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# Relationship of Locus of Control and Other Personality Characteristics in Enuretics

Judy Louise Bowlby  
*Eastern Illinois University*

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Relationship of Locus of Control and other

Personality Characteristics in Enuretics

(TITLE)

BY

Judy Louise Bowlby

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF

Master of Arts

---

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY  
CHARLESTON, ILLINOIS



I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING  
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## Abstract

Past research concerning the personality construct of enuretic children has demonstrated conflicting results. During recent years, the concept of internal versus external locus of control has been used in extensive research dealing with personality and behavioral characteristics of various populations. However, there had not been a study involving locus of control among enuretics. One purpose of the present study was to identify locus of control and other personality and behavioral characteristics among both enuretic and "normal" (non-enuretic) children and their mothers. Another objective was to determine valuable predictors for locus of control in enuretics, locus of control in mothers of enuretics and the condition of enuresis. Finally, among the enuretic population, there was an attempt to recognize specific "types" of mother-child pairs.

The study involved 36 Caucasian middle class families, consisting of 18 enuretic children and their mothers and 18 "normal" children and mothers. The enuretic group was obtained and identified through another project carried on at the University. Organic abnormalities involved with enuresis were controlled for. Control group subjects (non-enuretic mother-child pairs) were matched to the enuretic group on the variables of age, sex, number of children in the family and the mother's age. Both groups received the following locus of control and personality test devices: Children Nowicki-Strickland Internal External (I-E) Control Scale or the Preschool and Primary Nowicki-Strickland I-E Control Scale, Adult Nowicki-Strickland I-E Control Scale, Mother Child Relationship Evaluation, Child Behavior Rating Scale and Walker Problem Behavior Identification Checklist (WPBIC).

Data was subjected to an extensive statistical analyses involving group comparisons; discriminate analysis; multiple regressions and a canonical



correlation. A significant difference ( $p < .05$ ) was found in regards to the mother's locus of control in which the enuretic's mothers scored more internally than the control group mothers. Also, the enuretic group was seen as having more behavior problems than the non-enuretic group as evidenced by a significantly ( $p < .001$ ) higher Total score on the WPBIC, especially in respect to the Immaturity ( $p < .05$ ) and Acting-out ( $p < .01$ ) scales. The following set of variables significantly ( $p < .01$ ) discriminated the enuretic from non-enuretic group; acting-out, locus of control of mother, immaturity, mother's overprotection, withdrawal, mother's acceptance, self adjustment, physical adjustment, mother's rejection, distractibility, mother's overindulgence and home adjustment. The following combination of scores from test subscales were the most predictive of frequency of bedwetting: Acting out, Adult Locus of Control, Disturbed Peer Relations, Home Adjustment, Acceptance and Rejection. The test subscales and demographic data most predictive of the enuretic mother's locus of control score were as follows: Childrens Locus of Control, Distractibility, Acceptance, Social Adjustment, Self Adjustment and Age of the enuretic child. The following test subscales and demographic data most predictive of the child's locus of control score were: Overindulgence, Rejection, Disturbed Peer Relations, Age of the child, School Adjustment and Physical Adjustment. Also, the findings identified two significant ( $p < .001$ ,  $p < .01$ ) types of enuretic children and their mothers. Enuretic children from the first type were seen as strong in self adjustment, weak in social adjustment, and tended not to act out or be immature. The mothers of these children tended to be nonrejecting; but overindulgent. Enuretic children of the second type were strong in school adjustment, internally controlled and tended not to act out; but were weak in social adjustment: and had disturbed peer relations. The mothers of these children tended not to be overprotective, but were low in acceptance.

Though the findings need to be further validated, the results seem to indicate there are differences between enuretics and non-enuretics and that some of this may be influenced by the behaviors and attitudes (especially along the dimension of acceptance and rejection) of the mother. The importance of locus of control was seen in the final results of every major hypotheses except one.

