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STAGES OF EGO AND PSYCHODYNAMIC DEVELOPMENT
IN FEMALE ADOLESCENTS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Stanley Selinger, B.A., M.A.

* * * * *

The Ohio State University

1976

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CHAPTER I

INTRODUCTION

The phenomenon of adolescence is a universal experience of change. It is a period during human development that can be distinguished by both psychological and psychological developments. Physiological maturation can be easily established by evidence of a growth spurt and puberty. Psychological indices of adolescence, however, are more difficult to define and susceptible to variables which are intimately associated with the structure of the social environment, and even the nature of the economy.

Nevertheless, there are a number of standard characteristics used when conjuring up a typical description of the adolescent experience. In general, adolescence is viewed as a time when one (a) is forced to adjust to one's physical growth and maturation, i.e., puberty, (b) develops a cognitive capacity to conceptualize at an abstract level, (c) develops a sexual identity and role appropriate behavior, and (d) builds, integrates and consolidates a personal identity and self-concept. Specific aspects of these reference points and/or additional forces and processes are sometimes emphasized. For instance, adolescence is also viewed as a period during which the
individual shows greater affect differentiation, makes new identifications, develops and evaluates new values and when peer groups take on additional importance. New personality structures are postulated, and new terms are offered to capture the sense of the period. Terms such as "lust dynamism," "role diffusion," "psychosocial moratorium," and "prolonged adolescence." Overall, it is a time of pervasive change, a time of adjustment to new situations and a time of recrudescence of past issues.

Hamburg (1974) proposes that there is "every reason to believe that the adolescent period can and should be divided into three distinct eras, which have their characteristic tasks, challenges, and coping possibilities." This is not a new idea. Many have described adolescent development in terms of phases or stage concepts (Sullivan 1953; Blos, 1962; Deutsch 1944; Rank 1945). These stages have referred to changes in intrapsychic events, individual experiences and personal meanings. Unfortunately, most of these expositions have remained untested hypotheses and theoretical positions. What is difficult to find is research which objectifies existing conceptualizations of such distinct eras.

Wylie (1961) in an extensive review of the status of research on the development of the self concept illustrates one of the problems of finding objectified stages. She points out that there are no longitudinal data on which to
establish an account of self concept development; she adds that, "one might think that results from cross-sectional studies of various age groups could be pieced together to attain a tentative developmental picture. This is impossible, however, due to the wide differences in instruments, relevant characteristics of Ss, and testing conditions in the studies under review" (p. 119).

Essentially, the intent of this study is to investigate stages of development during adolescence. The basic questions remain. Can we demonstrate that development in adolescence really can be delineated into distinct stages? If so, how do these stages manifest themselves, and what are the significant variables operating within each stage? With the dearth of substantial research addressing itself to these questions it is probably best to view this proposed research as an exploratory investigation, intending to draw preliminary associations among certain variables which subsequently can be evaluated and extended by additional forms of measurement.
CHAPTER II

REVIEW OF LITERATURE

Theoretical Concept of Stages

The concept of stages in human development is an abstraction. There is not the metamorphosis as in the insect world where a caterpillar becomes a butterfly or a tadpole changes into a frog. Actual behavior is not segmented or compartmentalized, but is so represented because of its usefulness (Reese and Lipsitt, 1970).

The concept of stages is designed and frequently imposed onto the morass of our empirical observations to allow us increased sensitivity to individual differences. When viewing a continuum of behavior the notion of stages may indicate what the parameters of variance are, as well as suggest what rules or theories might be best to utilize in interpreting and understanding a given behavior during a given period of time (Kessen, 1962).

The concept of stage does not by itself tell us why a transition occurs when it does. An explanation by correlation of stage to chronological age or time intervals, while convenient, is misleading. Logically, time does not cause anything. Nor is it helpful to resort to situation specific or simply reactive explanations (Meyer, 1967).
The forces behind change may be the sum of both maturation within the individual and interaction with events and the environment that occurs within a time interval. The concept of stages suggests a way of viewing more coherently this complicated process of development.

When we postulate stages of development we are offering "the notion of a system possessing a definite structure and a definite set of pre-existing capacities; and the notion of a sequential set of changes in the system, yielding relatively permanent but novel increments not only in its structure but in its modes of operation as well" (Nagel, 1957, p. 17; see also Harris, 1957; Werner, 1957; Charlesworth, 1972). In other words, we are postulating that development progresses through phases that show different degrees of increasing complexity, differentiation and organization. Change is irreversible in the sense that an individual undergoes modifications in his or her capacity for relationships and personality character.

Stages are difficult to demonstrate. There are a number of problems and assumptions in the assessment of development that go beyond the structural definitions of stages. For instance, there is the assumption that there is no one-to-one correspondence between behavior and its underlying disposition. In addition, any given behavior may reflect more than one strand of development. There is
no established method for clearly distinguishing signs of a probable correlate. This task is compounded of course, when the correlate is another developmental variable. There is also no guarantee that any given task reflects what one is searching for. Every individual has the capacity, at least in theory, to display behavior at more than one level. That is, a behavioral sign which suggests one developmental level may also appear at other levels in more or less elaborated versions. This list can be expanded, but it is sufficient to illustrate some of the problems and assumptions that must go into the utilization of any measure for this type of research.

Theorists have used different models for their stage concepts. Freud and Erickson (1950) have relied on an embryonic or epigenetic model which postulates that different organs are predominant at successive periods and that there is not a single critical period for all developing systems, but a different period for each.

Others have utilized the properties of a hierarchic model in which there is an invariable order to the stages (Inhelder and Piaget, 1958; Loevinger, 1970; Kohlberg, 1969; Maslow, 1954). Werner (1957) has noted that behavior is both unilinear and multilinear, i.e., it follows both the hierarchic and embryonic models. Piaget too refers to this in the cognitive sphere with his concept of horizontal décalage (Flavell, 1963).
Obviously, there are complexities that will not be easily resolved in this type of research. Nevertheless, all of the authors mentioned have organized, integrated and segmented changes in behavior, or at least their conceptions of such changes, in terms of stages which have yielded fruitful and provocative results.

There seems to be enough conceptions and notions about the period of adolescence to suggest that it may also prove to be equally valuable to view the dynamics and behavior during the adolescent period in terms of stages. This study is intended to be a step in that direction.

The Concept of Ego

The term "ego" is generally used as a structural abstraction. Freud and Ferenezi felt that the ego was derived from drives through processes of frustration and renunciation. However, Adler advocated the supremacy of the ego over the drives and instead suggested that a spontaneous striving for self-realization was the moving force in ego development (Ansbacher and Ansbacher, 1956).

It was Hartmann, Kris and Lowenstein (1964) who revised psychoanalytic ego psychology by proposing the autonomy of the ego from birth and viewing ego development as development occurring within a "conflict free ego sphere" (Hartmann, 1939). Unfortunately, this last notion seems to relinquish the Freudian idea that the principles
which govern normal and pathological phenomena are the same. In addition, some have argued that characteristics of ego development are intertwined with connotations of conflict (Loevinger, 1976).

Ego is frequently defined by many functions, and the development of the ego is viewed as the development of any of these functions (Langer, 1969; Baldwin, 1968; Beres, 1956; Bellak, Hurvich, and Gediman, 1973). Such references to ego as both a list of functions and a pervasive organizing structure (Freud, 1923) has led to criticism of the concept of "ego" being ambiguous and as referring to too broad an area (Jacobson, 1960). In this vein, others insist that while the ego is a major dimension of individual differences, the development of the ego involves the transformation of structures (Loevinger, 1976).

A variety of terms has been utilized to join strands of development encompassing self-perceptions and interpersonal relations into a holistic concept of personality. These terms are conceptualized as abstract continuums that are both normal developmental sequences and dimensions of individual differences. For example, Loevinger and Wessler (1970) use the concept of "ego development" which is analogous to Sullivan's (1953) construct of the "self-system." Both of these designations likewise seem to deal with the same phenomena which C. Sullivan, Grant and Grant (1957) call "interpersonal integration," what Peck and Havinghurst (1960) have described as "character development,"
and which Adler (1956) describes within his notion of "style of life."

These different terms have sometimes been employed to avoid surplus or mythical meanings or to emphasize a different model from which to perceive behavior. However, all are grappling with similar phenomena or common elements of impulse control, ways of relating to people, persistant attitudes, one's self-concept, the problems of life, one's approach to such problems and in general, one's whole attitude toward life.

These are the strands that encompass the ego functions. Loevinger et al. (1970) have tried to clarify the concept of ego by objectifying it through the assessment of responses on a sentence completion test.

Loevinger's concept of ego development is an abstraction which represents the organizing principle between different developmental lines, e.g., impulse control (character development), inter-personal style, conscious preoccupation and cognitive style. She further feels that we can only study this abstract organizing ego through the manifestations of the aforementioned developmental lines as they progress through a number of stages. She illustrates these stages in Table 1 through what is called milestones of ego development.

The dichotomy necessary to explain and understand the concept of ego development is reminiscent of the debate over
<table>
<thead>
<tr>
<th>Stage</th>
<th>Impulse Control, Character Development</th>
<th>Interpersonal Style</th>
<th>Conscious Preoccupations</th>
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<tbody>
<tr>
<td>Presocial</td>
<td>Autistic</td>
<td>Symbiotic</td>
<td>Self vs. non-self</td>
<td>Stereotyping, conceptual confusion</td>
</tr>
<tr>
<td>Symbiotic</td>
<td>Impulsive, fear of retaliation</td>
<td>Receiving, dependent, exploitative</td>
<td>Bodily feelings, especially sexual and aggressive</td>
<td></td>
</tr>
<tr>
<td>Impulsive</td>
<td>Fear of being caught externalizing blame, opportunistic</td>
<td>Wary, manipulative, exploitative</td>
<td>Self-protection, trouble, wishes, things, advantage, control</td>
<td></td>
</tr>
<tr>
<td>Self-Protection</td>
<td>Compliance to external rules, shame, guilt for breaking rules</td>
<td>Belonging, superficial niceness</td>
<td>Appearance, social acceptability, banal feelings, behavior</td>
<td></td>
</tr>
<tr>
<td>Conformist</td>
<td>Differentiation of norms, goals</td>
<td>Aware of self in relation to group, helping</td>
<td>Adjustment, problems, reasons, opportunities (vague)</td>
<td>Multiplicity</td>
</tr>
<tr>
<td>Conscientious-Conformist</td>
<td>Differentiation of norms, goals</td>
<td>Intensive, responsible, mutual, concern for communication</td>
<td>Differentiated feelings, motives for behavior, self-respect, achievements, traits, expression</td>
<td>Conceptual complexity, idea of patterning</td>
</tr>
<tr>
<td>Stage</td>
<td>Impulse Control, Character Development</td>
<td>Interpersonal Style</td>
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</tr>
<tr>
<td>Individualistic</td>
<td>Add: Respect for individuality</td>
<td>Add: Dependence as an emotional problem</td>
<td>Add: Development, social problems, differentiation of inner life from outer</td>
<td>Add: Distinction of process and outcome</td>
</tr>
<tr>
<td>Autonomous</td>
<td>Add: Coping with conflicting inner needs toleration</td>
<td>Add: Respect for autonomy, interdependence</td>
<td>Vividly conveyed feelings, integration of physiological and psychological, psychological causation of behavior, role conception, self-fulfillment, self in social context</td>
<td>Increased conceptual complexity, complex patterns, tolerance for ambiguity, broad scope, objectivity</td>
</tr>
<tr>
<td>Integrated</td>
<td>Add: Reconciling inner conflicts, renunciation of unattainable individuality</td>
<td>Add: Cherishing of individuality</td>
<td>Add: Identity</td>
<td></td>
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</table>

Based on findings from the WUSCT (Loevinger, 1976).

NOTE: "Add" means in addition to the description applying to the previous level.
defining intelligence as a specific factor vs. a number of general factors. In addition, the abstract qualities of Piaget's stages of cognitive development are not unlike aspects of the difficulty inherent in the concept of ego stages.

To further illustrate ego development Loevinger (1964) offers the analogy to the measurement of height and weight. They are not independent in that each one influences the other. In addition, one can be predicted from the other, but each can be separately measured and conceptually they are distinct.

**Stages of Ego Development:**

These stages follow the Loevinger et al. model (1970) of ego development. In the initial stage of ego development, which is not relevant to this study, the goal is to distinguish self from non-self. During this stage there is also the establishment of a view of a stable world. The development of language brings this stage to an end.

The second stage is the Impulsive Stage. In this stage the person is governed by impulses. Rules are not recognized as rules. That is, an action is bad because it is punished. Interpersonal relations are exploitive and dependent, but the dependence is not recognized as such. People are seen as sources of supply. There is much conscious concern with sexual and aggressive drives.
Typical manifestations of this stage may take on different forms at different ages. For example, the three year old's preoccupation with bodily functions may manifest itself in joking remarks about "going pooh-pooh," while the adolescent who has not progressed beyond this stage shows that he is preoccupied with sex and that he views it as a bodily function exclusively rather than a social relation.

The third stage is called the Self-Protective Stage. The concepts of rules and blame are understood but the morality is purely an expedient one. That is the chief rule is "don't get caught." While interpersonal relations are manipulative and exploitive, there is movement away from dependence. For example, the small child might say, "Do it by myself," and the adolescent at this stage would say, "who needs them." The conscious preoccupation is with control and advantage, domination, deception, getting the better of, and competition. Life is like a pie, in that whatever you get means less for me.

The fourth stage is the Conformist Stage. There is an identification with authority and rules are obeyed because they are rules. Disapproval becomes a potent sanction. There is a high value for friendliness and social niceness. Genuine interpersonal reciprocity (the Golden Rule) is now possible. However, mutual trust is often only extended to a narrowly conceived ingroup. Interpersonal relations are seen primarily in terms of
rather than of feelings and motives. The way things or people are and the way they ought to be are not sharply differentiated. Consequently, people describe themselves and others in socially acceptable terms. References to inner feelings are stereotyped, banal and often moralistic. The transition from the conformist to the next stage is usually marked by an increase of introspection and self-consciousness.

The fifth stage is the Conscientious one. The transition into this stage is marked by an increase in consciousness of self and of inner feelings. An associated aspect of this transition is the perception of multiple alternatives in situations. At this stage inner states and individual differences are described in vivid and differentiated terms. Breaking a rule does not make one feel guilty, but hurting another person does. In other words, morality has been internalized. There is conscious preoccupation with obligations, ideals, traits, and achievement as measured by these inner standards. Psychological causation is perceived and spontaneously referred to in references to both the self and others.

The conscientious person is self-critical, but not totally rejecting of self. This person is aware of his choices, goals and living up to ideals and improving himself. He is not caught simply in the attempt to do right and avoid wrong. He is involved in choosing
priorities. Achievement is important, and is measured by one's own inner standards rather than being primarily a matter of competition or social approval as it is at the lower levels.

