery under a sexual arousal. The lower level subjects also responded with more aggressive imagery to a sexual arousal than an aggressive arousal, while higher level subjects responded with more aggressive imagery to an aggressive arousal. All these findings support a sex-aggression linkage for lower level subjects only. If these relationships are valid, and support the sexual-aggression linkage, why were the stage by condition interactions nonsignificant? The answer lies in the ratio between sexual and aggressive imagery responses. When the stage by condition interactions are studied, it is seen that in all conditions the amount of aggressive imagery is greater than the amount of sexual imagery; subjects aggressive imagery responses were stronger than their sexual imagery responses. Overall, subjects responded with more aggressive imagery than sexual imagery. Under aggressive arousal, subjects of higher psychosocial levels responded with less aggressive imagery than the lower level subjects which is in conflict with the sexual-aggression hypothesis.



However, when the sexual imagery scores under aggressive arousal are compared between psychosocial levels the aggressive arousal appears to have been effective.

The strength of aggressive imagery, combined with the reversal of hypothesized results under aggressive arousal, suggests that aggression, in general, is a more salient motive. A possible explanation is that the cues elicited by the classroom situation enhance aggressive motivation. The classroom environment is associated with competition, as well as being an arena for interactions with authority figures, i.e. instructors. Competition with fellow students breeds aggression and the college student may become enmeshed in "power" struggles with authority figures as the issues of dependency and control are explored in the college experience. With these points in consideration, it seems reasonable to expect aggressive motives to be enhanced in a classroom situation. In addition, although there were no significant stage differences for overt imagery, in all cases, individuals of lower psychosocial levels responded with more aggressive imagery than subjects of higher psychosocial levels, both within and across arousal conditions. This is congruent with psychosocial theory; subjects of lower psychosocial levels are concerned with issues of power and competition, "proving their worth," and the classroom cues were more salient to these subjects. However, in Barclay's studies, the overall amount of sexual and aggressive overt imagery was equivalent, and his studies were conducted in classroom situations. How can the present assumption that the overabundance of aggressive imagery was the

result of the classroom situation be supported? One, present day students are more concerned with success. Unlike the subjects of 10 years ago, today's subjects are likely to be more concerned with success in academics, instead of "learning your own thing." Competition is an important aspect of college today. Two, the relationship between the classroom setting and the experimental procedure was less clear than in previous studies. Whereas in previous studies the anger arousal coincided with the classroom situation, i.e. a professor telling his class that they were incompetent, subjects in the present study were tested in a classroom but not as part of a class. Subjects confronted with ambiguity in a psychological experiment may search for cues to signal them to "appropriate" behaviors and feelings. In the present study, these cues may have been related to the classroom setting, and elicited anger and aggression regardless of the arousal condition. Subjects of lower psychosocial levels were more attune to these cues. First of all, they may have been more insecure and tended to be more aware of cues in their environment. Second, they are more concerned with competition, and the classroom cues may have had a stronger effect. This paradigm is one explanation of the lack of a stage by condition interaction of overt imagery and the reversal of hypothesized results in the aggressive arousal condition.

In general, psychosocial development relates to psychological defensiveness, rather than overt imagery. As a whole, however, subjects responded differentially to dominance cues in social situations. They showed more sexual imagery when males were dominant



and more aggressive imagery when females were dominant. It is important to note that subjects were also more highly sexually defensive in the presence of dominant males, but were not more aggressively defensive to dominant females. These results seem to be a direct reflection of societal norms which specify that dominant males are appropriate or common in sexual situations. These data suggest that most people respond to a dominant male with sexual behavior. Interestingly enough, many subjects' responses to male-dominant pictures assumed a sexual interaction between the male and female characters in the story. A typical excerpt is: "of course the boss will try to seduce his secretary. That's the way it always is." However, the subjects did not feel comfortable dealing with the sexual implications they projected since they were highly sexually defensive. Although in recent years, sexuality is talked about fairly openly both in private and in the media, sex still causes guilt and anxiety for the adolescent sample. Subjects might label the situation as sexual because of male-female cues but were anxious and, as a result, acted defensively. Subjects were aggressive in female-dominant situations, but not defensive regarding their hostility. To generalize from the subjects' responses, it appears that dominant females are regarded as inappropriate still and are a target of angry responses from men and women alike.

All subjects showed an interaction between sex, condition, and dominance for sexual defense. Sexually aroused females were sexually defensive regardless of the sex of the dominant person. Males were sexually defensive only in the presence of a dominant

male. This is in contrast to previous studies which found that males are more sexually aroused and more sexually defensive than females. Here, there is no significant difference in amount of sexual arousal between males and females, to female dominant cards, but males were less defensive. One explanation is that males were sexually aroused by the female dominant situation, but were defensive. However, their defensiveness was manifested in lack of imagery rather than in sexual defensiveness; they defended by responding with neutral or short stories to the female dominant cards. Under an aggressive arousal, the female response to dominant males is most sexually defensive. Females are sexually aroused by the aggressive elements that a dominant male elicits, but are uncomfortable with these feelings. The other groups were equivalent.

Sexual defensiveness is related to psychosocial development, in a direction opposite that of the hypotheses. Subjects who were higher in psychosocial resolution were more defensive than those who had comparatively poorer resolution of psychosocial conflicts. This held true where psychosocial development was measured in terms of the joint resolution of identity and intimacy, (C56) and in terms of intimacy alone (C6). There are no differences in sexual defensiveness when identity resolution is used alone as a variable.

It appears that resolution of intimacy issues is related to the defensive structure of an individual. Subjects in C6+ were more sexually defensive than C6- subjects. This is especially true for females. When C56 is the independent variable, females in C56+ are significantly more sexually defensive than C56+ males and C56- males



and females. In the stage by sex by condition interaction for C6 it can be seen that females in C6+ are consistently and significantly more sexually defensive than the other subjects. It had been expected that successful resolution of identity issues and movement into intimacy would be inversely related to level of defense. Instead, there seems to be a direct relationship, especially for females. One explanation is that identity formation for females consists of powerful incorporation of the attitudes and modes of society. Instead of feeling comfortable in heterosexual relationships because of having a stable identity, females, as a result of their identification with societal values, become more sexually defensive. Females learn to regard themselves as the standard-bearers of American society, as vehicles of maintaining the status quo. They identify with the moral, upright woman, who is a representation of societal values. While males are freer in choosing an identity, females are pressured to conform to the image of virtue. Even if a man accepts a conventional identity, this identity is much less sexually restrictive than that of the female.

