PREDICTING BEHAVIOURAL TYPES IN PREADOLESCENT GIRLS FROM PSYCHOSOCIAL DEVELOPMENT AND FRIENDSHIP VALUES.

H. DIANE. WOOD
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PREDICTING BEHAVIOURAL TYPES IN PREADOLESCENT GIRLS FROM PSYCHOSOCIAL DEVELOPMENT AND FRIENDSHIP VALUES

by

H. Diane Wood

M.A. University of Windsor, 1972

A Dissertation Submitted to the Faculty of Graduate Studies through the Department of Psychology in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy University of Windsor

Windsor, Ontario, Canada

1976
ABSTRACT

This study attempted to identify factors contributing to aggressive and withdrawn behaviour. Previous research has shown that aggressive and withdrawn children have difficulty in forming satisfying peer relationships. The basic approach underlying the present investigation was that rejected children can be examined in terms of the values they hold concerning their best friends as well as the resolution of specific development conflicts in an Eriksonian perspective. By means of the Behavioural Description Form, 30 popular, 30 aggressive, and 30 withdrawn girls were selected to participate in the present study. The Behavioural Description Form (BDF), is based on a sociometric peer rating developed by Wood (1972). The items were collapsed to form three distinct vignettes. The teachers were asked to name the girls in the classroom that best suited the behavioural descriptions. The Picture Series Test developed by Boyd (1964) is a projective test used to assess psychosocial development on the basis of responses to different pictures. This instrument was modified. A new picture tapping the trust vs. mistrust stage was used. Moreover, Boyd's stage VI picture was scored within an Eriksonian framework using notions from Sullivan's description of the preadolescent era. This picture, label-
led LVb, was used as an additional measure of this stage and was designated sociocentrism vs. egocentrism. In responding to this test, the children were individually tested and asked to tell a story about each of the five pictures. The median inter-judge reliability was .88. The Children's Friendship Expectancy Inventory (CFEI) is a 28 item questionnaire with instructions to rate the importance of items tapping four dimensions: conventional morality, mutual activities, empathic understanding, and loyalty and commitment. The first objective was essentially achieved in that some behavioural differences in preadolescent girls could be accounted for in terms of Erikson's psychosocial stage theory and the CFEI. The first discriminant function analysis of the three groups identified two functions. Both stage and friendship variables emerged as significant discriminators. After rotation, the first function appeared to be measuring stage LVb (egocentrism), whereas the second function appeared to be measuring the friendship dimension of empathic understanding. Further discriminant analyses revealed that the aggressives differed from the withdrawn on friendship dimensions, and the popular differed from the withdrawn on both stages and friendship. In particular, while the aggressives and populars responded alike in the importance they placed on friendship dimensions,
the withdrawns deemphasized empathy and overemphasized loyalty. The second objective was achieved also in that the nature of the psychosocial crises appeared to vary somewhat according to the behavioural type. The results suggested that the rejected girls may have made less adequate crisis resolutions to various stages. This was evidenced by the larger number of negative responses and the fewer number of positive responses to several of the stages. There was some supporting evidence for the third objective in that later psychosocial stages were predicted by earlier stages and that variations occurred with respect to behavioural characteristics. The multiple regression analysis also indicated that stage 1 (trust vs. mistrust) was the most pervasive predictor of all later stages. In summary, these results have demonstrated that Erikson's psychosocial stage theory and the valued children place on friendship dimensions are useful in predicting behaviour types in preadolescent girls.
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TABLE OF CONTENTS

ABSTRACT ii
ACKNOWLEDGEMENTS v
LIST OF TABLES x
LIST OF FIGURES xi

Chapter
INTRODUCTION
Theoretical Framework 4
Stage 1: Trust vs. Mistrust 4
Stage II: Autonomy vs. Shame and Doubt 5
Stage III: Initiative vs. Guilt 6
Stage IV: Industry vs. Inferiority 6
Research Generated by Erikson's Theory 7

METHOD
Subjects 29
Description of Instruments 29
Behavioural Description Form (BDF) 29
Picture Series Test 29
Picture Peabody Vocabulary Test (PPVT) Form A 30
The Children's Friendship Expectancy Inventory (CFEI) 31
Procedure 32
Coding of the Picture Series Test 36

RESULTS
Rater Reliability 39
Discriminant Function Analyses to Separate Behavioural Groups 40
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyses for Psychosocial Stage Crisis Resolution</td>
<td>49</td>
</tr>
<tr>
<td>Analyses for Prediction of Psychosocial Stages</td>
<td>51</td>
</tr>
<tr>
<td>DISCUSSION</td>
<td>62</td>
</tr>
<tr>
<td>Discrimination Among the Three Groups</td>
<td>61</td>
</tr>
<tr>
<td>Popular vs. Aggressive</td>
<td>62</td>
</tr>
<tr>
<td>Popular vs. Withdrawn</td>
<td>63</td>
</tr>
<tr>
<td>Aggressive vs. Withdrawn</td>
<td>64</td>
</tr>
<tr>
<td>Psychosocial Stage Crises</td>
<td>65</td>
</tr>
<tr>
<td>Resolution</td>
<td>67</td>
</tr>
<tr>
<td>Prediction of Psychosocial Stages</td>
<td>67</td>
</tr>
<tr>
<td>Theoretical Implications</td>
<td>69</td>
</tr>
<tr>
<td>Methodological Implications</td>
<td>70</td>
</tr>
<tr>
<td>Modification of Picture Series Test</td>
<td>72</td>
</tr>
<tr>
<td>Clinical and Educational Implications</td>
<td>74</td>
</tr>
<tr>
<td>Limitations and Implications for Future Research</td>
<td>76</td>
</tr>
<tr>
<td>Summary</td>
<td>80</td>
</tr>
</tbody>
</table>

Appendix

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>BEHAVIOURAL DESCRIPTION FORM</td>
<td>82</td>
</tr>
<tr>
<td>B</td>
<td>PICTURE SERIES TEST</td>
<td>84</td>
</tr>
<tr>
<td>C</td>
<td>CHILDRENS' FRIENDSHIP EXPECTANCY INVENTORY</td>
<td>90</td>
</tr>
<tr>
<td>D</td>
<td>CODING OF THE PICTURE SERIES TEST</td>
<td>94</td>
</tr>
<tr>
<td>E</td>
<td>PRETESTING OF THE BOYD PICTURE SERIES</td>
<td>100</td>
</tr>
<tr>
<td>F</td>
<td>DESCRIPTIVE STATISTICS FOR BEHAVIOURAL GROUPS ON CPEI SCALES</td>
<td>105</td>
</tr>
<tr>
<td>G</td>
<td>DESCRIPTIVE STATISTICS FOR BEHAVIOURAL GROUPS ON STAGE SCORES</td>
<td>107</td>
</tr>
</tbody>
</table>
H  CORRELATIONS AMONG CFEI, EGO STAGES
    AND POPULAR GIRLS  109

I  CORRELATIONS AMONG CFEI, EGO STAGES
    AND AGGRESSIVE GIRLS  111

J  CORRELATIONS AMONG CFEI, EGO STAGES
    AND WITHDRAWN GIRLS  113

REFERENCES  115

VITA AUCTORIS  124
LIST OF TABLES

Table 1
Inter-coder Reliability Coefficients 39

Table 2
Multiple Discriminant Function Analyses for Popular, Aggressive, and Withdrawn Girls on Stages and CFEI 41

Table 3
Discriminant Function Analyses for Popular and Aggressive Girls on Stages and CFEI 45

Table 4
Discriminant Function Analyses for Aggressive and Withdrawn Girls on Stages and CFEI 46

Table 5
Discriminant Function Analysis for Popular and Withdrawn Girls on Ego Stages and CFEI 48

Table 6
Correlations Among CFEI and Stages for Behavioural Groups 50

Table 7
Summary Table of Significant Ego Stages of Development by Behavioural Groups using Analysis of Variance 54

Table 8
Summary Table of Significant Predictors of Stage IVb using Multiple Regression Analyses 56

Table 9
Summary Table of Significant Predictors of Stage IVa using Multiple Regression Analyses 57

Table 10
Summary Table of Significant Predictors of Stages III & Ill using Multiple Aggression Analyses 58

Table 11
Significant Predictors of Stages for Popular (P), Aggressive (A) and Withdrawn (W) Girls 60
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discriminant functions unrotated and rotated, for significant coefficients</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>of CFEI and stage scores</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Mean negative stage scores as a function of behavioural groups</td>
<td>52</td>
</tr>
<tr>
<td>3</td>
<td>Mean positive stage scores as a function of behavioural groups</td>
<td>53</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

One of the most important areas of interest to researchers and educators dealing with social development is the socialization process (Elkin & Handel, 1972). In order for the child to become a competent mature adult, he has to learn many skills and habits. Three interrelated processes are involved in socialization. The first process in socialization is the development of behaviour approved by his social-cultural group. The second process involves the playing of approved social roles. The development of favorable attitudes towards people and social activities is the third process.

Social development follows an orderly sequence (Hurlock, 1972). A number of theorists postulate that in the process of development, the child passes through an invariant sequence of qualitatively different stages or levels of development. This approach to the study of development has been used by such theorists as Freud (for personality development); Piaget (1932) for cognitive development; Kohlberg (1969) for moral development; Loevinger (1966) for ego development and psychosocial development, Erikson (1959).

Of particular relevance to this research study is
Erikson's theory of psychosocial development. Few other theorists have achieved a more comprehensive view of the socialization process (Moore, 1969). Broadly speaking, Erikson believes that the nature of social development depends upon such contingencies as the abilities one is born with, the opportunities he has to develop them, the emotional experiences he undergoes, the kind of parents he has, and the culture in which he spends his childhood. These underlying assumptions have been incorporated into his theoretical model of the eight ages of man (1968, p. 93). In order to illustrate his theory Erikson has devised an epigenetic chart which is readily recognized as consisting of eight stages of man wherein each stage the child experiences a basic socialization issue or crisis.

Erikson's theory can be properly labelled "organic" in the sense that he views personality development as a process that continues from infancy to old age. He believes, like most stage theorists, that human development occurs in a more or less predictable sequence and that it is governed in part by some kind of innate maturational mechanism. This mechanism which underlies all organic development is referred by Erikson as the epigenetic principle. Epigenesis, according to Webster (1962), is development involving gradual diversification and differ-
entiation of an initially undifferentiated entity. Erik-
son's (1959) definition of epigenesis is as follows:

Whenever we try to understand growth, it is well to remember the epigenetic principle which is derived from the growth of organisms in utero. Somewhat generalized, this principle states that anything that grows has a ground plan, and that out of this ground plan the parts arise, each part having its time of special ascendancy, until all parts have arisen to form a functioning whole. (1959, p. 52)

There are two basic concepts in this definition that assume places of particular importance in Erikson's theory: stages and crises. Erikson posits eight psycho-social stages of human development in which the individual establishes new orientations to himself and to other people in his social world. At each of these stages a conflict or crisis comes into focus and must be dealt with, and although it is never completely resolved the individual always tips the balance more in one direction than in another. Consequently each crisis leaves it's mark on the individual as he progresses through the life cycle. A crisis that has been resolved in the negative direction may reoccur at any time, even when it is not stage specific. Havighurst (1942) advances a similar, though considerably less elaborate scheme, in his notion of "developmental tasks", which outlines a kind of occup-
pational ages of man.
Theoretical Framework

The preceding few paragraphs have been an attempt to sensitize the reader to the approach Erikson takes in explaining the socialization process. The following pages present, in more detail, an account of the issues involved in each of the psychosocial stages of development. Due to the nature and age of the subjects involved in this research only the first four stages of development will be discussed.

As previously mentioned, Erikson's theory states that human development evolves in a step-by-step fashion through a hierarchical arrangement of stages, the process occurring through a constant series of psychosocial crises. The specific developmental crises for the first four stages are as follows: trust vs. mistrust; autonomy vs. shame, doubt; initiative vs. guilt; industry vs. inferiority.

Stage 1: Trust vs. Mistrust

The first stage of ego development parallels the psychosexual oral-sensory phase of the first year of life. According to Erikson, this period lays the foundation for all subsequent development. In order to develop a sense of trust, the infant requires a feeling of physical comfort offset by a minimum of fear and uncertainty experiences. The modes by which the infant interacts with his
environment or social world to gain comfort are mainly incorporative (air, food, light, etc.). Length of contact or the quantity of food are not the relevant issues here but rather the quality of the interpersonal contacts. The mother's sensitive care of the infant's needs creates a sense of trust as well as forming the basis for a stable sense of identity in the child. Inconsistent or interrupted care may lay the foundation of lifelong basic mistrust or anxiety. Failure to establish basic trust is a common phenomenon well documented in the clinical literature (e.g., see Bettelheim's critique of autism, 1967). In fact, Erikson states that "the failure of basic trust and of mutuality has been recognized in psychiatry as the most far-reaching failure, undercutting all development" (1964, p. 231).