The transition from the conscientious to the autonomous stage is marked by a heightened sense of individuality and a concern for emotional dependence. The problem of dependence-independence is recurrent throughout ego development. What characterizes this transitional stage is the awareness that even when one is no longer physically and financially dependent on others, one remains emotionally dependent. Relations with others which have been getting more intense, are seen as partly antagonistic to the striving for achievement. The moralism of lower stages begins to be replaced by an awareness of inner conflict. At this stage, however, the conflict, for instance over marriage versus career for a woman, is likely to be seen in such terms as to be only partly internal. As though if only society or one's husband were more helpful and accommodating, there would be no need for conflict. At the next level, the autonomous stage, one recognizes that conflict is part of the human condition.

The Autonomous Stage is given this title partly because during it one recognizes other people's need for autonomy and partly because it is marked by some freeing of the person from the often excessive striving and sense
of responsibility during the conscientious stage. Moral dichotomies are replaced by a feeling for the complexity and multifaceted character of real people and real situations. There is a deepened respect for other people and their need to find their own way and even make their own mistakes. Crucial instances include one's own children, one's own parents and conflict between one's needs and duties. Striving for achievement is partially replaced by a seeking of self-fulfillment. In acknowledging inner conflict, the person at this level has come to accept the fact that not all problems are solvable. Inner conflict is not necessarily more characteristic of the autonomous stage than lower stages. Rather, the autonomous person has the courage to acknowledge and to cope with conflict, rather than blotting it out or projecting it onto the environment.

The highest level is the Integrated Stage. Very few reach this stage. It is defined as a stage where one can transcend coping with conflict to a reconciliation of conflicting demands, and where renunciation of the unattainable is possible. It also involves going beyond toleration to the cherishing of individual differences, and beyond role differentiation to the achievement of a sense of integrated identity. Maslow (1954, 1962) has described this stage in more detail and called such people self-actualizing persons.
It is erroneous to view these stages in a way that implies that the best adjusted people are at the higher stages. There are probably well adjusted people at each stage. Each stage has its weaknesses, its problems, and its paradoxes, which provide both a potential for maladjustment and a potential for growth. One problem of the autonomous stage is how to reconcile the need for autonomy and dependence needs on the one hand, with the exercise of authority on the other. Another paradox is that of responsibility. Piaget (1932) notes that young children (i.e., low ego levels) consider more blameworthy breaking 15 cups by accident than breaking 1 cup while stealing jam. Older children (i.e., at a higher ego level) assign blame in accord with motives rather than consequences. Therefore, breaking 1 cup while stealing is the worse offense. But at the highest ego levels, which Piaget did not study, one acknowledges responsibility not only for one's motives, but also for the consequences for one's actions. For Loevinger et al. the sequence of stages represents coping with increasingly deeper problems rather than in terms of successfully negotiating solutions.

**Psychodynamic Concepts: Sense of Self**

The discovery of the self is a significant aspect of adolescence. Erickson (1950) has emphasized this issue and labeled it the "quest for identity." He speaks of
identity formation as "a life long development" (Erickson 1956, p. 113), and uses the term "ego identity" to "denote certain comprehensive gains which the individual, at the end of adolescence must have derived from all of his preadult experiences in order to be ready for the tasks of adulthood" (p. 101).

Another phenomenon universally acclaimed as a core aspect of the adolescence experience is the spurt in body growth and the process of puberty. Adolescents find themselves confronted with new impulses and girls find that they experience not only radical but also periodic body changes. The experience of menstruation has the potential to both stimulate and endanger the process of self-discovery. Specifically, in females it probably results in a sense of self that is more fluid and more sensitive to environmental influences than the sense of self which boys develop.

For girls, the affect states that recur each month via pre-menstrual tensions and menstruation, are likely to touch on feelings about the self. With her body unstable and changing she will come to rely more heavily than the normal boy on external cues and the expectations of significant others. This feedback from others becomes the foundation for her self-definition. The research by Witkin et al. (1962) on field dependence bears this out. He found that women consistently depended more on external cues and less on self-generated internal cues than males in
juggling space orientations.

In high school and college girls only about 10% consciously connected changes in their feeling states to the fact of menstruation (Douvan, 1970). The price that seems to be paid by denying or repressing the possible association, is the incorporation of the instability of affects into the sense of the self. This figure of 10% seems to this investigator to be low, but for those who do not make the connection it probably creates a vulnerability in the sense of self since the girl cannot understand herself (see Deutsch, 1965).

Interpersonal Relations

Sexual development for the girl is couched in ambiguity and diffuseness. This greater ambiguity of the girl's developing sexuality is at least one factor underlying special features of her interpersonal development at adolescence. Girls show a special intensity, maturality and sharing in friendships with other girls. This is in sharp contrast with the more activity centered and less intimate friendships of boys (Douvan and Adelson, 1966). The reason for the type of friendships which girls foster may lie in their need to discover the nature and meaning of their sexual impulses by sharing information and feelings with other girls who are experiencing the same mysterious and unsettling new impulses. Like sex friendships for girls, developed on this note of intimacy have a
greater importance than boy-girl relationships throughout the adolescent period.

We know that friendships at this early stage are highly unstable in comparison to what they will be at the later stages (Horrocks and Thompson, 1946; Thompson and Horrocks, 1947). That the girl can maintain any stable relationship is probably due to the fact that the internal and indefinite quality of her sexuality seems to make her particularly in need of relationships with other girls. Both her fears and understanding of her sexual nature were clarified through the process of sharing experiences, information, feelings and wisdom with her girlfriends.

For girls popularity is a value highly approved of by their peer group. The adherence to this value may, however, obstruct the development of other values like academic achievement (Coleman, 1961; Sanford et al. 1956; Newcomb, 1943). The attainment of qualities of popularity (e.g. charm) seems to serve the long term goal of embracing the roles of wife and mother by alleviating anxiety of whether the girl will ever be chosen in love and marriage. In that way popularity seems to serve a defensive function.

So the girl involved in self-exploration and self-discovery, is also coping with the conflicts that develop due to physiological developments and by interactions with peers. Erickson (1950) emphasizes a sense of continuity which he sees as an integral part of the quest for identity.
The cultural mores and experience of dating is a catalyst which forces the girl to discover a discrepancy between her sense of self as it relates to boys from her sense of self as it relates to girls. The issues of dates and boyfriends raise the problems of ethics, loyalty and competition in friendships. The girl must resolve these problems by making commitments between herself, the desire for popularity and attention and the demands of friendship (Douvan, 1970).

Some have emphasized the differential significance of which parent the female has primarily identified with. In other words, they have suggested differences between females who have identified with mothers vs. females who have identified with their fathers (Mussen and Distler, 1959; Levin and Sears, 1956; Bieri, Lobeck and Galinsky, 1959). Josselson (1973) found that college women had significant identifications with both parents. In terms of identity formation it made little difference whether adaptive traits were derived or identified with the mother or the father.

Hatcher (1973) attempted to determine the stage of adolescence for unwed pregnant females seeking abortions. Unfortunately, her sample was small and she did not include a normative control sample. Nevertheless, she concluded that one need ask only a few relevant questions in order to determine the substages of adolescence for any
population. These relevant questions covered five areas. They are, (1) Who is the significant object for the subject? (2) What is his or her style of object relations at this point in time? (3) What are the subject's characteristic defensive reactions? (4) What is his or her self perception and perception of others like? (5) How stable and well formulated is his or her view of the future?

From all the previous sources related to psychodynamic development the following description of psychodynamic stages during adolescence was assembled.

The Psychodynamic Stage of Early Adolescence

Early adolescence is biologically marked by an increase in physical growth and the attainment of puberty, with menstruation in females being an outstanding event. Fantasies take on a threatening reality; and adolescents at this stage, motivated partly by this anxiety make repeated and genuine attempts at separation from the early ties to nurturing relationships (i.e., parents). In these attempts, the girlfriend takes on crucial importance and may be the sole confidante of the girl.

While the withdrawal from parents may encompass a rejection of their representations and morals, there emerges, nevertheless, a groping for new and not merely oppositional values (Blos, 1962).
The friendships of this period are characterized by an idealization of the friend. The friend is admired because they represent qualities which the subject views as the missing perfections of his or herself. These qualities are possessed vicariously by maintaining the friendship (Blos, 1962).

For the early adolescent the friend is described through superficial qualities. The girl wants her friend to do favors for her, to be amiable, easy to get along with, cooperative and fair. She feels that the friend ought not to crab, be grouchy, mean, selfish or a show-off (Douvan and Adelson, 1966).

What is missing in these early adolescent conceptions are that friendships can be emotionally relevant. For the early adolescent friendship centers on the activity rather than on the interaction itself, i.e., the girl alludes to qualities of the other that promotes or hinders the swift and easy flow of activity. In other words, the friendship is not yet relational. One wants a partner who is neither demanding nor disagreeable, whose personality will not get in the way of activity. Friendship is partnership in work and play, personality is not the center of the interaction which it later will become.

Girls at this stage are frequently preoccupied by the question of whether they are a boy or a girl (Blos, 1962; Douvan and Adelson, 1966). The issue they are grappling
with here seems to be one of role differentiation. During this period females are willing to stress their masculinity while the males are ashamed of their femininity. Bisexual self-representations are expressed in many different activities, interests, preoccupations and daydreams. The decline of this bisexual concern is one of the points that denotes entrance into the next stage (Deutch, 1944).

In spite of the attempts to separate from the parents, the female at this stage is still close to her family. In fact, the emotional availability of the mother is particularly valuable in helping girls through the problems of this period.

The Psychodynamic Stage of Middle Adolescence

The attempt to break the infantile ties, coupled with the new cognitive capacities, and the redirection of focus to the self, result in the over-valuation of the self (narcisism) which is so evident during middle adolescence. This intense narcissism may manifest itself in mood swings, extreme touchiness, self-absorption, bodily preoccupations and hypochondriacal tendencies.

The adolescent, during this period, drifts from the family and spends more time with peers, searching for intimate and intense friendships. Close idealizing friendships often bring on a decrease in sustained interests and academic achievement (Coleman, 1961). The attachments to
peers and adults that are sometimes formed quickly are established on the basis of idealizations which are externalizations and projections of the adolescent's own narcissism (Rivito, 1972). These relationships, however, are healthy in that they probably form the basis of the de-emphasis of the self.

The purpose and style of the friendships of this period differ with those of the previous period. The mere sharing of activities diminishes, and is replaced by a relationship with those of the same sex, where the personality of the other and the other's response to the self become the central themes of the friendship. Superficial and concrete qualities like good manners and doing favors are no longer emphasized as important criteria for friends. Compared to the previous stage, the vocabulary that is used to describe friendships is relatively abstract, differentiated and relational (Douvan and Adelson, 1966).

One of the unique aspects of this stage is the importance placed on security in friendships. They seek a friend they can confide in. One who is considered loyal, trustworthy and a reliable source of support and understanding in any emotional crisis. The friend who would abandon another or gossip behind one's back is disdained (Douvan and Adelson, 1966).

The prominence and significance of loyalty as a criterion in the friendships suggests that there is less
mutuality in the relationship than appears. The girl is seeking someone who is experiencing the same ordeals, discoveries and dispairs. The friend, therefore, supplies the girl with someone who will respond to and mirror the self.

Through the process of identification, crises like the handling of impulses, and the anxiety and guilt surrounding the emergence of sexuality are dealt with. By joining or forming selective cliques the girl is also able to solidify her identity, validate her status and enhance her self-esteem. The severance of a friendship is catastrophic for the girl at this point. Since the girl has identified with and incorporated so many qualities of the other, to lose the friendship represents losing a part of the self.

There is much self-absorption, and this narcissistic quality pervades choices and the beginnings of heterosexual relationships. Dating friendships at this stage are competitive with like-sex friendships. Competition also shows itself in the rivalry of these girls for popularity with boys. However, girls are far more concerned about the opinion of other girls than of boys. The girl wants to be popular with boys because of the effects of her appraisal by her peer group of girls.

Sexual references are more common during this stage than either before or after (Douvan and Adelson, 1966). Through projection the girl seems to be able to reinforce her defenses against sexual impulses. Also, defensive
processes of intellectualization and asceticism are elaborated during this phase (Blos, 1962; Freud, 1966). In general, one sees a tendency toward inner experience and toward self-discovery, which sometimes manifests itself in terms of religious experiences and feelings of "being in love."

The girl in middle adolescence is much more inwardly directed than either the middle adolescent boy or the early adolescent girl who is oriented to externality rather than to her inner world. Often the middle adolescent girl writes love letters to herself, is involved in crushes or fantasy relationships. This unreality of the girl's early experience of sexuality has been called "pseudology" by Deutsch (1944). From her perspective the middle adolescent girl identifies strongly with her fantasy love and is deeply hurt by any perception of rejection. The girl's reaction is tied in to her renunciating her own ideas and "self" in order to adopt those of the fantasized lover. This selfless devotion of the girl is coupled with an extreme passivity which leads the girl to glamourize love and sexuality. Deutsch refers to this as the "Dulcinea complex."

While the syndrome described as the Dulcinea complex presents the danger for the middle adolescent girl of remaining too passive, there is an equally pathological detour at the other extreme of behavior. Greenacre (1950) suggests that feelings of rejection and disappointment can
be characterized by hyper-aggressiveness. He calls this the "Medea complex."

The Psychodynamic Stage of Late Adolescence

Late adolescence has been viewed as "the period of the decisive last battle fought before maturity" (Deutsch, 1944). Others have described it as primarily a phase of consolidation (Blos, 1962; Douvan and Adelson, 1966). Essentially the adolescent girl during this stage, manages to differentiate herself to the extent that she is able to consolidate and find continuity in a personal identity or sense of self. She develops fairly secure defenses against impulses. Much of the emotional energy that had been invested in females is now diverted to males, and she can now turn to males for intimacy.

Friendships are no longer a retreat, a source of learning or a cushion for disappointment. As identity is secured these females have fewer needs for relationships based on identifications with other females. What is stressed is the confiding and sharing aspects of friends. This is similar to early adolescence, but identifications are less prominent. There is greater emphasis on the personality and talent of the friend. In sharp contrast to the preceding period the female of this period becomes aware of the individuality of her friends. She can tolerate the differences, values and uniqueness of others.
Friendships at this stage are no longer solely a forum for the resolution of conflicts. Friendships now take on more disinterested, neutral, playful and diversified qualities. There is a diminished use of projection, less of a tendency to categorize other girls as good vs. bad and less concern with sexual reputation as a basis for judging, choosing and excluding friends (Douvan and Adelson, 1966).

Late adolescence also brings about a decrease in fantasy and a shift in the effect fantasy has on gratification. Gratification in late adolescence is now found to be based more on direct activity than on fantasy. For example, the sexual excitement which was previously satisfied in fantasy, later in masturbation, now in late adolescence is satisfied in the context of an actual relationship with another.

