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Susan Jane Scott  
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AN EXAMINATION OF THE RELATIONSHIP BETWEEN TYPE A AND B  
BEHAVIOR PATTERNS AND FANTASY PREDISPOSITION WITH  
CHILDREN AGES 4-5 YEARS

by

Susan Jane Scott

B.S., St. Cloud State University, 1977

*Jack Mayala*  
Chairman  
A Thesis

*Edward J. Hunt*  
Submitted to the Graduate Faculty

*Robert R. ...*  
of

St. Cloud State University

in partial Fulfillment of the Requirements

for the Degree

Master of Science

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May, 1982  
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This thesis submitted by Susan Jane Scott in partial fulfillment of the requirements for the Degree of Master of Science at St. Cloud State University is hereby approved by the final evaluation committee.

Susan Jane Scott

This study represented an attempt to examine any relationships between type A and B behavior patterns and fantasy predisposition levels in young children. Subjects were 17 females and 16 male, 4-5 year olds, enrolled in day care facilities located in the suburban area of a large midwestern city. Subjects were predominantly Caucasian and from the lower-middle and middle socioeconomic classes. The MMW checklists, measuring type A and B behavior patterns, were completed by the children's teachers. The IPP interviews, measuring fantasy predisposition levels, were completed on a one-to-one basis by the researcher. Results indicated significant inverse relationships for the entire sample, females only, and males only. Thus, type A behavior patterns were related to low fantasy predisposition levels and type B behavior patterns were related to high fantasy predisposition levels.

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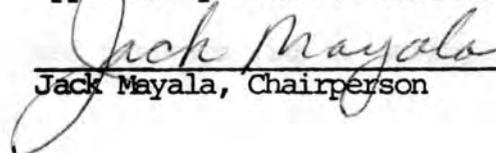
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May, 1982

Approved by Research Committee:

  
\_\_\_\_\_  
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behavior patterns. The contrast of these two patterns is impatience (type A) and relaxation (type B). The type A behavior pattern of coronary artery and heart disease in adults is characterized by existence of competitive achievement striving, impatience, easily aroused anger and aggression, and a relative absence of these traits is characterized by the type B behavior pattern (Dembroski, 1970; Friedman & Rosenman, 1974; Glass, 1977).

Friedman and Rosenman (1974) expressed that people have been denied the type A behavior pattern facts associated with premature coronary heart disease. In the absence of type A behavior patterns, coronary heart disease usually does not occur before seventy years of age, regardless of the fatty foods eaten, the cigarettes smoked, or the lack of exercise. However, coronary heart disease can easily erupt in one's thirties or forties when this behavior pattern is present. They find that the spread of type A behavior explains why death by heart disease, once confined solely to the elderly, is increasingly common among younger people. In addition, Glass (1977) hypothesized that the disease is a long-term risk involved in repeated efforts to adapt to inescapable stress. Although type A

## Chapter 1

### INTRODUCTION

#### Background Information

Children's behavior is often characterized by type A and B behavior patterns. The contrast of these two patterns is impatience (type A) and relaxation (type B). The type A behavior pattern of coronary artery and heart disease in adults is characterized by extremes of competitive achievement striving, impatience, easily aroused anger and aggression, and a relative absence of these traits is characterized by the type B behavior pattern (Dembroski, 1978; Friedman & Rosenman, 1974; Glass, 1977).

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persons effectively adjust to and overcome threats to their sense of environmental control, such adjustments have aftereffects that leave them less resistant to subsequent stress and strain. These aftereffects are believed to transmit spontaneous and biochemical discharges which potentiate the development of coronary disease.

The type A and B behavior patterns may have their origins in early childhood, but little attention has been given to the significance of past events in affecting the current behavior. The conditions that foster type A and B behavior patterns during the first and second decades of life may create a basis for coronary disease in the fourth and fifth decades. Glass (1977) expressed that there is little in the way of systematic data on the psychosocial conditions in a person's life history that may lead to the emergence of the type A behavior pattern and virtually no information exists with respect to the age level at which the type A and B behavior patterns can first be observed.

Young children participate in a great deal of play and Lieberman (1977) sees developmental continuity and change as a consideration of behavior that might manifest itself at an early age in the play of young children and become their personality traits in later life. Caplan and Caplan (1973) stated that play has the power to deeply influence children's personality development. It incorporates children's self-initiated efforts toward adjustment to and control of themselves and their environment. Every time their efforts are successful, they give rise to feelings of self-worth.

Children who handle play and real-life situations positively develop the confidence to accept new challenges as they come along. As each new stage in their development is reached, the effects of children's achievements and frustrations are consolidated in their total personality. In addition, children's capacities to fantasize while engaged in play enables them to explore feelings, lessen fears, increase excitement, try to understand a puzzling event by graphic representation, seek confirmation of a hazy memory, or alter an event to make it pleasant to themselves (Millar, 1974).

#### Definition of Terms

This study will incorporate a number of terms that need to be clarified in order to avoid misinterpretation. Coronary heart disease involves plaques lying upon and growing in the walls of the coronary arteries. When they begin to decay and rupture, the blood flowing through the lumen of an artery is permitted to come into direct contact with the shaggy, clot-generating elements lurking in the decaying areas of the plaques. The symptoms include pain in the chest (angina pectoris) and a heart attack (myocardial infarction) (Friedman & Rosenman, 1974; Glass, 1977).

Coronary artery disease is a symptomless disorder characterized by the thickening of the coronary arteries and a deterioration of the blood supply conduits to the heart, which may begin during the first few years of life and is attributed to tiny lesions produced by movements of the coronary artery as it carries blood to the heart (Friedman & Rosenman, 1974; Glass, 1977).

Friedman and Rosenman (1974) define the type A behavior pattern:

An action-emotion complex that can be observed in any person who is aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time, and if required to do so, against the opposing efforts of other things or other persons. It is not a psychosis or a complex of worries or fears or phobias or obsessions, but a socially acceptable-indeed, often praised-form of conflict. Persons possessing this pattern also are quite prone to exhibit a free-floating but extraordinarily well-rationalized hostility. As might be expected, there are degrees in the intensity of this behavior pattern. Moreover, because the pattern represents the reaction that takes place when particular personality traits of afflicted individuals are challenged or aroused by a specific environmental agent, the results of this reaction (that is, the behavior pattern itself) may not be felt or exhibited by them if they happen to be in or confronted by an environment that presents no challenge . . . in short, for the type A behavior pattern to explode into being, the environmental challenge must always serve as the fuse for this explosion. (p. 67-68)

Characteristics of the type A behavior pattern are an exaggerated sense of time urgency, aggression and hostility, competitive achievement striving, a quest for numbers, and insecurity of status (Friedman & Rosenman, 1974; Glass, 1977).