Stage II: Autonomy vs. Shame and Doubt

This stage coincides with Freud's anal phase of development. If there has been a favourable ratio of trust over mistrust that has been developed in the first stage, the child is prepared to define himself as a separate individual. Here three closely related processes propel him in this direction (muscular and locomotor maturation; speech and cognitive development; and social or environmental processes such as parental expectations and re-
A sense of autonomy is achieved if parental control is firm enough to protect the child from his own impulses but flexible enough so that the child experiences a freedom of separateness. On the other hand, a sense of shame and doubt about one's self as a separate individual will emerge if parental control is too stringent.

Stage III: Initiative vs. Guilt

In the third stage the child is extending his autonomy into initiative in planning and acting. Through fantasy and imagination he assumes adult roles in play. In this stage he must learn to handle dependency needs, to channel aggressive and sexual urges in socially acceptable ways, and to develop his present capacities. If there is mutuality between himself and his parents, the child learns to plan and act without guilt. However, if mutuality is not established in a parent-child relationship the resolution of this crisis is negative and guilt emerges.

Stage IV: Industry vs. Inferiority

This period of development corresponds to Freud's latency stage. Here the child's primary concern is with "academic" learning and the elaboration of the skills and technology of his culture. Mutual regulation
between the child and institution (school and peers), with parental support is a necessary requisite for successful master of this developmental task. Fantasies and imagination are put aside and sublimated by learning and productivity. Inherent in the classroom situation is the possibility of failure or "inadequacy". As a result of pressures of grades, demanding teachers and peers, some children may develop a sense of inferiority rather than a sense of industry. However, by the virtue and direction of competence the child can meet these obstacles or crisis of this stage.

Research Generated by Erikson's Theory

The psychological literature on ego development contains numerous references to Erikson's theory. Many investigators point to the theoretical importance of his work (Maier, 1955; Murphy, 1966; Bressler, 1965; Gill & Klein, 1964; Greenberger and Sorenson, 1974), others have examined the eight stages of development (Boyd, 1964; Ciaccio, 1969; Harding, 1971) or elaborated on his ego identity theory (Bunt, 1962; Marcia, 1966; Hershenson, 1967; Block, 1961; Bronson, 1963), while still others have searched for personality correlates of different ego stages (Hummel & Sprintol, 1965; Orlofsky et al. 1973; Constantinople, 1969). Consequently,
this diversified research has led to numerous operational measures of various aspects of Erikson's theory.

Studies concerned with stages of development in toto have generally used projective measures to define each particular stage. For example, Boyd (1964) devised a series of photographs affording low ambiguity stimuli. Each picture purported to tap a different psychosocial stage of development. The response to the photographs are coded to obtain an operational measure of that particular stage. Likewise, Cohen and Weil (1971) focused on emotional development and as such included only two of Erikson's stages (trust and industry) in their series of 13 pictures. Both Harding (1971) and Ciaccio (1969) used Boyd's projective instrument in their study of developmental progression with increasing age through psychosocial crisis.

While there has been a dearth of studies dealing with the complete stages of Erikson's paradigm, the ego identity stage has been examined more extensively. As a result operational measures are more plentiful and diffuse. For example, semantic differential techniques have been employed by different researchers to examine ego identity as the discrepancy between real and ideal self. Block (1960) and later Heilbrum (1964) utilized a ranking procedure to obtain perceived social role
consistency as an operational definition of identity. Capitalizing on the presumed relationship between academic achievement and ego identity, Hummel and Sprinthal (1965) employed selected scales from several personality instruments and defined ego structure in terms of academic achievement. In a similar vein Jones (1967) measure identity development by a "Who Am I" sentence completion technique design to tap student self expectations and student self concepts of ability.

Two studies have examined the intimacy vs. isolation stage. Yufit (1956) interested in differentiating groups of adults devised a questionnaire to tap the bipolar aspects of this stage. Orlofsky et al. (1973) used Marcia's typology and defined intimacy as the positive resolution to the preceding stage called identity achievement. To date, there have been no studies concerned with earlier specific stages of development with the exception of Briggs (1972).

One of the criticisms that has been made of the specific approaches to a particular stage is that most investigators have failed to consider the multidimensional aspects of Erikson's paradigm (Bauer, 1972). In his research on ego identity status Marcia (1964, 1966, 1967) has attempted to overcome this. Using a semi-structured interview technique he defines ego identity status on
a continuum from identity achievement, moratorium, foreclosure, to identity diffusion. Several other investigators have adopted Marcia's framework in order to eliminate this deficiency (Podd, 1972; Oshman & Manosevity, 1972; Waterman & Waterman, 1970; Waterman et al. 1970).

Another criticism of the majority of the previous studies dealing with specific stages is that few attempts have been made to evaluate behaviours associated with earlier psychosocial phases of development. One of the main assumptions of Erikson's theory is that earlier phase specific behaviours contribute heavily to the present stage in which the individual is actively involved. A few studies have considered this aspect of Erikson's theory. Wessman and Rick (1966) used a 60 item Q sort and later Constantinople (1969) adapted the Q sort items to a series of 7 point scales to yield scores on both "successful" and "unsuccessful" resolutions of the first 6 stages. Additionally, Reimanis (1974) building on both the previous researchers work developed an inventory of Psychosocial Development (IPD) which reflected all eight stages of ego development. The above authors were not proposing a comprehensive epigenetic model, but did consider the postulate that the resolution of each crisis is systematically related to the resolutions of earlier crises.
In developmental studies focusing on Erikson's ego stage progression, there are indications that children of differing age groups are in their appropriate stage as predicted by Erikson's theory. Moreover, evidence suggests that both positive and negative elements of earlier stages emerge and contribute to the child's particular ego development status. In the study reported previously by Boyd (1964) and subsequent ones by Ciaccio (1969) and Harding (1971) evidence strongly suggested this. However, it is important to note that the conflict of greatest concern for the children in each of these studies differed. For instance, Boyd found in his population sample 2 and sometimes 3 ego-stages appearing as concerns at the same time period, while Ciaccio found autonomy to be the crucial stage and Harding found trust to be central throughout ego development.

Further support for Erikson's epigenetic model comes from research dealing with specific ego stages. In a series of longitudinal studies from 1966 to 1969, Constantinople compared college freshmen and seniors on successful and unsuccessful resolutions of earlier ego stages. Significant differences were found between freshman and seniors scores on industry, inferiority, and identity for both sexes and for males on identity diffusion. Another study by Waterman et al. (1970) which categorized
college males in high, mixed, and low ego-identity status found significant correlations between ego-identity crisis and each antecedent ego stage component when students were given Constantinople's questionnaire. However, when these students were given Rotter's (1967) Interpersonal Trust Scales no differences were found. But, significant differences between the three groups were found on scores from the Intraversion-Extraversion (autonomy) Scale.

Using a completely different population sample (i.e., two navy recruit groups) Rasmussen (1964) demonstrated that navy recruits who were presently experiencing psychosocial adjustment problems in the sixth stage had also previously experienced unsatisfactory resolutions of earlier psychosocial crises conflicts. On the other hand, navy recruits having adequate psychosocial adjustment showed no such relationship. A recent study by Reimanis (1974) also used a different population sample. In the first part of their study they selected 100 domiciliary male veterans whose mean age was 67 and administered the IPD to assess the degree of success in resolving earlier developmental crises. Their results supported the hypothesis that success in resolving psychosocial development crises is related to social disorganization. More specifically, they found significant correlations in the predicted directions for all earlier crises resolution stages except
for Autonomy and Industry. Support has also been found for the relationship between resolution of crises and the intimacy stage. Orlofsky et al. (1973), have demonstrated that favourable resolution of the intimacy isolation crisis was related to successful resolution of the identity crisis while Yufit (1956) went one step further to show that intimacy is related to all earlier stage resolutions.

Throughout the literature on ego development there have been a host of studies concerned with correlates of ego-identity. The nature of these correlates ranges from attitudes and values to numerous personality variables. Waterman and Waterman (1970) explored the role of student's attitude towards college and tied it to ego-identity status. Results indicated that the crucial factor in the relationship between ego identity and satisfaction with college is the association of the stress of crisis with college experiences. More specifically, students who were experiencing an identity crises over choice of their major field were the least favourable in their evaluation of their education. Combining both a behaviourul and paper and pencil measure of morality, Podd (1972) attempted to examine the relationship between ego identity status and level of moral judgment. Mature moral values were found to be related
to ego identity status but moral behaviour as defined by shock intensity was not related.

Evidence which relates personality variables to ego-identity comes from numerous sources. One of the more frequently measured personality variables is self acceptance. Measures of this central personality variable come under the rubric of such labels as social acceptance (Reimanis, 1974); social desirability (Orlofsky, 1973); certainty of self concept (Bronson, 1959); and self esteem (Constantinople, 1969), etc. Moreover, a variety of paper and pencil measures have been employed to show the relationship between ego identity and a personality. Some studies have examined the relationship between ego identity and multiple personality variables. For example, Orlofsky et al. (1973) looked at personality factors of affiliation, autonomy, and social desirability which were selected items of the Edwards' Personal Preference Schedule (EPPS) 1964. Correlations in the predicted direction were found for autonomy, and affiliation while social desirability failed to show predicted results. Another correlation type of study using multiple personality factors has been furnished by Reimanis (1974). He administered the Mood Adjective Check List (Nowlis & Green, 1965) which taps the factors aggression, elation, activity, social acceptance, egotism, depression anxiety, and fatigue and
correlated the results with the IPD. Both college students and veterans responded in the predicted direction.

A number of other essentially related studies have shown that increased anxiety is a correlated variable of diffused ego identity (Ausubel, 1952; Bronson, 1963; Block, 1961; Erikson, 1963; Howard & Kubis, 1964). Additionally, Cribin (1966) experimentally manipulated anxiety and found that high identity subjects maintained self consistency and self evaluation through experimental stress treatment whereas low identity subjects failed to do so. Finally, Stark and Traler (1974) employed a paper and pencil test called the Institute for Personality and Ability Testing (IPAT) and an Anxiety Scale and found a significant negative correlation between ego identity and anxiety.

In contradiction to the previous studies there have been several empirical findings which have yielded no significant relationships. Cross and Allen (1970) using Marcia's identity statuses and the Zuckerman Mood Affect Adjective Checklist tested male college students and found no significant differences between identity status and mood. Lipsig (1968) using a variety of semantic differential measures and the MMPI rejected the hypothesis that the discrepancy between self-perceptions and percept-
ion of self by others would vary inversely with adjustment in college males. Finally, Gruen (1964) attempted to show that a person with sound ego identity would show little discrepancy between real and ideal self. He employed two measures to test this hypothesis. The 14-item questionnaire did not discriminate but on the Q Sort, subjects with low identity accepted significantly more fake personality descriptions than did high identity subjects.

An area where ego identity is seen to be of prime importance is that of academic achievement. Hummel and Sprinthal (1965) did a study to differentiate between achievers and underachievers and ego structure. He found that underachievers seemed to have immature ego structure as defined by selected scales from the MMPI, and the Allport Linsley Value Instrument. In studying the relationship of ego identity development to academic achievement of nonintellectual variables, Jones (1967) found indices of existence of significant relationships between identity development and academic achievement and self concept of ability. Finally, Marcia (1966) in his extensive assessment of ego identity used a concept attainment task as part of his battery of tests to elucidate his multidimensional approach to ego identity status.

Although much research has examined the correlates of personality variables and Erikson's ego developmental
model relatively few studies have considered sociometric status as a variable. One such study was carried out by Yufit (1956). Using an activities index checklist with college freshmen, Yufit selected three groups (Intimates, Isolates and Controls), and then compared them on additional indices. The intimate was characterized by stability, socialability and warmth. The isolate, on the other hand, was self-centered, self-doubting, mistrustful, and his relationships with others appeared formal, lacking in warmth and spontaneity. Although Yufit's study provided valuable descriptions of intimates and isolates it had shortcomings. First, the dependent measures used were nearly identical to the questionnaire criteria that he used to define intimacy and isolation. Second, individuals who took part in this study were not only young but also at the extreme end of the continuum and few, if any, could be expected to have resolved the intimacy crisis which Erikson described as occurring during early adulthood. Finally, the study failed to demonstrate any behavioural differences between these two types of individuals.

A study by Rasmussen (1964) examined the relationship of Erikson's concept of ego identity to psychosocial effectiveness as actually demonstrated in daily living. In order to evaluate the adequacy of psychosocial adjustment in recruit training a peer nomination form was admin-
istered. This particular peer nomination form had been used extensively in studying the sociometric status and attitude characteristics of Navy and Marine Corps recruits. Subjects were compared on measures of self-acceptance, and the ego-identity scale, which tapped the first six psychosocial crisis stages. Results of the investigation support both the value of Erikson's theory as a systematic study of personality and his position that an adequate ego identity is necessary for a person to cope effectively with his social and cultural environment.