One result of this newly sought closeness (in the activity or relationship) is the increase in anxiety and conflict over the expression of aggression towards the sought after persons. This requires the implementation of defenses or avoidance or flight from such people (Rivito, 1972).

Early conflicts are not completely resolved, however. Through processes of narrowing down, delinearing and channeling they are specified and integrated in the functioning personality. These conflicts may subsequently
be represented in life tasks (Blos, 1962; Douvan and Adelson, 1966; Hatcher, 1973).

Erickson (1968) talks about the danger during this stage of "identity diffusion," where a sense of self is not consolidated. However, even when the sense of self may be consolidated and integrated into the personality, the tasks of actually implementing this sense of self in terms of a mature moral character, and the cementing of permanent relationships and pursuits await further development. Another aspect of this stage has been termed "psychosocial moratorium" (Erickson, 1968). This represents the tendency of adolescents during this stage to postpone embracing the role requirements and interpersonal commitments associated with being an adult. This is not dissimilar from the syndrome of prolonged adolescence (Blos, 1954) where there is a reluctance to bring the last phase of childhood, i.e., adolescence, to a close.

Thus, psychodynamic development has frequently focused on rapidly changing social relationships, in addition to any attempts to determine inner or unconscious factors. While some may have used the term psychosocial development in similar contexts, this study has developed from a large body of literature which emphasizes changes in the psycho-dynamics of development.
Defense Mechanisms

The concept of "defense" is a general designation for all the techniques which the ego makes use of in conflicts, and which serve the purpose of protecting "the ego against instinctual demands" (Freud, 1926, p. 163). This type of adaptation can be conceptualized as a transactional process in which the organism adjusts itself to accommodate to its milieu and at the same time influences the milieu (Hartmann, 1958). The functions that are central to the person's ability to adapt to the environment are viewed as always acting in the service of the ego.

Anna Freud (1966) further explains the relationship between the ego and the defenses by noting that:

every vicissitude for which the instincts are liable has its origin in some ego activity. Were it not for the intervention of the ego or of those external forces which the ego represents, every instinct would know only one fate - that of gratification (p. 44).

To Thematic Apperception Test pictures boys at puberty tell stories which show a dramatic increase in sexual themes, but girls tell stories which show a decrease in such themes (Symonds, 1949; Sanford, et al, 1943). Interestingly, aggressive themes rise sharply at puberty for both sexes. How can we explain the decrease in girls' sexual fantasy? Girls stories show an increase in themes of abasement at puberty, i.e., themes of self-damage and self-disparagement. In addition when sexual
themes decrease, abasement themes increase, and vice versa. It seems likely that girls are showing signs of increased anxiety and defensiveness.

In addition to all the methods of defense to which one had recourse in the past, the adolescent develops additional mechanisms to deal with the influx of anxiety during adolescence. These additional mechanisms include the significant changes in cognitive development during adolescence (Inhelder and Piaget, 1958; Elkind, 1967; Weir, 1964).

This cognitive development permits the adolescent to conceptualize at an abstract level, construct contrary to fact propositions, reason about his own mental constructions and integrate his current and past experiences. For example, it is not until the age of twelve that concepts of belief, intelligence and faith are spontaneously given in definitions of religious denominations (Elkind, 1962, 1963).

Some have suggested that this new capacity enhances the defensive functioning of the ego (A. Freud, 1966; Shapiro, 1963). Shapiro (1963) argues that:

Intellectualization as a defense may then be accounted for by postulating the availability and partial utilization of the new cognitive capacities of the ego in its defensive struggle with the drives (p. 87).

Anna Freud (1966) approaches the formation of the defense of intellectualization from a different perspective.
However, she also sees intellectualization as a process which allows the adolescent to relate the instinctual side of human nature to the rest of life and as helping the adolescent decide "between putting sexual impulses into practice and renouncing them, between liberty and restraint between revolt against and submission to authority."

Some adolescents may, through their ever increasing abilities to abstract and conceptualize, take a temporary ascetic attitude toward life, thereby isolating painful affects. In normal adolescent development, this ascetic stance is alternated with erratic swings to all that had been previously held as prohibited (Freud, 1966).

It is of course, possible to find individuals who on the basis of their age would seem to fall into the category of Late Adolescence, but who display behaviors, usually to deal with sexual and aggressive issues, which reflect constant and pervasive use of primitive defenses. This use of the earliest modes of controlling tension suggests that psychological development is at an earlier stage than suspected on the basis of age. In such a situation, projection, turning against the self following introjection, of the bad object, and turning against the outside world usually become the chief mechanisms for dealing with conflicts which are too painful to be given internal significance. This of course allows the individual to view conflicts as coming exclusively from outside the self.
Projection, while an essential process during the earliest stages of development, constitutes an archaic reaction when it is later used defensively. In this regard, Fenichel (1945) states, "This primitive mechanism of defense can be used extensively only if the ego's function of reality testing is severely damaged by a narcissistic regression, thus blurring the boundaries between ego and nonego once more" (p. 146). In other words, the narcissistic regression which typifies adolescence demonstrates a developmental state which could cause a poorly developed ego to succumb to projection as its chief mode of warding off affects which, if released, would overwhelm the ego.

When the ego of the adolescent cannot deal with pressure from the superego, it may call to its assistance two kinds of defensive behaviors, aggression against the self or aggression against the outside world. In both instances, the external world, most often in terms of the parents or other authority figures, is perceived as hostile and unloving. In the former situation (aggression against the self), the destruction initially intended for the external object is aimed at the self owing to a rigid and punishing superego. The alternate method for dealing with this configuration in the superego is rebellion. These two modes of defensive behavior represent archaic methods of dealing with the usual conflicts of young adulthood.
All primitive forms of defense, however, when used in a transitory fashion, do not necessarily reflect maladaptive ego functioning. For example, their use in the initial adolescent struggle with instinctual drives, and associated ambivalent feelings at the beginning of puberty is not indicative of ego impairment. However, their use in late adolescence and adulthood suggests a character formation based on meager ego development.

Regression, reaction formation, and intellectualization although arising at a more advanced level of development, can through rigid and exclusive use, limit mental health and psychological growth. These defenses, either individually or in combination, cease to serve a defensive purpose, and rather reflect a rigid, unflinching adherence to a character structure when affects associated with the onset of puberty are avoided. Freud (1966) describes this in the following way:

Ego institutions which have restricted the onslaught of puberty without yielding generally remain throughout life inflexible, unassailable and insusceptible of rectification which a changing reality demands (p. 150).

There are many who reject parts of the psychoanalytic conceptualizations of defense mechanisms or emphasize different aspects of it. Part of the resolution as seen from a cognitive perspective involves the occurrence during early adolescence of an egocentrism based on the belief that the thoughts of others are directed toward the self. This
egocentric position can be seen in the adolescent belief that others are preoccupied with one's appearance and behavior. This variety of egocentrism is overcome as a consequence of the conflict between the reactions which the adolescent anticipates and those which actually occur (Elkind, 1967).

There are others who have tried to replace mentalistic accounts of a personified ego defending itself from attack, as well as the emphasis on instinctual drives with behaviorally defined concepts (Dollard and Miller, 1950; Swanson, 1961). These social learning theories view defenses as aspects of an individual's role in a social relationship. Defenses represent learned or "imported" behaviors, which are different ways of relating toward objects, other people and oneself (Swanson, 1961).

**Instrument for the Measurement of Defenses**

Few objective scales have been developed to assess defenses. The utility of the instruments that do exist seems to depend on the nature of the questions asked of them, e.g., how much is one interested in the extent to which certain defenses are employed?

According to Walsh (1974) the Defense Mechanism Inventory (Gleser and Ihilovich, 1969) is sounder than any instrument of similar breadth (e.g., Haan's (1965) MMPI based scales). For predictive validity Byrne's (1963)
Repression-Sensitization Scale seems to be the best. However, the Defense Mechanism Inventory (DMI) covers a much broader set of defenses and is much less vulnerable to social desirability considerations than the Repression-Sensitization Scale (Walsh, 1974).

The Defense Mechanism Inventory (DMI), was developed to measure both the consistency and preferential use of a given number of defenses. It is based on the assumption that the major purpose of defense mechanisms "is the resolution of conflicts between what is perceived by the individual and his internalized values. . . . The conflict is resolved by a process whereby the ego attacks, distorts, or becomes selectively unaware of certain aspects of the internal or external world" (Gleser and Ihilovich, 1969).

The DMI classifies defense mechanisms into five clusters. They are:

1. Turning against object (TAO). These defenses deal with conflict through attacking a real or presumed external frustrating object. Typical defenses in this category are identification with the aggressor and displacement.

2. Projection (PRO). Included here are defenses which justify the expression of aggression toward an external object through first attributing to it, without unequivocal evidence, negative intent, or characteristics.

3. Intellectualization (INT). This class of
defenses deals with conflict through invoking a general principle that "splits off" affect from content and represses the former. Defenses such as intellectualization, isolation and rationalization fall into this category.

4. Turning against self (TAS). In this class are those defenses that handle conflict through self-directing aggressive behavior, fantasy, or affect. Masochism and autosadism are examples of defensive solutions in this category.

5. Reversal (REV). This class includes defenses that deal with conflict by responding in a positive or neutral fashion to a frustrating object which might be expected to evoke a negative reaction. Defenses such as negation, denial, reaction formation and repression are subsumed under this category.

There have been no publications regarding the use of the DMI with subjects under eighteen years of age. However, according to one of the authors of the DMI (Gleser, personal communications, 1975) there are preliminary findings from a high school group which suggests a change in defense utilization during the adolescent years.

College students tended to obtain higher scores on TAO and TAS and lower scores on intellectualization and REV than did a general adult population. Since the adult subjects were somewhat older than the college students it is possible that the observed trends are at least partially
a function of age. Further evidence that TAO decreases with age while INT and REV increase is indicated by the correlations between age and each of these scores in male and female outpatient samples (Gleser and Ihilovich, 1969).

In college populations, general adult populations and also in psychiatric outpatient samples, females were found to be significantly higher than males in the defense category of Turning Against the Self and significantly lower on Turning Against the Object. Females are also significantly lower on PRO than males in college samples (Gleser and Ihilovich, 1969).

**Summary**

The present study is oriented to the question; what factors in ego and psychodynamic development exist and change during adolescence and how are they related? The organization of this study was partially based on the belief that the experiences and views of adolescents at each stage are significantly colored and influenced by the psychodynamic issues unique to that stage. For instance, the meaning of the relationship with the mother or the father, the girlfriend or the boyfriend, as well as conflicts change across early, middle and late stages of adolescence.

This research supposes that the differentiation of ego and psychodynamic stages is valuable and crucial to
understanding behavioral acts of adolescents, such as pregnancy, abortion, delinquency, drug taking, or a variety of behaviors that might lead to a recommendation for psychotherapy. The first step, however, and the attempt of this research, is to establish the possibility and feasibility of doing this in a "normal" population.

To explain many of the assumptions in the literature review, which were based to a large extent on clinical observations, it was thought that the change in the ego concept, as illustrated in Table 1, might be related to changes in the psychodynamics.

How does this ego structure determine the psychodynamics of self, defenses, etc.? It is not always clear. Some things are known and elaborated on in the literature, many things are left unexplored. The theoretical literature suggests that the style and content of relationships with others is probably the single most accurate diagnostic criterion for determining a substage in adolescence. In addition, physiological changes, puberty and the sense of sexuality are credited with ushering in and influencing all sorts of attempts to discover and organize a sense of self.

There seems to be both continuous trends as well as distinctive qualities in the three postulated developmental stages during adolescence. A striking trend is the increased interest in heterosexual relations. Also, as the girl gets older there is an increasing emotional investment
In friendships which is displayed by more sophistication and subtlety in her conceptions about friendships. The girl displays a greater tolerance of differences within relationships, and an increasing ability to appreciate friends.

Essentially, the early adolescent girl is trying to cope with male-female identification conflicts, fluid impulses, and group identifications. The middle adolescent girl is struggling with a recrudescence of early conflict issues, feelings of competitiveness with her mother and she is flooded with narcissistic concerns. She has to deal with wide mood fluctuations and alterations in her moral values. Finally, the late adolescent girl is toiling on her identity conflicts and the resolution of her future adult role.

Hypotheses

1. Objectively measurable characteristics of ego development, psychodynamic development and defense mechanisms can be differentiated into early, middle and late stages of adolescent development for females. Ego development will be defined by the Washington University Sentence Competition Test (WUSCT), psychodynamic development by items on a question and defense mechanisms by the Defense Mechanism Inventory (DMI).

2. The paradigm of ego development, as measured by the WUSCT, will produce clearer differentiations of adolescent development than will chronological age.
3. Subjects will show a linear increase in the use of the defense mechanisms of intellectualization and reversal, as measured by the DMI. This trend will progress from early to late stages of adolescence, as indicated by stages of ego development (WUSCT).

4. Subjects will show a decreasing linear trend in the use of the defense mechanisms of projection, turning against the self and turning against others as measured by the DMI. This trend will progress from early to late stages of adolescence, as indicated by stages of ego development (WUSCT).

5. Subjects at the early stage of adolescence will show significantly less behavioral autonomy than will SS at the late stage of adolescence. Behavioral autonomy will be identified by specific behavioral items from the questionnaire e.g., dating frequency, jobs outside the home, access to funds, etc.

6. Subjects at the middle stage of adolescence, as measured by ego development (WUSCT) will show a higher demand for loyalty and absolute security in friendship, as well as more need for similarity between friends as measured by items on the questionnaire than will Ss at either the early or late stages of adolescent development.

7. Age groups ego stages (WUSCT) and psychodynamic stages, as measured by items from the questionnaire will be independent of demographic factors such as religious affiliation, (referably "or") socio-economic status.
CHAPTER III

METHODOLOGY

Subjects

A total of 130 white unmarried females were included in this study. Fifty two were undergraduate college students at The Ohio State University. These students were either 19 or 20 years of age. They volunteered for this study as part of their requirements for an introductory psychology course.

Thirty-five female students from a suburban high school participated. Sixteen and seventeen year olds from one of four classes were asked to participate. Two of these classes were studying psychology and the other two were special English classes.

Forty-three girls in a suburban middle school also participated. These were 12 and 13 year old girls who volunteered to participate during two of their study hall periods.

These schools were chosen because their populations are comparable in a number of ways. The high schools and middle school are in upper middle class neighborhoods. Therefore, students were assumed to be similar in terms of social class background, expectancies and upbringing. In
addition, students from both these schools generally continue their education by going to college. Therefore, these students could be assumed to be comparable to a college population.