The hypothesized stage by condition interaction for sexual defense was nonsignificant, but, as stated before, there was a sex by stage by condition interaction when psychosocial development was measured by C6. The interaction supports the hypothesis that subjects who have poor psychosocial resolution will find the aggressive situation to be sexually arousing and defend against these sexual feelings. Stage C6- males are less sexually defensive than any other group, when confronted with a sexual situation. One



explanation is that they were aggressively aroused by the sexual stimuli, rather than sexually aroused. This caused a reduction in sexual defense. The aggressive feelings elicited by the sexual stimuli were inappropriate and anxiety arousing to the stage C6 males. This anxiety caused them to focus their attention on defending their aggressive feelings; this can be seen in the sex, condition, and stage interaction of the difference scores between sexual and aggressive defense. This is not to say that they were not sexually aroused by the stimuli, but that the sexual arousal elicited aggressive feelings that the subjects felt uncomfortable with, much more uncomfortable than with sexual feelings alone. They attended more strongly to the aggression; they spent little energy defending against sex, as the aggression caused the subjects to be more anxious. Why were the aggressive feelings so unnerving? Possibly, individuals who have not yet successfully resolved intimacy issues are still unsure about their heterosexual relationships, and may have recently experienced real or imagined failures with another person as they attempt to form intimate relationships. Aggressive feelings are therefore threatening for two reasons. One, the subjects may fear that any inappropriate feelings in the context of a sexual relationship are a deathknell to that relationship. They may feel that their growing identity may not be perfect, and feel that this is called for. Secondly, they may feel guilty over any aggressive feelings they may have while forming intimate relationships, and become defensive when faced with these feelings. In summary, subjects who are just beginning to explore intimacy, as based on

Constantinople's measure, still have identity issues (with their sexual-aggressive overtones) left to resolve. In fact, some of these feelings may remain to some extent even with identity resolution. However, the reaction of male subjects with poorly resolved intimacy issues is unique.

Aggressively aroused males in stage C6+ were less sexually defensive than any other group. It appears that males who have begun to resolve intimacy issues do not feel uncomfortable with the sexual feelings that they may have when angered. Unlike the stage C6- males, these individuals feel comfortable in intimate relationships. They are more sure of their self and their feelings, and realize that, to a certain degree, some aggression (i.e., competition) is often involved in sexuality, or in relationships in general. For these C6+ subjects, aggression occupies a very minor place in their sexual relationships, as compared to other subjects, although the measure of intimacy does not guarantee that resolution of identity precedes resolution of intimacy. The C6+ males did not feel as threatened by their sexual response to aggression, and were therefore not sexually defensive.

C6+ females are highly sexually defensive when angered. As they have incorporated the societal view of sex as a male conquest, they are probably sexually aroused as well as aggressively aroused, but feel uncomfortable with these sexual feelings and defend against them.

The stage C6- subjects were sexually defensive when angered. The explanation is embedded in the discussion of the C6+ response.

In short, subjects in stage C6- do not feel comfortable with their own sexual feelings in response to aggression. They are still unsure about their ability to form intimate relationships and have not yet come to terms with any aggression in their encounters with the opposite sex.

The C5 variable is the best predictor of aggressive defense. As seen previously, using C6 as an independent variable yields information on the relationship between psychosocial development and sexual defensive imagery. However, defensive aggression and defensive sexuality are related, just as are identity and intimacy resolution. It is difficult to discuss the two categories of defense separately, just as it is difficult to discuss identity issues without examining intimacy issues. For this reason, much of the discussion of the separate interactions for sexual and aggressive defense overlaps.

Using C5 as the independent variable yields an interaction between stage, condition, and dominance cues for aggressive defense. Sexually aroused subjects in stage C5- were more highly aggressively defensive to dominant males than dominant females. It is possible that the male dominant stimuli typified the type of interpersonal relationship the poor identity formation group is struggling and competing within. The dominant male situation, as the C5- subjects are very uncomfortable with any interaction which threatens their identity. C5- subjects were less defensive to situations in which females are dominant because they are not of major concern to these subjects; most of their heterosexual



interaction still involves dominant males. C5+ subjects responded oppositely of their C5- counterparts; they were much more aggressively defensive to dominant females. This is probably because as identity becomes more stable, individuals branch out into relationships other than relationships in which the male is dominant and these other relationships become an area of heightened sensitivity for them. Stage C5+ subjects may be doing well in identity resolution, well enough to begin to explore relationships in which the female is dominant. These are new and threatening, and still have elements of rivalry and aggression that are unresolved. Angered subjects in both C5- and C5+ did not defend against aggressive feelings elicited by dominant males. It appears that aggression to a dominant male arouses little anxiety; aggressive feelings seem to be accepted where the male is dominant. However, feeling aggressive to dominant females makes C5- subjects anxious; when they are aggressively aroused, involvement in a female dominant situation causes defense. Both males and females in C5- have little experience with dominant females. The male feels threatened when encountered with a dominant female; he is too unsure of himself to assert himself, and too uncertain to not allow the female to lower his self esteem. As a result, he becomes defensive. The female is also not stable enough in her identity to feel comfortable with being dominant. Also, for both males and females, feeling defensive over the aggression may in itself be a way of avoiding the sexual arousal potential of the female dominant situation.

A further question would be to ask why dominance entered into the interaction for defense when C5 was the independent variable and not C6. The answer lies in the nature of the C5 variable. Part of identity formation consists of assessing one's power in relation to others. Competition and "power games" are a large part of relationships during identity formation. Dominance thus has a function when identity is examined.

Comparison to Previous Studies

The results of the present study differs from the 1969 Barclay study, which used an aggressive and control arousal to investigate sexual and aggressive motivation. Comparing the two investigations gives information concerning the effect of societal as well as experimental changes on the data of sexual and aggressive motivation.

There are striking differences in both the imagery and defensiveness results.

Concerning imagery, angered subjects in the 1969 study responded with sexual imagery, supporting the hypothesis that sexuality and anger are linked. There were no significant interactions for imagery in the present study.

There are several ways in which changes in the societal experiences of the subjects may have influenced the imagery results, all of which operate in conjunction with each other. First of all, the intensity and amount of sex and aggression in the media has risen considerably since the late 1960's. Although subjects' self-report of their feelings seemed to indicate that they were aroused



by the films, subjects in the present study may have been able to distance themselves from the arousal stimuli, more than 1969 subjects. Sex and aggression in the media are still interesting to the 1977 subjects, but do not cause subjects to be emotionally involved. This allowed the present subjects to be less defensive, in terms of freedom with imagery. Their distancing from the stimuli caused them to be less anxious than the 1969 subjects, in regards to expressing the "appropriate" imagery; sex to sex, and aggression to aggression. This may have caused the differences between the appropriate imagery response and the "linkage" response to disappear. For example, a 1977 subject who was aggressively aroused would be freer in his/her aggressive imagery response, and while there would be a sexual imagery response, it would not be very different in quantity from the aggressive response. In addition, because the responses were time-limited, 1977 subjects may have spent a greater portion of their time writing stories with the appropriate imagery, which they felt freer to do.

The difference in imagery results between the 1969 and 1977 studies may also have been caused by differences in the experimental procedure. In the 1969 study, the anger arousal consisted of direct insults from the experimenter, while the 1977 arousal was a videotape of a fight. Subjects in the 1969 study had their self-esteem directly threatened, causing them to feel both anger at the experimenter and anxiety over the situation. This, then, was a potent aggressive arousal that may have been linked to sexual feelings that were expressed in imagery. The lowering of self-esteem



may also be directly related to their experiences with the opposite sex. The aggressive videotape, however, probably elicited more anxiety than pure aggression. Although the videotape has elements that may make a person question his or her competency, and is in itself an aggressive situation, it is not as anger arousing as the 1969 direct insult manipulation. For this reason, the sex-aggression linkage in the 1977 study may not have been as strong; subjects were more anxious than angry.