The type B behavior pattern is

. . . rarely harried by desires to obtain a wildly increasing number of things or participate in an endlessly growing series of events in an ever decreasing amount of time. Their intelligence may be as good as or even better than that of the type A subjects. Similarly, their ambition may be as great or even greater than that of the type A counterparts. They may also have a considerable amount of drive, but their character is such that it seems to steady them, give confidence and security, rather than to goad, irritate, and infuriate, as with the type A behavior pattern. (Friedman & Rosenman, 1974, p. 68)

Characteristics of the type B behavior pattern tend to show the opposite pattern of relaxation, serenity, and a lack of time urgency (Friedman & Rosenman, 1984; Glass, 1977).

Fantasy is defined as the free play of creative imagination, whether expressed or merely conceived. It involves the process of creating unrealistic or improbable mental images in response to various psychological needs (Webster's New Collegiate Dictionary, 1979).

Imaginative play predisposition is the child's tendency to engage in imaginative play, fantasized role-shifting, or daydreaming (Singer, 1973).

#### Statement of the Problem

Children's capacities to fantasize may be related to characteristics of the type A and B behavior patterns of coronary artery and heart disease. The purpose of this investigation is to determine whether a relationship exists between type A and B behavior patterns in children and their imaginative play predispositions to fantasy.

## Chapter 2

### REVIEW OF THE LITERATURE

The following review of the literature will attempt to provide an overview of some of the major investigations conducted in the areas of type A and B behavior patterns and fantasy predisposition in young children. Type A and B behavior patterns, assessment tools used, fantasy, and a minute number of studies relating these two variables will be discussed. However, no specific research has been conducted purely between type A and B behavior patterns with fantasy predisposition, so particular characteristics associated with the type A and B behavior patterns will be investigated in relation to fantasy predisposition.

### THE TYPE A AND B BEHAVIOR PATTERNS

#### Assessment Tools

There are a number of tools being used to assess the type A and B behavior patterns in adults, and a few tools are now available for testing with children. The structured interview is a behavioral assessment used with adult subjects, that is based more upon the general mannerisms of the subjects as they answer the questions than the actual content of the questions themselves (Glass, 1977; Rosenman, 1978; Scherwitz, 1977). The interview covers the topic areas of ambition and drive, impatience and time urgency, competitiveness, and

emotional expression. To elicit type A behavior pattern responses in a subject, the interviewer asks the questions briskly and emphasizes key words to create a stressful environment (Glass & Scherwitz, 1977). The assessment is based upon the observation of a number of nonverbal, overt behavior characteristics that are exhibited by the subject during the one-to-one interview. Subjects are rated as fully developed A's (A1), incompletely developed A's (A2), incompletely developed B's (B3), and fully developed B's (B4). In addition, there is an intermediate pattern called type X, which is found in persons who exhibit some of the characteristics of both the A2 and B3 types. There are approximately 10% of these types as measured with the structured interview (Glass, 1977). A number of problems are associated with this tool which include the variance of the interviewer's ability to ask the questions and at the same time integrate cues for assessing the behavior pattern; the degree to which the interviewer's style of asking the questions interacts with the subject's style of answering; and it requires a period of time, training, and expense (Glass, 1977; Rosenman, 1978; Scherwitz, 1977). In conclusion, the structured interview has a high interrater agreement of approximately 80% and is considered a suitable tool for assessment with adults.

The Jenkins Activity Survey (JAS) is a self-administered, computer-scored questionnaire, that was developed in an effort to alleviate some of the problems associated with the structured interview. This tool is quicker, less expensive, precoded, and better calibrated for judging the coronary prone behavior pattern in large

groups of adult subjects (Glass, 1977; Jenkins, 1978; Jenkins, Zyzanski & Rosenman, 1971; Zyzanski & Jenkins, 1970). The JAS includes three major, conceptually independent behavioral syndromes:

1. Factor H (hard-driving), is characterized by hard workers who drive themselves mercilessly, but seem to enjoy it; and people who are concerned about life, self-critical, and ready to accept all responsibilities.
2. Factor J (job involvement), is characterized by a high degree of occupational leadership; and striving for success in commercial, professional, or political life.
3. Factor S (speed and impatience), is characterized by only feeling happy when they are busy; or are compulsive about planning and scheduling of their time (Zyzanski & Jenkins, 1970).

In addition, the JAS provides continuous scores on the A and B dimension and has different forms that are applicable to different groups of subjects (i.e., college students, and women). This tool has a lower interrater reliability of approximately 70%, but is considered a suitable tool for assessment with adults (DeGregorio & Carver, 1980; Jenkins, 1978; Rosenman, 1978; Zyzanski & Rosenman, 1971; Zyzanski & Jenkins, 1970).

A ten question interview was adapted from the adult interview and the JAS for use with children. The hesitancy of the interviewer at different points can elicit the impatience of type A children depending on the interviewer's training and style of execution. The children are interviewed on a one-to-one basis, with type A scores being on the higher end of a scale ranging from 0-11. A

number of problems are associated with this tool which include children's tendencies to be shy with adult strangers particularly in a formal interview situation and this may reflect the children's sociability or fear, as well as type A and B behavior patterns. Also, young children may not have sufficiently mature speech for reliable interviews and for these reasons the tool is not recommended with children under the age of ten. In conclusion, no reliability or validity data are available (Matthews, 1978).

A battery of four performance tasks were developed by Bortner (1970) designed to elicit various aspects of the type A behavior pattern as children completed a series of tasks. The advantage of this tool is that there is minimal reliance on verbal ability. However, this tool has disadvantages: at least one task is affected by intelligence; there is no reliability data available, and the tasks are cumbersome, time consuming, and expensive (Bortner, 1970; Matthews, 1978).

Matthews and Angulo (1980) developed a children's measure of type A and B behavior patterns based on observation of the children's behavior, entitled the Matthews Youth Test for Health (MYTH). The classroom teacher rates how characteristic each one of a total of 17 items or statements are of the children on a scale of 1 (extremely uncharacteristic) to 5 (extremely characteristic), based on the components of competitiveness, achievement-striving, impatience, and anger. The test-retest reliability of the MYTH is approximately 80% and the internal consistency is approximately 89%. The advantages of this tool include the internal consistency and test-retest data,

it is economical to administer, the scores are not based on the children's self-perceptions, and it has been used successfully with children as young as five years of age.

#### Research Conducted with Children

The type A behavior pattern may evolve in children's early developmental stages and lay the groundwork for problems in the areas of coronary artery disease and coronary heart disease as they mature. A very limited number of studies have investigated the development of type A and B behavior patterns and a small number have investigated particular characteristics of the type A behavior patterns in children.

Butensky (1976) investigated the elements of the type A behavior pattern in children and teenagers. The study hypothesized that younger children would give fewer responses characteristic of the type A behavior pattern and boys would give more of the responses characteristic of the type A behavior pattern than girls. The subjects were 174 children, ranging in age from 10-18 years. An equal amount of boys and girls were chosen from each age group. The subjects participated in oral interviews, which were adapted from the adult interview and JAS adult form for determination of type A or B behavior patterns. The results found no significant differences in the number of responses given or boys giving more characteristic responses than girls.