A few studies have attempted to test Erikson's theory using projective techniques. Cohen and Weil (1971) developed a series of projective type pictures for children and adolescents which depicted different aspects of critical tasks in one's emotional growth and development. For each picture, the child responded by telling a story and the nature of these responses were viewed by these authors as indicators of different levels of task mastery. The scoring of the "Tasks of Emotional Development" (TED) was based on rating scales which included the following dimensions: perception, outcome, affect, motivation, and spontaneity. The main procedure used to validate the test involved discriminate analyses. The TED discriminated between normal children and those with emotional
disturbances.

Another projective technique, which was developed using Erikson's paradigm in toto, is Boyd's Picture Series Test (1964). He developed a series of projective pictures for children, each of which portrayed a basic aspect of one of the first six stages of psychosocial development. His results, for children in grades three through twelve, indicated a developmental progression in support of Erikson's theory. Since this technique is being used in this study it will be discussed in greater detail in the method section. Other investigators who have implemented Boyd's techniques and found similar results are Ciaccio (1971), and Harding (1971).

In overviewing the research concerning Erikson's psychosocial stage theory, a number of conclusions and implications can be drawn. First, researchers should focus on the theoretical framework and its implementation into the empirical research. Secondly, investigators should examine Erikson's model from a comprehensive viewpoint. With the exception of Boyd (1964), his followers and to some extent Cohen and Weil (1971), there have been no comprehensive studies dealing with ego stages. Most of the research cited earlier has been directed at specific stages of development. Moreover, these studies have concentrated heavily on later stages of development.
using the responses of an adult population. The focus of this research is on children of the same age group who differ in their behavioural patterns.

Although Erikson's model has basically provided a good framework to study the dynamics of social interaction, there are possible limitations to his model. In particular some stages of psychosocial development need to be more specifically defined. Marcia (1964) drew similar conclusions when he examined the ego identity stage of development. Stage four (industry vs. inferiority), a relevant stage for this study, also needs clarification and elaboration. In this stage Erikson concentrates primarily on the importance of mastering achievement orientated tasks, making little reference to the importance of mastering interpersonal tasks. Sullivan (1953b) provides a more elaborate description of this area. His writings on the preadolescent era stress the importance of a need for interpersonal intimacy with a chum of his (her) own sex. Although Sullivan remains somewhat vague about what causes the youngster to develop these needs, he maintains that these relationships may have a great beneficial and corrective influence, perhaps even overcoming earlier traumatic experiences:

...the preadolescent phase of personality development is especially significant in
correcting autistic fantastic ideas about the self or others. I would like to stress --at the risk of using superlatives which sometimes get very tedious--that development of this phase of personality is of incredible importance in saying a good many rather seriously handicapped people from otherwise inevitable serious mental disorder. (p. 248)

In other words, he suggests that even though an individual's childhood may have been unrelentingly miserable, one can still develop a normal personality if one can manage to find a close friend with whom to be intimate. The culmination of this type of interaction is a necessary precursor for the later evolving true form of intimacy between sexes. Erikson, on the other hand, believes that intimacy follows identity rather than precedes it.

It seems feasible to incorporate these descriptions of the preadolescent era into the fourth stage of development in the present study. The first section of stage four will contain the original criterion as outlined by Erikson (industry vs. inferiority). The second section of stage four will contain a synthesis of Sullivan's notions on the preadolescent era and some of Erikson's ideas on the intimacy vs. isolation stage. This stage can be conceptualized as sociocentrism vs. egocentrism, a term used by Ausubel and Sullivan (1970) to describe the extent to which the individual's self is central as an object of attention in his psychological field. Ac-
cording to these authors "egocentricity-sociocentricity depends upon social maturity, social poise and skill, sociability, introversion-extraversion, etc." (p. 296).

In addition to examining interpersonal development utilizing the psychosocial stages of development, it is desirable to consider the value orientation children have towards peer relationships. Peer friendships probably exert one of the most potent and direct influence on a child's social development and behaviour during late childhood and early adolescence (Hurlock, 1972; Ausubel & Sullivan, 1970; Mussen, Conger & Kagan, 1963). Sullivan (1953b) asserts that the need for a particularized social relationship is so pervasive that, without the formation of a close relationship with a chum of one's own sex a child's later capacity for intimacy may be seriously damaged. Support for the importance of developing close relationships during this age period comes from an extensive survey of Australian adolescents (Dunphy, 1963). This researcher found that 12 and 13 year olds were very much involved in close, affective relationships of equality with same sex agemates. On the other hand, Douvan & Adelson (1966) found that close intimate friendships do not seem to develop until after age thirteen.

Prior research has established that children's ex-
pectations concerning friendships varies with the age of the child involved (Bigelow, 1975). For example, Bigelow found that younger children described their best friends as someone to play with, someone to share things with, etc., whereas older children considered the more intrinsic dimensions of the relationship, such as loyalty, to be important. Further support for these findings comes from a study conducted by Wood (1972). By means of factor analysis, she isolated four friendship dimensions, conventional morality, mutual activities, empathic understanding, and loyalty and commitment. Wood also points out that when a group of these children were differentiated by means of a sociometric instrument they also differed in their friendship conceptions. In other words, children who vary in their behavioural patterns also vary in the importance they place on friendship dimensions.

Individual differences in behavioural characteristics has received considerable attention in the literature. Various techniques and instruments have been employed to measure these behavioural differences. In a recent review article by Spivack and Swift (1973), the following conclusions were drawn: (a) classroom behavioural measures provide some useful knowledge concerning applied information indicating that very early classroom
behaviours may be prognostic of later difficulties; (b) behavioural ratings by teachers parallel those of peers, rather than reflecting teacher bias; (c) in some way classroom behaviours may be related to social values. Clearly, teacher ratings provide us with an external behavioural measure of "what" the individual differences are, but these ratings fall short when it comes to providing us with the "how" or "why" children develop these behavioural patterns. This study is concerned with identifying some factors which may contribute to differences in behavioural patterns.

The three specific behavioural patterns of importance in the present study are aggressiveness, withdrawal, and popularity. These social behaviours were previously identified by the Wood "Guess Who" test. Moreover, children who manifested these different characteristics were found to be associated with different conceptions of friendship. Subsequently, a study by Irwin (1975) found that emotionally disturbed children as identified by placement in a corrective institution assigned less importance to empathic understanding.

Aggressive and withdrawn behavioural responses can be conceptualized as reaction patterns. Boyd and Koskela (1972) view aggression and withdrawal as different modes of resolution of crisis. These two behavioural patterns
are adaptive mechanisms in reaction to psychosocial crisis. Peterson (1961) classifies these children as being either over-socialized or under-socialized. On an external measure of socialization he found that children who seemed shy, anxious, withdrawn, and insecure to their teachers had lower scores than a group of children who seemed free of problems.

Because, the focus of this research is on children who manifest different behavioural patterns, an attempt will be made to determine whether Erikson's psychosocial theory can account for some of these differences. Perhaps the manner in which a child copes with each psychosocial crisis affects his interpersonal development. The acquisition of somewhat atypical friendship values, may also be a contributing factor. No assumption is being made as to which is the more critical variable. Mediating variables not accounted for in this study may also be involved. Finally, aggressive, withdrawn, and popular children may not necessarily represent discrete groups in regard to the underlying contributing factors.

**Statement of the Problem**

In summary, the purpose of the previous section was to show the importance of Erikson's work as a theorist and to indicate how researchers have applied some of his
basic principles. Additionally, specific references were made to individual differences in children in terms of their interpersonal relationships. Consideration was given to the feasibility of employing the Eriksonian model of psychosocial development to account for one aspect of individual differences, namely differences in behavioural patterns.

The first objective of this present study is to determine whether behavioural differences in children can be accounted for using Erikson's paradigm. More specifically, can popular, aggressive and withdrawn children be discriminated in terms of their responses on measures of psychosocial development? Erikson's basic postulate assumes that children of different age levels will be at different stages of development and that the relevant stage for that child depends on both age and the nature of his previously resolved crises. For normal children, the age parameters of the stages are fairly discrete. Some developmental studies have supported this assumption (Boyd, 1964; Ciaccio, 1969; Harding, 1971), while some researchers have reported individual differences among the same age group (Marcia, 1964; Cohen, 1971).

Related to this objective is the question of whether we can account for behavioural differences by determining the values children place on relevant friendship dimensions.
Previous work in this area has shown that some differences exist among accepted and rejected children of the same age (Wood, 1972). However, when a normative sample of children was used and comparisons were made across three grades no differences were found. Because this study uses girls with behavioural differences of the same age it is predicted that some differences in friendship values will be found. Since psychosocial stage and friendship variables may both be effective discriminators, it is necessary to determine the effect of each class of variables when the other is held constant. It is also necessary to determine if a relationship exists between the two aforementioned sets of variables and if the relationship varies according to the group of children involved.

The second objective is to study the nature of the psychosocial crisis resolution. Specifically, does the nature of the psychosocial crisis resolution at various stages differ according to the behavioural patterns of the child? In order to answer this question it is necessary to separate each stage and examine the differences stage by stage. The focus here is on the direction of any obtained differences. For example, it is expected that popular children will make more positive stage responses than rejected children.

The third objective is to test Erikson's theory
that later stages are predicted by all earlier stages. Although this postulate has been previously examined by at least two researchers with a normal population, it has been only partially supported (Boyd, 1965; Ciaccio, 1969). Boyd, using a young adult population found, for example, that only behaviour in stages two, three, and five were predictive of behaviour in stage six. Ciaccio, using three different stages concluded that behaviour in stage two was the most predictive of behaviour in stages three and four. This study will attempt to identify which later stages are predicted by which earlier stages, and whether any such differences vary with the behavioural characteristics of the child.

In summary, the three objectives of this can be reduced to the following questions: (a) Can we account for behavioural differences from Erikson's model of psychosocial development and/or from children's friendship conceptions? Further, are friendship and psychosocial development related, and do they vary with behavioural patterns? (b) Is the nature of the psychosocial crisis resolutions at various stages different for each behavioural group? (c) Are later psychosocial stages predicted by earlier stages and do they vary with the behavioural characteristics of the child?
CHAPTER 11

METHOD

Subjects

Ninety 11 and 12 year old white females participated in this study. They were primarily of middle-class background and located in two urban centres of southwestern Ontario. On an a priori basis from identification on the Behavioural Description Form these children were equally separated into distinct groups: aggressives, withdrawns, and populars. The variables of age, race, lack of physical or mental handicaps and school attendance were controlled.

Description of Instruments

There were four instruments used in this study. They were presented in the following order: The Behavioural Description Form, The Picture Series Test, The Peabody Picture Vocabulary Test, and The Childrens' Friendship Expectancy Inventory. The Picture Peabody Test was used as a control measure only to ensure comparability in terms of IQ.

Behavioural Description Form (BDF)

The BDF is a paper and pencil questionnaire designed to identify three behavioural groups of children. This measure is primarily based on a sociometric measure de-
veloped by Wood (1972) in her master's thesis. The "Windsor Guess Who" sociometric test is a 14 item questionnaire which successfully identified three types of children: aggressives, withdrawns, and popular as measured by their peers. Due to the time/cost factor, the BDF test is design-
ed on the basis of the "Windsor Guess Who" and modified to be used by the child's teacher. Items are collapsed into three distinct vignettes in the form of behavioural descrip-
tions so that a gestalt can be conceptualized by the teacher. From the data collected on this measure, children were assigned to a particular group and used for this study. For a more complete description of the test, see Appendix A.

Picture Series Test

This test developed by Boyd (1964), is a projective instrument consisting of five photographs depicting "everyday scenes" in the lives of children. Each photo-
ograph portrays a basic aspect of one of the first five stages of ego development in Eriksonian theory. To each picture the child responds verbally by telling a story about it. The child's attitudes, capacities, behaviours, conflicts, perceptions, and allegiances which are most characteristic of that stage are thought to be reflected in the stories. The actual photographs are found in
Appendix C.

**Picture Peabody Vocabulary Test (PPVT) Form A**

This test developed by Dunn (1965) consists of 150 sets of four line drawings, with 150 words of increasing difficulty to be associated with the drawings. The raw score is the total number of picture word associations which are correctly identified. The oral IQ is the transformation of the oral raw score to an IQ based on test norms.

**The Children’s Friendship Expectancy Inventory (CFEI)**

The CFEI (Wood, 1972) is a 28 item questionnaire developed in the format of a vertical ladder. Here, the child uses a 5 point scale to rate the importance of several friendship dimensions. The dimensions isolated on the basis of a factor analysis relevant to this age group are conventional morality, mutual activities, empathic understanding, and loyalty and commitment. The first factor, conventional morality appears to denote such a friend as honest, not hypocritical, or saying mean things about her. The underlying theme appears to deal with the character traits of the friend as an individual, rather than the quality of the relationship itself. Examples of this factor are: "Do not lie or cheat", "Never gets me in trouble".
The main characteristic of mutual activities is that of stimulation value, e.g., "Enjoy playing the same games and sports", "Have good ideas about things to do". Here, a friend is represented as one who is imaginative, capable of presenting one with novel and interesting activities, and helping a person to learn and extend his present knowledge. Again the quality of the relationship appears to be secondary.