Subjects in the two studies also responded oppositely in terms of sexual defense. Subjects in the 1969 study were more sexually defensive to dominant females than dominant males. Subjects in the present study were more sexually defensive to male dominant than female dominant cards. The difference here probably lies in changes in cultural attitudes to dominant females. In 1969, women's liberation was changing the structure of society as a whole and of individual relationships. Both males and females felt uncomfortable with this new social structure; females felt unsure and perhaps guilty over female dominance, while males were threatened by the power being granted to women. As a result, neither sex felt comfortable with dominant females, especially when their confusion and anger were enhanced by an aggressive arousal. By the time of the present study, people were becoming more comfortable with dominant women. Although people, especially late adolescents, are still uncomfortable with dominant females, they are more at ease than the 1969 subjects. As a result, they are less defensive to dominant females than the 1969 subjects. Therefore, the reason that the

1969 subjects more sexually defensive to dominant females and the 1977 subjects more sexually defensive to dominant males, involves changes in defensiveness to female dominance rather than male dominance. Subjects' responses to male dominance likely stayed the same, but the response to female dominance changed.

The two studies also differed in sexual defensiveness in the control condition. The 1969 control group consisted of the experimenter reading directions in a neutral, boring way, instead of being insulting. The 1977 control group consisted of a repetitious videotape of three people building a toy building. Males in the 1969 control group were much more sexually defensive when aggressively aroused than in the control condition. In the present study, males were more sexually defensive in the control condition. It seems that in the 1969 study, males were sexually aroused when angered and quite defensive about these feelings. However, there was little sexual arousal in the control condition, and not much sexual defense. The control condition in 1977 was very different, however, and seemed to elicit intense feelings. Whereas the subjects in the control condition had to pay attention to a rather neutral situation (a psychology experimenter), subjects in the 1977 situation were faced with a videotape. Being media-oriented individuals they expected something "interesting" and were probably excited or agitated when they came in the room and saw the videotape machine. When the tape turned out to be boring, the subjects had three alternatives. One, they could take the tape seriously and be bored. However, two other outcomes are likely. They could have been frustrated and

angry; disappointed that the film was not interesting. Thus the control situation could have been a potent anger arousal. The subjects could also have used the time to fantasize, probably about sex. Thus the control group may have been a sexual arousal for some. The non-demand tape, unlike the "live" and demanding experimenter in 1969, could have allowed the subjects to fantasize. The effect discussed here may not have occurred for females because the females may have taken the control tape more "seriously" than the males; they watched intently, followed instructions, and the tape did not elicit anger or sex from them. If females do uphold the social norms, it would make sense that they would conform to the experimental situation more than the males. Support for the effect of a non-demand control condition was found by Mussen and Scodel (1955). They found that sexual imagery was less when the experimenter was formal, rather than informal. The informal experimenter may not have attracted the full attention of the subjects, allowing them to fantasize about sex and thus increase their sexual response, much like the subjects' response to the non-demand videotape.

The 1969 study and the 1977 study also differed in aggressive defense. In 1969, interactions were found between sex and arousal, and between sex and dominance. In 1977, there were no sex differences, although when either C5 or C56 were used as a variable, there was a stage by arousal by dominance interaction. The lack of sex differences in the present study is caused by male responses in the control condition. In 1969, males responded with almost no aggressive defense in the control condition, but considerable



aggressive defense to a hostile arousal. Males in 1969 displayed high aggressive imagery when angered, and little aggressive imagery in the control condition. Barclay stated that the control males had little need to be aggressively defensive because they were not aroused. In the present study the control condition caused males to be aggressive and elicited aggressive defense. The control situation was an anger arousing situation for the males because, as discussed previously, they became frustrated and angry with the boring videotape, yet defended against these feelings.

Related to these discussions is the finding that angered females in the 1969 study were less aggressively defensive than in the control condition, while the opposite holds true for the present study. Barclay stated that the 1969 study reflects that females are not defensive about expressing hostility when angered by a male experimenter. There are two possible explanations for the difference between the studies. One, in 1969, during the height of the women's liberation movement as well as it being a time of militancy and free expression in general, women had powerful external pressures to be open in their expression of aggression. It was socially unacceptable, especially for college women, to retreat from being aggressive or strong, and for this reason women were not defensive when angered. Today, there is less pressure on women to be militant and outspoken. One can attribute this to either the relative success of the women's movement, reducing the needed militancy of the beginning stages of the movement, or to a return to the female characteristics of passivity and nonaggression. Second, as discussed

previously, the differences in the control condition of the studies may have effected the defensiveness of the subjects. The present study elicited little aggressive defense in the control condition. It appears that the females took the boring videotape more seriously than the males, and were not experiencing aggressive feelings in that situation. For this reason, aggressive defense in the control condition was less than in the arousal condition. In 1969, it was the arousal condition that elicited the least aggressive defense. Unlike the present study, subjects in the 1969 study were angered by a hostile male experimenter. These females may have been openly aggressive in their stories due to the effects of the women's movement discussed above; the hostile male was an appropriate target for aggression. Defensiveness was not needed. For this reason, the 1969 arousal group was less aggressively defensive than the control group.

In the 1969 study males responded with greater sexual imagery to dominant females, as well as with greater sexual defensiveness. In the present study, there were no differences in sexual imagery, but males responded with more sexual defense to dominant males, especially when aroused sexually. It is possible that in both studies males were sexually aroused by the female dominant situation and defended against these feelings. In 1969 this was done through defensive imagery, in 1977, by lack of imagery rather than defensive imagery. An alternative explanation would be that the males in the present study are more free in the expression of sexual motives to female dominant situations, but this is an unlikely

possibility when subjects' responses in the control condition are studied using the sex by dominance by condition interaction. In the control condition male dominant pictures evoke much higher sexual defense from females than from males. Female dominant pictures evoke much higher sexual defense from males than from females. If the control condition of the present study is indeed a situation that evokes free fantasy, as discussed previously, it appears that males fantasize about and defend against the sexual aspects of dominant females while females fantasize about and defend against sexual feelings that involve dominant males. The responses in the control condition may be an indication that males are sexually aroused by dominant women, while females are sexually aroused by dominant men as held true in 1969. Males and females are probably equally uncomfortable with their sexual feelings toward situations where the other sex is dominant, but express this defensiveness differently. Males defend by lack of imagery while females defend through defensive imagery. This difference may be attributed to differences in language styles between the sexes; the more verbal females defend by elaborating their stories with defensive imagery while the males shorten a response with which they feel uncomfortable.

Goodness of the Measures

As previously mentioned, the Rasmussen measure of psychosocial development appears to be inadequate. The range of scores was restricted to the upper bounds of the measure, with little variability between scores. Social desirability seemed to have a



strong impact on response. In the forced-choice situation, subjects may have opted for the more "favorable" response. Subjects' comments on the scale indicated the difficulty of the true-false format in self-assessment.