Glass (1977) investigated whether the type A behavior patterns were evident in children as young as nine years of age, and if so, would the youngsters respond to a learned-helplessness experience? He defined learned-helplessness as:

Exposure to an uncontrollable stressor leads to a dampening of performance on subsequent nonstressful tasks. Having experienced helplessness during the first part of an experiment, subjects experience a decrement in motivation to master tasks introduced later—even when those new tasks are not stressful and are entirely different from the first task. (p. 73-74)

The subjects were 88 boys, ranging in age from 9-11 years. They were classified with type A or B behavior pattern tendencies by the scores received on the Bortner tasks, with scores above the median constituting type A behavior patterns and scores at or below the median constituting type B behavior patterns. Subjects were then exposed to two series of 2200 Hz noise bursts delivered at 90 dB, with half of the group being presented with two successive tasks which did not allow them to escape the noise (no escape condition). The other half of the group could terminate the sounds by manipulating a sequence of buttons on the first task, or two rotary knobs on the second task (escape condition). After this, all the subjects were again exposed to the same noise, but all subjects could escape by making the appropriate responses on another task. The results indicated that type A behavior pattern subjects in the "no escape" condition showed less learned helplessness than the type B subjects. Also, the type A behavior pattern subjects showed more learned helplessness than the type B subjects who showed a decrease in learned helplessness over the course of the test phase in the "escape" condition. This study demonstrated that learned helplessness does occur in children as young as 9 years of age, although the type A behavior pattern subjects showed significantly less learned helplessness only in the "no escape" condition.

Barnett, Matthews, and Howard (1979) examined the factors of competitive achievement striving and empathy as they related to the type A and B behavior patterns in children. They hypothesized that competitive dispositions may produce self-concern and subsequently, suppress the expression of empathy. In contrast, less competitive dispositions may serve to enhance children's use of empathy. The subjects were 42 male and 42 female children, ranging in age from 6-7 years. Prior to the experiment, teachers rated each subject on a six-item questionnaire measuring competitiveness in achievement-related situations, with the median splitting high and low competitiveness groups. The experiment consisted of following a set of instructions involved in playing a new Etch-a-Sketch game. Each subject performed the task with a same sex peer in either a competitive, cooperative, or neutral manner. Following this game, a measure of empathy was administered. This consisted of four pairs of slides in which children the same age and sex as the subject were shown in situations designed to elicit four different emotions--happiness, sadness, anger, and fear. After viewing each slide, the subject responded to how she/he felt. The results indicated that the subjects rated as highly competitive did have lower empathy scores than the subjects rated as less competitive. However, the main effect of this finding was due exclusively to the boys. Highly competitive girls were very similar to less competitive girls in their use of empathy. This finding left the researcher puzzled and they speculated that competitiveness and aggressiveness may have different meanings or functions for young boys and girls.

Lastly, Matthews and Angulo (1980) hypothesized that children assessed with type A behavior patterns by the MYTH, would behave in a competitive, impatient, and aggressive fashion. The subjects were 30 boys and 30 girls in second grade; and 30 boys and 26 girls in sixth grade. They participated in a series of performance tasks designed to elicit type A behavior patterns. Throughout the experiment, an observer coded the subjects' nonverbal and verbal behaviors that are characteristic of type A adults. The performance tasks used were star tracing, a car race, and playing with a Bobo doll. The results indicated that the second grade subjects took longer than the sixth grade subjects in the star tracing task; the type A behavior pattern subjects won the car race by a larger margin; sixth grade subjects won the car race more than the second grade subjects; type A behavior pattern subjects aggressed against the Bobo doll on earlier trials than the type B subjects; and boys aggressed against the Bobo doll on earlier trials than girls. This study related the MYTH scores with various performance tasks and did reveal that children assessed as type A actually behave in a more competitive, impatient, and aggressive fashion than children assessed as type B.

#### Research Conducted with Children and Adults

A handful of studies have been conducted in an attempt to correlate type A and B behavior patterns in children with those same patterns in adults. If type A and B behavior patterns have their origins in childhood, then these patterns should continue as they become adults and have an effect on the adults they interact with.

Matthews (1979) examined the initial reaction of type A and B male children to uncontrollable and controllable experiences of two salience levels and compared their reactions with type A and B adult males. The subjects were 64 college-aged men and 88 boys, ranging in age from 9-11. Adult subjects were classified as type A or B by the JAS and the children were classified as type A or B by a modification of the MYTH. The participants had the opportunity to earn 31 nickels by pressing a button on either a VR7 or FR7 schedule of reinforcement. The salience of the task was manipulated by the lighting in the laboratory. In the high salience condition, the room was darkened, a high intensity lamp was focused on the apparatus, and a red light was illuminated simultaneously with the delivery of each nickel. In the low salience condition, the room was fully illuminated, the high intensity lamp and red light were disconnected and several posters were hung on the walls. The dependent measure was the number of seconds required by the subjects to earn the 31 nickels. The results indicated that when the potential to lose control was highly salient, type A children and adults made more efforts to assert control than the type B children and adults. However, when the potential to lose control was a relatively low salience, type A children and adults made less effort to control than type B children and adults. This finding provided the first evidence that the initial response to loss of control of type A and B children paralleled that of the adults.

A study designed to examine whether children's effects on caregivers differed according to the caregivers behavior patterns was

undertaken by Matthews (1977). The caregiver subjects were 40 upper-middle class women, who were mothers of boys approximately the same age as the child subjects. The child subjects were 11 male, 8-10 year olds, who were measured as extreme A or B type behavior patterns by the MYTH. The women were classified as either type A or B behavior patterns by the JAS, with an equal number being above and below the median. The children were trained to exhibit specific behaviors that exemplified their behavior patterns while working with the caregiver subjects on a bean bag toss. Each caregiver subject interacted with an average of four child subjects over the course of the experiment. Each experiment was conducted in a school classroom with an observer present to record positive pushes and positive evaluations. The results indicated that type A children received significantly more positive evaluation of their task performance than the type B children; type B caregivers gave more positive evaluation to type A children than type B children; type A caregivers behaved similarly with type A and B children; type B caregivers pushed type A children more than type B children; and type A caregivers pushed type A and B children equally. This study demonstrated that the dispositions of the caregivers can be an important qualifier of child effects. It was further suggested that the caregiver behavior of the type B's may be more responsive to environmental variations, such as children's dispositions.