The third factor, empathic understanding is defined by items suggesting that such a friend is sensitive to one's feelings. Warmth, rapport, and trust characterize such a relationship. The nature of this dimension is a willingness to disclose or communicate matters of a rather personal nature. With such a friend, one can talk about "personal problems", "things that I'm ashamed of" and "things that bother or worry me".

The expectations defined by loyalty and commitment describe the friend as remaining a friend, regardless of the cost or sacrifice involved. This factor appears to deal with the strength of the relationship or its resistance to dissolution.

Procedure

Administration of instruments. The BDF was delivered to several teachers in Windsor and Chatham, Ontario. The
Teachers involved were asked to read the three vignettes and complete the form with names of girls in their classroom who best suited the descriptions. If no girls suited a particular description, they were instructed to leave it blank. Following completion of the BDF, the experimenter coded the names of these girls to assure anonymity.

The Picture Series Test was carried out in a small room provided by the schools equipped with a desk, table, and two chairs. In most cases, the room was adequately lighted, well-ventilated, and reasonably comfortable.

The Picture Series Test consisted of five pictures, each one depicting a basic aspect of the first four stages of psychosocial development. The pictures were mounted individually on a heavy cardboard backing. (See Appendix B). Subjects were given one card, allowed as much time as necessary to complete the story, and then given the next card and so on until all five cards were completed. They were permitted to keep the card throughout the entire story and then asked to return it to the examiner. The cards were presented in a counter-balanced order to correct for sequence and position effects.

Since good rapport contributes to research of this type, the investigator was introduced to the classes prior to the testing session. The teachers were instructed to introduce the investigator as "this is Mrs. Wood who will be seeing
some of the girls in this room to show them some pictures".  
Following this, the tester explained that she had some  
interesting pictures to show, and that she would appreci-  
ate their cooperation, by not discussing the pictures  
with anyone until all of those selected had finished.  

The children selected for the series test were escort-  
ed individually by the experimenter to the interviewing  
room. When the child arrived at the room she was shown  
a seat and the following instructions were communicated  
to the subject:  

I'm interested in the kind of stories that  
children tell. I'm going to show you some  
pictures and I'd like you to make up a  
story about them -- any kind of story will  
be okay. Just tell me what has happened  
and how it's going to turn out. Any  
questions?  

One important aspect of these instructions was to not  
over-emphasize imagination or fantasy production. The  
subjects were not specifically encouraged to give free  
range to their imaginations as in several similar tests  
of this nature (e.g., as in Symonds' instructions to his  
Picture Story Test, [1948], where he actually induces a  
set to give bizarre or absurd stories). Instead, the  
subjects were simply asked to tell interesting stories  
and that any kind of stories would be fine, thereby giving  
them maximal opportunity to respond in whatever manner  
they chose. Task set and expectancies were kept at a
minimum. Some probing questions were asked such as, "How does it end?" "How does she feel?" "Is there any more to your story?" However, to ensure uniformity and comparability of method, subjects were asked questions only when the outcome was not specified or when the subject failed to respond to the picture.

The PPVT was administered following completion of the Picture Series Test. Prior to the formal administration of this test, the subjects were briefed in the following manner:

Here are some word picture associations I would like you to complete. Initially, the pictures and the words I mention will be very easy for you to respond to. But, they soon become more difficult. I do not expect you to know all these pictures but just do your best, in fact, some of the answers for the pictures I don't know.

The actual testing procedure was then carried out as outlined in the manual.

Approximately three weeks following completion of the previous instruments, the CPEI was administered in a group setting. Generally, the school provided a regular classroom to accommodate all the girls who had previously participated in the study. The actual group number varied depending on the size of the school and the number of girls who fit the behavioural descriptions. The examiner went to the various classrooms and personally escorted the
girls to the testing classroom.

Upon arrival in the classroom, the girls were told the following:

Today you will be doing something a little different than the previous storytelling. You will remember that I was interested in how girls of your age told stories about several pictures. I am also interested in what girls of your age think about friendships. Instead of listening to stories you might tell me, I would like you to complete a questionnaire that contains some ideas about friendships. In other words, I would like you to rate what you think is important and not important in choosing best friends. Since this questionnaire is probably different than other questionnaires, I would like you to pay particular attention to the instructions at the beginning of the questionnaire. I will go over these directions and answer any questions you may have concerning this. (See Appendix B for the complete CFEI questionnaire)

Coding of the Picture Series Test

All protocols were taped in entirety. Actual scoring of the protocols was done when the full complement of 90 subjects had been tested. The protocols were assigned random numbers and then converted to simple numerical designations ranging from 1 to 90. To facilitate scoring, the protocols were divided into units of five. The general rule for the coders was to score one unit of five protocols, rest, and then continue to the next unit of five.

The first part of the coding procedure was to listen
to the story in entirety and then make a gestalt judgement as to the stage the subject was responding to (Boyd, 1975). In order to score the appropriate stage, the coding system developed by Ciaccio (1969) was used with some modifications (see Appendix D). In addition to scoring of the appropriate stage, the coder scored the valence of the response using a four-point scale. The valence of the responses ranged from a positive two to a negative two. Thus, a score that receives a plus valence indicated positive resolution of the particular psychosocial stage conflict. On the other hand, a minus valence indicated failure to adequately resolve the particular psychosocial stage conflict. The stronger the quality of the responses, the higher the valence score. In stories in which there were both positive and negative elements, scoring included both valences. When hesitation in stories occurred, both valences were scored and strength of each valence was determined in part by the outcome.

Following the initial scoring of the appropriate stage number and valence, the story was replayed. This time the coder scored the story for responses related to additional stages. Once again the same coding system was used and a maximum of three stages was coded. In order to ensure accuracy and completion of all possible information the story was heard for a third time. For a com-
plete account of the coding system see Appendix D.

**Rater-reliability procedure.** Four independent coders served as judges for the reliability purposes. The coders were made up of the experimenter and three other psychology majors who had received thorough training and supervision in the pilot study (see Appendix E).

In order to assess the inter-rater reliability of the scores, 60 stories were selected from each of the three behavioural groups making a total of 180 stories (36 protocols). These protocols were mixed together and identified by number only. (Two independent coders were assigned to each of the 6 sets of 30 stories). The distribution of protocols was as follows: coder 1 and 2 stories 1 to 30; coders 1 and 3, stories 31 to 60; coders 1 and 4, stories 61 to 90; coders 2 and 3, stories 91 to 120; coders 2 and 4, stories 121 to 160; coders 3 and 4, stories 151 to 180.

The reliability measures among the intercoders were calculated by the coefficient of reliability (C.R.) Janda, 1969. The C.R. is calculated by the formula: 

$$C.R. = \frac{2 \cdot M}{N_1 + N_2}$$

The M represents the actual "match" or agreement in coding a stage dimension for particular subjects. For each stage mentioned the number of times coders agreed was summed. N is the total number of times the first coder used stage dimensions and \(N\) is the total for the second coder.
CHAPTER III

RESULTS

Rater Reliability

Six sets of 30 stories each were coded by four independent raters. The outcome of the reliability measures is presented in Table 1. The correlation coefficients range from .77 to .92 with the median reliability being .88. These coefficients are most adequate considering the subjective nature of the scoring involved. It should be noted that rater three when paired with other raters produced the lowest correlations. These correlations, however, did not appreciably lower the overall index. In the final scoring, whenever two sets of raters scored the same data, the results of the lower rater as measured by the reliability findings was eliminated.

Table 1

Inter-coder Reliability Coefficients

<table>
<thead>
<tr>
<th>Story Set</th>
<th>Coders</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 and 2</td>
<td>.91</td>
</tr>
<tr>
<td>11</td>
<td>1 and 3</td>
<td>.88</td>
</tr>
<tr>
<td>111</td>
<td>1 and 4</td>
<td>.88</td>
</tr>
<tr>
<td>1V</td>
<td>2 and 3</td>
<td>.77</td>
</tr>
<tr>
<td>V</td>
<td>2 and 4</td>
<td>.92</td>
</tr>
<tr>
<td>VI</td>
<td>3 and 4</td>
<td>.84</td>
</tr>
</tbody>
</table>
Discriminant Function Analyses to Separate Behavioural Groups

For the first objective of this research, several discriminant analyses were performed to determine which linear combination of variables maximally discriminated the behavioural groups of girls. Several of the discriminant function analyses were performed with residuals of multiple regression analyses rather than the discriminant coefficients. This was to determine the best linear combination of variables when the effects of one set of variables had been partialled out or held constant. This technique removes that part of the variance which is predictive of both sets of variables and then uses the residuals for the discriminant function analyses.

Table 2 presents the overall findings for all three groups combined. The first analysis includes both CPEI and stage variables. The second analysis holds CPEI constant and measures the discrimination power of the stage variables. The third analysis reverses this procedure holding stages constant instead.

In the first analysis two significant functions emerge separating the three groups as measured by the canonical variate (.78, .47 p < .001). For function one the best linear combination of discriminators includes two of the CPEI scales (empathic understanding and loyalty
Table 2

Multiple Discriminant Function Analyses for Popular, Aggressive, and Withdrawn Girls on Stages and CFEI

<table>
<thead>
<tr>
<th>Variables</th>
<th>Canonical Correlation</th>
<th>Discriminant Functions</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
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<tr>
<td></td>
<td></td>
<td>CFEI &amp; Stages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.78</td>
</tr>
<tr>
<td>Conventional Morality</td>
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<tr>
<td>Mutual Activities</td>
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<td></td>
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<tr>
<td>Empathic Understanding</td>
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<td>.56</td>
</tr>
<tr>
<td>Loyalty and Commitment</td>
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<td>.31</td>
</tr>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Ego Stages</td>
<td></td>
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</tr>
<tr>
<td>Trust (1+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mistrust (1-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy (11+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>shame, Doubt (11-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiative (111+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guilt (111-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry (IVA+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inferiority (IVA-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociocentrism (IVB+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egocentrism (IVB-)</td>
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<td></td>
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<tr>
<td>Percent of &quot;Grouped&quot; cases</td>
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<td></td>
</tr>
<tr>
<td>correctly classified</td>
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</table>

Note. All discriminant function coefficients reported are based on Wilks' Lambda significant at p < .01. The (o) refers to non significant coefficients. There are blanks in the tables where variables have been held constant.
and commitment) and most of the stage variables. On the second function, only empathic understanding, stage one (trust), and both IVB (sociocentrism, egocentrism) are included in the linear model. However, among the more powerful discriminators there is considerable overlapping between the two functions.

In order to clarify and provide a more meaningful interpretation of the two functions, a rotation was performed in the discriminant space. Figure 1 illustrates the unrotated and rotated discriminant functions. After rotation, discriminant function 1 appears to be measuring stage IVB (egocentrism) while function 2 appears to measure empathic understanding. The location of the three groups on these two functions also helps to describe the nature of these group differences. The first function evenly separates the three groups with the popular at one end and the withdrawn at the other. For the second function, withdrawn girls are discriminated from popular and aggressive girls on empathic understanding. These findings are further supported by the discriminant analyses performed when one set of variables has been held constant. For example, when CPEI variables are held constant only stage IVB (sociocentrism, egocentrism) contribute, whereas when stages are held constant only empathic understanding is significant. The second function in
Figure 1. Discriminant functions unrotated and rotated, for significant coefficients of CFEI and stage scores.
both analyses is non significant.

Further analyses were computed to assess the best set of linear discriminating variables for all possible two group comparisons. Table 3 presents the findings for popular and aggressive girls. When both sets of variables are included, the best set of discriminators are as follows: CFEI (loyalty and commitment), and stage I (initiative), stage IVA (industry), and stage IVB (sociocentrism, egocentrism). It should be noted that the percentage of correct classification remains relatively high when CFEI is held constant but is reduced considerably when stages are held constant suggesting that the stage set of variables is the critical discriminator. Furthermore, as indicated by the canonical variate (.12 > .10) CFEI variables do not differentiate between aggressives and popular girls.