In contrast, the Constantinople measure appears to be a more valid and realistic assessment of psychosocial development. There was wide variability in scores, and the distribution was near normal. The correlation between C5 and C6 (identity resolution and intimacy resolution) was .62. This is congruent with Erikson's formulation of development. A positive relationship exists between identity development and the successful formation of intimate relationships. This relationship is not universal, because it is through attempts at intimacy and interactions with others that identity is strengthened. Subjects' comments indicated that they felt they had answered "honestly," to a large extent and that it was difficult to "lie" when using the 7 point scale.

Relationship to Clark's Study

In brief, Clark (1952) studied the relationship between anxiety and the expression of sex on the Thematic Apperception Test (TAT). He found that when male college students are sexually aroused by pictures of nude females they show less manifest sex in their TAT response than subjects given the TAT without being sexually aroused. The anxiety accompanying the sexual arousal inhibits the expression of sexual imagery. However, when subjects were tested at a party after drinking, sexually aroused subjects' TAT responses were more sexual than those of students who drank but were not sexually



aroused. Clark attributed the difference between the alcoholic and nonalcoholic groups as a function of anxiety reduction. Clark then hypothesized that, in congruence with Freudian theory, where manifest imagery was low, symbolic imagery would be high, and vice versa. As in Freud's discussion of dreams, symbolism is a means of expressing a motive where anxiety of guilt censors the direct expression of the motive. It was found that symbolic sexuality was indeed higher in the nonalcoholic aroused group when compared with the control, and symbolic sexuality was less in the alcoholic condition. Subjects' whose anxiety had not been alleviated by alcohol, or were sexually aroused and felt guilty, displayed greater symbolic sexuality.

It would thus seem that to the extent anxiety is lacking, symbolism is lacking. However, a paradox exists in the intragroup breakdown of the nonalcoholic condition; subjects with high manifest sexual imagery scores also have high symbolic sexual imagery scores.

Clark explains this by an approach-avoidance paradigm, using the concept of response-produced guilt, by which a subject who has a low avoidance gradient toward writing sexual stories may become guilty by that behavior and as a result channel some of the sexuality into symbolic form.

. . . The individuals in the low manifest group (both aroused and control) through past training are highly anxious about expressing sex. For the aroused subjects this anxiety is, of course, reinforced by the stimulation of the nude slides to which they were exposed. These individuals, therefore, would tend to express most of their sexuality in symbolic terms. The individuals in the high



manifest group through past training have acquired less anxiety over sexuality and therefore approach close enough to the goal to write stories of a primary nature which in turn cues off quite a bit of guilt resulting in symbolic expression of sexuality.

Clark's interpretation may relate to the present study in the following way. Persons who are lower on psychosocial resolution will be anxious about expressing sex; they can be equated with Clark's low manifest group. Persons higher in psychosocial resolution can be equated with Clark's high manifest group; they are less anxious about expressing sex. This accounts for the relationship found here between defensiveness and psychosocial development as well as the lack of overt imagery differences.

These data reflect that individuals who are more advanced, developmentally, are also more sexually defensive. It was previously suggested that sexual arousal makes these individuals more anxious than persons with lower levels of psychosocial development because they have incorporated societal norms as a major aspect of social development. However, another explanation is possible, congruent with the hypothesis that these persons are less anxious over sex. In brief, like subjects in the high manifest group, subjects of higher psychosocial development are freer in sexual expression. Like the high manifest subjects, though, they become guilty when they express too much sexual imagery, and become defensive, expressing this through imagery, just as the high manifest group responded to their anxiety with symbolism. Persons of lower psychosocial levels, who are like the low manifest subjects, detach feelings from sexual expression (a defense in itself) and as a result



do not appear defensive on the TAT scoring system. As a result, persons who have relatively successful resolution of psychosocial conflicts will appear to be highly anxious when sexually aroused compared with other subjects. In actuality, persons who are successful in psychosocial development are more able to express overt sexual motives. In addition, the explanation that persons who have relatively successful resolution have incorporated societal norms still fits with the above. These people have a realistic understanding of the amount of sexual expression that is socially permissible; only when they reach that point do they become defensive.

The model was tested, using data from the present study, MANOVA, and a correlational technique. Through MANOVA, it was found that there are no imagery differences between psychosocial levels and that subjects of higher psychosocial levels are more defensive. Correlation was used to test the power of the relationships. Relationships between manifest imagery and psychosocial development, defense and psychosocial development, and manifest imagery and defense within subjects of a psychosocial level were tested. In brief:

<u>High Psychosocial</u>	<u>Low Psychosocial</u>
High Manifest	Low Manifest
High Defense	Low Defense

The correlational analysis showed a weaker relationship than the MANOVA, but Clark's approach-avoidance model may yet be a useful explanation of the results of the present investigation. It

1000
1000
1000

predicts the somewhat paradoxical finding that persons of higher psychosocial development respond to a sexual arousal with greater defensiveness than persons of lower psychosocial levels. Unlike the model, however, subjects in this study responded with no significant difference in imagery between psychosocial levels. If subjects responded with statistically equivalent manifest imagery, how can the defensiveness findings be interpreted using Clark's model?

To answer this, it is again necessary to assess the impact of the media on the present subjects. Sexual expression is commonplace in today's media. This may not have alleviated societal guilt over sexual feelings, but it has encouraged the open expression of sexuality. With freedom in sexual expression becoming the norm, the differences in sexual expression between groups decreases. Unlike the Clark study, where only the more "mature" subjects were able to respond with overt sexual imagery, all subjects in the present study responded with sexual imagery, although there were group differences in defense. This can be explained in terms of classical psychoanalytic defense mechanisms.

Subjects lower in psychosocial development are characterized by their anxiety over heterosexual relationships, as well as their uncertainty with their own sexuality. Such strong anxiety may lead to repression being the typical psychological defense for these individuals. In addition, these persons are trying to assimilate to the adult world. As a result, persons of lower psychosocial levels may respond to a sexual arousal with sexual imagery, as that is the norm. To escape from the anxiety that is linked to sex, they



dissociated any feelings attached to sexual expression; they use repression as a defense. These subjects separate feelings from behavior, and as a result, are able to write stories high in overt sexuality, without feeling guilt or anxiety. There is little response-produced defense.

In contrast, subjects of higher psychosocial levels use defense mechanisms other than repression to deal with any anxiety in regards to sexual expression. This is probably because their sex-related anxiety is less than the other subjects. This lower anxiety level allows them to experience some anxiety, as it is not overpowering. They do not repress their feelings when writing sexual stories, and as a result have response-produced guilt. This guilt and anxiety caused them to respond with overt defense, making them appear to be more defensive than individuals of lower levels of psychosocial development.