In conclusion, Matthews (1977) investigated an observational study of mothers and sons in accordance with the type A and B behavior patterns. The hypotheses were that achievement-oriented mothers of type A children would have higher aspirations for their child's

performance than mothers of type B children; mothers of type A children would show less satisfaction with their child's performance than mothers of type B children; mothers of type A children would make more hurrying comments while their child worked on various experimental tasks; and mothers of type A children would reward for behaviors leading to success, whereas support would be withdrawn following failure. The subjects were 11 type A children and their type B mothers, with 6 of these pairs belonging to the older group (age 8-10 years) and 5 of these pairs belonging to the younger group (4-6 years of age); 18 type B children and their type A mothers, with 7 pairs in the older group and 11 pairs in the younger group; 10 type B children and their type B mothers, with 7 pairs in the older group and 3 pairs in the younger group; and 19 type A children and their type A mothers, with 10 pairs in the older group and 9 pairs in the younger group. The experiment consisted of each child working on three psychomotor and perceptual tasks while the mother assisted the experimenter in administering the tasks. An observer was present at each session to record all observable data and at the conclusion of the session, each mother assessed her attitudes toward child-rearing. The outcome of the study indicated:

1. Type A mothers of type A children and type B mothers of type B children had lower aspirations than type A mothers of type B children and type B mothers of type A children.
2. Mothers satisfaction with her child's performance revealed that type A children received fewer positive evaluations than type B children.

3. Type A mothers hurried their type B children more than their type A children.
4. Type A mothers gave more rejection and more support during failure and success than type B mothers.
5. Type A mothers of type A children and type B mother of type B children had high protective and low discipline child-rearing attitudes to raising their children. Type A mothers of type B children and type B mothers of type A children had high discipline and low protective child-rearing attitudes.

## FANTASY

### Theories Overview

Children's capabilities to use their imaginative faculties have been theorized in numerous ways. Many researchers tended to have variations of how fantasy development occurs, what the uses of fantasy behavior are, and other related questions in the realm of fantasy. In addition, most of the research conducted in the area of fantasy behavior was included in the broader topic of play behavior and development.

Three theories of play and its development in children appeared in numerous studies as groundwork for their endeavors. First, Piagetian theory contends there are three phases in which children progress in their play development. These phases are:

1. Practice play--which is characteristic of the sensorimotor stage of development.

2. Symbolic play—where objects represent the salient schemas in the thoughts of children.
3. Games with rules—which are related to the development of moral judgment.

According to Piagetian theory, play allows children to make intellectual responses in fantasy when they cannot make them in reality, and this protects their sense of autonomy (Barnett, 1977; Caplan, 1973; Cass, 1973; Dansky, 1980; Dansky & Silverman, 1973; d'Heurle, 1979; Garvey, 1977; Klinger, 1969, 1971; Lieberman, 1977; Millar, 1968; Sheenan, 1972; Singer, 1955, 1961, 1973; Sutton-Smith, 1967).

In another popular theory, the psychoanalytic point of view stresses symbolic play and fantasy behavior. It tends to ignore the sensorimotor and practice play phases of the Piagetian theory. This theory sees play and fantasy as not only a means of working out problems, defeats, and frustrations, but also a way in which children learn how to postpone, cope, and create model situations (Barnett, 1977; Caplan, 1973; Cass, 1973; d'Heurle, 1979; Fineman, 1962; Klinger, 1969, 1971; Lieberman, 1977; Millar, 1968; Sheenan, 1972; Singer, 1955, 1973; Singer & Rowe, 1962).

Third, symbolic interaction theory contends that the development of children is rooted in their social interactions and all modes of communication are essential to the learning process. It emphasizes conversations of gestures, role playing, and games as the means by which children progress in their play development (Caplan, 1973; d'Heurle, 1979; Klinger, 1971; Sutton-Smith, 1967).

An alternative approach to the ability of children to engage in fantasy play has been expressed by Singer (1973):

It can be developed in a given child as a consequence of the interaction of constitutional brain capacities (e.g., for symbolization) with a particular set of early environmental circumstances that provide stimulation and encouragement for practice (p. 61) . . . an environmental factor that seems particularly important appears to be an opportunity for regular contact with at least one benign adult whose movements, speech patterns, attitudes, and values are available for mimicry by the child (p. 62) . . . an optimal balance of benign parental contact and an opportunity to be alone seems therefore essential to the development of a rich imaginative life. (p. 62)

This view of imaginative play development encompasses more of a child's world by including other significant people and environmental circumstances. The theories presented represent some contrasting views in the area of play development. Barnett (1977) stated that "as is common in many aspects of child development the area of play and make-believe provides more theories than data" (p. 38).

#### Fantasy Research with Young Children

My five-year-old and her three-year-old brother rushed into the kitchen, demanded "real" cloths and "real" water and Ajax in order to clean the doll's pram and toy car. After rubbing away for some time, my daughter said "Now we will play". Somewhat surprised, I asked whether they had not been playing all along. No, according to her, they had been working. "Play is only when you pretend". (Millar, 1968, p. 136)

The use of fantasy play in children appears to move in numerous directions ranging from fragmentary, disjointed bits of make-believe to integrated and internally consistent sequences of make-believe (Millar, 1968). Very few studies have dealt exclusively with fantasy

behavior in young children and these studies have concentrated primarily on different dimensions of fantasy.

A study conducted by Schempp Matthews (1978) investigated the amount of time young children actually spend in fantasy play when left to their own devices. The subjects were 8 boys and 8 girls, who were 4 years of age, and from middle class backgrounds. The experiment consisted of same-sex pairs of children being engaged in three, one hour free play situations, while their mothers visited in the next room. The playroom was equipped with a large variety of play materials arranged in a fashion to resemble a familiar setting for young children, and videotape equipment recorded the data through a one-way mirror. The results indicated that an average of 26 minutes per play session were spent in fantasy play. Fantasy episodes involving the girls were longer in duration, while fantasy episodes involving the boys were more numerous and shorter in duration. Furthermore, the longer the children played together, more of their time was spent in fantasy play. The researcher suggested a concern that the growing familiarity among the play groups might have as strong an effect upon their engagement in fantasy play as much as upon their diversion from fantasy play.

Fu (1977) investigated the creative performance of preschool children in respect to sexual and socioeconomic differences. The subjects were 48 kindergarten children, equally divided into groups according to sex, lower socioeconomic, and middle socioeconomic backgrounds. The following tests were administered individually:

1. Picture Construction test--child was asked to construct a picture in which two given shapes made of colored paper were to be used.
2. Unusual Uses test--child was to name as many unusual and interesting uses as possible for cardboard boxes.
3. Product Improvement test--child was to name the most interesting and unusual way a toy elephant could be made more fun to play with.

The results indicated that the middle income children received higher measures of creative performance and boys had more original ideas as measured by the previous tests. The researcher suggested that middle income children are raised in a more enriched language environment and are therefore more proficient in their use of language. Also, differential treatment of boys and girls in our culture may be associated with more original ideas being generated by boys.

Dansky and Silverman (1973) examined fantasy behavior from a different perspective. They hypothesized that the relationship between play and associative fluency depended on the occurrence of symbolic play during a free-play period. The tendency to increase a child's associative fluency during a playful activity was measured by the number of responses produced in an alternate-uses test. The subjects were 45 girls and 45 boys, ranging in age from 4-6 years. Thirty subjects were randomly selected to one of three different treatment conditions. All the subjects were from middle and upper-middle socioeconomic backgrounds and were seen in blocks of three

(one from each group) for the experiment. The following procedure was incorporated:

1. Play group--were instructed to play with a particular set of four objects for 10 minutes.
2. Imitation group--were engaged in a number of imitative behaviors with the same objects for 10 minutes.
3. Control group--were given a neutral experience not involving the same objects for 10 minutes.