## Table of Contents

	Page
List of tables.....	iii
Acknowledgements.....	iv
Review of Literature.....	1
Introduction.....	1
Enuresis - The History.....	3
The Definition and Incidence of Enuresis.....	4
Etiology of Enuresis.....	5
Emotional, Behavioral and Personality Characteristics of the Enuretic Child.....	6
Parent-Child Relationship Within the Enuretic Family.....	10
Locus of Control - A Definition.....	15
Development of the Rotter Locus of Control Scale..	17
Problems of Various Locus of Control Scales.....	18
The Nowicki-Strickland Locus of Control Scales....	19
Relationship of Locus of Control to Children and Adult Personality Characteristics.....	19
Relationship of Locus of Control to the Parent-Child Interaction.....	23
Relationship of Locus of Control with Enuresis....	26
Statement of the Problem.....	27
Hypotheses.....	28
Method.....	31
Subjects.....	31
Instruments.....	32

Procedure.....	37
Analysis of Data.....	42
Results.....	43
Discussion.....	55
Reference Notes.....	65
References.....	66
Appendix A - CNS-IE.....	75
Appendix B - ANS-IE.....	82
Appendix C - PPNS-IE.....	90
Appendix D - MCRE.....	107
Appendix E - CBRS.....	113
Appendix F - WPBIC.....	120
Appendix G - Consent form.....	130

## List of Tables

<u>Table</u>		<u>Page</u>
1	Distribution of Enuretic and Control Subjects.....	33
2	Instruments: Locus of Control Scales and Personality and Behavioral Devices.....	38
3	Summary of Demographic and Test Variable Scores for the Enuretic and Non-Enuretic Groups.....	45
4	Summary of the Most Discriminating Variables.....	47
5	Summary Table of Stepwise Multiple Regression Analyses: Predictors in the Frequency of Bedwetting.....	49
6	Summary Table of Stepwise Multiple Regression Analyses: Predictors in the Locus of Control of Adult for Enuretic Group.....	51
7	Summary Table of Stepwise Multiple Regression Analyses: Predictors in Locus of Control for the Enuretic Child.....	52
8	Canonical Correlations Coefficients on Mother and Child Variables for Enuretics.....	54
9	Interpretation of CONVAR 1 and 2 (two types of enuretic children and their mothers).....	62

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"You give but little when you  
give of your possessions,  
It is when you give of yourself  
that you truly give."

The Prophet by Kahlil Gibron

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## CHAPTER 1

### Review of the Literature

#### Introduction

Are there specific personality and behavioral variables that separate the enuretic child from a child where the problem is absent? Do the mothers of enuretic children possess specific attitudes which differentiate them from other mothers? In what way does the perception of control over events following an individual's behavior effect all children and mothers? Are there means by which one can predict this perception of control among enuretic children and their mothers? Can the condition of enuresis be foretold? Among the enuretic population, are there specific "types" of children and mothers? The aim of this investigation is to answer these questions, which are pertinent to the area of enuresis, and to further research the concept of locus of control.

Enuresis, bedwetting, is a dysfunction which causes embarrassment and conflicts in the lives of children and people around them. Various studies have dealt with the issue of treatment (Epstein and Guilfoyle, 1965; Greer and Davis, 1975; Azrin, Sneed and Fox, 1974), but in comparison the literature in the area of personality and behavioral characteristics of enuretic children and their mothers is



not as extensive. The major thrust of the present investigation was to explore this area.

The area of locus of control, as it relates to personality and behavioral characteristics, is more thorough than similar research dealing with the area of enuresis. For as long as the field of psychology has existed, practitioners have pondered the question "what influences and controls man to behave in various ways?" The concept of internal versus external locus of control has attempted to answer this question and there has been an explosion of research during recent years (Phares, 1976). Much of the research on locus of control has been brought about through the work of J.B. Rotter and his development of the Rotter Internal-External Control Scale (Rotter, 1966). At one end of a continuum there is an individual who feels he is in control of the occurrence of reinforcement through his own behavior ("internals") and at the opposite end there is the man who feels reinforcement occurs independently of his actions ("externals"). Since the development of the Rotter and other various locus of control measures, extensive research has linked locus of control expectancies to a wide variety of behavioral dimensions as reviewed by Joe, 1971; Lefcourt, 1966; and Rotter, 1966. The present study looked at locus of control among enuretic and "normal" children and their mothers, in addition to examining variables in the prediction of the concept of internal versus

external control.

Most importantly, the results provided from this study will stimulate the public's awareness of the importance of the problem and pave the way for further research.

This section embraces a review of two broad areas; the area of enuresis and the phenomena of locus of control. The review entails the beginning, or history, of each and their relationship to the area of personality and parent-child interactions.