**Instruments**

**Washington University Sentence Completion Test (WUSCT)**

Of the thirty-six items (stems) which compose this test, eighteen were selected on the basis of past research (Lambert, 1972; Strodtbeck, Ronchi & Hansell, 1976). (See Appendix A)

An analysis of the reliability in this study of the eighteen items using the Kuder-Richardson formula No. 8 yielded an R of .86. Then using the Spearman Brown Prophecy Formula a test length reliability of .92 was found. Internal consistency of the test was measured in previous studies (Loevinger and Wessler, 1970) by a variation of the Kuder-Richardson formula 20. They found item reliability to be .90.

All subjects were randomly assigned numbers. The results of the WUSCT were then typed out by sentence stem and scored without reference to any identifying personal data. These items were scored on the basis of the categorized-exemplar format designed for this test (Loevinger, Wessler and Redmore, 1970). That is, each response was compared against a sequence of others and was
assigned to the level most closely matching it.

The median interrater reliability of item ratings on the WUSCT in previous studies (Loevinger and Wessler, 1970) has been .76, and the mean interrater reliability of the total protocol rating was .86. The items in this study were scored by this investigator and a graduate student in psychology. Both scorers had attended a workshop on scoring and using the WUSCT. In this study interrater reliability was measured on a random sample of forty items. The interrater reliability for this sample was measured at .91.

For each protocol a distribution of eighteen ratings resulted. This was then translated into a single score, the total protocol rating (TPR), on the basis of ogive rules designed for the test (Loevinger and Wessler, 1970). This TPR indicates the stage of ego development. However, for the purposes of this study and this limited population subjects who fell at the self protective or impulsive ego levels were combined to form the early stage of adolescent ego development in this study. Subjects at the conformist levels comprised the middle stage of adolescent ego development in this study, and subjects at the conscientious, or individualistic or autonomous levels were combined to form the late stage of adolescent ego development in this study. There is a correlation of .95 between these grouped ego stages and the TPR.
Psychodynamic Questionnaire

Five variables of psychodynamic development were assessed by the questionnaire. These were a) family relationships, b) interpersonal style with others, outside the family, c) the significant people in the girl's life, d) her self representation and e) her goals and interests. These five sub-variables of psychodynamic stage were each scored on the basis of early, middle or late stages of adolescent development.

The psychodynamic questionnaire was developed by this investigator from a review of the literature and is shown in Appendix B. The format and the questions primarily used for scoring each psychodynamic subvariable into early, middle and late stages is shown in Appendix C. This was adapted from the schema by Hatcher (1973) and integrated with the literature review, particularly Blos (1962). Excerpts from the questionnaire illustrating how items were actually scored are shown in Appendix D.

To allow for variation in development, the psychodynamic stage score was determined by assigning the mode score from three of the five areas of psychodynamic development. When this method was not feasible, the mean was used.

Defense Mechanism Inventory

This test consists of ten brief stories. In this study, due to time restrictions seven stories were used.
For each story the subject answers four questions probing the proposed actual behavior, impulsive behavior in fantasy, thoughts and feelings in the situations described. Five responses typifying five defenses are provided for each question. From this forced-choice format the subject selects the one most representative and the one least representative of her reaction. Responses are differentially weighted and summed across questions and stories to obtain five scores, one for each defense mechanism category. The text can be seen in Appendix E.

Correlations for the stability of these defense mechanism scores over time ranged between .76 and .89. Construct validation was provided by having ten professionals match a list of fifteen defenses to responses on the DMI. The scale has also been cross-validated with other defense scales with encouraging results (Gleser and Ihilovich, 1969).

Procedures

The nature of the experiment was first explained to all subjects. Essentially they were told that we were doing a study to help us better understand the experiences, problems and feelings which females at different ages go through.

The high school and middle school students who indicated a willingness to participate were given a letter of explanation and a parental permission form (See Appendix
Parental permission forms were not required from college students. When parental permission was obtained, subjects were tested in groups. At the high school, males were included in this entire process, in order to accommodate to the school programming.

College students completed the testing in one session, lasting about one and a half hours. The high school and middle school subjects completed the assessment instruments in two sessions of forty-five minutes each.

The three forms given to the subjects were given in the following order. First, the Defense Mechanism Inventory, second the Washington University Sentence Completion Test, and finally, the psychodynamic questionnaire.

This study included a total of 130 subjects. These subjects were assigned to stages of development based on three types of classifications. One classification was done by age. The same subjects were also classified for the analyses of this study by their ego development (WUSCT). Finally, the same subjects were also classified on the basis of their psychodynamic development as determined by responses to the questionnaire.
CHAPTER IV

RESULTS

Hypothesis 1 states that stages for early, middle and late adolescence will be differentiated for measures of ego development (WUSCT), psychodynamic development and defense mechanisms (DMI). Subjects were classified for stages according to three paradigms, i.e., ego stages, psychodynamic stages and stages based on age groupings.

A multivariate analysis of variance was run with subjects classified according to each paradigm. The dependent variables were scores on five defense mechanisms and the measure (either ego or psychodynamic stage) which was not used to classify subjects. The multivariate analysis first constructs one or more composite dependent variables, and then it compares subject groups on these. The results of the three multivariate analyses are compared in Table 2.

For each paradigm, subjects at the early, middle, and late stages were significantly different in overall scores of the dependent variables taken as a group.

The results of univariate analyses of variance for measures of each of the dependent variables (i.e., ego
Table 2. Multivariate analyses of variance on measures for ego stage, psychodynamic stage and defense mechanisms comparing ego stages, psychodynamic stages and age groups as bases of classification.

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>DF</th>
<th>P</th>
<th>RC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego Stage&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.3</td>
<td>12-244</td>
<td>.001</td>
<td>.60</td>
</tr>
<tr>
<td>Psychodynamic Stage&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5.1</td>
<td>12-244</td>
<td>.001</td>
<td>.59</td>
</tr>
<tr>
<td>Age Groups</td>
<td>10.4</td>
<td>14-242</td>
<td>.001</td>
<td>.76</td>
</tr>
</tbody>
</table>

<sup>a</sup>In this analysis ego stage is not a dependent variable.

<sup>b</sup>In this analysis psychodynamic stage is not a dependent variable.

<sup>c</sup>This is the canonical correlation. It is an index of the function's ability to predict group membership. When squared, it can be interpreted as the proportion of variance explained.
development, psychodynamic development and defense mechanisms) with the three stage paradigms (i.e., age groups, ego stages and psychodynamic stages) are shown in Table 3. The measures of ego development and psychodynamic development when used as dependent variables are significantly differentiated by each of the other variables used to classify subjects. However, the only defense mechanism that was significantly different across any set of stages was the use of reversal by the three age group classifications. We can see by the sign of the standard discriminant function that as age increases, reversal decreases and ego development increases.

Both psychodynamic stages and ego stages are related to chronological age and to each other. This communality suggests that all three paradigms do have something in common. Each of these stage paradigms is based on dependent variables which represent much of the same behavior, but they involve different ways of conceptualizing and classifying this behavior. Even though defense mechanisms generally did not differentiate stages well we feel we can accept Hypothesis one.

Hypothesis 2 predicts that the paradigm of ego development (WUSCT) will produce clearer differentiations of adolescent development than will chronological age. Table 2 has already been examined in connection with Hypothesis 1. It shows that chronological age and
Table 3. Univariate analyses of variance on individual measures of ego stage, psychodynamic stages and defense mechanisms comparing ego stages, psychodynamic stages and age groups as bases of classification.\(^a\)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age Groups</th>
<th>Ego Stages</th>
<th>Psychodynamic Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Square</td>
<td>F</td>
<td>Stand. Discrim. Funct. (^b)</td>
</tr>
<tr>
<td>TAO</td>
<td>84.5</td>
<td>1.26</td>
<td>-.36</td>
</tr>
<tr>
<td>Projection</td>
<td>.4</td>
<td>.02</td>
<td>-.30</td>
</tr>
<tr>
<td>Intellectualization</td>
<td>44.1</td>
<td>1.54</td>
<td>-.04</td>
</tr>
<tr>
<td>TAS</td>
<td>9.9</td>
<td>.52</td>
<td>-.20</td>
</tr>
<tr>
<td>Reversal</td>
<td>182.0</td>
<td>4.58(^*)</td>
<td>-.63</td>
</tr>
<tr>
<td>Psychodynamic Stage</td>
<td>57.5</td>
<td>55.73(^**)</td>
<td>.73</td>
</tr>
<tr>
<td>Ego Stage (WUSCT)</td>
<td>15.5</td>
<td>38.72(^**)</td>
<td>.48</td>
</tr>
</tbody>
</table>

\(^a\) Degrees of freedom = 2-127

\(^b\) The standard discriminant coefficients indicate the relative contribution of each variable to a composite dependent variable. The sign denotes whether the variable is making a positive or negative contribution.

Significance Levels \(* = .01\) \(^** = .001\)
psychodynamic stages and ego stages all differentiate subjects at high levels of statistical significance. Therefore, Table 3 was examined for possible superiority of ego stages. In addition, analyses of linear and of quadratic trends in various dependent variables across the three stages as defined by the paradigms were carried out. Results are shown in Tables 4 and 5.

In Tables 2, 4 and 5, the canonical correlations relating the independent and dependent variables, are higher for age groups than ego stages. This appears to be a slight advantage for age groups. Also, we note that when all the dependent variables are pooled, a significant linear trend emerges across the three stages of adolescence for each of the paradigms used (Table 4). The ego stage groupings of subjects has no obvious advantage over the other two in defining a linear trend in the composite of dependent variables.

Tables 6 and 7 indicate the univariate analyses of variance of linear and quadratic contrasts. They were done for each dependent variable separately, comparing scores for the three age groups, the three ego stages (WUSCT) and the three psychodynamic stages in separate analyses. From these tables we observe that the ego stage paradigm and age groups both show relationships of a complex nature to certain defense mechanisms.
Table 4. Multivariate analysis of variance to determine linear trends on dependent measures across ego stage, psychodynamic stage and defense mechanisms, comparing ego stage, psychodynamic stage and age groups as bases of classification.

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>DF</th>
<th>P</th>
<th>R^c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego Stage^a</td>
<td>11.02</td>
<td>6-122</td>
<td>.001</td>
<td>.59</td>
</tr>
<tr>
<td>Psychodynamic Stage^b</td>
<td>10.05</td>
<td>6-122</td>
<td>.001</td>
<td>.58</td>
</tr>
<tr>
<td>Age Groups</td>
<td>21.00</td>
<td>12-116</td>
<td>.001</td>
<td>.83</td>
</tr>
</tbody>
</table>

^aIn this analysis, ego stage is not a dependent variable.

^bIn this analysis, psychodynamic stage is not a dependent variable.

^cThis is the canonical correlation. It is an index of the functions ability to predict group membership. When squared, it can be interpreted as the proportion of variance explained.
Table 5. Multivariate analyses of variance to determine quadratic trends on dependent measures across ego stage, psychodynamic stage and defense mechanisms and age groups as bases of classification.

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>DF</th>
<th>P</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego Stage^a</td>
<td>.72</td>
<td>6-122</td>
<td>NS</td>
<td>.19</td>
</tr>
<tr>
<td>Psychodynamic Stage^b</td>
<td>1.12</td>
<td>6-122</td>
<td>NS</td>
<td>.23</td>
</tr>
<tr>
<td>Age Groups</td>
<td>3.14</td>
<td>12-116</td>
<td>.001</td>
<td>.50</td>
</tr>
</tbody>
</table>

^aIn this analysis, ego stage is not a dependent variable.

^bIn this analysis psychodynamic stage is not a dependent variable.

^cThis is the canonical correlation. It is an index of the function's ability to predict group membership. When squared it can be interpreted as the proportion of variance explained.
Table 6. Univariate analyses of variance for linear trends on measures for ego stage, psychodynamic stage and defense mechanisms comparing ego stage, psychodynamic stage and age groups as bases of classification.

<table>
<thead>
<tr>
<th></th>
<th>Age Groups</th>
<th>Ego Stages</th>
<th>Psychodynamic Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>TAO</td>
<td>49.4</td>
<td>.7</td>
<td>NS</td>
</tr>
<tr>
<td>Projection</td>
<td>.0</td>
<td>.0</td>
<td>NS</td>
</tr>
<tr>
<td>Intellectualization</td>
<td>60.4</td>
<td>2.1</td>
<td>.1</td>
</tr>
<tr>
<td>TAS</td>
<td>12.7</td>
<td>.7</td>
<td>NS</td>
</tr>
<tr>
<td>Reversal</td>
<td>118.3</td>
<td>3.0</td>
<td>.09</td>
</tr>
<tr>
<td>Ego Stage</td>
<td>30.7</td>
<td>76.7</td>
<td>.001</td>
</tr>
<tr>
<td>Psychodynamic Stage</td>
<td>109.8</td>
<td>105.9</td>
<td>.001</td>
</tr>
</tbody>
</table>
Table 7. Univariate analyses of variance for quadratic trends on measures for ego stage, psychodynamic stage and defense mechanisms comparing ego stage, psychodynamic stage and age groups as bases of classification.

<table>
<thead>
<tr>
<th></th>
<th>Age Groups</th>
<th>Ego Stages</th>
<th>Psychodynamic Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td><strong>TAO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>119.7</td>
<td>1.8</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Projection</strong></td>
<td>.7</td>
<td>.0</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Intellectualization</strong></td>
<td>27.8</td>
<td>1.0</td>
<td>NS</td>
</tr>
<tr>
<td><strong>TAS</strong></td>
<td>7.1</td>
<td>1.0</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Reversal</strong></td>
<td>245.7</td>
<td>6.2</td>
<td>.01</td>
</tr>
<tr>
<td><strong>Ego Stage</strong></td>
<td>.3</td>
<td>.8</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Psychodynamic Stage</strong></td>
<td>5.3</td>
<td>5.1</td>
<td>.03</td>
</tr>
</tbody>
</table>
A linear trend emerges for an ego stage paradigm with the dependent variable of the defense mechanism of intellectualization. For age groups, a quadratic trend emerges with a different dependent variable, i.e., the defense mechanism of reversal, after linear effects are removed. A quadratic relationship also emerges for age groups but not ego or psychodynamic stages in Tables 3 and 5. While a quadratic trend does not differentiate early from late stages, it does distinguish subjects at the middle stage from those at the other two. Implications of quadratic trends will be further explored in the discussion section.

With the data available, we cannot accept hypothesis 2. We cannot conclude that either a model based on age or one based on ego stages (WUSCT) has an advantage, or offers a clearer picture than the other in regards to the dependent variables of this study. The determination of advantage would seem to depend upon the specific questions or specific variables that are being considered. Other dependent variables may be able to help us determine which model offers a clearer perspective.