Following each experiment, the subject named all the alternate uses she/he could think of for each of the four objects. The results revealed that the play group made significantly more use of surrounding environmental cues and produced more nonstandard uses of the objects than either the imitation or control groups. No sex differences were found. These results appeared to support the hypothesis that symbolic play facilitated associative fluency and Sutton-Smith's (1967) belief that "when children play with particular objects . . . they increase the range of their associations for those particular objects" (p. 365).

Lastly, Dansky (1980) conducted a similar study that also examined associative fluency and make-believe. He hypothesized that children who displayed make-believe in free-play situations would engage in make-believe during experimental free-play situations. In addition, the experimental opportunity for free-play would enhance succeeding fluency for players, but not for nonplayers. Players were defined as children who displayed make-believe more than 25% of the time they were observed during free-play situations,

while nonplayers displayed make-believe in less than 5% of the time they were observed during the free-play situations. The subjects were 26 male and 26 female players, ranging in age from 4-6 years; 28 male and 20 female non-players, ranging in age from 4-8 years; and they were divided equally into play, imitation, and problem solving groups. Subjects were seen in pairs of two by female experimenters and exposed to the same stimulus materials and procedures as described in the Dansky and Silverman (1973) study. However, the problem solving group attempted to solve problems involving the same stimulus materials, in contrast to the procedure listed for the control group in the previous study. The results indicated that 88% of the players engaged in make-believe, while only 6% of the nonplayers did so. This finding reinforced the conclusion that the observed relationship between play opportunities and enhanced fluency depended, in particular, on the occurrence of make-believe.

#### TYPE A AND B BEHAVIOR PATTERNS AND FANTASY

##### Comparative Research

No research has been conducted directly relating the use of fantasy play and the type A and B behavior patterns associated with coronary artery and coronary heart disease. A few characteristics often associated with the type A and B behavior patterns have been compared with the use of fantasy play in young children in a very limited number of studies.

A study conducted by Singer (1961) examined the relationship between children's writing abilities and their imaginative abilities.

He hypothesized that high fantasy (HF) children would function more effectively in a situation calling for them to wait quietly for long periods of time than low fantasy (LF) children. The subjects were 40 children, ranging in age from 6-9 years. HF and LF levels were determined by the Imaginative Predisposition Play interview and to obtain information about the subjects concerning the extent and character of their fantasy and other play activities, clinical interviews were conducted. The interview items included children's general play patterns and the degree of parental contact. Following the interviews, the subjects told stories to verbally administered stimuli. A clinician read and prepared a summary of the major defense structures for all subjects, according to the data collected. The experiment involved each subject remaining quietly in one spot as long as possible under two conditions; the subject was to wait indefinitely until she/he could not continue and secondly, to wait quietly for a fifteen minute time period. The subject could sit or stand, but could not change positions during the experiment. Scores were obtained by the length of time, in seconds, each subject sat or stood quietly before signalling that she/he could not continue or the time was up. The results indicated that the HF children were able to wait longer before giving up than the LF children in both waiting situations. In the area of degrees of parental contact, greater frequencies of interaction were found between the HF children and their parents. Also, LF children generally refused to choose a preferred parent, while the HF children usually indicated a preferred parent.

In a recent study, Lockwood and Rolle (1980) examined fantasy behavior as it related to levels of fantasy predisposition, age, and sex on the direction of aggression in young children. They investigated the following hypotheses:

1. Whether fantasy behavior produced changes in response patterns determining the direction of aggression?
2. Whether an effect in the direction of internalization of anger occurred following fantasy behavior?
3. Whether the level of fantasy predisposition, age, or sex are related to such differences in the direction of aggression or strength of aggressive drive as might be found between experimental and control subjects.

The subjects were 57 boys and girls, ranging in age from 5-6 years. The levels of fantasy predisposition were assessed with the Imaginative Predisposition Play interview and movement responses on the Holtzman Inkblot technique. Also, directions of aggression were measured with the children's form of Rosenzweig's Picture-Frustration study items. The experiment consisted of three tasks. First, a subject completed a 12 piece puzzle and was praised for success by the experimenter. The following two tasks involved completing a puzzle that was impossible to accomplish, due to a missing piece. After the two frustrating tasks, the experimental group were provided with doll houses, dolls and furniture, and given free play with these materials for five minutes. Accordingly, the control group was provided with paper and pencil tasks which required five minutes of cognitive and motor attention. The results revealed no significant relationships as they related to the hypotheses.

## SUMMARY

This review of the literature has examined various aspects of type A and B behavior patterns and fantasy predisposition in young children.

Type A and B assessment tools, research with children, and research with children and adults have been examined. It does appear that tools can be developed for children that adequately measure their type A or B behavior pattern tendencies and relationships do exist between these behavior patterns in children and adults.

An overview of some popular theories of play and its development and research conducted with young children in the area of fantasy has also been examined. It does appear that the use of fantasy play can be observed in young children, and the ability to engage in this type of play may influence other areas of children's lives.

Lastly, two studies relating a specific characteristic of type A and B behavior patterns with fantasy play in young children have been reviewed. The materials revealed possible relationships between type A and B behavior patterns and fantasy play, but also disputed these possible relationships.

## Chapter 3

### METHODOLOGY

#### Design

The purpose of this study was to investigate type A and B behavior patterns and any relationships that may exist with fantasy predisposition in young children. The following hypotheses were tested:

- a. No significant relationships will be found between high or low predisposition fantasy levels and the likelihood of type A or B behavior patterns in young children.
- b. No significant relationships will be found between high or low predisposition fantasy levels and the likelihood of type A or B behavior patterns in girls.
- c. No significant relationships will be found between high or low predisposition fantasy levels and the likelihood of type A or B behavior patterns in boys.

The researcher conducted the investigation at three day care facilities, with one administration of each instrument being conducted with the subjects. Two scores were obtained on each subject in the random sampling, with one score computed for the type A or B behavior pattern variable, and one score computed for the high or low predisposition variable. The two scores were correlated and the resulting correlation coefficients indicated the degrees of relationship between the two variables.

### Subjects

Participants in the study were 33 children and their teachers from three day care facilities located in the suburban area of a large midwestern city. All the subjects were randomly selected and ranged in age from 4-5 years. This age range was chosen because it includes the researcher's field of academic pursuit and sufficient measurement of the Imaginative Predisposition Interviews could be attained. The 17 female and 16 male subjects were predominantly Caucasian and from the lower-middle and middle socioeconomic classes. All the teachers were female.