Comparisons between the aggressives and withdrawn girls is presented in Table 4. Here we find that the best discriminators are CFEI (conventional morality, empathic understanding, loyalty and commitment) and stage l (trust) and stage ll (shame, doubt). When the effects of CFEI are partialled out no significant stage variables emerge. However, when stages are held constant, three out of four CFEI variables contribute to the set of discriminators. These results indicate that
Table 3

Discriminant Function Analyses for Popular and Aggressive Girls on Stages and CFEI

<table>
<thead>
<tr>
<th>Variables</th>
<th>CFEI</th>
<th>CFEI &amp; Stages</th>
<th>Stages</th>
<th>CFEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canonical Correlation</td>
<td>0.67</td>
<td>0.64</td>
<td>0.12</td>
<td></td>
</tr>
</tbody>
</table>

**CFEI**

<table>
<thead>
<tr>
<th>Variables</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Morality</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mutual Activities</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Loyalty and Commitment</td>
<td>0.25</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Ego Stages**

<table>
<thead>
<tr>
<th>Variables</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust (I+)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mistrust (I-)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Autonomy (II+)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Shame, Doubt (II-)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Initiative (III+)</td>
<td>-0.32</td>
<td>-0.30</td>
<td>0</td>
</tr>
<tr>
<td>Guilt (III-)</td>
<td>0.20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Industry (IVA+)</td>
<td>-0.23</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Inferiority (IVA-)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sociocentrism (IVB+)</td>
<td>-0.38</td>
<td>-0.40</td>
<td>0</td>
</tr>
<tr>
<td>Egocentrism (IVB-)</td>
<td>0.64</td>
<td>0.65</td>
<td>0</td>
</tr>
<tr>
<td>Percent of &quot;Grouped&quot; cases</td>
<td>78</td>
<td>82</td>
<td>50</td>
</tr>
</tbody>
</table>

Note. All discriminant function coefficients reported are based on Wilks' Lambda significant at p < .01. The (0) refers to non significant coefficients. There are blanks in the tables where variables have been held constant.
Table 4

Discriminant Function Analyses for Aggressive and Withdrawn Girls on Stages and CFEI

<table>
<thead>
<tr>
<th>Variables</th>
<th>Canonical Correlation</th>
<th>Discriminant Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CFEI &amp; Stages</td>
</tr>
<tr>
<td>Conventional Morality</td>
<td>-.23</td>
<td></td>
</tr>
<tr>
<td>Mutual Activities</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>-.89</td>
<td>-.01</td>
</tr>
<tr>
<td>Loyalty and Commitment</td>
<td>.30</td>
<td>.29</td>
</tr>
</tbody>
</table>

Ego Stages

<table>
<thead>
<tr>
<th></th>
<th>Discriminant Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust (1+)</td>
<td>-.19</td>
</tr>
<tr>
<td>Mistrust (1-)</td>
<td>0</td>
</tr>
<tr>
<td>Autonomy (11+)</td>
<td>0</td>
</tr>
<tr>
<td>Shame, Doubt (11-)</td>
<td>.26</td>
</tr>
<tr>
<td>Initiative (111+)</td>
<td>0</td>
</tr>
<tr>
<td>Guilt (111-)</td>
<td>0</td>
</tr>
<tr>
<td>Industry (1VA+)</td>
<td>0</td>
</tr>
<tr>
<td>Inferiority (1VA-)</td>
<td>0</td>
</tr>
<tr>
<td>Sociocentrism (1VB+)</td>
<td>0</td>
</tr>
<tr>
<td>Egocentrism (1VB-)</td>
<td>0</td>
</tr>
<tr>
<td>Percent of &quot;Grouped&quot; cases correctly classified</td>
<td>82</td>
</tr>
</tbody>
</table>

Note. All discriminant function coefficients reported are based on Wilks' Lambda significant at p < .01. The (o) refers to non significant coefficients. There are blanks in the tables where variables have been held constant.
differences between the rejected groups of girls are found on the CFEI scales.

The results of the discriminant analyses for popular and withdrawn girls are presented in Table 5. In the first analysis the best linear combination of variables includes CFEI (empathic understanding, loyalty and commitment), stage I (mistrust), stage II (autonomy, shame, doubt), stage III (initiative, guilt), and stage IVB (egocentrism). When CFEI is held constant, the negative aspects of stages II (shame, doubt), III (guilt), and IVB (egocentrism) remain as significant discriminators. Both empathic understanding and loyalty and commitment also remain as significant discriminators when stages are held constant. This seems to suggest that in order to obtain maximum differentiation between popular and withdrawn girls we need scores on both measures.

In summary, these discrimination analyses indicate that both stages and CFEI contribute to behavioural differences. The best discriminators appear to be empathic understanding and stage IVB (egocentrism). When two group comparisons are made the discriminators vary according to the groups involved. Aggressive and popular girls differentiate on stage III and stage IVB variables; aggressive and withdrawn girls differ on CFEI variables and withdrawn and popular girls differentiate on both
<table>
<thead>
<tr>
<th>Variables</th>
<th>Canonical Correlation</th>
<th>Discriminant Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>CFEI &amp; Stages</td>
<td>Stages</td>
</tr>
<tr>
<td>Conventional Morality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutual Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathic Understanding</td>
<td>-.54</td>
<td>1.03</td>
</tr>
<tr>
<td>Loyalty and Commitment</td>
<td>.30</td>
<td></td>
</tr>
</tbody>
</table>

**CFEI**

**Ego Stages**

|                                 |                      |                       |                       |
| Trust (I+)                      |                       |                       |                       |
| Mistrust (I-)                   | -.16                  |                       |                       |
| Autonomy (II+)                  | -.15                  |                       |                       |
| Shame, Doubt (II-)              | .14                   | .32                   |                       |
| Initiative (III+)               | .21                   |                       |                       |
| Guilt (III-)                    | .25                   | .37                   |                       |
| Industry (IVA+)                 |                       |                       |                       |
| Inferiority (IVA-)              |                       |                       |                       |
| Sociocentrism (IVB+)            |                       |                       |                       |
| Egocentrism (IVB-)              | .54                   | .87                   |                       |
| Percent of "Grouped" cases      |                       |                       |                       |
| correctly classified             | 92                    | 72                    | 72                    |

**Note.** All discriminant function coefficients reported are based on Wilks' Lambda significant at p < .01. The (o) refers to non-significant coefficients. There are blanks in the tables where variables have been held constant.
CFEI and stage variables. These analyses also suggest that a few moderately significant relationships exist between CFEI and stages.

For clarification of the related variables a correlational analysis was performed. Table 6 contains the correlations of CFEI and stages for each behavioural type. Inspection of this table reveals that for popular girls relatively few significant interrelationships exist between CFEI and stages. In looking at the Aggressives, we find that significant correlations are restricted to the more intrinsic dimensions of the CFEI scales (empathic) understanding, loyalty and commitment and a few stage variables. However, for the withdrawn girls, significant correlations are found for stage I and stage III and all CFEI dimensions. In particular, for withdrawn girls the less the importance placed on loyalty and commitment, the more the guilt, whereas for popular girls the less the guilt.

An interesting finding was the number of significant correlations within stages in the measures of positive and negative crisis resolutions. These correlations by behavioural type are found in Appendices H, I, and J.

Analyses for Psychosocial Stage Crisis Resolution

In order to examine the nature of the psychosocial crisis resolution at various stages for all behavioural groups, several separate univariate analyses were per-
Table 6
Correlations Among CEFL and Stages for Behavioural Groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>Conventional Morality</th>
<th>Mutual Activities</th>
<th>Empathic Understanding</th>
<th>Loyalty and Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust (I+)</td>
<td>-15</td>
<td>-20</td>
<td>-02</td>
<td>-09</td>
</tr>
<tr>
<td>Mistrust (I-)</td>
<td>16</td>
<td>-16</td>
<td>07</td>
<td>06</td>
</tr>
<tr>
<td>Autonomy (I+)</td>
<td>-20</td>
<td>-11</td>
<td>-01</td>
<td>10</td>
</tr>
<tr>
<td>Shame,Doubt (I-)</td>
<td>-04</td>
<td>-13</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Initiative (III+)</td>
<td>-14</td>
<td>15</td>
<td>10</td>
<td>00</td>
</tr>
<tr>
<td>Guilt (III-)</td>
<td>18</td>
<td>12</td>
<td>-33*</td>
<td>-07</td>
</tr>
<tr>
<td>Industry (IVA+)</td>
<td>-04</td>
<td>07</td>
<td>26</td>
<td>-07</td>
</tr>
<tr>
<td>Inferiority (IVA-)</td>
<td>16</td>
<td>10</td>
<td>04</td>
<td>-03</td>
</tr>
<tr>
<td>Egocentrism (IYB+)</td>
<td>-30</td>
<td>26</td>
<td>-05</td>
<td>04</td>
</tr>
<tr>
<td>Sociocentrism (IYB-)</td>
<td>03</td>
<td>03</td>
<td>22</td>
<td>-07</td>
</tr>
</tbody>
</table>

Note: Decimal points have been omitted.

\[ n = 30. \] \[ * p < .05. \] \[ ** p < .01. \]
formed. Figure 2 illustrates how the behavioural groups differ in their negative responses to each psychosocial stage (see Appendix F for means and standard deviations). Simple one-way analyses of variance of these data yielded significant effects for stage II (p < .05), stage III (p < .01), and stage IVB (p < .001). To determine which specific behavioural group differed a Newman-Keuls comparison was performed. Table 7 reveals that withdrawn girls have significantly more negative responses than popular or aggressive girls on stage II (shame, doubt). On the other hand, for both stage III and stage IVB popular girls had significantly fewer negative responses than the rejected groups.

The mean positive stage responses for each behavioural group are plotted in figure 3 (see Appendix F for means and standard deviations). Again one-way analyses of variance of these data yielded significant effects for stages III (p < .01), stage IV-A (p < .01), and stage IVB (p < .05). Further analyses using the Newman-Keuls test for multiple comparisons revealed that populars made significantly more positive responses on the above stages.

Analyses for Prediction of Psychosocial Stages

Several multiple linear regression analyses were performed to test the third objective of this research. The
Figure 2. Mean negative stage scores as a function of behavioural groups.
Figure 3. Mean positive stage scores as a function of behavioural groups
Table 7
Summary Table of Significant Ego Stages of Development
by Behavioural Groups using Analysis of Variance

<table>
<thead>
<tr>
<th>Stages</th>
<th>MS</th>
<th>Error</th>
<th>$F^a$</th>
<th>Group (^b) Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shame, Doubt</td>
<td>8.40</td>
<td>2.29</td>
<td>3.67*</td>
<td>(Withdrawn vs. Popular)</td>
</tr>
<tr>
<td>(II-)</td>
<td></td>
<td></td>
<td></td>
<td>(Withdrawn vs. Aggressive)</td>
</tr>
<tr>
<td>Initiative</td>
<td>6.81</td>
<td>1.31</td>
<td>5.20**</td>
<td>(Popular vs. Aggressive)</td>
</tr>
<tr>
<td>(III+)</td>
<td></td>
<td></td>
<td></td>
<td>(Popular vs. Withdrawn)</td>
</tr>
<tr>
<td>Guilt</td>
<td>6.81</td>
<td>1.31</td>
<td>5.20**</td>
<td>(Popular vs. Aggressive)</td>
</tr>
<tr>
<td>(III-)</td>
<td></td>
<td></td>
<td></td>
<td>(Popular vs. Withdrawn)</td>
</tr>
<tr>
<td>Industry</td>
<td>4.90</td>
<td>.70</td>
<td>7.04**</td>
<td>(Popular vs. Aggressive)</td>
</tr>
<tr>
<td>(IIV+ )</td>
<td></td>
<td></td>
<td></td>
<td>(Popular vs. Withdrawn)</td>
</tr>
<tr>
<td>Sociocentrism</td>
<td>3.21</td>
<td>.73</td>
<td>4.40*</td>
<td>(Popular vs. Aggressive)</td>
</tr>
<tr>
<td>(IIV+ )</td>
<td></td>
<td></td>
<td></td>
<td>(Popular vs. Withdrawn)</td>
</tr>
<tr>
<td>Egocentrism</td>
<td>13.64</td>
<td>.62</td>
<td>21.83***</td>
<td>(Popular vs. Aggressive)</td>
</tr>
<tr>
<td>(IIV- )</td>
<td></td>
<td></td>
<td></td>
<td>(Popular vs. Withdrawn)</td>
</tr>
</tbody>
</table>

Note. \(^a\) The F ratio is based on all three groups - df = 2/87

\(^b\) Group comparisons in parentheses indicate differences based on Newman Keuls at $p < .05$.

* $p < .05$.

** $p < .01$.

*** $p < .001$. 
basic postulate in question was: do earlier stages predict later stages? The results to this question are presented in Tables 8 through 11. It may be observed in Table 8 that stage IVB had three significant predictors: stage 1 (trust, mistrust), stage 11 (autonomy), and stage 111 (initiative, guilt). Stage 1 (mistrust) contributed most to the predictive power of the full model for withdrawn girls on stage IVB (sociocentrism) ($0.60 \ p < .01$).

Table 9 presents data for stage IVA. Both stage 1 (trust, mistrust), and stage 11 (autonomy) were significant predictors. Table 10 presents data for stage 111. The same stage predictors emerged again. For the stage 11 analyses, stage 1 (mistrust) was a significant predictor ($p < .05$). As can be seen in Table 11 this finding pertains only for the withdrawn girls.

In order to clarify where each behavioural group differs on stage predictors a matrix format was prepared. Figure 4 summarizes the preceding information from Tables 8 through 11. With the exception of stage 1 (mistrust) as being a significant predictor for stage IVA with all behavioural groups, the predictors varied according to the behavioural group involved. For example, stages 111, 11 and 1 were found to be predictors of later stages for the popular and withdrawn girls, whereas for aggressive girls, stage 11, and 1 were predictors of
Table 8
Summary Table of Significant Predictors of Stage IVb using Multiple Regression Analyses

<table>
<thead>
<tr>
<th>Behavioural Group&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Predictors</th>
<th>Beta</th>
<th>F</th>
<th>R²</th>
<th>Overall F</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociocentrism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawn</td>
<td>Trust</td>
<td>.51</td>
<td>8.53**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mistrust</td>
<td>.60</td>
<td>11.78**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guilt</td>
<td>.35</td>
<td>5.52**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>.43</td>
<td>6.58**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egocentrism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Popular</td>
<td>Mistrust</td>
<td>.40</td>
<td>5.35*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
<td>-.31</td>
<td>3.37*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>.21</td>
<td>3.66*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>n = 30 in each group.