APPENDIX A

CONSTANTINOPLE INVENTORY OF
PSYCHOSOCIAL DEVELOPMENT
(IPD)



APPENDIX A

1a. Basic Trust

- * 1. calm and untroubled
(placid and untroubled)
- *13. open to new ideas
(accessible to new ideas)
- *25. always an optimist
(imperturbable optimist)
- 37. able to take things as they come
- 49. deep, unshakable faith in himself (herself)

1b. Basic Mistrust

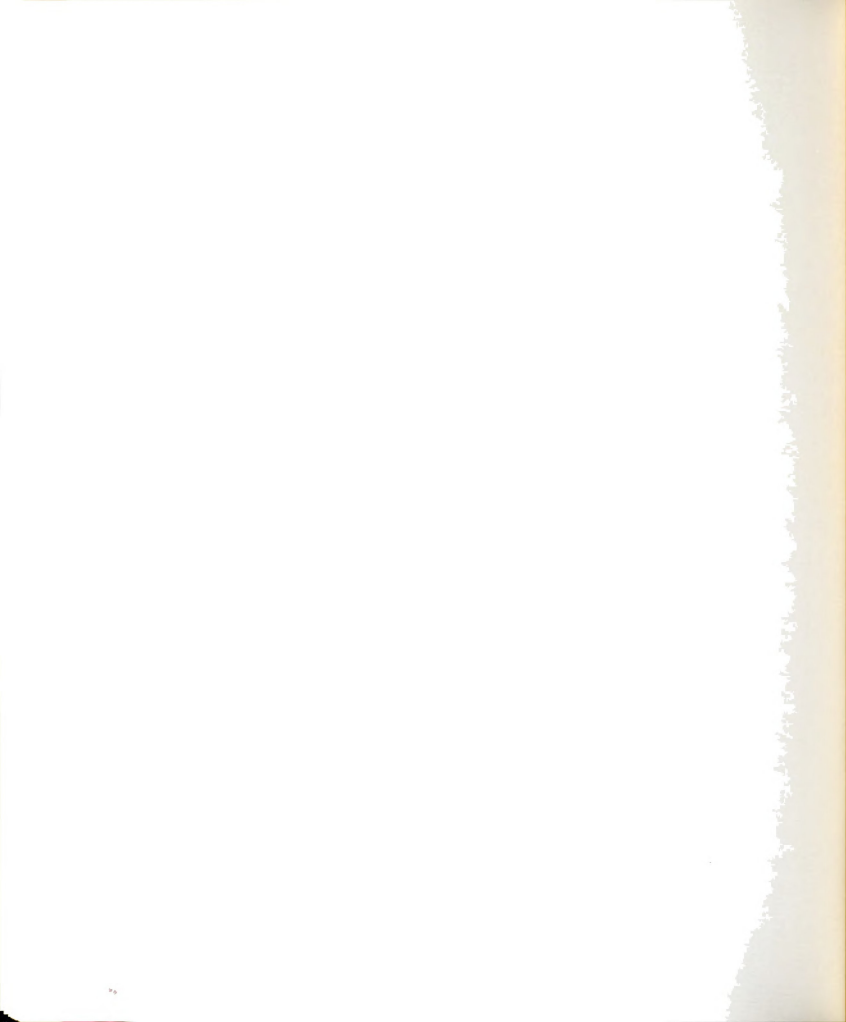
- * 7. not able to stand frustration and everything frustrates him
(her)
(incapable of absorbing frustration and everything frustrates
him (her))
- 19. can't share things with anybody
- 31. pessimistic, little hope
- *43. longs for lost paradise
(dim nostalgia for lost paradise)
- 55. never gets what he really wants

2a. Autonomy

- * 8. values independence more than security
(values independence above security)
- *20. free and natural
(free and spontaneous)
- 32. stands on his (her) own feet
- 44. quietly goes his (her) own way
- *56. good judge of when to make himself (herself) heard
(good judge of when to assert himself (herself))

2b. Shame and Doubt

- 2. an automatic response to all situations
- *14. careful about details and overorganized
(meticulous and overorganized)



- 26. cautious, hesitant, doubting
- 38. feels as if he (she) were being followed
- *50. always in the wrong, feeling sorry
(always in the wrong, apologetic)

3a. Initiative

- * 3. likes adventure
(adventuresome)
- *15. active
(dynamic)
- 27. ambitious
- *39. inventive, enjoys finding new answers to new problems
(inventive, delights in finding new solutions to new problems)
- 51. sexually aware

3b. Guilt

- * 9. finds it difficult to have sexual feelings
(sexually blunted)
- *21. afraid of sexual failure
(afraid of impotence)
- 33. thinks too much about the wrong things
- *45. a lot of talking and planning, but little action
(big smoke but no fire)
- *57. controlled, never lets himself (herself) go
(inhibited and self-restricted)

4a. Industry

- *10. upright and hardworking
(conscientious and hardworking)
- 22. interested in learning and likes to study
- 34. serious, has high standards
- *46. gets much done
(accomplishes much)
- *47. does well in his (her) work
(excels in his (her) work)

4b. Inferiority

- * 4. can't reach his (her) goals
(can't fulfill his (her) ambitions)
- *16. doesn't try as hard as he (she) is able
(doesn't apply himself (herself) fully)
- *28. wastes his (her) time
(fritters away his (her) time)



- 40. ineffective, doesn't amount to much
- *52. living for pleasure, always "fooling" around
(a playboy, always "hacking" around)

5a. Identity

- * 5. full of confidence
(confidence is brimming over)
- 17. natural and genuine
- *29. at ease and well mannered
(poised)
- 41. knows who he (she) is and what he (she) wants out of life
- *53. proud of his (her) own character and values
(pride in his (her) own character and values)

5b. Role Diffusion

- *11. a fake, pretends to be what he (she) isn't
(a poseur, all facade and pretence)
- 23. spreads himself (herself) thin
- *35. attempts to seem at ease
(attempts to appear at ease)
- 47. never knows how he (she) feels
- *59. afraid to get involved
(afraid of commitment)

6a. Intimacy

- *12. honest, not afraid to show himself (herself)
(candid, not afraid to expose himself (herself))
- 24. warm and friendly
- 36. has sympathetic concern for others
- 48. tactful impersonal relations
- *60. comfortable in close relationships
(comfortable in intimate relationships)

6b. Isolation

- * 6. little concern for the rest of the world
(little regard for the rest of the world)
- *18. overly concerned with himself (herself)
(preoccupied with himself (herself))
- 30. very lonely
- *42. cold and distant
(cold and remote)
- *54. secretly doesn't pay attention to the opinions of others
(secretly oblivious to the opinions of others)



APPENDIX B

RASSMUSSEN EGO
IDENTITY SCALE
(EIS)



APPENDIX B

RASSMUSSEN EGO IDENTITY SCALE (EIS)

1. I seem to have regrets when I have to give up my pleasures right now for goals or things I want in the future. (T F)
2. No one seems to understand me. (T F)
3. I have a fear of being asked questions in class because of what other people will think if I don't know the answer. (T F)
4. Working is nothing but a necessary evil that a person must put up with to eat. (T F)
5. It doesn't pay to worry much about decisions you have already made. (T F)
6. People are usually honest in dealing with each other. (T F)
7. From what others have told me, I feel I am a person who is very easy to talk to. (T F)
8. When given a job, I try never to get so tied up in what I am doing at the moment so as to lose sight of what comes next. (T F)
9. I work best when I know my work is going to be compared with the work of others. (T F)
10. I have no difficulty in avoiding people who may get me in trouble. (T F)
11. When I have to work, I usually get pretty bored no matter what the job is. (T F)
12. It doesn't worry me if I make a mistake in front of my friends. (T F)
13. The decisions I have made in the past have usually been the right ones. (T F)
14. Although I sometimes feel very strongly about things, I never show other people how I feel. (T F)