Hypothesis 3 states that with advancing ego stages, subjects will show a linear increase in the use of the defense mechanisms of intellectualization and reversal as measured by the DMI.
The means and standard deviations of measures of these defense mechanisms for each stage of development are shown in Table 8. The significance of the mean differences when analyzed by univariate analysis of variance is shown in Table 6. Only on the basis of ego stages (WUSCT) does the use of intellectualization show a significant linear trend across three stages of female adolescent development. Therefore, the part of hypothesis 3 relating to the use of intellectualization can be accepted.

However, a linear trend was not discovered for the use of reversal for any of the paradigms used for classification. Instead, a quadratic trend was discovered when reversal is classified according to age groups (Table 7). This part of hypothesis 3 therefore, cannot be accepted.

Hypothesis 4 states that with advancing stage of development subjects will show a linear decrease in the use of the defense mechanisms of projection, turning against the self and turning against others as measured by the DMI. This trend is predicted to progress from early to late stages of adolescence, as indicated by stages of ego development (WUSCT).

Table 8 illustrates the means and standard deviations for these variables across each stage of development for each paradigm of classification. We can see that on the basis of an ego stage paradigm (WUSCT) projection shows a slight decrease from early to late stages, but not in a
Table 8. Means and standard deviations on measures of ego stage, psychodynamic stage and defense mechanisms for Ss classified by age group, ego stages and psychodynamic stages.

<table>
<thead>
<tr>
<th></th>
<th>TAO M SD</th>
<th>Project M SD</th>
<th>Intelct. M SD</th>
<th>TAS M SD</th>
<th>Revers. M SD</th>
<th>Ego M SD</th>
<th>Psy Dyn M SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Early Age Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=43) (12 &amp; 13 yrs)</td>
<td>23.9</td>
<td>25.5</td>
<td>31.6</td>
<td>29.4</td>
<td>29.3</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>10.3</td>
<td>4.7</td>
<td>5.5</td>
<td>3.6</td>
<td>8.1</td>
<td>.6</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Middle Age Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=35) (16 &amp; 17 yrs)</td>
<td>26.8</td>
<td>25.3</td>
<td>33.4</td>
<td>28.5</td>
<td>25.0</td>
<td>2.1</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>6.8</td>
<td>4.0</td>
<td>5.2</td>
<td>4.7</td>
<td>4.7</td>
<td>.7</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Late Age Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=52) (19 &amp; 20 yrs)</td>
<td>25.4</td>
<td>25.5</td>
<td>33.2</td>
<td>28.6</td>
<td>26.9</td>
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<td>3.7</td>
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<tr>
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<td>6.9</td>
<td>4.6</td>
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<td>4.4</td>
<td>5.5</td>
<td>.6</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Early Ego Stage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=40)</td>
<td>24.2</td>
<td>25.7</td>
<td>31.5</td>
<td>29.2</td>
<td>28.7</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.2</td>
<td>4.8</td>
<td>5.5</td>
<td>3.1</td>
<td>7.4</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td><strong>Middle Ego Stage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=40)</td>
<td>26.0</td>
<td>26.0</td>
<td>32.7</td>
<td>28.6</td>
<td>26.1</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.7</td>
<td>3.8</td>
<td>5.2</td>
<td>4.9</td>
<td>6.2</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td><strong>Late Ego Stage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=42)</td>
<td>26.6</td>
<td>24.6</td>
<td>33.9</td>
<td>28.8</td>
<td>27.0</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.9</td>
<td>4.7</td>
<td>5.3</td>
<td>4.8</td>
<td>5.6</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td><strong>Early Psychodynamic Stage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=38)</td>
<td>24.0</td>
<td>25.3</td>
<td>32.1</td>
<td>29.3</td>
<td>28.6</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.4</td>
<td>4.5</td>
<td>6.1</td>
<td>3.3</td>
<td>8.4</td>
<td>.6</td>
<td></td>
</tr>
<tr>
<td><strong>Middle Psychodynamic Stage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(N=67)</td>
<td>26.1</td>
<td>25.4</td>
<td>32.5</td>
<td>29.0</td>
<td>26.5</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.9</td>
<td>4.2</td>
<td>4.6</td>
<td>4.8</td>
<td>5.5</td>
<td>.7</td>
<td></td>
</tr>
<tr>
<td><strong>Late Psychodynamic Stage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(N=25)</td>
<td>25.0</td>
<td>25.9</td>
<td>34.2</td>
<td>27.7</td>
<td>27.0</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.2</td>
<td>5.1</td>
<td>6.1</td>
<td>4.2</td>
<td>5.3</td>
<td>.7</td>
<td></td>
</tr>
</tbody>
</table>
linear fashion. Turning against others (TAO) shows a slight increase in the frequency of its use across the stages, and turning against the self (TAS) shows a slight decrease from early to late stages. None of these changes attain significance for linear trends as is illustrated in Table 6. Hypothesis 4 therefore, cannot be accepted.

Hypothesis 5 states that subjects at the early stage of adolescence will show significantly less behavioral autonomy than will subjects at the late stage of adolescence. Behavioral autonomy was indicated by indices of behavior from the questionnaire, e.g., dating frequency, jobs outside the home, access to funds, etc.

To evaluate this prediction, a contingency table was constructed for each questionnaire item showing the frequency of responses at each stage of each paradigm. The resulting frequency distributions were analyzed by chi-square tests to determine whether or not these dependent variables related to age, to ego stages (WUSCT), or to psychodynamic stages.

These results are shown in Table 9. They indicate that on five dependent variables significant differences between the stages (whether defined by age, WUSCT or the psychodynamic questionnaire) could be observed. These variables were: a) whether or not the girl is menstruating, b) how the girl feels about the time of menstruation, c) her dating frequency, d) whom she lives with, and e) whether or not she receives an allowance.
Table 9. Chi-square tests of frequencies of reported behaviors and attitudes in female adolescents classified by age, ego stages (WUSCT), and psychodynamic stages.

<table>
<thead>
<tr>
<th></th>
<th>Age Groups</th>
<th></th>
<th></th>
<th>Ego Stages</th>
<th></th>
<th></th>
<th>Psychodynamic Stages</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
<td>P</td>
<td></td>
<td>$\chi^2$</td>
<td>P</td>
<td></td>
<td>$\chi^2$</td>
<td>P</td>
</tr>
<tr>
<td>Menstrating</td>
<td>71.3</td>
<td>.001</td>
<td></td>
<td>30.3</td>
<td>.001</td>
<td></td>
<td>63.0</td>
<td>.001</td>
</tr>
<tr>
<td>Awareness of</td>
<td>37.0</td>
<td>.001</td>
<td></td>
<td>18.8</td>
<td>.001</td>
<td></td>
<td>35.5</td>
<td>.001</td>
</tr>
<tr>
<td>Feelings at Menst.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dating Frequency</td>
<td>70.1</td>
<td>.001</td>
<td></td>
<td>22.0</td>
<td>.005</td>
<td></td>
<td>36.1</td>
<td>.001</td>
</tr>
<tr>
<td>Living Arrangements</td>
<td>54.5</td>
<td>.001</td>
<td></td>
<td>24.9</td>
<td>.002</td>
<td></td>
<td>32.8</td>
<td>.001</td>
</tr>
<tr>
<td>Receives Allowance</td>
<td>24.4</td>
<td>.001</td>
<td></td>
<td>7.0</td>
<td>.03</td>
<td></td>
<td>14.9</td>
<td>.001</td>
</tr>
<tr>
<td>Confide In</td>
<td>37.0</td>
<td>.001</td>
<td></td>
<td>14.2</td>
<td>NS</td>
<td></td>
<td>27.5</td>
<td>.002</td>
</tr>
<tr>
<td>Has job earning</td>
<td>14.0</td>
<td>.001</td>
<td></td>
<td>.3</td>
<td>NS</td>
<td></td>
<td>1.0</td>
<td>NS</td>
</tr>
<tr>
<td>money</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had Serious Illness</td>
<td>7.3</td>
<td>.03</td>
<td></td>
<td>4.3</td>
<td>NS</td>
<td></td>
<td>1.8</td>
<td>NS</td>
</tr>
<tr>
<td>With whom-spend</td>
<td>11.9</td>
<td>NS</td>
<td></td>
<td>4.1</td>
<td>NS</td>
<td></td>
<td>11.5</td>
<td>NS</td>
</tr>
<tr>
<td>free time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents description</td>
<td>7.2</td>
<td>NS</td>
<td></td>
<td>6.2</td>
<td>NS</td>
<td></td>
<td>8.0</td>
<td>NS</td>
</tr>
<tr>
<td>Adult admire</td>
<td>1.8</td>
<td>NS</td>
<td></td>
<td>5.0</td>
<td>NS</td>
<td></td>
<td>3.5</td>
<td>NS</td>
</tr>
</tbody>
</table>
Table 9 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Age Groups</th>
<th></th>
<th>Ego Stages</th>
<th></th>
<th>Psychodynamic Stages</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\chi^2$</td>
<td>$P$</td>
<td>$\chi^2$</td>
<td>$P$</td>
<td>$\chi^2$</td>
<td>$P$</td>
</tr>
<tr>
<td>Can friend be as close as family</td>
<td>2.1</td>
<td>NS</td>
<td>.9</td>
<td>NS</td>
<td>4.2</td>
<td>NS</td>
</tr>
<tr>
<td>Fantasizes being a male</td>
<td>.1</td>
<td>NS</td>
<td>1.1</td>
<td>NS</td>
<td>.7</td>
<td>NS</td>
</tr>
</tbody>
</table>

1Results for this variable on psychodynamic stage are biased because this variable contributes to psychodynamic stage formulation.
In addition, stages based on age groups showed significant differences on whom the girl confided in, whether or not she had a job earning money, and whether or not she considers herself to have had a serious illness. These differences (excluding menstruation which is not in itself relevant to behavioral autonomy) were in the hypothesized direction of more autonomy and less dependence on family for late adolescents when compared with early adolescents. We can, therefore, accept hypothesis 5. The nature of these relationships will be explored further in the discussion section.

Hypothesis 6 states that subjects at the middle stage of adolescence, as measured by ego development (WUSCT) will show a higher demand for loyalty and absolute security in friendship, as well as more of a need for similarity between friends as measured by items on the questionnaire than will subjects at either the early or late stages of adolescent development.

To answer this hypothesis, responses to two questions were analyzed. These questions were: "What are the most important things a friend should be?" and "What do you think are the reasons that some girls are not liked by other girls?" On each question, three by two contingency tables for each of the categories of reasons were set up, and chi-square tests were applied to locate significant differences between the stages. This information and the percentages
of responses at each stage of ego development is shown in Tables 10 and 11.

The concept of security (loyalty-trustworthiness) in friendships is found to be highly valued at all three stages of adolescence in females as measured by the WUSCT. This concept does not show the sudden increase in importance at middle adolescence as hypothesized.

The concept of similarity between friends can be viewed by responses falling into the categories of Shared Interests and Incompatibility. Few subjects indicated that shared interests were an important attribute of friendships at any stage of adolescence. Incompatibility, however, is indicated as an important reason why girls are rejected. This is consistent for all stages of adolescent ego development and not just at the middle stage. We cannot, therefore, accept hypothesis 6.

Hypothesis 7 states that stages of adolescent development in females as measured by age groups, ego development (WUSCT) and psychodynamic development as measured by items from the questionnaire, will be independent of demographic factors, such as religious affiliation, and socio-economic status.

Socio-economic status was measured by the occupation of the head of the household on the basis of an index of social position (Myers and Bean, 1968). These correlations are shown in Table 12. SES is significantly correlated with
Table 10. Percentages of responses and chi-square tests of significant differences for each stage of ego development (WUSCT) for reasons why some girls are not liked by female peers (N=130).

<table>
<thead>
<tr>
<th>Source of Unpopularity</th>
<th>Number Listing Attribute</th>
<th>Early Ego Stage</th>
<th>Middle Ego Stage</th>
<th>Late Ego Stage</th>
<th>$\chi^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostility-Moody</td>
<td>16</td>
<td>20</td>
<td>1</td>
<td>4</td>
<td>17.4</td>
<td>.001</td>
</tr>
<tr>
<td>Jealousy-Envy</td>
<td>41</td>
<td>8</td>
<td>21</td>
<td>25</td>
<td>10.1</td>
<td>.005</td>
</tr>
<tr>
<td>Snobbish-Self-centered</td>
<td>57</td>
<td>38</td>
<td>23</td>
<td>31</td>
<td>3.3</td>
<td>NS</td>
</tr>
<tr>
<td>Incompatible</td>
<td>38</td>
<td>12</td>
<td>18</td>
<td>21</td>
<td>3.9</td>
<td>NS</td>
</tr>
<tr>
<td>Status-looks</td>
<td>29</td>
<td>12</td>
<td>18</td>
<td>8</td>
<td>5.5</td>
<td>NS</td>
</tr>
<tr>
<td>Boy crazy-Bad reputation</td>
<td>23</td>
<td>7</td>
<td>11</td>
<td>13</td>
<td>2.4</td>
<td>NS</td>
</tr>
<tr>
<td>Gossip</td>
<td>13</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>1.6</td>
<td>NS</td>
</tr>
</tbody>
</table>
Table 11. Percentages of responses and chi-square tests of differences among stages of ego development (WUSCT) for the most important things a friend should be (N=130).

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Ss Listing</th>
<th>Early Ego Stage</th>
<th>Middle Ego Stage</th>
<th>Late Ego Stage</th>
<th>$\chi^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly, Nice</td>
<td>18</td>
<td>13</td>
<td>4</td>
<td>3</td>
<td>9.13</td>
<td>.025</td>
</tr>
<tr>
<td>Understanding, Accepting</td>
<td>73</td>
<td>17</td>
<td>27</td>
<td>26</td>
<td>8.18</td>
<td>.025</td>
</tr>
<tr>
<td>Mutuality: Intimate, confiding</td>
<td>34</td>
<td>6</td>
<td>11</td>
<td>16</td>
<td>7.35</td>
<td>.05</td>
</tr>
<tr>
<td>Security: Loyal, Trustworthy</td>
<td>89</td>
<td>31</td>
<td>31</td>
<td>26</td>
<td>.80</td>
<td>NS</td>
</tr>
<tr>
<td>Supportive - Helpful</td>
<td>55</td>
<td>20</td>
<td>18</td>
<td>16</td>
<td>.19</td>
<td>NS</td>
</tr>
<tr>
<td>Shared Interests</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>.43</td>
<td>NS</td>
</tr>
<tr>
<td>Interesting, Popular</td>
<td>26</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>.72</td>
<td>NS</td>
</tr>
</tbody>
</table>
age groups and psychodynamic stages, but not with ego stage (WUSCT).

The population in this study consisted of 59% protestants and 22% catholics with 8% indicating no religious affiliation. Religious affiliations were classified into contingency tables by the three stages of each paradigm (i.e., age, ego (WUSCT) and psychodynamic development). Chi-square tests were applied to these tables and no significant differences emerged. These results can be seen in Table 13.