* p < .05.

** p < .01.
Table 9
Summary Table of Significant Predictors
of Stage IVa using Multiple Regression Analyses

<table>
<thead>
<tr>
<th>Behavioural Group(^a)</th>
<th>Predictors</th>
<th>Beta</th>
<th>F</th>
<th>(R^2)</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawn</td>
<td>Mistrust</td>
<td>-.47</td>
<td>8.11**</td>
<td>.47</td>
<td>8.11**</td>
</tr>
<tr>
<td>Aggressives</td>
<td>Trust</td>
<td>-.35</td>
<td>3.78*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mistrust</td>
<td>-.42</td>
<td>5.50*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.21</td>
<td>3.64*</td>
</tr>
<tr>
<td>Popular</td>
<td>Trust</td>
<td>-.66</td>
<td>11.23**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mistrust</td>
<td>.60</td>
<td>9.30**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.32</td>
<td>6.46**</td>
</tr>
<tr>
<td><strong>Inferiority</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawn</td>
<td>Autonomy</td>
<td>.42</td>
<td>5.37*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shame, Doubt</td>
<td>.35</td>
<td>4.16*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.48</td>
<td>3.97*</td>
</tr>
<tr>
<td>Popular</td>
<td>Mistrust</td>
<td>.44</td>
<td>6.80*</td>
<td>.20</td>
<td>6.80*</td>
</tr>
</tbody>
</table>

\(^a\)\(n = 30\) in each group.

*p < .05.

**p < .01.
Table 10
Summary Table of Significant Predictors of Stages III and IV using Multiple Aggression Analyses

<table>
<thead>
<tr>
<th>Behavioural Group&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Predictors</th>
<th>Beta</th>
<th>F</th>
<th>R²</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative (III)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggressive</td>
<td>Mistrust</td>
<td>-.38</td>
<td>4.71*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.14</td>
<td>4.71*</td>
<td></td>
</tr>
<tr>
<td>Guilt (III)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggressive</td>
<td>Autonomy</td>
<td>.39</td>
<td>4.94*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.15</td>
<td>4.94*</td>
<td></td>
</tr>
<tr>
<td>Shame, Doubt (IV)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawn</td>
<td>Mistrust</td>
<td>.45</td>
<td>6.92*</td>
<td></td>
<td>.20</td>
</tr>
</tbody>
</table>

<sup>a</sup>n = 30 in each group.

*p < .05.

**p < .01.
<table>
<thead>
<tr>
<th>Predictors</th>
<th>Stage I (+) (-)</th>
<th>Stage III (+) (-)</th>
<th>Stage IVA (+) (-)</th>
<th>Stage IVB (+) (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust (+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mistrust (-)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage II</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy (+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shame, Doubt (-)</td>
<td></td>
<td></td>
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Note. The (o) refers to non significant findings.
later stages. Overall, stage 1 appears to be the best predictor of later stages. This is further supported by the findings that trust and mistrust variables have more significant correlations than any other stage variables (see Appendix II). In summary, it appears that later stages are predicted by earlier stages and there are some differences as a function of behavioural groups.
CHAPTER IV
DISCUSSION

This research was concerned with the following questions: (a) Can we account for behavioural differences from Erikson's model of psychosocial development and/or from children's friendship conceptions? Further, are friendship and psychosocial development related, and do they vary with behavioural patterns? (b) Is the nature of the psychosocial crisis resolution at various stages different for each behavioural group? (c) Are later psychosocial stages predicted by earlier stages and do they vary with the behavioural characteristics of the child? This discussion will address itself to each of these issues, respectively.

Discrimination Among the Three Groups

In regard to the first question, the results of the discrimination analyses indicated that some psychosocial stages and friendship dimensions effectively discriminated aggressives, withdrawns, and populars. The first function differentiated the three groups on the majority of the stage variables and on two of the friendship scales (empathic understanding and loyalty and commitment). The second function discriminated the groups on empathic understanding, the stage variables of trust, sociocentrism, and
egocentrism. Rotation of the two functions indicated that the first function primarily represented the stage LVb (sociocentrism vs. egocentrism) aspect of psychosocial development while the second function almost exclusively measured the CFEI dimension of empathic understanding. These functions appeared relatively orthogonal and have independent, additive effects in discriminating among these behavioural patterns. Thus, it would seem that psychosocial development and friendship expectations are two relatively independent kinds of personality and social factors that both contribute to behavioural patterns.

Of particular relevance to this research was specific comparisons of the responses of two different behavioural groups of children (aggressive vs. popular, popular vs. withdrawn, and aggressive vs. withdrawn). Consequently, further discriminant analyses were performed to determine the best set of discriminators for each of these groups. This provided the necessary information for the later aspect of the first objective, namely does discrimination vary with the behavioural patterns?

**Popular vs. Aggressive:***

The results for populars and aggressives indicated that only stage variables discriminated. The best set of linear predictors were stage IIII (initiative, guilt) and
stage IVb (sociocentrism, egocentrism). The fact that discrimination occurred for only these two stages is not surprising when one considers that aggressive and popular children are quite similar in many respects. In terms of values, it has previously been shown that they hold similar friendship conceptions (Wood, 1972). Secondly, they both hold similar perceptions of their immediate environment (Klaus, 1959). Moreover, both are action orientated and have a high need for recognition and approval (Hurlock, 1972). What may be the critical difference between these children is the means or method of action by which they take to gain recognition and/or approval. The fact that discrimination occurs in two stages where "action" is a major component, first in the play and fantasy world of stage III, and later in the real world of interpersonal relationships, as described in stage IVb, provides some support for this assumption.

Popular vs. Withdrawn

The finding that popular and withdrawn children differ on both psychosocial stages and friendship dimensions suggests that withdrawn children are less adequate in terms of their socialization than aggressive children who differ only in psychosocial stages. This is consistent with Elkin and Handel (1972) who maintain that the
social skills and habits necessary for becoming a competent mature adult depend on several factors of the socialization processes. If we assume that popular children are the most successful in their social development, and the withdrawn children the least successful, then we would expect to find differences not only in the enactment of socially approved roles, but also in terms of their attitudes and social values. This study bears out these assumptions to a large extent.

**Aggressive vs. Withdrawn**

When examining the two rejected groups of children we found that discrimination occurred primarily on the CFEI variables. By far the most "powerful" discriminator was empathic understanding. This is also consistent with previous research in this area (Wood, 1972; Irwin, 1975). The emergence of conventional morality, as well as loyalty and commitment as effective discriminators, enhances the multidimensional aspect of the CFEI for future research. The fact that the two rejected groups of children differed on three of the four important friendship dimensions for their group provides some insight as to the nature of these behavioural differences.

Somewhat contrary to my expectations, was the lack of multivariate discrimination in psychosocial stages be-
tween the rejected children. The more encouraging results from the univariate analyses are presented below.

**Psychosocial Stage Crises Resolution**

The second objective was to determine the nature of crisis resolution for the three behavioural groups. The analysis involves specific stage differences and the direction of these differences.

The three groups of children differed on all stages but stage 1 (trust vs. mistrust). Specifically, popular children differed from rejected children in making fewer negative responses and more positive responses for all four stages beginning with stage 11 (autonomy vs. shame, doubt). These data suggest that popular children have resolved psychosocial stage conflicts more adequately than either the aggressive or the withdrawn children. The finding that the rejected groups were more "conflict-oriented" supports the prediction from Erikson's theory that an adequate conflict resolution for each stage is necessary for healthy social development. One possible interpretation of this finding is that the failure to resolve adequately the crises of various stages is a major factor underlying the behavioural problems characteristic of rejected children. It is necessary to be cautious, however, in ascribing cause-effect relationships. Further
research would be required before behavioural patterns can be unequivocally linked to psychosocial conflict resolution. Such research would have to identify the mechanisms whereby inadequate conflict resolution is translated into specific behavioural patterns.

We have stated that the aggressive and withdrawn children are alike in terms of their psychosocial development. However, there is one noteworthy difference between them. On stage II (shame, doubt) aggressives responded like the populars in having fewer negative responses than the withdrawns. One possible explanation is that the establishment of autonomy is much more difficult for a child who is not action orientated. The existing sociometric literature generally supports differences found in the amount and/or frequency of peer interactions between these children (Mitchell, 1956; Cole & Hall, 1965; Peterson, 1961). An aggressive child, like the popular child, is outgoing and "action" orientated. Consequently, she may be predisposed to make frequent attempts at autonomous actions. If her assertions are met with any type of success and if her parents are permissive enough to allow this independence, then we can see why the aggressive would have little difficulty in becoming autonomous. On the other hand, for the withdrawn child, the desire to assert oneself may be heavily overshadowed by feelings of hopelessness, ridicule,
shame, and self-doubt concerning her actions. The presence of these strong feelings would then override her attempts at being autonomous and force her into retreat. According to Kaufman (1974) these humiliating feelings are precipitated by parental failure to respond appropriately to a child's needs and by parental anger toward the child.

From Erikson's viewpoint, parents furnish the only means to which the child can hope to achieve a successful equilibrium between autonomy and self-doubt. Because they must provide the right amount of restrictions on the child's basic need for a delineation of her autonomy. Perhaps the basic issues characteristic of stage II are the critical indices for identifying the origins of behavioural differences among rejected children. Ciaccio (1969) went one step further in drawing conclusions about stage II. He speculated that the crisis of autonomy vs. shame, doubt "may be the most significant crisis in the developmental schema, its resolution of exacerbation having lasting effects on the outcome of all further ego development" (Ciaccio, 1969, p. 107).

Prediction of Psychosocial Stages

The third objective of this study dealt with specific predictions derived from Erikson's theory—namely do earlier stages predict later stages? One of the main assump-
ion of his theory is that the resolutions of each crisis is systematically related to the resolutions of earlier crises. Generally speaking, the multiple regression analyses bore out this prediction and is consistent with earlier research which addressed itself to this aspect of Erikson's theory (Wessman & Rick, 1966; Boyd, 1965; Reimanis, 1974).

One aspect of this objective was to determine if any such predictions varied with behavioural characteristics. The results indicated that not all later stages were predicted by earlier stages and the stage predictors varied with the behavioural groups involved. Specifically, stage 1 was the most pervasive predictor, predicting all later stages. Other stage predictors varied somewhat as a function of the behavioural group. Stage II failed to predict for any of the groups. Boyd (1965) using a similar research design also found that some stages were not predictive. The fact that stage I (trust vs. mistrust) predicted all later stages provided some support for Erikson's notions on the importance of trust. Erikson has placed trust as the cornerstone of social development setting the tone and pace for all further development. Several researchers have failed to demonstrate the importance of the trust phenomena.

Waterman, et al. (1970), using Rotter's Interpersonal Trust Scale and a measure of ego identity, failed to find any relationship between these two verbal measures. Cohen (1971)
using a projective picture supposedly tapping trust failed to discriminate between a clinical and normal sample of children. Moreover, Ciaccio (1969) using a similar picture reported a dearth of trust responses with his sample of children. Perhaps the reason for the lack of significant findings with the aforementioned projective measures was related to the "quality" of the picture used by those researchers. The picture specifically designed for this study to measure the trust vs. mistrust dimension appeared to be more effective, but more research is needed here.

In general, the information gathered concerning this third objective, provides some support for the theorem that the kind of resolutions in earlier stages has some impact on the resolution of crises at later stages. Additional support was found for the variation of predictors as a function of behavioural type.

Theoretical Implications

First and foremost, the results of the present investigation clearly demonstrated that Erikson's psychosocial stage theory can account for behavioural differences as measured by the Behavioural Description Form. Specifically, multivariate discriminant analyses performed on the set of stage variables revealed significant discrimination among the three behavioural groups. The findings that stage lvb
rather than stage lVa was the effective discriminator raises a question about certain aspects of Eriksonian theory. Stage lVa is the appropriate stage for children in this age group. But this stage was ineffective, whereas, Stage lVb was the most powerful discriminator. Certainly, the failure of Stage lVa to discriminate is not sufficient grounds for questioning the Eriksonian model. At a more conceptual level, however, it would seem that Stage lVa does not tap important aspects of psychosocial development. Sullivan (1953b) asserts that during this period the child reaches out to another human being with an emotion very much like love which is unparalleled in the human life cycle for its peace and comfort. Moreover, a good many of the stresses which follow this stage have their origins in this era. It is necessary to determine, of course, if Stage lVb is predictive with 11 and 12 year old girls. Further research is necessary for determining the need for extending Erikson's theory.