#### Enuresis - The History

The diagnosis and treatment of enuresis have baffled medical practitioners for over thirty five centuries. It was 1500 B.C. when Papyrus Ebers introduced enuresis as a medical problem in a pediatric textbook for physicians (McDonald & Trepper, 1977). After centuries of viewing it as a medical problem, a renewed interest in the 19th century began to focus more on acquiring self control over bodily functions. In a review of the history of enuresis, McDonald and Trepper (1977) reported there was a multitude of medications, devices and methods brought about because of increased publication and interest in the area. Their review mentions several theories on the cause of enuresis popular at that time, such as genetics, dreams, exhaustion of nerve pathways to the brain, epilepsy, laziness and irritation of the urinary system due to plumosis, just to mention a few. Finally,

the most important change from the 19th to the 20th century was consideration and involvement of psychological practices rather than the strong medical influence. However, enuresis was still viewed as a pathology with a specific cause.

#### The Definition and Incidence of Enuresis

Enuresis is most often defined as the involuntary discharge of urine during the day (diurnal) or night (nocturnal) after the age of three to four years in the absence of any organic cause (Lovibond, 1964). Nocturnal enuresis has been the most investigated and is the subject of this review. Patients with the latter disorder may be divided into two groups. In the first, and more common group known as "primary" or "essential" enuretics, there is no definite organic cause to be found. The second group, comprising 3% to 10% of all bedwetters (Lovibond, 1964), are known as "secondary enuretics" in which there is demonstrable organic pathology.

The behavior occurs in twice as many males as females showing a gradual decrease in incidence across age groups. More specifically, the incidence is approximately 52% (day) and 74% (night) at two years, 4% (day) and 24% (night) at three years, 2% (day) and 10% (night) at five years and less than 1% (day) and 6% (night) at fourteen years of age (Shaw & Lucas, 1971). Children in residential or out patient populations affected with enuresis range from 24% to 26% (Kanner, 1971), while young normal children range from 19% to 25%

(Michaels & Goodman, 1939; Sears & Maccoby, 1957). Findings indicate that about 50% of cases of enuretic children have members of their immediate family with a history of enuresis and a further 30% have blood relatives affected by the problem (Wickes, 1958). Another example of enuresis being related to family history is shown by Young (as cited in White, 1971). In a London clinic, 47.5% of 320 children were found to have a family history of enuresis. As a comparison, only 25.4% of the 376 non-enuretic children were found to have relatives who had been enuretic.

#### Etiology of Enuresis

The etiological factors involved with enuresis take into account such variables as: genetic predisposition, neuromuscular motivation, bladder capacity, willingness to learn voluntary inhibition of reflex excretion, timing and specific techniques of training, emotional concomitants for the child and his social environment and specific events during the training period (Kaffman & Elizur, 1977). Due to the numerous variables to consider, comprehensive research in this area has been difficult; not to mention the wide geographical area of population and individual abilities of information given and cooperativeness of the mother. In respect to the present study, only the etiological factors revolving around the personality, emotional, and behavioral characteristics of the enuretic child and the area of parent-child

relations will be reviewed.

Emotional, Behavioral and Personality Characteristics of the Enuretic Child

Notable research has been devoted to the personality, emotional and behavioral spectrum responsible for the condition of enuresis. Enuresis has been associated, along with firesetting and cruelty to animals; with violent aggression (Hellman & Blackman, 1966; Shaw, 1966). However, investigators in a study examining the sufficiency of this triad identified four symptoms: fighting, temper tantrums, school problems and truancy, and interpersonal difficulties, as being more useful predictors of violence (Justice, Justice & Kraft, 1974). Results from a study involving 19 enuretic children and their controls in a residential children's home showed a very high proportion of children were considered by their houseparents to be disturbed, especially of the anti-social nature (Jehu, Morgan, Turner, Jones, 1977). Early studies of enuretic boys have indicated that the boys are characterized by passivity, dependence, and poor impulse control and their mothers display similar personality patterns (Fenichel, 1945; Girard, 1939; Sperling, 1965). Oppel, Harper and Rider (1968) reviewed several studies and found the authors reported enuretic children to be more tense, anxious or dependent than non-enuretic children, determining this by such signs as nail biting or various tics. Contrary to this,



several studies (Tapia, Jekel & Domke, 1960; Shaw & Lucas, 1971) found enuretics either better adjusted than non-enuretic children or had no clear relationship to emotional disturbance. Hallgren (cited in Oppel, et al., 1968) has previously indicated no association of nocturnal enuresis with two measures of "nervous behavior", finger sucking (signs of immaturity) or nailbiting. Similarly, Valenzuela (as cited in White, 1971) when comparing 78 enuretics (black & white) with controls for symptoms of immaturity (such as thumb sucking, clinging to mother, walking alone) found no difference, except that the combined black and white female enuretics showed slightly more symptoms of immaturity than controls.