### Instruments

The Matthews Youth Test for Health (MYTH) and the Imaginative Play Predisposition Interview (IPP) were used to determine the subjects type A and B behavior pattern scores and imaginative play predisposition scores, respectively.

MYTH. This tool was developed by Matthews and Angulo (1980) to measure the type A and B behavior patterns in children. The areas assessed included competitiveness, impatience-anger, and aggression. The checklist was completed by the classroom teacher on how characteristic each one of a total of 17 items or statements were of each child on a scale of 1 (extremely uncharacteristic) to 5 (extremely characteristic). The total score received on the checklist determined where the subjects fell on the A and B continuum. Scores can range from 17 to 85, with scores above the median constituting type A

behavior patterns and scores at or below the median constituting type B behavior patterns. This tool has been used with children as young as 5 years of age, but has never been attempted with 4 year old children. In addition, gender differences have been found with this tool. Male children tended to be rated higher on the MYTH than female children. The test-retest reliability of the MYTH is approximately 80% and the internal consistency is approximately 89%. Refer to Appendix A for a sample copy of the checklist.

IPP. This tool is used to measure children's tendencies toward fantasy behavior. Singer (1973) developed and implemented this interview in a limited number of studies. The four-question interview is conducted on a one-to-one basis involving the play preferences, day-dreaming, and imaginary playmate of each subject. A score of 0 is received for each answer containing no elements of fantasy, and a score of 1 is received for each answer containing fantasy elements. Score can range from 0-4, with scores at or above the median constituting high fantasy (HF) play predisposition and scores below the median constituting low fantasy (LF) play predispositions. The criteria for judging if fantasy elements existed and corresponding examples from the data are:

1. Symbolic construction—building a garage out of blocks
2. Unconventional uses of objects—using a block for a microphone.
3. Simulated sounds—rrm, for a car moving
4. Use of imaginary things—eating pretend food

5. Out-of-context behavior--playing house and it's time to eat supper.
6. Assume roles--playing the daddy

The validity and reliability of the IPP has been conducted in a few studies. There was complete agreement reached on scoring responses to the four questions by two independent raters in a study conducted by Singer (1961). Also, Kendall Coefficients of Concordance ranged from .85 to .89 and Pearson Product-Moment Correlations ranged in the high .90s in a study conducted by Freyberg (1973). In her study, the IPP validity and reliability statistics were computed with the Barron Movement Threshold Inkblot test and teacher's ratings of each subject's imaginativeness. Refer to Appendix A for a sample copy of the interview.

#### Procedure

Following the approval of the research project by the directors and teachers at each of the three day care facilities, the parents were sent a letter describing the research project and requesting their permission for their child's participation in the study (see Appendix B). One hundred percent of the parents agreed.

Copies of the MYTH were distributed to the teachers for their ratings on each subject and the IPP's were discussed to familiarize the teachers with the nature of the remaining investigation to be conducted. The researcher arranged to interact with the subjects at two, three hour intervals to acquaint herself with the children and lessen their anxieties during the upcoming interview procedure. This

time was spent in the classroom environment, with the researcher participating in the normal routine. Two weeks later, the completed MYTH's were obtained and the IPP's were conducted on a one-to-one basis in the classroom environment by the researcher. Each question was asked in a number of ways to ensure that the subjects understood, and in some instances, were followed by probes if the responses appeared unclear or further clarifications were needed. The subjects responses to the IPP usually centered on the play materials available at the day care facilities and probes into an imaginary friend fantasy response occasionally rendered an imaginary friend non-fantasy response (i.e., a real friend would be described as an imaginary one). The amount of probes necessary to obtain thorough answers from the subjects and their willingness to continue to respond to the probes affected the results by fewer fantasy elements being included, in a few isolated incidences. The balance between the number of probes necessary to obtain thorough responses and the subjects willingness to continue may be achieved by interviewing a large number of children prior to the investigation procedure to gain a better understanding of their emotional and cognitive processes.

The total score received on the MYTH checklist determined where the subjects fell on the type A and B continuum. Scores could range from 17 to 85, with scores above the median constituting type A behavior patterns and scores at or below the median constituting type B behavior patterns. The total score received on the IPP interview determined high or low predisposition tendencies for the subjects. Scores could range from 0 to 4, with scores at or above the median

constituting high fantasy (HF) play predisposition and scores below the median constituting low fantasy (LF) play predispositions.

### Analyses

The data were analyzed according to the Kendall Rank-Order Correlation ( $\tau$ ), Pearson Product-Moment Correlation ( $r$ ), and the Chi-Square. In addition, distribution of HF and LF predispositions scores were computed. The MYTH checklist also reflected mean scores, standard deviation, and median scores with all groups.

predisposition fantasy levels and the likelihood of type A or B behavior patterns in boys and girls separate groupings.

Table 1 illustrates mean scores, standard deviation, and median scores reflected by the MYTH on all groups. In addition, distribution of high fantasy (HF) predisposition and low fantasy (LF) predisposition scores are illustrated on all groups.

Table 1  
Summary of Data Obtained on MYTH and HF

Group	# of Subjects	Average Age	MYTH			Fantasy	
			Mean Score	Median Score	Standard Deviation	HF	LF
Females & Males	33	4.5	51	54	7.8	17	16
Boys	17	4.5	52	52	7.8	10	7
Girls	16	4.5	48	54	8.3	7	9

## Chapter 4

### RESULTS

The researcher hypothesized that no significant relationships would be found between high or low predisposition fantasy levels and the likelihood of type A or B behavior patterns in young children. Also, no significant relationships would be found between high or low predisposition fantasy levels and the likelihood of type A or B behavior patterns in boys and girls separate groupings.

Table 1 illustrates mean scores, standard deviation, and median scores reflected by the MYTH on all groups. In addition, distribution of high fantasy (HF) predisposition and low fantasy (LF) predisposition scores are illustrated on all groups.

Table 1  
Summary of Data Obtained on MYTH and IPP

Group	# of Subjects	Average Age	MYTH			Fantasy	
			Mean Score	Median Score	Standard Deviation	HF	LF
Females & Males	33	4.5	51	54	7.8	17	16
Females	17	4.5	52	52	7.8	10	7
Males	16	4.5	48	54	8.1	7	9

The data were analyzed according to Kendall Rank-Order Correlation ( $\tau$ ), Pearson Product-Moment Correlation ( $r$ ), and Chi Square. The MYTH and IPP were compared for the entire sample using the Chi Square, with no significant relationships reported. However, significant inverse relationships were obtained with the Kendall Rank-Order Correlation ( $p. > .005$ ) and the Pearson-Moment Correlation ( $p. > .001$ ). This inverse relationship indicated that HF predisposition scores were related to lower scores on the MYTH (type B).

A Chi Square was conducted to compare female subjects on the MYTH and the IPP. No significant relationships were obtained. However, significant inverse relationships were obtained with the Kendall Rank-Order Correlation ( $p. > .05$ ) and the Pearson-Moment Correlation ( $p. > .02$ ). For female subjects, HF predisposition scores were related to lower scores on the MYTH (type B).