Therefore, religion is independent of stages based on age groups, the WUSCT or the questionnaire, but only ego stages (WUSCT) are not associated with SES. For these reasons, we can accept hypothesis 7 for stages based on ego development (WUSCT), but not for stages based on age or psychodynamic development.

Table 12. Correlations between age groups, ego stage (WUSCT) and psychodynamic stage with socio-economic status (SES).

<table>
<thead>
<tr>
<th>SES</th>
<th>Ego Stage</th>
<th>Psychodynamic Stage</th>
<th>Age Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.13</td>
<td>.23**</td>
<td>.20*</td>
</tr>
</tbody>
</table>

* .01
** .001
Table 13. Chi-Square tests of frequencies of religious affiliation classified by age, ego stages (WUSCT) and psychodynamic stages (N=130).

<table>
<thead>
<tr>
<th>Religious Affiliation</th>
<th>$\chi^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Groups</td>
<td>12.14</td>
<td>NS</td>
</tr>
<tr>
<td>Ego Stage</td>
<td>4.41</td>
<td>NS</td>
</tr>
<tr>
<td>Psychodynamic Stage</td>
<td>2.31</td>
<td>NS</td>
</tr>
</tbody>
</table>

*Degrees of freedom = 8.*
CHAPTER V

DISCUSSION

This study was conceived as exploratory research into the feasibility of empirically studying and comparing stages of development for females during adolescence. Stages indicating early, middle and late adolescent development in females emerged on the basis of age groupings, ego development as measured by the Washington University Sentence Completion Test (WUSCT) and psychodynamic development as measured by a questionnaire.

This chapter will start with an overview of early, middle and late stages of adolescence for females, based on the findings of this study. These delineations of stages are meant to use present results to expand previous descriptions of adolescent stages.

While there are concordant findings for the stages as determined by the three paradigms (i.e., ego development, age groups and psychodynamic development), each paradigm was also able to differentiate its own unique facet of adolescent development. First, to help elaborate the scope of each stage, findings from each paradigm are combined in the overview by stages. Then, findings will be explored from the perspective of each paradigm separately.
Implications for the findings and future research will subsequently be explored.

**Early Adolescence**

The early adolescent girl is anticipating or has recently experienced her first menstruation. She tends to be unaware of the effect this event has on her moods and feelings. This may represent denial. Subjects choosing not to answer questions related to this topic come from this stage. The early adolescent is sensitive to her body concerns, and may even feel that she has had a serious illness. The defense mechanism of intellectualization is used more frequently than any other.

When the early adolescent rejects peers she does so for reasons which all female adolescents do. That is, because they are snobbish, self centered or incompatible. She is unique, however, in that she also rejects other girls because she perceives these girls to be hostile, moody or to have bad tempers. She values qualities in friends that extend across the entire adolescent period, i.e., loyalty, trustworthy, supportive, helpful. However, she is unique in that she emphasizes that she values the perhaps superficial qualities of friendliness and niceness in others.

She lives with her mother and father at home and receives an allowance as well as earning some of her own spending money from jobs, such as babysitting. She confides
in her girlfriends mostly, and does not confide in boys at all. She dates very rarely, if at all.

**Middle Adolescence**

The middle adolescent female is more aware of her moods and feelings being affected by her menstruation cycle. She no longer dislikes other females just because they are hostile, moody or have a bad temper. Instead, she now describes jealousy and envy as among the most common reasons why girls are rejected. Valued attributes of friendly and nice in friends no longer are emphasized. Instead, she values understanding, considerate and accepting qualities in others. These qualities are an addition to the standard qualities of friends which are valued throughout adolescence.

She still confides in friends, but her mother has also emerged as a major confidante. Her dating frequency has increased, but is erratic. She may date several times a week or not at all. In spite of the increased frequency of her dating, she does not confide in males.

She is beginning to consider living on her own. She may stop earning her own spending money, even though she may no longer be receiving an allowance.

The amount of her use of intellectualization as a defense mechanism has increased. She uses reversal techniques less as defense mechanisms than at any other stage during adolescence.
There is increased conflict with her parents, but she is still close with them. However, in conflicts with her parents, girls at this stage show an increased use of the defense mechanisms of reversal and turning against the self, while showing a decrease in the use of projection. In conflicts with peers, the middle adolescent shows an increased use of projection.

**Late Adolescence**

The late adolescent female tends to live on her own (or in a dormitory). She no longer receives an allowance, and is working more to earn money.

Her interpersonal relationships show more stability and depth. Qualities valued in friends for the middle adolescent, such as understanding and accepting remain as important for the late adolescent. In addition, she values qualities of mutuality, such as confiding and intimacy. Looks, status or SES background tend to be less important as reasons why female peers may be disliked.

She continues to use significantly more intellectualization as a defense. Also, she continued to use more projection in conflicts with others outside her family.

She can now consider males as possible confidants. In addition, her dating behavior is more stabilized, at a higher frequency.
Stages of Ego Development

Only when using an ego stage model do we observe a significant linear trend in the use of a defense mechanism, namely intellectualization. While intellectualization was the predominant type of defense mechanism used by subjects in this study at all three stages, subjects could nonetheless be distinctly categorized as to ego stage by the amount of use of this defense mechanism. This was not the case when we tallied the use of intellectualization for either age or psychodynamic groupings.

These findings illustrate theoretical observations about the use of intellectualization as a defense strategy during adolescence. Anna Freud (1966) notes that many adolescents have an insatiable desire to think about a vast range of abstract subjects, to turn these topics over in their minds and to talk about them. Many of the friendships of youth, she points out, are based on and maintained by this desire to discuss such subjects together. These might include discussions of "free love" or marriage, existential existence or vocation goals, philosophical problems like religion or different political theories.

Freud observes, however, that this extensive intellectual performance seems to make little difference in regard to adolescents actual behavior. Empathy into the mental processes of other people, for example, does not prevent the adolescent from displaying an outrageous lack of
consideration toward those nearest to her. The point, therefore, is that what we are observing is something quite different from intellectuality in the ordinary sense of the term. Gratification is derived from the mere process of thinking, speculating or discussing. Behavior is determined by other factors and is not necessarily influenced by results of these intellectual gymnastics.

Anna Freud attributes this phenomenon to the ego's endeavor to master the instincts by means of thought. In other words, the aim of this form of intellectualization is to link up or connect the instinctual processes closely with ideas which can be dealt with in consciousness and thereby render them accessible and amenable to control. Thus it is not surprising that the highest stage of ego development is characterized by very extensive intellectualization. Advancing age alone and a greater degree of psychodynamic development do not necessarily imply use of thought to control impulses.

The concept of friendship was analyzed on the basis of an ego stage paradigm. The purpose of this analysis was not to compare the different paradigms, but primarily to illustrate in depth the utility of a stage model. Secondarily, its purpose was to illustrate the utility of an ego stage theory.

Certain qualities perceived as important in friends, such as trustworthy, loyal, supportive and helpful permeated
the entire adolescent period. Likewise, reasons why girls are disliked, such as snobbishness, self centeredness, and incompatibility, pervaded early, middle and late stages.

However, other qualities, valued or disliked in peers, take on or lose importance in significant degrees for the adolescent girl depending on the stage of ego development (WUSCT). If we place these qualities on a developmental continuum each at the stage at which chi square tests indicate it significantly emerges, we find the following pattern for the concept of friendship.

<table>
<thead>
<tr>
<th>Most Important Things A Friend Should Be</th>
<th>Early Ego Stage</th>
<th>Middle Ego Stage</th>
<th>Late Ego Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly</td>
<td>Understanding</td>
<td>Mutuality:</td>
<td></td>
</tr>
<tr>
<td>Nice</td>
<td>Accepting</td>
<td>Intimate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confiding</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reasons For Disliking Girls</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostile</td>
<td>Jealousy</td>
<td>Jealousy</td>
</tr>
<tr>
<td>Moody</td>
<td>Envy</td>
<td>Envy</td>
</tr>
<tr>
<td>Bad Temper</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1. Certain qualities valued and disliked in peers which differentiated ego stages.

Sullivan (1953) held that individual differences indicated different stages of essentially a single developmental sequence. Anxiety was an important part of his theory. He felt that individuals moved away from whatever increased anxiety and toward whatever decreased it.
The continua shown above in Figure 1 seem to fit his theoretical perspective. Sullivan would interpret Figure 1 as indicating stages in a developmental sequence. He would explain the changes in what the adolescent values or dislikes in others in terms of approach-avoidance valences at each stage. For instance, he would view the girls at early adolescence who were perceived as hostile, moody or having bad tempers as increasing anxiety in other early adolescents and therefore as driving others away. Girls perceived as friendly and nice would reduce anxiety and would therefore be approached.

Loevinger (1976) acknowledges being influenced by Sullivan's theories. She views the ego as a structure of expectations about interpersonal phenomena, not natural phenomena. For her, ego development is a rubric which encompasses four different dimensions of development, i.e., impulse control, interpersonal style, conscious preoccupation and cognitive style.

She has described the progression for interpersonal style as moving from a wary, manipulative and exploitive style toward a conformist level embracing a pleasing and friendly personality. Girls at this latter stage like to be part of a group. They depend on popularity and expressions of social approval. Belonging makes them feel secure. They often disapprove of hostility and aggression, which individuals at the former stage may flaunt. At this
conformist stage, they may ignore hostile provocations. From here, they progress into a transition stage, (conscientious-conformist) where they become aware of self in relation to the group. Helping becomes better defined. The next stage is the conscientious one in which the interpersonal style is described as intensive, responsible, mutual and with a concern for communication.

Such descriptions for those aspects of the interpersonal style of development generally correspond with the findings of this study for the concept of friendship. There are some differences but these seem to center not on content, but on the timing at which these qualities are preferred or disliked. That is, the early adolescents in this study do not report the qualities of wary, manipulative and exploitive in describing peers. Instead, we do hear all the descriptions of adolescents at the conformist level: friends are superficially nice, have friendly personalities, disapprove of hostility and temper, etc.

The fact that there is not an exact correspondence between the qualities described at certain stages in this study with those of Loevinger (1976), and specifically, the fact that for the early adolescents in this study, there is an absence of negative qualities posited by Loevinger (1976) may have many explanations. For instance, from the perspective of a concept of friendship we may be able to observe these qualities a little earlier than Loevinger's
observations suggests. Also, it is possible that cultural influences may have caused such interpersonal qualities and preferences in friendships to begin earlier. None of these possibilities, however, negates the overriding similarity between the stages in the concept of friendship found in this study and the description of change by stage of interpersonal style according to Loevinger's stages (1976).

**Stages Based on Age Groupings**

When adolescents were classified into stages on the basis of age, twelve and thirteen year olds comprised the early stage, sixteen and seventeen year olds comprised the middle stage and nineteen and twenty year olds comprised the late stage of adolescence. Only on the basis of age groups did a multivariate analysis of variance reveal a significant relationship of stage and the use of the defense mechanism of reversal, and this relationship was quadratic.

In general, reversal refers to one's tendency to deal with conflict by responding in a positive or neutral fashion to a frustrating situation which might be expected to evoke a negative reaction. This quadratic trend involved the lesser use of reversal for sixteen and seventeen year old females as compared both with the twelve-thirteen year olds and the nineteen-twenty year olds. Unfortunately, since this is a quadratic trend, we cannot differentiate the relatively greater use of reversal in early and late stage adolescents.
Anna Freud (1966) points out the difficulty she and others have had in trying to associate the use of defense mechanisms with age. She notes that:

Such processes as regression, reversal or turning round upon the self are probably independent of the stage which the psychic structure has reached. . . . The chronology of psychic processes is still one of the most obscure fields of analytic theory. . . . So a classification of the defense mechanisms according to position in time inevitably partakes of all the doubt and uncertainty which even today attach to chronological pronouncements in analysis. It will probably be best to abandon the attempt so to classify them and, instead, to study in detail the situations which call for the defensive reactions (pp. 53-53).

The findings of this study, nevertheless, suggest some utility for the notion of discrete stages since we have empirically demonstrated that sixteen and seventeen year old females choose to respond to situations of conflict and frustration less frequently with a specific behavior pattern (reversal) than other adolescents.

This quadratic trend for the characteristic use of reversal was significant only when grouping subjects on the basis of age. When female adolescents are classified on the basis of ego or psychodynamic qualities, the stages show less variability in use of this defense mechanism of reversal than they do when we define them by age.

**Psychodynamic Stages**

The contributions of psychodynamic stages of adolescents have been partially covered in the preceding discussions of stages based on ego development and age
groups. Psychodynamic stage was determined by a questionnaire which assessed five psychodynamic lines of development. These are a) family relations, b) relationships with others outside the family, c) who the significant people are for the girl, d) her self representation, and e) her goals and interests.

In general, psychodynamic stages did not seem to offer more for our interpretation than an age or ego stage paradigm. The findings did indicate, however, that by evaluating responses to a few questions we could define three stages of adolescence from the perspective of psychodynamics and of the conflicts that shift for females across adolescence.

While psychodynamic stages did not show a relationship with any of the defense mechanisms unexpected findings did emerge. Relationships appeared between the characteristic use of certain defense mechanisms and the stage of development on some of the psychodynamic sub-variables, but not for others. See appendices G and H. This may suggest situation specificity of these defenses.

Two of the significant trends involve the indication of who the most significant person is for the girl. Girls were scored at the middle stage on this sub-variable if they confided in their parents even though the parents may have been also the primary targets of the girls conflicts. Competitive feelings toward mother while struggling with
wishes for father's love and attention also defined middle adolescence for this sub-variable. Girls showing these middle adolescent psychodynamics showed a significant decrease in their use of projection and an increase in their use of reversal as defense mechanisms.

Projection here represents a characteristic style which justifies the expression of aggression toward an external object by first attributing to it, without sufficient evidence, negative intent or characteristics. Reversal refers to behaviors in which one deals with conflict by responding in a positive or neutral fashion to a frustrating object which might be expected to evoke a negative reaction. Defenses such as negation, denial, reaction formation and repression are subsumed under this category.

These findings suggest that the use of reversal and projection is associated with family conflict. We can speculate that the use of such defense mechanisms allows the girl to avoid exacerbating conflict, while retaining the mother as confidante and also pursuing wishes for father's love and attention. If a dichotomy seems to exist, it may reflect why some describe the adolescent period as turbulent (Spiegel, 1961; Ackerman, 1962) and others describe it as placid and "absent of preoccupation with drives" (Douvan and Adelson, 1966).
A significant quadratic trend was discovered involving the use of the defense mechanism of turning against the self (TAS) with the psychodynamic subvariable of family relationships. Girls scored as being at the middle stage of development on this dimension indicated that they were actively fighting one or both parents, or that they exhibited a good deal of rivalrous and rebellious behavior, or that they were involved in oedipal issues.