15. After I do something I usually worry about whether it was the right thing. (T F)
16. I am confident that I will be successful in life when I finally decide upon a career. (T F)
17. It's best not to let other people know too much about your family or background if you can keep from it. (T F)
18. I really don't have any definite goals or plans for the future. (T F)
19. I never enjoyed taking part in school clubs or student government activity. (T F)
20. If I am not careful people try to take advantage of me. (T F)
21. In general, people can be trusted. (T F)
22. It is very seldom that I find myself wishing I had a different face or body. (T F)
23. I would get along better in life if I were better looking. (T F)
24. At my age a person must make his own decisions, even though his parents might not agree with the things he does. (T F)
25. It's not hard to keep your mind on one thing if you really have to. (T F)
26. It seems as if I just can't decide what I really want to do in life. (T F)
27. I am always busy doing something, but I seem to accomplish less than other people even though they don't work as hard as I do. (T F)
28. When I'm in a group I find it hard to stand up for my ideas if I think other people won't agree with me. (T F)
29. I have at least one close friend with whom I can share almost all of my feelings and personal thoughts. (T F)
30. I do not feel that my looks and actions keep me from getting ahead in life. (T F)
31. Even when I do a good job in my work, other people don't seem to realize it or give me credit. (T F)
32. One of the hardest things for a young person to overcome is his family background. (T F)

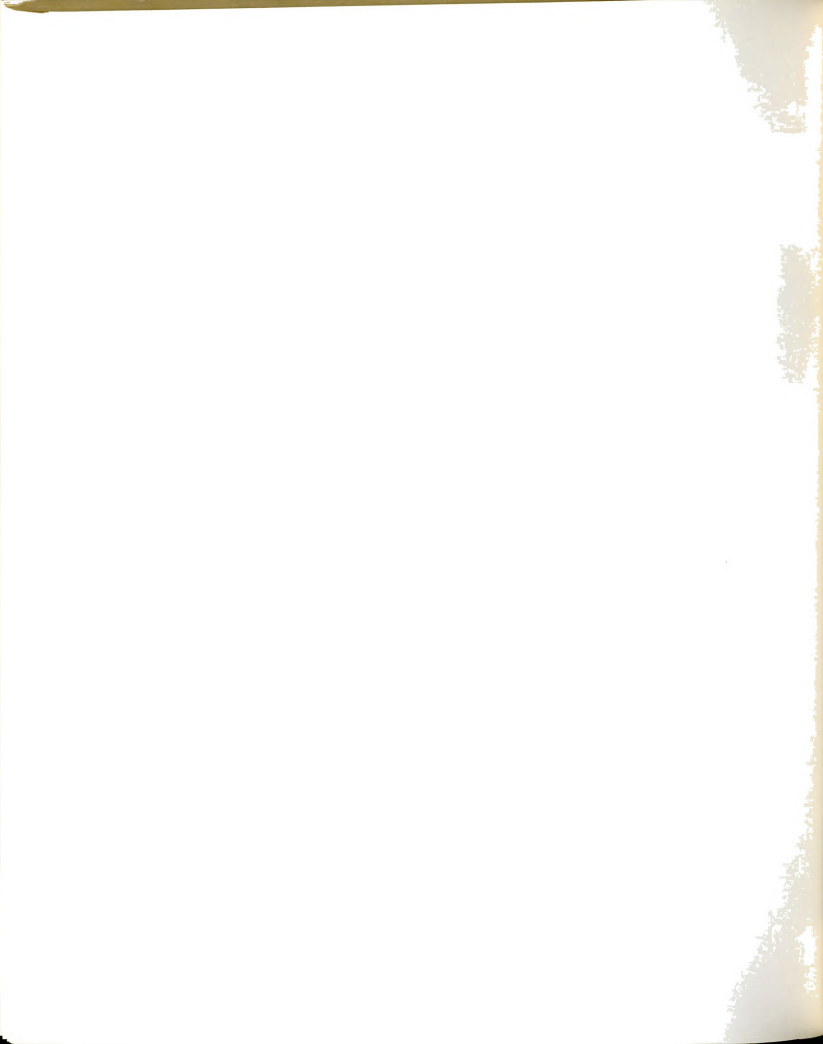


33. The best part of my life is still ahead of me. (T F)
34. In a group, I can usually stand up for what I think is right without being embarrassed. (T F)
35. I seem to have the knack or ability to make other people relax and enjoy themselves at a party. (T F)
36. I can't seem to say no when the group does something which I don't think is right. (T F)
37. Being without close friends is worse than having enemies. (T F)
38. I am not sure what I want to do as a life-time occupation, but I have some pretty definite plans and goals for the next few years. (T F)
39. It is easier to make friends with people you like if they don't know too much about your background. (T F)
40. I don't like sports or games where you always have to try and do better than the next person. (T F)
41. A person who can be trusted is hard to find. (T F)
42. I believe that I must make my own decisions in important matters, as no one can live my life for me. (T F)
43. In order to be comfortable or feel at ease, a person must get along with others but he doesn't really need close friends. (T F)
44. I am proud of my family background. (T F)
45. I cannot keep my mind on one thing. (T F)
46. It is a good idea to have some plan as to what has to be done next, no matter how much you have to do at the moment. (T F)
47. During the past few years I have taken little or no part in clubs, organized group activity, or sports. (T F)
48. I have found that people I work with frequently don't appreciate or seem to understand my abilities. (T F)
49. For some reason, it seems that I have never really gotten to know people I have worked with, even though I liked them. (T F)
50. I am pretty content to be the way I am. (T F)



51. I can't stand to wait for things I really want. (T F)
52. A person is a lot happier if he doesn't get too close to others. (T F)
53. Even though I try, it is usually pretty hard for me to keep my mind on a task or a job. (T F)
54. One of the good parts of being a teenager is getting together with a group which makes its own rules and does things as a group. (T F)
55. When it comes to working, I never do anything I can get out of. (T F)
56. My way of doing things is apt to be misunderstood by others. (T F)
57. A person who hasn't been a member of a well organized group or club at some time in his teens has missed a lot. (T F)
58. When I think about my future, I feel I have missed by best chances for making good. (T F)
59. I like to tackle a tough job as it gives me a lot of satisfaction to finish it. (T F)
60. I am always busy but it seems that I am usually spinning my wheels and never seem to get anywhere. (T F)
61. It is very important that your parents approve of everything you do. (T F)
62. It doesn't bother me when my friends find out that I can't do certain things as well as other people. (T F)
63. As a rule, I don't regret the decisions I make. (T F)
64. I feel pretty sure that I know what I want to do in the future and I have some definite goals. (T F)
65. I don't have any trouble concentrating on what I am doing. (T F)
66. A person can't be happy in a job where he is always competing against others. (T F)
67. I feel like I have missed my opportunity to really be a success in life. (T F)
68. If a person wants something worthwhile, he should be willing to wait for it. (T F)