The MYTH and IPP were compared for the male subjects using the Chi Square, with no significant relationships obtained. However, significant inverse relationships were obtained with the Kendall Rank-Order Correlation ( $p. > .02$ ) and the Pearson Product-Moment Correlation ( $p. > .02$ ). Thus, HF predisposition scores were related to lower scores on the MYTH (type B). These statistics are also presented in Table 2.

Thus, consistent significant inverse relationships were obtained between the MYTH and the IPP. This was true for male subjects, female subjects, and the combined male-female data.

Table 2

Summary of Results Obtained on Analyses  
of MYTH and IPP

Group	Chi Square	Signifi- cance	Kendall's Tau	Signifi- cance	Pearson's R	Signifi- cance
Females & Males	20.32	.26	-.43	.005****	-.52	.001***
Females	9.43	.58	-.41	.05*	-.51	.02**
Males	16.00	.19	-.45	.02**	-.56	.02**

\*  $p. > .05$

\*\*  $p. > .02$

\*\*\*  $p. > .001$

\*\*\*\*  $p. > .005$

## Chapter 5

### DISCUSSION

The primary purpose of this study was to investigate whether any relationship existed between type A and B behavior patterns and fantasy predisposition in young children. This section will focus on the statistical methods used, any differences in the data as it compared to the studies conducted by Matthews and Angulo (1980), and Singer (1961) problems with the study, and the summary.

The results disclosed significant inverse relationships between type A and B behavior patterns and fantasy predisposition levels. This was true for female subjects, male subjects, and female and male subjects combined. Thus, children characterized with type B behavior patterns were more likely to exhibit HF predisposition levels. These relaxed, less easily aroused children reported engaging in greater amounts of daydreaming, role-playing, and make-believe activities. On the other hand, children characterized with type A behavior patterns were more likely to exhibit LF predisposition levels. These competitive, impulsive children engaged in little make-believe activities.

The results obtained in the Singer (1961) study relating children's fantasy predisposition levels and their ability to wait, concluded that children with HF predispositions were better able to wait for a definite and indefinite period of time. The ability of

type B children to wait may be easier than type A, in consideration of the traits associated with type B.

The implications for further research in this area could emphasize learning situations most appropriate for type A and LF children, and type B and HF children. The type A and LF children may do better in a fast-paced, concrete learning scheme with training in relaxation and the use of fantasy. The type B and HF children may excel in a slower-paced, creative learning scheme with training in time management.

### Analyses

No significant relationships were found with the Chi Square procedure. This statistical measure is found to be most appropriate when comparing the effects of two dichotomous variables involving frequency data. In addition, a cell size of at least five is recommended for an accurate analysis. Cell sizes in the present study were frequently less than five.

However, when the Kendall Rank-Order Correlation ( $\tau$ ) and the Pearson Product-Moment Correlation ( $r$ ) statistical methods were applied to the two different sets of scores, these correlational methods allowed for the entire range of scores to be analyzed. Thus, these methods were more appropriate for the data.

### MYTH

The Matthews and Angulo (1980) study was the first usage of the MYTH checklist for assessment of type A and B behavior patterns with children, ranging in age from 5-12 years. They computed means

and standard deviations separately for boys and girls in the degree of pattern A and B behavior because two components of pattern A, competitiveness and aggressiveness, were more characteristic of boys than girls. In the present study, the results were also computed separately for boys and girls to compare with the original MYTH testing. Table 3 illustrates the comparison between this study and the 1980 study for the boys and girls. Only the kindergarten norms are presented, since they are the closest comparison available.

Table 3

Mean and Standard Deviation Comparison of  
1980 Study and Present Study with  
Males and Females on the MYTH

Group	# of Subjects	1980 Study		# of Subjects	Present Study	
		M	SD		M	SD
Female	64	46.3	9.6	17	51.0	7.8
Male	73	51.4	11.9	16	48.0	8.1

Results in the present study revealed the following trend. Teachers assessed girls more type A than boys, although the Matthew and Angulo study showed a consistent trend in the other direction (for all groups). There are a number of reasons why this difference may have occurred: 1) The sample sizes were very different. A larger sample size may be a good deal more accurate than the small size used in the present study. 2) Also, the children used in this study were enrolled in day care facilities in a large metropolitan

area versus the public school system in a rural community used in the 1980 study. The environmental differences which exist between daycare facilities and public school systems may have influenced the tolerance of competitive and aggressive behavior. 3) Lastly, the age differences between the two studies may have different meaning for the characteristics of competitiveness and aggressiveness. Younger boys may not have developed these characteristics fully or they are not as visible in the day care environment. On the other hand, younger girls showed similar trends with the older boys in the 1980 study. The girls may use these traits in their present environment, but suppress them in a school setting and as they mature.

In adults, type A behavior patterns are more prevalent among males than females (Dembroski, 1978; Friedman & Rosenman, 1974; Glass, 1977). Further research comparing females and males on the MYTH from early childhood to adulthood may reveal particular learning trends. Do female children become more cooperative and less aggressive as they get older, as is more closely related to the type B behavior pattern? Do male children become more competitive and aggressive as they mature, as is more closely related to the type A behavior pattern? These opposing male and female trends present many interesting options for further research.

#### IPP

Singer (1961) conducted a study which examined imagination and waiting ability in young children. One of the purposes of the study was to explore the possibilities of direct interviews with children

concerning their imaginative behavior. The IPP interviews were conducted on 40 children which yielded an almost even split into high and low groups (19 HF and 12 LF). Assignment of positive or negative fantasy scores for each item proved fairly simple and complete agreement on scoring responses were obtained by two independent raters.

This study revealed similar trends. The IPP interview yielded 17 HF and 16 LF groupings. Also, assigning positive or negative fantasy scores for each item proved simple; and complete agreement was obtained by two independent raters on the scoring responses.

In conclusion, both studies revealed the same scoring trends when incorporating the IPP interviews with young children. This researcher also feels that "the frankness and spontaneity of the children's responses to questions about their private worlds proved refreshing and encouraging for further approaches of this sort" (Singer, 1961, p. 402).

### Problems

One major weakness lies in the fact that no other studies have investigated these variables. The results of this study revealed significant inverse relationships for all groups, but there is no way of determining whether these results would generalize to other groups.

Another weakness of the study is the use of the MYTH form with 4 year-old children. Although the teachers rated themselves as "confident" in the completion of the MYTH on each child, reliability and validity data may need to be reassessed. A few statements may

be inappropriate for younger children not enrolled in the public school system.

The use of the IPP interview presented a minor weakness in the number of probes necessary to elicit thorough responses in the children. In a few isolated incidences, a small amount of fantasy elements were excluded because of the subject's resistance to probes.

Further research is needed to validate the hypotheses of this study. The use of different geographic locations and ethnic groups, in addition to replication of the present study, would test the significant inverse relationships between type A and B behavior patterns and HF and LF predisposition levels established in this study.