These findings suggest that struggles of this nature elicit from girls a significant increase in the frequency to which they deal with such conflicts by turning their aggression or hostility against themselves. Theoretically, the aggression initially intended for the family member seems to be turned back on the self, possibly because of a rigid and punishing superego. There is a similarity of this stage description of family relationships and that of the variable significant others which was just discussed. The findings here on TAS might therefore be viewed best in reference to the use of reversal and projection which were discussed above.

Finally, a linear trend emerged for the use of projection with the psychodynamic sub-variable of the girl's relationships with others outside the home. This association means that regardless of her other psychodynamic characteristics, the adolescent girl increasingly used projection with
(or possibly in response to) conflicts surrounding non-family relationships.

Specifically this significantly increasing use of projection spans a progression from an early stage of interpersonal style with others outside the family which is characterized by passivity or showing no sense of commitment or an "as if" qualify to a middle stage in which she seems hungry for relationships, "collects" people and finally to a late stage where she is more maturely and realistically relating to others. The association of the use of projection with conflicts with peers could take the form of the girl blaming her moral lapse on the peer "who led me on," or "If I hadn't taken advantage of him, he would have taken advantage of me."

It should be pointed out, that the results regarding the associations and trends of the characteristic use of defense mechanisms and the psychodynamic sub-variables were not hypothesized. They need to be replicated before they can be fully accepted. Nevertheless, these findings suggest some directions from which to pursue the relationship between conflict, possibly of a situation specific nature and defense mechanisms.

Research Implications

In the future, this type of research can be valuably extended into studies of the specific relationships between
different kinds of development. For example, one question might be what the minimum intellectual equipment is for achieving each ego or psychodynamic level.

Other questions would involve the exploration of the support systems which allow the dynamics to change. Specifically this might involve a study of the expectations and anticipations of problems which individuals have at each stage. The expectations which they feel the significant people in their lives hold for them would seem to this investigator to be an integral part of that type of study.

In general, from a Piagetian framework, we are referring to the assimilation and accommodation of ego and psychodynamic development.

This research can also be expanded in the direction of incorporating promising ideas such as that what is fundamental to interpersonal development is the ability to take the other's role (Selman, 1974). Another idea in this direction is that what makes a variable fundamental is whether or not the individual adopts as his or her own the higher mode of responsibility which each stage makes available to the individual (Blasi, 1971). That is, whether the subject herself makes a particular quality the focus of her own aspirations.

Certainly research of this nature can be pursued in terms of specific behaviors, such as, the onset of drinking (Jessor and Jessor, 1975) or marijuana use (Jessor, 1975) or
the transition from virginity to nonvirginity (Jessor and Jessor, 1975) or in the adolescent experience of pregnancy and abortion (Hatcher, 1973). However, one need not lose sight of the broader continual struggles and changes in a consistent dialectical dimension, such as, autonomy and dependence or separation and attachment.
CHAPTER VI

SUMMARY

Stages of early, middle and late development during adolescence for females were investigated on the basis of ego development, psychodynamic development and the characteristic use of defense mechanisms. Age groupings were compared with these theoretical paradigms.

Stages of ego development were measured by the Washington University Sentence Completion Test (WUSCT) (Loevinger and Wessler, 1970). Stages of psychodynamic development were measured by a questionnaire developed from a literature review, and a scoring format was adapted from previous research (Hatcher, 1973). Defense mechanisms were measured by the Defense Mechanism Inventory (Gleser and Ihilevich, 1968).

Multivariate and univariate analyses of variance were used to evaluate the ability of each instrument to differentiate the stages. A trend analysis was used to determine linear and quadratic effects by stage. Chi square tests indicated significant differences on certain self reported behaviors and attitudes between the stages.

It was found that two of the instruments, WUSCT and the questionnaire, each relatively brief, differentiated
three distinct and useful stages of adolescence with females. Of five categories of defense mechanisms, only the use of reversal differentiated adolescents and only when they were classified according to age groups. Multivariate analyses of variance indicated a single dimension for stages based on either age groups, ego stage (WUSCT) or psycho-dynamic stage.

On five self report variables covering attitudes and behavior, significant differences between the stages (whether defined by age, WUSCT or the questionnaire) were observed. These variables were: a) whether or not the girl is menstruating, b) how the girl feels about the time of menstruation, c) her dating frequency, d) whom she lives with, and e) whether or not she receives an allowance.

Each paradigm was able to differentiate its own unique facet of female adolescent development. The advantage of one paradigm over another seemed to depend on what specific questions and specific dependent variables were being considered. When quadratic effects were adjusted for, a significant linear trend was discovered for the use of the defense mechanism of intellectualization across the three ego stages.

The concept of friendship was analyzed on the basis of an ego stage paradigm. Qualities of loyalty-trustworthiness and supportive-helpfulness were valued in friends by girls at all three stages. Snobbish-self centeredness and
incompatibility (usually described as a lack of understanding, intelligence or skills) predominated as reasons why girls are disliked by female peers. Other qualities of friendship were discovered to emerge in importance during one of the stages of adolescent ego development.

Peers were valued for being friendly and nice, while others were rejected for being hostile, moody or having bad tempers primarily during the early stage of ego development. At the middle stage of adolescent ego development qualities such as understanding and accepting emerged in value, while jealousy and envy emerged as reasons to dislike peers. At the late stage of adolescent ego development mutuality, intimacy and confidentiality were qualities in peers which emerged in importance.

The age model demonstrated a significant quadratic trend in the frequency of use of reversal as a defense mechanism. However, the oldest and youngest adolescents could not be differentiated on this variable. Psychodynamic development seemed to be predicted better from age alone than it was from an ego stage model. The three age groups also differed on dependent variables such as, a) earning money, b) serious illness, and c) whom the girl confides in. The concept of friendship was not analyzed by age or psychodynamic stage, in this study. However, other research on attributes of friendship which have been based on age groups was reviewed.
Use of certain defense mechanisms was related to stage of development on some psychodynamic variables, but not others, suggesting the possibility of situation specificity of the defenses. Thus defenses such as turning against the self and reversal show significant increases and projection a significant decrease in girls for whom their parents are the significant people in their lives, and when family relationships include active fighting with parents, rivalry, rebelliousness or competitiveness with mother while wishing for father's love and attention. Projection was increasingly used by girls whose relationships with others (outside the family) continued to mature.

Practical implications of the results and further research possibilities were discussed.
APPENDIX A

The Washington University Sentence Completion Test
SENTENCE COMPLETION FOR WOMEN (Form 11-68)

Name ___________________________ Age ___

Marital Status ___________ Education ______________

Instructions: Complete the following sentences.

* 1. Raising a family
2. A girl has a right to
* 3. When they avoided me
* 4. If my mother
* 5. Being with other people
* 6. The thing I like about myself is
* 7. My mother and I
* 8. What gets me into trouble is
* 9. Education
* 10. When people are helpless
11. Women are lucky because
* 12. My father
13. A pregnant woman
14. When my mother spanked me, I
* 15. A wife should
16. I feel sorry
17. Rules are
18. When I get mad
19. When a child will not join in group activities
20. Men are lucky because
21. When they talked about sex, I
22. At times she worried about
23. I am
* 24. A woman feels good when
* 25. My main problem is
26. My husband and I will
27. The worst thing about being a woman
28. A good mother
29. Sometimes she wished that
30. When I am with a man
31. When she thought of her mother, she
* 32. If I can't get what I want
* 33. Usually she felt that sex
* 34. For a woman a career is
* 35. My conscience bothers me if
36. A woman should always

* Indicates which items were scored to determine the stage of ego development in this study.
APPENDIX B

The Psychodynamic Questionnaire.
1. Do you have any brothers?
2. If Yes, specify their ages.
3. Do you have any sisters?
4. If Yes, specify their ages.
5. What kind of work does your father do?
6. What kind of work does your mother do?
7. What is your family's religion?
8. Do you live with your mother and father?
9. If No, please explain and indicate which adults you do live with.
10. Do you think your parents are:
    a) very strict
    b) democratic and fair
    c) very lenient
    d) other (please explain)
11. Who are the people who have been most important to you in the last three years? Who are most important now?
12. Describe your family and how you get along with them.
13. Very often girls your age disagree with their parents about something. What disagreements do you have with your parents?
14. What disagreements do you have with your brothers and sisters?
15. What are the most important things your parents expect of you?
16. What are the most important things a friend should be?
17. Describe your friendships and how you get along with other people.
18. What do you think are the reasons that some girls are not liked by other girls?
19. During the last three years, what has been most important in your life? What have you learned in this time? What is most important in your life now?
20. Describe three major problems you've had to master during the last three years.

21. What types of problems do you think you'll have to deal with during the next two years?

22. How would you describe yourself, or answer the question, "What kind of a person are you?"

23. Do you ever wish or fantasize that you were a male?

24. Who do you confide in?

25. What would you like to change about yourself if you could (about your looks or your life or your personality)?

26. Do you have any goals, plans or dreams for the future?

27. When you are feeling unhappy and like nothing is going right for you, what sorts of things do you do?
   a) stay alone and think things out
   b) stay alone and play music and read or study
   c) call a friend and talk about my problems
   d) do anything that will keep my mind from my problems
   e) eat a lot because that always makes me feel better
   f) forget everything by driving a car or bike
   g) other (please explain)

28. With whom do you spend most of your free time?
   a) by yourself
   b) with friends
   c) with family
   d) other (please explain)

29. What are the things that you do, at home or in school or with your friends, that make you feel important and useful?

30. Do you think a person can ever be as close to a friend as she can to her own family?

31. What adult do you admire most? What do you admire about that person?

32. Do you have an allowance?

33. Do you earn any of your own spending money?

34. If Yes, how do you earn your money?
35. What do you use your own money for?

36. Do you date?
   a) No
   b) Yes, very rarely
   c) Yes, a couple of times a month
   d) Yes, once a week
   e) Yes, several times a week

37. If you had three wishes what would you wish for?

38. Have you had a serious illness? (Please explain)

39. Have you had your first menstrual period?

40. If Yes, at what age did you first menstruate?

41. How do you feel around the time of your period?
APPENDIX C

Questions and format for scoring each variable of psychodynamic development into early, middle and late stages of adolescent development.
Significant Others:

11. Who are the people who have been most important to you in the last three years? Who are the most important now?

24. Who do you confide in?

31. What adult do you admire most?

19. During the last two years, what has been most important in your life? What is most important in your life now?

Response

The focus is on her relationship with her girlfriend. She is involved with conflict of wishing for closeness and at the same time distance with mother. The girl chooses a safer female figure, the girlfriend, on which to focus her attention as a compromise. The girlfriend is the exclusive confidante.

Parents are primary targets of her conflicts. Competitive feelings toward mother while struggling with wishes for father's love and attention. Parents are confidants.

Her primary relationship is with her boyfriend. She wishes for a commitment from him. Boyfriend is confidant. A girlfriend may also be significant but there is a much more mature description of her. The role of parents has shifted to where they are now viewed as helping their daughter confirm her move toward embracing adult roles.
Family Relationships:

12. Describe your family and how you get along with them.

13. Very often people your age disagree with their parents about something. What disagreements do you have with your parents?

14. What disagreements do you have with your brothers and sisters?

**Response**

She is isolated from them; may not express much closeness to anyone except mother, or she may seem to be internally fighting closeness to mother; relationships may be described in a vague, detached manner.

Actively fighting parents either collectively or individually; rivalrous and rebellious; oedipal issues; self depreciating.

More realistic, can objectify relationships to and feelings about family even if in conflict with them; some distance and understanding of them as people is shown; sense of commitment.

**Stage**

Early

Middle

Late
Interpersonal Style with Others
Outside the Family:

17. Describe your friendships and how you get along with other people.

Other questions may also be considered when appropriate for an individual.

**Response**

Describes self as passive, indicating little relatedness; may be relatively isolated, or indicate no sense of commitment; "as if" quality in interactions; vague description of relationship, or cannot answer questions at all.

Seems hungry for relationships, but relationships are viewed in terms of what she might get from the situation; she collects people in the sense of two will gratify the most needs, but she discards these people quickly; there is much self-absorption with dramatic and hyper-femininized self-percepts emerging.

Seems to be more maturely and realistically related to others. Tends to talk more about emotions and offers considered responses.

**Stage**

Early

Middle

Late
Self Representation:

22. How would you describe yourself, or answer the question, "what kind of a person are you?"

25. What would you like to change about yourself if you could (about your looks or your life or your personality)?

26. Describe three major problems you've had to master during the last two years.

<table>
<thead>
<tr>
<th>Response</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little stable self-concept; physical description exclusively or responds by describing other people's response to her, or cannot answer question.</td>
<td>Early</td>
</tr>
<tr>
<td>Describes self in self-absorbed manner, either aggrandized or self-deprecatory; gives adjective list without indication of any insight.</td>
<td>Middle</td>
</tr>
<tr>
<td>More mature self-representation, perhaps with signs of identity confusion, but some insight into own state of flux; able to delineate emotional needs; aware of effect on others.</td>
<td>Late</td>
</tr>
</tbody>
</table>
Goals and Interests:

26. Do you have any goals, plans or dreams for the future?

21. What types of problems do you think you'll have to deal with during the next two years?

<table>
<thead>
<tr>
<th>Response</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfocused; vague, little concept of future in any realistic sense.</td>
<td>Early</td>
</tr>
<tr>
<td>Some sense of future, but narcissistically expressed, e.g. Prince Charming fantasy; may not have long range focus, but expresses some insight into self and others; not really begun to work toward a goal.</td>
<td>Middle</td>
</tr>
<tr>
<td>Somewhat more goal-oriented; has more of a plan as to how to organize future; may have begun to work toward goals; insight into problems; see themselves as changing and growing.</td>
<td>Late</td>
</tr>
</tbody>
</table>
APPENDIX D

Excerpts from the Questionnaire to Illustrate the Scoring for Psycho-dynamic Stage
Family Relationships:

12. Describe your family and how you get along with them.

Response  

Subject # 75: "Large - O.K."

Subject # 50: "My father gets on my nerves a lot but sometimes I feel kind of close to him."

Subject # 57: "My parents and I usually get along but when we disagree on something all Hell breaks loose because our opinions are totally different. I start to yell then my Dad yells and my Mom ends up crying."

Subject # 113: "My family is a middle class family. I am close to them. My father holds the 'head' type position although he is fair to his kids, he dominates my mother too much. My mother is efficient and a great homemaker. I am close to my brother and not as close to my sisters, mainly because of the age differences. My grandmother lives with us also and we get along very well."

Stage  

Early: Family described in vague, detached manner.

Middle: Fighting, possibly oedipal issues.

Middle: Fighting with parents with little understanding of conflict.