The finding that rejected children were more "crisis oriented" than accepted children lends support to a basic notion underlying the present study, namely, that an adequate acceptance as opposed to rejection is essential for resolution of crises and a normal social development.

Methodological Implications
The present study employed several instruments in an attempt to delineate the "how" and "why" children differ
in certain behavioural patterns. Certainly, only a beginning has been made in this direction. However, the generally positive results provide some support for the usefulness of these instruments in measuring differences in behavioural patterns.

**Behavioural Description Form.** The results of the discriminant function analyses indicating that the three groups can be correctly classified by means of psychosocial stages and/or friendship dimensions offer some support for the "discriminant" validity of the Behavioural Description Form.

It should be noted that the BDF was used in the present study as a teacher rating, whereas the form was used as a peer rating in an earlier study (Wood, 1972). There was some evidence to support the notion that both the teacher rating and the peer rating produced somewhat equivalent results in differentiating popular, aggressive, and withdrawn children. Overall, the results suggest that the BDF is a useful tool for identifying children with certain behavioural problems as either a teacher or a peer rating device.

**Children's Friendship Expectancy Inventory.** The lack of significant differences between the aggressive and popular children and the discrimination found between the popular and withdrawn children on some of the CFEI variables is consistent with an earlier study by Wood (1972). Some estimate of the value of using the CFEI can be obtained by
examining the increased accuracy that occurs in classification by its inclusion. The accuracy of classification for popular and withdrawn children using only the psychosocial stage variables was 72%. The addition of the CFEI increased the level of accuracy to 90%. These results offer some support for the notion that information on value-orientation towards friendship may be useful in trying to understand certain kinds of atypical behaviour.

**Picture Series Test.** The Boyd's test was found to (a) discriminate among the three groups; (b) clarify the nature of the crisis resolution, and (c) be effective in predicting later stages from earlier stages. These results are consistent with earlier studies employing the same instrument (Boyd, 1964; Ciaccio, 1969; Harding, 1971). This projective instrument was used in measuring certain predictions arising from Erikson's theory. In general, these results were consistent with deductions from the theory. Consequently, there is some evidence for construct validity of this test.

**Modification of Picture Series Test**

**Stage 1 (Trust vs. Mistrust).** Support was found for the use of a "new" trust-mistrust picture to replace the first picture in the Boyd series. Responses to the "new" picture were predictive of responses to other pictures in
the series tapping later stages of development.

Both the original picture used by Boyd (1964) and
the one used by Cohen (1971) sought to tap oral-sensory
themes purported to deal with trust within a Freudian
frame of reference. The "new" picture involved trust
among peers rather than parent-child relationships. Per-
haps, this picture dealing with peers had more thematic
press, thereby evoking more trust-mistrust responses than
the pictures used in previously cited research. Further
research is necessary, however, to establish that these are
the actual properties of trust-mistrust as postulated by
Erikson. Other measures of trust are also necessary to
evaluate if this "new" picture actually measures trust.

Stage 1Vb (Sociocentrism vs. Egocentrism). The pic-
ture referred to as dealing with stage 1Vb was originally
labeled by Boyd as a stage V1 (intimacy vs. isolation)
picture. Boyd (1964) used this picture in a study that in-
cluded grade 12 children in an attempt to identify any pre-
cocious children just entering this stage. The picture
shows a circle of children with a girl standing off in the
distance tentatively looking at the group of children.
Boyd's (1975) coding system outlined for small groups for
this stage was revised and supplemented with notions of
Sullivan's preadolescent era.

The stage 1Vb picture was found to be the most "power-
ful" discriminating measure of this study. Future research involving eleven and twelve year olds should consider using this picture as well as the coding system specifically designed for it by the present investigator. If used as part of the entire Boyd series for an older sample, then responses to this picture might be scored both in terms of stage IVb (Sociocentrism vs. egocentrism) and in terms of stage VI (intimacy vs. isolation).

**Revised Coding System.** Boyd (1975) recommended that a Gestalt approach be used to score the responses to the pictures to avoid the high cost and time necessary for scoring unit utterances by content analysis. The use of rating scales proved to be a feasible approach. The required time for scoring the protocols was less than half the time reported by both Boyd (1964) and Ciaccio (1969). Moreover, the interrater reliabilities were higher than those reported by Ciaccio who did not use trained raters and about the same level as reported by Boyd who used skilled coders. Finally, the use of rating scales ranging from +2 to -2 produced more significant results than rating scales ranging from +1 to -1. The results obtained from using rating scales with different ranges have not been included in this paper, but are available upon request from the present investigator.

**Clinical and Educational Implications**

Although there is considerable research (cf. Ausubel
& Sullivan, 1970) in the personality and behavioural correlates of socially rejected and accepted children, few studies have used a psychosocial developmental approach. Moreover, such studies focusing on the relationship between social adjustment and Erikson's psychosocial stages have dealt with adults (Yufit, 1956; Ramussen, 1964).

This study was concerned with children and, in particular, girls with behavioural characteristics likely to affect adequacy of their peer relationships (cf. Wood, 1972). The picture series test provided some answers as to "why" they were experiencing difficulties. Specifically, these rejected girls appear to have made less adequate resolution of their "conflicts" as evidenced by the fewer number of positive responses to stages 111, 1Va, and 1Vb, and by more negative responses to stages 111, and 1Vb. Additionally, the withdrawn girls, as opposed to the aggressive and popular girls, made significantly more negative responses in stage two.

The picture series test may also be valuable in diagnosis and disposition. In diagnostic work, answers are frequently sought to questions such as "Why isn't this child getting along with her peers?" The way a child perceives the pictures and the degree of comfort she expresses in her stories may provide important clues to the origins of problems. These kind of data may help
to select the most appropriate mode of treatment.

The CFEI instrument was also used in an attempt to understand behavioural differences in girls. The findings indicated that the two rejected groups of children differed in the importance placed on these friendship dimensions. The aggressive girls responded in a similar fashion to popular girls while the withdrawn girls were found to have atypical friendship values. In particular, withdrawn girls deemphasized empathy and overemphasized loyalty. Perhaps the withdrawn girl's limited peer interactions have prevented her from acquiring knowledge of friendship role prescriptions. In any event, the underlying basis for the withdrawn's unacceptance appears to be more complicated and complex than for the aggressive girl as evidenced also by the finding in the Picture Series Test.

Limitations and Implications for Future Research

The first limitation of the present study is the problem in making qualitative statements about differences among these three groups. Quantitatively speaking, it was found that popular children made more favourable crisis resolutions than the rejected children. It could not be ascertained, at which specific stage each group was located. The researchers who found specific stage differences have used different age groups (cf. Boyd, 1964).
An unresolved problem, then, is the construction of an index to tap specific stages of development by means of the crisis resolutions experienced by the child. Boyd and Koskela (1970) recommended that a measure of resolution be based on the ratio of the positive and negative valences of an ego stage. Their measure of resolution for a given ego stage was the ratio of the positive like-unlike score to the negative like-unlike score. Due to the free response nature of my data it was impossible to calculate such ratios. For a given stage some children would make all positive responses or all negative responses or even no responses at all. Ratios cannot be computed if one of the figures is zero.

A second limitation entails the reliance of children in the same age group. Ideally, a longitudinal study should be conducted. In other words, the kinds of predictions made in the present study should be examined over time. For instance, does a four or five year old child who expresses feelings of shame and doubt continue to express shame and doubt in subsequent years? Equally important, do those children who express feelings of shame and doubt at four years also express feelings of inferiority six or seven years later? Needless to say, few researchers are likely to undertake such long term studies. Cross-sectional studies, as an alternative, may provide some
estimates as to the validity of predictions from Eriksonian theory.

A third limitation involves the lack of independent measures of psychosocial stages of development and friendship expectations. Both measures used in this study involved verbal reports. Behavioural measures of psychosocial development and friendship should be considered. Such measures should be used in observational studies in naturalistic situations.

One reason for using independent measures is to establish the relationship between friendship value-orientation and actual friendship behaviour. It is conceivable that even though we found that aggressive and popular children are alike in the importance they assign to loyalty and empathy, they may differ in their behavioural expressions of loyalty and empathy in real-life situations.

It should be noted that behavioural measures are not necessarily more accurate in classifying children than verbal responses to projective tests. Handler and McIntosh (1971) in a study of aggression and withdrawal in children found that projective tests yielded a higher rate of correct group classification than behavioural observation or self-ratings.

A fourth limitation is that the aggressive and withdrawn children may not be homogeneous groups. Though fair-
ly accurate classifications were obtained using both mea-
sures of friendship and psychosocial development, there
was enough error to suggest that each of these groups can
be further subdivided. One possibility is to separate
aggressives by the number of negative responses to each
stage. The differentiation of aggressives into high and
low groups may serve to isolate aggressives that have
"conduct" problems from aggressives that are essentially
"normal" active children.

A fifth limitation concerns itself with the size of
the sample and the sex of the subjects. A study involving
three groups of children limited to girls with only thirty
in each group cannot be considered as definitive, particu-
larly in testing a theory as complex as Erikson's. How-
ever, the results are sufficiently encouraging especially
in view of the size of the sample. Practically all studies
dealing with sex differences in aggression indicate that
boys are significantly more aggressive than girls (Maccoby
& Jacklin, 1974). In many instances it was difficult for
teachers to identify an extremely aggressive female.
Consequently, I suspect that the aggressive groups was
less clearly delineated than the other groups. Perhaps
an extension of this study using boys as well as girls
would produce more striking results than were obtained
in the present study.
Summary

The following section is a brief summary of the findings of this research project. The specific results are as follows:

1. The results suggest that the Behavioural Description Form was a useful tool in identifying children with certain behavioural problems. Both psychosocial stages and friendship dimensions were found to be effective discriminators.

2. The most effective discriminator of the behavioural groups was the measure of Stage $1W_b$ (egocentrism). Of the friendship dimensions, empathic understanding was the most effective discriminator.

3. The aggressives differed from the populars on psychosocial stages, the aggressives differed from the withdrawns on friendship dimensions and the populars differed from the withdrawns on both measures.

4. With respect to the nature of the psychosocial crisis resolutions, the rejected groups as opposed to the popular group were found to have fewer positive responses on stages three, four, and five and have more negative responses on stages three, and five. In addition, withdrawn girls also had more negative responses to stage two than either the aggressive or the popular girls.

5. Finally, in regard to stage predictions, stage $1$
was found to be the most pervasive predictor, predicting all later stages. Moreover, the stage predictors were found to vary somewhat as a function of behavioural type.
APPENDIX A

BEHAVIOURAL DESCRIPTION FORM
BEHAVIOURAL DESCRIPTION FORM

This study is concerned with relations of peer accept-
ance and rejection to social development and adjustment.
Previous research has indicated that teachers' judgements
of peer relations are generally one of the most valid
sources of information.

Below are listed three descriptions of children. Read
each description. Identify those girls that best fit each
description. If no one fits a specific description, leave
it blank.

1. POPULAR. Girls who are good leaders in several things;
cheerful, jolly, and good natured; show consideration
and understanding for others; work for the good of their
class, their team playmates.

2. AGGRESSIVES. Girls who quarrel and get mad easily; are
disruptive, annoy, and bother others; are restless and
find it hard to sit still; are uncooperative and want
things their own way.

3. WITHDRAWN. Girls who are too shy to make friends easily;
who never seem to have a good time with other children,
and would rather stay by themselves; get embarrassed
easily, are self conscious; and do not appear to be no-
ticed by their classmates.
APPENDIX C.

CHILDREN'S FRIENDSHIP EXPECTANCY INVENTORY
WHAT IS IMPORTANT TO YOU IN CHOOSING YOUR BEST FRIENDS? Everyone has his own ideas. There are no right or wrong answers. This is not a test.

Look at the ladder on this page. At the top of the ladder is drawn a figure of a "best friend." Think of your best friends: Boyfriends — if you are a boy; girlfriends — if you are a girl.

Look at the list of sentences beside the ladder. Read each sentence and decide how important it is to you in choosing your best friends. Place the letter in front of each sentence on one of the five lines of the ladder.

If you think the idea is very important, write the letter at the top of the ladder (line 1). If you think the idea is not really important, write the letter at the bottom of the ladder (line 5).

If you think the idea is somewhere between important and not important, write the letter somewhere between the top and bottom of the ladder (lines 2, 3, or 4). Remember that the higher up the ladder, the more important is the idea, and the lower down the ladder, the less important it is to you.

The letters may be written on any of the five lines. Two or more letters may be placed on the same line. Make sure that all seven letters are written on the ladder. Now start on the first ladder. Please complete all four ladders.

BEST FRIENDS

A. Go places together.
B. Do not talk about me behind my back.
C. Can trust and depend upon them.
D. Do not lie or cheat.
E. Stand up for what they believe in.
F. Have fun together.
G. Are loyal to me.
BEST FRIENDS

A. Feel secure and relaxed with them.
B. Enjoy spending a lot of time together.
C. Share and share alike.
D. Do not show off or act smart.
E. Can talk about my personal problems.
F. Never get me into trouble.
G. Have good ideas about things to do.