#### Summary

This study examined type A and B behavior patterns, fantasy predisposition, and any relationships that may exist between these variables in young children.

Hypothesis 1. There will be no significant relationships found between high or low fantasy predisposition levels and the likelihood of type A or B behavior patterns in young children.

A significant inverse relationship was found to exist between high or low fantasy predisposition levels and the likelihood of type A or B behavior patterns in young children. Thus, children found to have HF predisposition levels exhibited the type B behavior patterns, and children with LF predisposition levels exhibited the type A behavior patterns.

Hypothesis 2. There will be no significant relationships found between high or low fantasy predisposition levels and the likelihood of type A or B behavior patterns in boys.

This study revealed that HF predisposition levels were related to type B behavior patterns and LF predisposition levels were related to type A behavior patterns in boys.

Hypothesis 3. There will be no significant relationships found between high or low fantasy predisposition levels and the likelihood of type A or B behavior patterns in girls.

Again, a significant inverse relationship was revealed. Type B behavior patterns were related to HF predisposition levels and type A behavior patterns were related to LF predisposition levels in girls.

The hypotheses of this study were not supported in every instance. Significant inverse relationships were found for all groups.

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APPENDIXES

INDEXES

THE IMAGINATIVE PLAY DISPOSITIONS INSTRUMENT

Subject's Name \_\_\_\_\_

Code # \_\_\_\_\_

Type of Interview \_\_\_\_\_

Age \_\_\_\_\_

Imaginative Play Questions

1. What do you like to play best? What do you like to play the most?
2. What do you like to do best when you're all alone? What do you like to play best when you're all by yourself?
3. Do you ever have pictures in your head? Do you ever see make-believe things or pictures and think about them? What sort of things?
4. Do you have a make-believe animal or toy you have an animal or toy of make-believe person you talk to or take along places with you?

APPENDIX A

INSTRUMENTS

THE IMAGINATIVE PLAY PREDISPOSITION INTERVIEW

Subject's Name \_\_\_\_\_

Code # \_\_\_\_\_

Date of Interview \_\_\_\_\_

Age \_\_\_\_\_

Imaginative Play Questions

1. What do you like to play best? What do you like to play the most?
2. What do you like to do best when you're all alone? What do you like to play best when you're all by yourself?
3. Do you ever have pictures in your head? Do you ever see make-believe things or pictures in your mind and think about them? What sort of things?
4. Do you have a make-believe friend? Do you have an animal or toy or make-believe person you talk to or take along places with you?

## MYTH CHECKLIST

Name of Child \_\_\_\_\_ Age \_\_\_\_\_

Rater \_\_\_\_\_

This rating scale is designed to assess various aspects of a child's behavior. Please mark how well the statement characterizes the child using the following scale:

- 1 = extremely uncharacteristic
- 2 = uncharacteristic
- 3 = neutral
- 4 = characteristic
- 5 = extremely characteristic

1. When this child play games, he/she is competitive.
 

1	2	3	4	5
---	---	---	---	---
2. This child works quickly and energetically rather than slowly and deliberately.
 

1	2	3	4	5
---	---	---	---	---
3. When this child has to wait for others, he/she becomes impatient.
 

1	2	3	4	5
---	---	---	---	---
4. This child does things in a hurry.
 

1	2	3	4	5
---	---	---	---	---
5. It takes a lot before this child gets angry at his/her peers.
 

1	2	3	4	5
---	---	---	---	---
6. This child interrupts others.
 

1	2	3	4	5
---	---	---	---	---
7. This child is a leader in various activities.
 

1	2	3	4	5
---	---	---	---	---
8. This child gets irritated easily.
 

1	2	3	4	5
---	---	---	---	---

- 1 = extremely uncharacteristic  
 2 = uncharacteristic  
 3 = neutral  
 4 = characteristics  
 5 = extremely characteristic

9. He/she seems to perform better than usual when competing against others.

1                      2                      3                      4                      5

10. This child likes to argue or debate.

1                      2                      3                      4                      5

11. This child is patient when working with children slower than he/she is.

1                      2                      3                      4                      5

12. When working or playing, he/she tries to do better than other children.

1                      2                      3                      4                      5

13. This child can sit still long.

1                      2                      3                      4                      5

14. It is important to this child to win, rather than to have fun in games or schoolwork.

1                      2                      3                      4                      5

15. Other children look to this child for leadership.

1                      2                      3                      4                      5

16. This child is competitive.

1                      2                      3                      4                      5

17. This child tends to get into fights.

1                      2                      3                      4                      5

18. How confident are you of the above ratings?

1	2	3	4	5
extremely unconfident	unconfident	neutral	confident	extremely confident

Thank you.

General Information

Name of Child: \_\_\_\_\_

Sex: \_\_\_\_\_

Age: \_\_\_\_\_

Parents Occupations:

Mother: \_\_\_\_\_

Father: \_\_\_\_\_

Estimated socio-economic status: \_\_\_\_\_

February 8, 1982

St. Cloud State University  
College of Education  
Department of Early Childhood and Family Studies  
St. Cloud, Minnesota 56301

Dear Parents:

I am a graduate student in the Early Childhood and Family Studies  
Department at St. Cloud State University. I am currently involved  
in a project to develop a research project with young  
children. I have drawn to your attention the educational responses  
and how it relates to their play.

APPENDIX B

I have enclosed a PERMISSION SLIP AND COVER LETTER and return. A  
brief summary of the project is available to  
you upon request.

Thank you for your assistance in this project.

Sincerely,

Scott J. Hunt

I hereby give permission for the information obtained from this research project to be gathered as part of an assignment for completion of the master's degree in Early Childhood and Family Studies through St. Cloud State University, St. Cloud, Minnesota.

February 8, 1982

I understand that this project is being conducted solely for purposes of professional growth and that no monetary reward will be granted or your child free from this project.

St. Cloud State University  
College of Education  
Department of Early Childhood and Family Studies  
St. Cloud, Minnesota 56301

Dear Parent:

I am a graduate student in the Early Childhood and Family Studies Department at St. Cloud State University. I am currently involved in completing my degree by conducting a research project with young children. I have chosen to study children's emotional responses and how it relates to their use of fantasy play.

I have included a permission form for you to sign and return. A brief summary of the project outcomes will be made available to you upon request.

Thank you for your assistance in this project.

Sincerely,

Susan J. Scott

I hereby give permission for the information obtained from this research project to be analyzed as part of an assignment for completion of the master's degree in Early Childhood and Family Studies through St. Cloud State University, St. Cloud, Minnesota.

I understand that this project is being conducted solely for purposes of professional growth and that no permanent records will be maintained on your child from this project.

I also understand that all necessary measures will be taken to ensure total confidentiality of the project's respondents.

If you are interested in receiving a brief summary of the project findings, please indicate below.

Yes, I would like to receive a summary of project findings.

No, I am not interested in a summary of project findings.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date