Late: Objectifies, e.g. "middle class" "head," "homemaker," "age difference." Able to distance herself enough to view family with understanding or realistically, e.g. "dominates . . . too much," "closer to brother than to sisters."
APPENDIX E

The Defense Mechanism Inventory
INSTRUCTIONS: Read carefully

On each of the following pages is a short story. Following each story are four questions with a choice of five answers for each. The four questions relate to the following four kinds of behavior: actual behavior, impulsive behavior in fantasy, thoughts, and feeling. Of the four, it is only actual behavior which is outwardly expressed; the other three take place only in the privacy of one's mind and, therefore, have no external repercussions.

What we want you to do is to select the one answer of the five which you think is the most representative of how you would react, and mark the number corresponding to that answer on the attached answer sheet, with a plus (+) sign. Then select the one answer which you think is least representative of how you would react and mark it with a minus (−) sign. For example, let us assume that out of the five possible answers to a question (e.g., numbers 236, 237, 238, 239, 240), response number 237 is the one you consider most representative of the way you would react, and response number 240 as the least representative. In this case, the corresponding part of the answer sheet would look like this:

```
236 ______
237 +
238 ______
239 ______
240 -
```

Read all the five answers following the question before you make your selections. In marking your answers on the answer sheet, be sure that the number of the statement agrees with the number on the answer sheet.

There are no right or wrong answers here; the only thing that should guide your selections is your own knowledge of yourself. Allow your mind to imagine for a moment that the event described in the story is really happening to you, even though you may never have experienced such an event. When you select your responses remember we are not asking which answer you like most and like least, but rather the answers which would best and least represent the way you would act and feel in these situations.
If you have no questions, please turn to the next page and begin.

David Ihilevich and Goldine Gleser, 1968.
You are waiting for the bus at the edge of the road. The streets are wet and muddy after the previous night's rain. A car sweeps through a puddle in front of you, splashing your clothing with mud.

What would your ACTUAL reaction be?
1. I would note the car's license number so that I could track down that careless driver.
2. I'd wipe myself off with a smile.
3. I'd yell curses after the driver.
4. I would scold myself for not having worn at least a raincoat.
5. I'd shrug it off; after all things like that are unavoidable.

What would you IMPULSIVELY (in fantasy) want to do?
6. Wipe the driver's face in the mud.
7. Report that incompetent driver to the police.
8. Kick myself for standing too close to the edge of the road.
9. Let the driver know that I don't really mind.
10. Let that driver know that bystanders also have rights.

What THOUGHT might occur to you?
11. Why do I always get myself into things like this?
12. To hell with that driver!
13. I'm sure that basically that driver is a nice fellow.
14. One can expect something like this to happen on wet days.
15. I wonder if that fellow splashed me on purpose.

How would you FEEL and why?
16. Satisfied; after all it could have been worse.
17. Depressed, because of my bad luck.
18. Resigned, for you've got to take things as they come.
19. Resentment, because the driver was so thoughtless and inconsiderate.
20. Furious that he got me dirty.
You are living with your aunt and uncle, who are helping to put you through college. They have taken care of you since your parents were killed in an automobile accident when you were in your early teens. On a night that you have a late date with your "steady," there is a heavy storm outside. Your aunt and uncle insist that you call and cancel your date because of the weather and the late hour. You are about to disregard their wishes and go out the door when your uncle says in a commanding tone of voice, "Your aunt and I have said that you can't go, and that is that."

What would your ACTUAL reaction be?
41. I would do as my uncle said because he has always wanted what was best for me.
42. I'd tell them, "I always knew you didn't want me to grow up."
43. I would cancel my date, since one must keep peace in the family.
44. I'd tell them it was none of their business and go out anyway.
45. I'd agree to remain at home and apologize for having upset them.

What would you IMPULSIVELY (in fantasy) want to do?
46. Knock my head against the wall.
47. Tell them to stop ruining my life.
48. Thank them for being so concerned with my welfare.
49. Leave, slamming the door in their faces.
50. Keep my engagement, rain or shine.

What THOUGHT might occur to you?
51. Why don't they shut up and let me alone?
52. They never have really cared about me.
53. They are so good to me, I should follow their advice without question.
54. You can't take without giving something in return.
55. It's all my own fault for planning such a late date.

How would you FEEL and why?
56. Annoyed, that they think I am a baby.
57. Miserable, because there is nothing much I can do.
58. Grateful for their concern.
59. Resigned; after all, you can't get your own way every time.
60. Furious, because they interfere with my business.
You are spending your vacation visiting an old friend who has found an exciting new job in another town and has gone to live there. She invites you to go with her to a dance given that weekend at the community clubhouse.

Shortly after you arrive, she accepts an invitation to dance, leaving you with a group of strangers to whom you have barely been introduced. They talk with you, but for some reason no one asks you to dance. Your friend, on the other hand, seems to be very popular that evening; she looks as if she is having a wonderful time. As she dances past, she calls out to you, "Why aren't you dancing?"

What would your ACTUAL reaction be?

61. I'd say sarcastically, "I'm not dancing because I'd rather watch you."
62. I'd tell her that I really didn't feel like dancing.
63. I'd go to the powder room to see what's wrong with me.
64. I'd tell her that it's easier to become acquainted through conversation, than it is by dancing.
65. I'd get up and leave because she apparently wants to embarrass me.

What would you IMPULSIVELY (in fantasy) want to do?

66. Assure her that I am perfectly content and happy, so she won't worry.
67. I'd like to slap her face.
68. Point out that one cannot expect to be the belle of the ball one's first evening in a strange place.
69. Tell her that I know now what sort of a "friend" she really is.
70. I'd like to sink into the floor and disappear.

What THOUGHT might occur to you?

71. She has it in for me.
72. I should never have come here in the first place.
73. I'm glad my friend is enjoying herself.
74. Experiences like this one can't be avoided at a party where you don't know the crowd.
75. I'll make her regret her behavior.

How would you FEEL and why?

76. Upset, because I was so unsuccessful.
77. Furious at her for embarrassing me.
78. Resigned, because this is a situation every newcomer must endure.
79. Angry at being entrapped by her like that.
80. Grateful, for having had such a pleasant evening.
On your way to catch a train, you are hurrying through a narrow street lined with tall buildings. Suddenly a piece of masonry comes crashing down from a roof where repairmen are working. A piece of brick bounces off the sidewalk, bruising you in the leg.

What would your ACTUAL reaction be?
101. I'd tell them I ought to sue them.
102. I'd curse myself for having such bad luck.
103. I'd hurry on, for one should not permit oneself to be diverted from one's plans.
104. I'd continue on my way, grateful that nothing worse had happened.
105. I'd try to discover who the negligent persons are.

What would you IMPULSIVELY (in fantasy) want to do?
106. Remind the men of their obligation to public safety.
107. Assure those men that nothing serious had happened.
108. Give them a piece of my mind.
109. Kick myself for not having watched where I was going.
110. See to it that those careless workers lose their jobs.

What THOUGHT might occur to you?
111. Those men don't know how to do their job right.
112. I'm lucky that I wasn't seriously hurt.
113. Damn those men!
114. Why do these things always happen to me?
115. One can't be too careful these days.

How would you FEEL and why?
116. Angry, because I was hurt.
117. Furious, because I could have been killed by their negligence.
118. Calm, for one must practice self control.
119. Upset by my bad luck.
120. Thankful that I'd gotten away with no more than a scratch.
Driving through town in the late afternoon, you arrive at one of the busiest intersections. Although the light has changed in your favor, you see that pedestrians are not obeying the "wait" sign and are blocking your path. You attempt to complete your turn with due caution before the light turns against you. As you complete the turn, a traffic policeman orders you over to the side and charges you with violating the pedestrians' right-of-way. You explain that you had taken the only possible course of action, but the policeman proceeds to give you a ticket nevertheless.

What would your ACTUAL reaction be?
121. I'd blame myself for having been careless.
122. I'd go to court and bring counter charges against the policeman.
123. I'd ask the policeman why he has such a grudge against drivers.
124. I'd try to cooperate with the policeman, who, after all, is a good guy.
125. I'd take the ticket without question, since the policeman was just doing his duty.

What would you IMPULSIVELY (in fantasy) want to do?
126. Tell the policeman he can't use his position to push me around.
127. Kick myself for not having waited for the next green light.
128. Thank the policeman for saving me from a possible accident.
129. Stand up for my rights as a matter of principle.
130. Slam the door in his face and drive off.

What THOUGHT might occur to you?
131. He's doing the right thing; actually I ought to thank him for teaching me an important lesson.
132. Each man must carry out his job as he sees it.
133. This guy ought to go back to pounding a beat.
134. How could I be so stupid!
135. I bet he gets a kick out of giving tickets to people.

How would you FEEL and why?
136. Boiling anger, because he's making trouble for me.
137. Resentment, because he's picking on me.
138. Ashamed, because I was negligent.
139. Indifferent; after all, this sort of thing happens all the time.
140. Relieved, because I'd been prevented from getting into worse trouble.
One afternoon while you and your best friend are cramming for exams, your boyfriend drops in unexpectedly. Although you and he have been going steady for over a year, you have not been able to see much of each other lately; therefore you are very happy he has come. You invite him in for a cup of coffee and introduce him to your girlfriend.

When you ring up to invite him to your house for dinner to celebrate the end of exam week, he tells you that he has come down with a bad cold and thinks that it is best for him not to leave the house. After dinner you feel sort of let down but you decide to join your parents who are going to the movies.

Coming out of the movie theater with your parents you come upon your boyfriend arm-in-arm with your best friend.

What would your ACTUAL reaction be?
161. I'd ignore them, since I'm sure they'd try to pretend that they didn't see me.
162. I'd greet them politely as a civilized person should.
163. I'd curse them under my breath.
164. I'd tell them that I am delighted that they have become friends.
165. I'd go home and have a good cry.

What would you IMPULSIVELY (in fantasy) want to do?
166. Hide somewhere in order to avoid facing them.
167. Slap his face.
168. Show them that I don't mind that they are together.
169. Ask her if stealing is the only way she knows of getting a man.
170. Indicate that one can understand their attraction for each other.

What THOUGHT might occur to you?
171. Naturally he likes her, she's so much prettier than I am.
172. Self-interest can cause the best of friends to be disloyal.
173. They certainly are a pair of double-crossers.
174. I hope they get what they deserve.
175. They really do make a handsome couple.

How would you FEEL and why?
176. Pleased that both my friends get along so well.
177. Upset, because I shouldn't have been so trusting.
178. Resigned, because you've got to take life as it comes.
179. Enraged, because of their dishonesty.
180. Furious, because they behaved as they did.
You and an old schoolfriend are competing for a newly vacated executive position in the firm where you work. Although both your chances seem about equal, your friend has had more opportunity to show resourcefulness in critical situations. Recently, however, you have successfully pushed through some excellent deals. In spite of this, the board of directors decides to promote your friend rather than you.

What would your ACTUAL reaction be?
181. I'd try to find out which director "blackballed" me.
182. I'd continue to do my duty as a responsible person must.
183. I'd accept the outcome as proof that I'm not executive material.
184. I'd protest the decision of the board most vehemently.
185. I'd congratulate my friend on the promotion.

What would you IMPULSIVELY (in fantasy) want to do?
186. Ask the board to reconsider, since a mistake would be detrimental to the company.
187. Kick myself for having aspired to a job for which I wasn't qualified.
188. Show the board how biased they've been in their unjust treatment of me.
189. Help my friend make a success at the new job.
190. Break the neck of each and every member of the board of directors.

What THOUGHT might occur to you?
191. I guess I just don't have what it takes.
192. I probably wouldn't enjoy an executive position as much as the one I have now.
193. There certainly is something fishy about the board's decision.
194. One must take a blow such as this is one's stride.
195. Damn that board of directors.

How would you FEEL and why?
196. Happy that I still have the job I am used to.
197. Upset because my inadequacy was made public.
198. Furious at the directors because of their treatment of me.
199. Resigned, for that's the way it goes in the business world.
200. Angry, because I have been the victim of an unjust decision.
APPENDIX F

Letter explaining study to parents of high school and middle school students.
October 27, 1975

Dear Parents:

Your son/daughter has the opportunity to be a part of a study at Worthingway School. This study is concerned with the experiences, and feelings that teenagers have at different ages. We are trying to determine patterns and trends in the way adolescents from junior high school through college view themselves, their friends, families, tasks and expectations. This will be done at school and involve your child's written responses to questions. Your child will have the option of not responding to any question. All information is absolutely confidential and will not be available to anyone but myself.

This study is being conducted as a part of my doctoral dissertation at The Ohio State University. It has been approved by faculty of the Psychology Department at The Ohio State University, and by Mr. Lane, Acting Superintendent of the Worthington Schools, and Mr. Drewes, the principal.

Your written consent is required for your child to participate. As a part of the study I would also like your permission to look at standardized test scores which are in your child's file. The purpose of this is to allow me to correlate the results of the students at Worthingway School with equivalent groups of students in other school districts and at The Ohio State University. I would like to emphasize that I will assure your child's anonymity.

Upon completion of this study I have agreed to provide a summary of results to the Worthingway principal. This information may be helpful in aiding future students deal with problems they encounter at school.

Please sign the enclosed permission form and mail it back in the addressed envelope within one week. If you have any questions please call me at 461-0555. Thank you for your help.

Sincerely,

Stanley Selinger, M.A.
Psychology Department
Ohio State University
Appendix G. Means and standard deviations for frequency of defense mechanism showing significant trends on the basis of early, middle and late stages of specific psychodynamic lines of development as measured by the questionnaire.

<table>
<thead>
<tr>
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<th>TAS By Family Relations</th>
<th>Projection By Significant Others</th>
<th>Reversal By Significant Others</th>
<th>Projection By Relate Others</th>
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<tr>
<td>Early Stage</td>
<td>26.7 4.0</td>
<td>26.0 4.3</td>
<td>26.4 6.6</td>
<td>24.1 4.1</td>
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<tr>
<td>Middle Stage</td>
<td>30.4 4.6</td>
<td>24.5 4.4</td>
<td>28.6 6.7</td>
<td>25.6 4.4</td>
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<tr>
<td>Late Stage</td>
<td>28.2 4.3</td>
<td>27.1 4.5</td>
<td>24.8 4.5</td>
<td>26.3 4.6</td>
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</table>
APPENDIX H
Appendix H.  Univariate analyses of variance for quadrat and linear trends on measures of the frequency of the use of defense mechanisms when classified by the psychodynamic sub-variables.\(^a\)

<table>
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<td>Projection by Significant Others</td>
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<td>Reversal by Significant Others</td>
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<tr>
<td>Projection by Relations with Others</td>
<td>3.9</td>
<td>.05</td>
</tr>
</tbody>
</table>

\(^a\)Degrees of freedom are 6 to 122.
BIBLIOGRAPHY


Deutch, H.  *The psychology of women* (Vol. 1).  New York: Grune and Stratton, 1944.