BEST FRIENDS

A. Do not say mean things or cut people up.
B. Can tell them things I'm ashamed of.
C. Get good grades in school.
D. Praise me when I do something well.
E. Enjoy playing the same games and sports.
F. Would do anything for me.
G. Can tell them things that bother or worry me.
A. Do not forget or desert me for someone else.
B. Can be myself with them.
C. Do not take advantage of me.
D. Stand by me through anything.
E. Help me when I'm in trouble.
F. Enjoy spending a lot of time together.
G. Do not pretend to like me.
APPENDIX D

CODING OF THE PICTURE SERIES TEST
CODING OF THE PICTURE SERIES TEST

STAGE ONE: TRUST VS MISTRUST

Statements and/or ideas which contain the following elements will be scored either a plus 2 or 1 indicating a sense of trust.

Positive

1. Being able to trust, depend, or rely upon persons, things, family or self.

2. Instances where there is mutual regulation of giving and receiving between the parties involved.


4. Willingness to risk one's possession or property.

5. Instances of reward for good behaviour.

6. Statements indicating that other's behaviour is predictable, consistent, reoccurring, and stable.

Statements and/or ideas which contain the following elements will be scored either a minus 2 or 1 indicating a sense of mistrust.

Negative

1. Not being able to trust, depend, or rely upon persons, things, or family.

2. Statements that show lack of reciprocity between the parties involved.

3. Feelings of pessimism, "badness", and dissatisfaction.

4. Unwillingness to risk one's possession or property.

5. Instances that good behaviour is not always rewarded.

6. Statements indicating that other's behaviour is unpredictable, inconsistent, and unstable.

7. Expression of some type of aggression either physical or verbal.

STAGE TWO: AUTONOMY VS SHAME AND DOUBT

Statements and/or ideas which contain the following elements will be scored either a plus 2 or 1 indicating a sense of autonomy.
Positive

1. Being able to stand on one's own two feet. In other words, statements which indicate the ability to act on one's own without being told to do so, to make free choices, to care for oneself, and one's personal property.

2. Behaviours and attitudes of self-assertion. Often, there is an element of rebelliousness here, but when the emphasis is on self-control and positive self-assertion (not disobedience), the idea is scored positively.

3. Attitudes and feelings that portray the conviction that some rules are necessary for the conduct of life; or, the feeling that although some rules are distasteful, following them is somehow beneficial for the individual.

Statements and/or ideas which contain the following elements will be scored either a minus 2 or 1 indicating a sense of shame and doubt.

Negative

1. Indications that the child prefers to be manipulated by others, instances of avoidance of self-assertion, blindly following the "letter of the law". Feelings and attitudes which deal with shame (loss of self esteem) or doubt as to one's ability to do things for oneself.

2. Instances of parental domination and interruption of the child's activity, as well as instances of parental discipline, particularly the application of punishments.

3. Descriptions of behaviours and attitudes of hostility and anger, preference for "messy" behaviours. Specific instances of sibling rivalry often expressed in jealous rages or "tantrum".

STAGE THREE: INITIATIVE VS GUILT

Statements and/or ideas which contain the following elements will be scored either a plus 2 or 1 indicating a sense of trust.

Positive

1. Play activities which emphasize intense and vigorous physical exercise and manipulation such as running, jumping, skipping, climbing, etc. Also, responses which indicate play skills in these areas.
2. Play activities which emphasize the anticipation and planning of play projects such as games, making and building simple objects, doing things cooperatively with other children and adults, etc.

3. Attitudes and behaviours of curiosity, exploration, imagination and pretending responses.

4. Behaviours and attitudes indicating what Erikson terms "moral responsibility". This includes the assumption of responsibility with regards to playmates, younger siblings, pets. Also, the perception that one is a responsible person in this regard.

Statements which contain the following elements will be scored either a minus 2 or 1 indicating a sense of guilt.

Negative

1. Direct expressions of guilt, i.e., "He felt bad inside him". Indirect or symbolic evidence of guilt such as instances of bodily damage or injury received while engaged in play activities.

2. Feelings and attitudes of fear, expressed feelings of fear which prevent the individual from initiating behaviours and attitudes. This category includes behaviours of withdrawal and flight from the enterprise of initiative. Also included here are behaviours of showing off and over-aggressiveness in the play situation.

3. Indications of lack of play skill, feelings and attitudes of passivity, instances of letting others initiate for, feelings of defeat about one's effort in the play situation, and indications that competitive play ends in personal defeat.

4. Instances which specifically point to the lack of responsibility for younger siblings, pets, and playmates.

STAGE FOUR(A): INDUSTRY VS. INFERIORITY

Statements and/or ideas which contain the following elements will be scored either a plus 2 or 1 indicating a sense of industry.

Positive

1. Descriptions of industrious situations with technological knowledge sufficient to qualify the task as work rather than play. Descriptions of task-oriented school projects which emphasize learning through doing and serious academic intent.
2. Behaviours and feelings which are indicative of mastery and competence. Note that the emphasis here is not on play mastery but on work and work-skill mastery.

3. Instances of helping around the house, doing chores, having hobbies or doing crafts.

4. Stated feelings of adequacy because of completion of task, academic achievement, and feelings of pride.

Statements and/or ideas which contain the following elements will be scored either a minus 2 or 1 indicating a sense of inferiority.

Negative

1. Stated feelings of inferiority or inadequacy in terms of task-oriented school projects or crafts. Behaviour: feelings indicative of failure or "non-mastery" in an industrious situation.

2. Indications that the individual feels that he does not have the necessary tools, skills or knowledge.

3. Instances of lack of cooperation in terms of task-oriented projects or crafts.

4. Not being able to enjoy the feelings of pride in doing things well (task-oriented).

STAGE FOUR(B): SOCIOCENTRISM VS EGOCENTRISM

Statements and/or ideas which contain the following elements will be scored either a plus 2 or 1 indicating a sense of sociocentrism.

Positive

1. Descriptions of settings where the individual shows a desire to establish interpersonal contacts with other(s) such as in friendships. Individual sees others as friendly, sociable, and interesting. Here the subject views the group as a source of finding a chum.

2. Indications that the attitudes and interests of other(s) or group are similar to one's own. Also included are behaviours which show a desire to cultivate similar or complementary attitudes of the group.

3. Feelings and expressions of warmth, closeness towards other(s). Here the individual expresses eagerness to join other(s).
4. Instances where the individual expresses desire to contribute to the cohesiveness of the group.

Statements and/or ideas which contain the following elements will be scored either a minus 2 or 1 indicating a sense of egocentrism.

Negative

1. Descriptions of settings where the individual shows a preference to be alone, or not with the group or with other(s). Individual views the group as unfriendly, unsociable, and uninteresting.

2. Indications that the attitudes and interest of other(s) or group are different and dissimilar to one's own.

3. Feelings of indifference towards other(s), sadness, and loneliness.

4. Instances where the individual expresses desire to disrupt the cohesiveness of the group. Instance of playing a trick on other(s) denotes non acceptance in the group.
APPENDIX E

PRETESTING OF THE BOYD PICTURE SERIES
Pretesting of the Boyd Picture Series

In order to determine the utility of the projective pictures, some pretesting was done. Using a sample of 15 girls (ages 11 and 12), the original six pictures were given in random order to the subjects. The responses were taped in entirety and five of the protocols were transcribed. All of the protocols were scored by the experimenter and three assistant raters according to the system outlined by Ciaccio with some modifications. Ciaccio used a coding procedure which involved the analysis of the individual stories into "unit-utterances". A unit-utterance was defined as that group of words which compose the smallest unit of spoken thought dealing with one theme. All coded utterances received a valence score of either plus (positive) or minus (negative). A plus valence indicated positive resolution of the particular ego stage conflict while a minus valence indicated failure or inadequate resolution of the particular ego stage conflict.

Due to the time-cost factor involved in unit-utterance scoring, a more gestalt approach suggested by Boyd was formulated, while retaining the definition of stage as used by Ciaccio. The new coding system involved the following: a) listening to the story in entirety and making a gestalt judgement as to which stage the subject was responding; b) using a likert-type scale, score the valence of the response from a positive two to a negative two; c) include both valences if the story contains elements of both positiveness and negativeness; d) listening to the tape again.
and scoring for mention of additional stages according to the preceding coding system.

Using the newly formulated scoring system the 15 protocols were scored and the results are summarized as follows: 1) Picture number one evoked responses scoreable primarily on the autonomy vs shame and doubt dimension rather than the trust vs mistrust; 2) There were very few trust responses on any of the other pictures; 3) Picture number five evoked responses scoreable primarily on the industry vs inferiority dimension rather than the ego-identity vs ego-diffusion; 4) There were no stage five responses on any of the other pictures; 5) All other pictures seemed to discriminate; 6) Picture number six evoked discriminating responses but was not scoreable, as no scoring system had been provided by Ciaccio. The present writer has developed a new coding system tapping sociocentrism vs egocentrism.

There are a number of reasons why the first picture did not evoke the appropriate responses. Perhaps the picture and/or the scoring system were inadequate. Another possibility was that the trust vs mistrust conflict was not important. Since much of the research related to social development indicates that trust is a contributing and relevant variable, it seemed reasonable to focus on the inadequacy of the picture-and/or the scoring system. Subsequently, a new picture was developed as well as a modification of the coding system.

In order to develop a discriminating stage one picture
several pictures were taken centering on two themes. One theme depicted a girl watching out the window and waiting for birthday guests to arrive. The other theme depicted two girls, each holding onto either end of a bicycle. Various aspects of the scenes were stressed in the shooting of the pictures. Of the several pictures developed four raters made a decision as to which two pictures would be used in this aspect of the pretesting.

Another sample of girls were shown these two pictures, plus the stage six picture. Thirty girls (ages 11 and 12) wrote stories on each of the three pictures. These written protocols were scored by the experimenter and three assistant raters according to the revised coding system. The results clearly indicated that the picture centered around two girls with a bike evoked stage one responses as well as other stage responses. The other newly developed stage one picture did not evoke many scoreable responses. In the interim, a new scoring system was formulated for the intimacy vs isolation picture based on numerous theorizings (Erikson, Sullivan, Cohen, Boyd). When applied to this picture it appeared to discriminate.

From the preceding sample the following decisions were made. The bike picture and revised scoring system were substituted for the earlier ones. Secondly, the sixth stage picture was incorporated into a second part of stage four development. In part, this rationale came from Sullivan's writings where he stressed the importance of developing intimate peer relationships with one's
own sex as being the primary task of this age group.

The third and final pretesting of the new picture series was given to a sample of 12 girls. These pictures were given in random order and scored again by the experimenter and three assistant raters. All pictures seemed to discriminate this time except The stage five picture. Once again this picture failed to have any scoreable responses on the ego-identity vs ego-diffusion measure. Instead it scored on the industry vs isolation dimension. Furthermore, there were no scoreable responses on this measure for any of the other pictures. A decision was made to eliminate this picture from the series.
APPENDIX F

DESCRIPTIVE STATISTICS FOR BEHAVIOURAL

GROUPS ON CFEI SCALES

105
Descriptive Statistics for Behavioural Groups on CFEI Scales

<table>
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<tr>
<th>Behavioural Group</th>
<th>Conventional Morality $\bar{X}$ $S$</th>
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<th>Empathy Understanding $\bar{X}$ $S$</th>
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$^a n = 30$ in each group
APPENDIX G

DESCRIPTIVE STATISTICS FOR BEHAVIOURAL
GROUPS ON STAGE SCORES
Descriptive Statistics for Behavioural Groups on Stage Scores

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\( a_n = 30 \) in each group
APPENDIX H

CORRELATIONS AMONG CFEI, EGO STAGES

AND POPULAR GIRLS
CORRELATIONS AMONG CFEI, EGO STAGES AND POPULAR GIRLS^a

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Note. -- Decimal places have been omitted.

^a n = 30.
*p < .05.
**p < .01.
APPENDIX I

CORRELATIONS AMONG CFEI, EGO STAGES
AND AGGRESSIVE GIRLS
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Note. -- Decimal places have been omitted.

$a_n = .30$,

$p < .05$.

$p < .01$. 
APPENDIX J

CORRELATIONS AMONG CFEI, EGO STAGES
AND WITHDRAWN GIRLS
## CORRELATIONS AMONG CFEI, EGO STAGES
AND WITHDRAWN GIRLS

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<td>-03</td>
<td>-02</td>
<td>37*</td>
<td>-24</td>
<td></td>
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<td>11. Industry (IVA)</td>
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<td></td>
<td></td>
<td>-52**</td>
<td>-01</td>
<td>07</td>
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<tr>
<td>12. Inferiority (IVA)</td>
<td></td>
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<td></td>
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<td>-20</td>
<td>17</td>
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<tr>
<td>13. Sociecentrism (1VB)</td>
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<td>-07</td>
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</tr>
</tbody>
</table>

Note: Decimal places have been omitted.

\[ n = 30. \]

* \( p < .05 \).

** \( p < .01 \).
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124
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