- 69. At home, I enjoyed work or spare time activities where I had to compete against others. (T F)
- 70. I never make any important decisions without getting help or advice from my family. (T F)
- 71. It is better to say nothing in public than to take a chance on other people hearing you make a mistake. (T F)
- 72. I lose interest in things if I have to wait too long to get them. (T F)

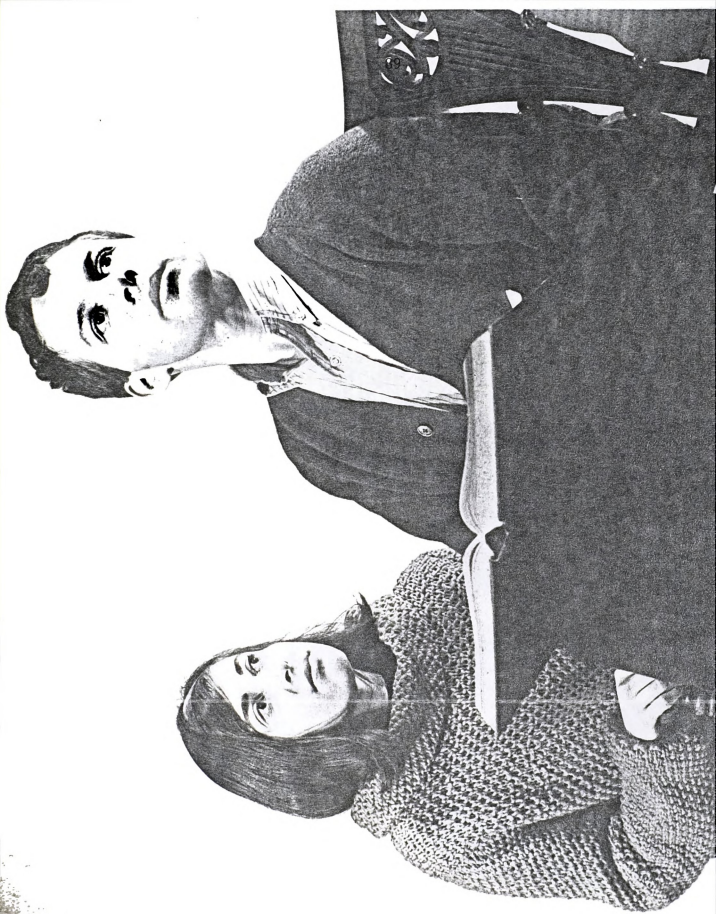


APPENDIX C

PROJECTIVE

STIMULI

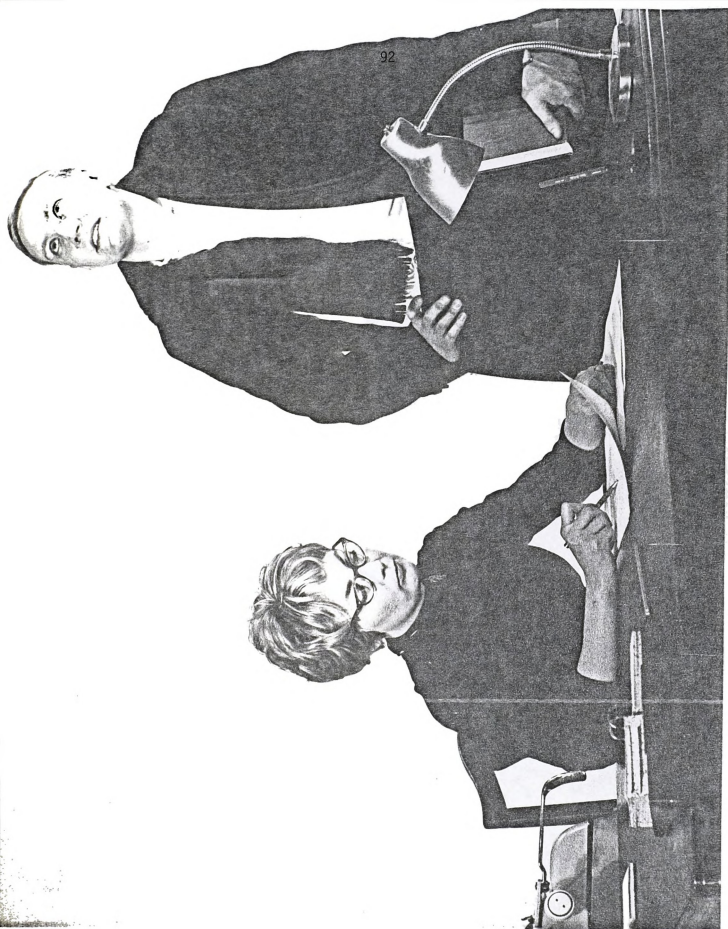


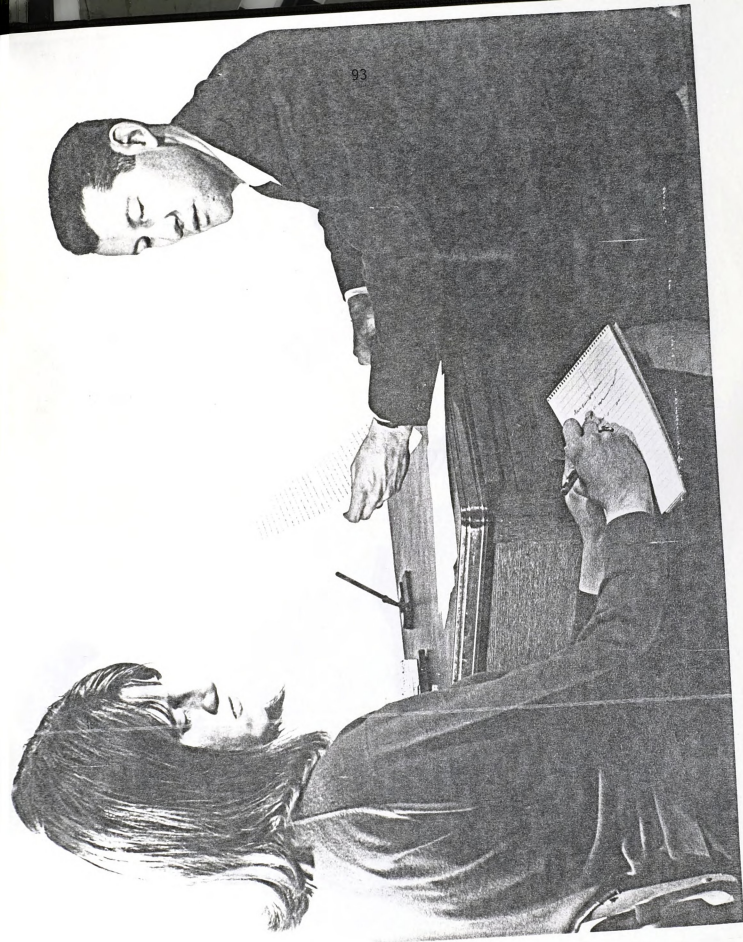


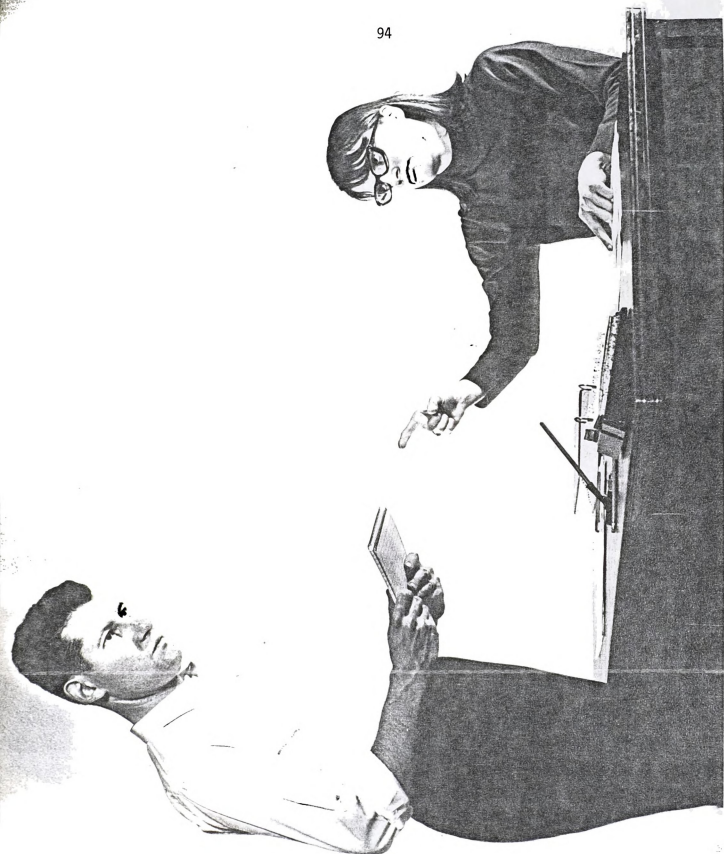


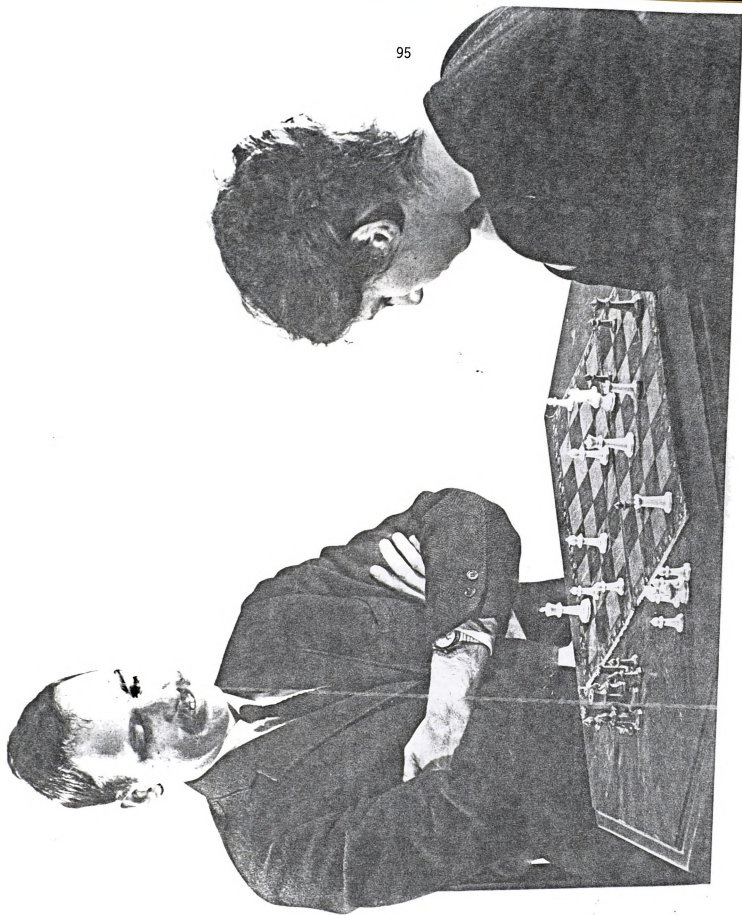














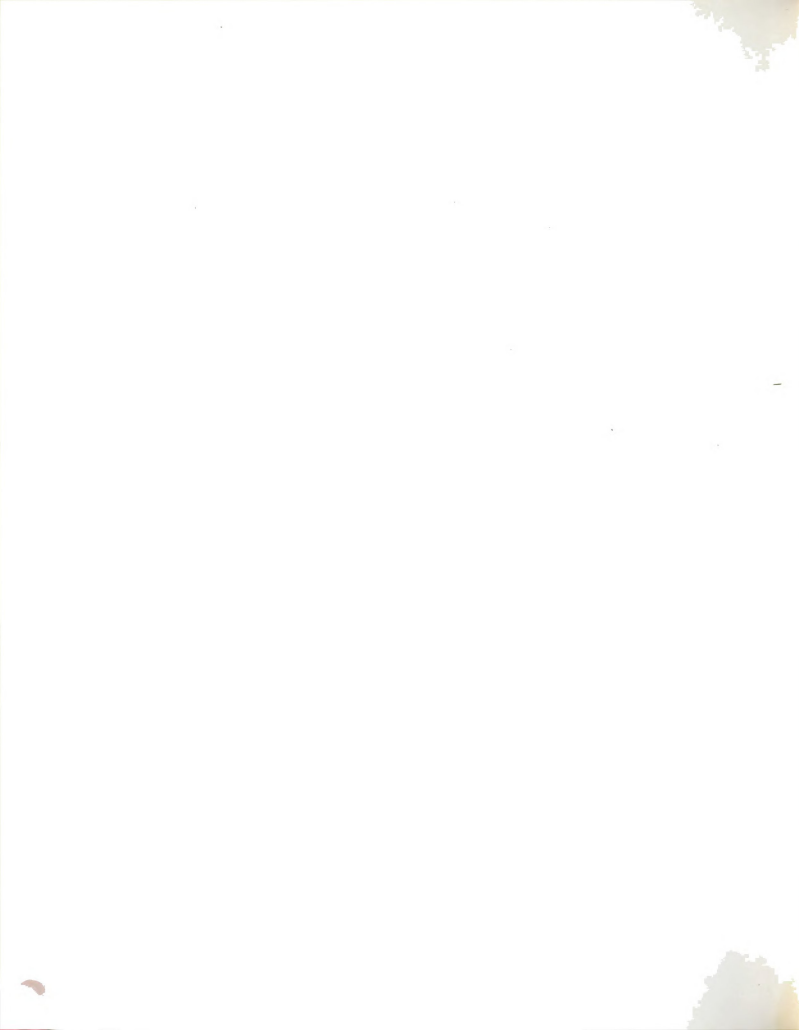
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