Oppel, et al., (1968) reviewed several authors who suggested that emotional disturbance may be linked to a relapse in bedwetting. A longitudinal study by Oppel, et al., (1968) examined data on 859 children for the associations of nocturnal enuresis with neurological, social and psychological factors and divided subjects into groups taking into account age of dryness and presence or absence of relapse. They found that six-year-old children are at a increased risk of having never been dry when they have the following: neurological abnormalities on clinical examination, are middle children in birth order, or when their mothers have an unfavorable evaluation of them, their parents have a poor marital adjustment, or a low rating on a social contact scale. The

proportions of never-dry girls are highest when their mothers are rated above average on the seven following maternal attitudes: keeping the girls closely attached, dependency of mother, anxiety of mother, irritability of mother, use of fear to control child, perception of child as a burden, and rejection of the child. In the never-dry seven year olds, a somewhat different pattern existed in that they were more sensitive, more likely to suppress feelings, more withdrawn, less ambitious, and have less fear of failure than the permanently dry group. They also found, in reference to relapse children, the six to seven year olds to be more likely from a low socioeconomic status, have a large number of siblings and display the following personality traits: decreased fear of failure, decreased anxiety and tension, and increased impulsivity (when compared to non-relapsers). Five other personality traits which were examined and did not show any significant differences in either the never-dry vs. permanently dry and the relapsers vs. non-relapsers were dependency, aggressiveness, rigidity, distractibility, and sullenness.

Emotional and personality characteristics appear not only to be affected by age of dryness and relapse, but also by the sleep patterns of an enuretic child (Ritvo, Ornitz, Gottlieb, Poussaint, Maron, Ditman & Blinn, 1969). In a study of seven boys with primary enuresis measured by 62 all-night EEGs, two patterns emerged. Children with predominantly

"light" sleep patterns with enuresis were characterized by: presence of other neurotic symptoms (i.e., fire setting, stealing, poor peer relationships, poor school adjustment and day wetting); history of sporadic wetting; anxiety; much parental concern and perhaps overinvolvement with infantilization of the patients; usual occurrence of wetting in the early morning just prior to arising; and family history usually negative for enuresis. Characteristics typical of boys with primarily "deeper" sleep patterns with enuresis are: minimal evidence of maladjustment or neurotic symptomatology; history of having wet regularly; nonchalant attitude toward symptoms on the part of patient and family; reportedly deep sleeping; occurrence of wetting early in the night; and frequent positive family history for enuresis.

In summary, the review of the literature concerning personality, emotional and behavioral characteristics of the enuretic child convey conflicting results. As example; some studies indicate enuresis is a predictor for aggression, others do not; some researchers describe the child as "passive, dependent and having poor impulse control", while others state the adjustment of the enuretic child equals or betters that of "normal" children; some studies indicate the child possesses "nervous troubles", while others declare there is no association. It would appear from several studies (Oppel, et al., 1968 & Ritvo, et al., 1969) that emotional status of the



enuretic child differs according to such variables as age of dryness, presence or absence of relapse, and "light" or "deep" sleep patterns. Among these studies different variables were considered, but there was a trend for impulsiveness on the part of the child and "infantilization" and "keeping the children closely attached" on the part of the parents which were present in both studies. However, different results in the level of anxiety were presented in the studies.

#### Parent-Child Relationship Within the Enuretic Family

Some researchers concerned with the etiology of enuresis have examined the realm of the mother-child relationship involving such aspects as the child rearing practices and characteristics of the mother. Campbell (1951) claimed enuresis was the result of parent-child disequilibrium, possibly from premature "potty" training. Somewhat in relation to this, Kanner (1957) felt infantilization in the child could result from a mother being over anxious. Morgan and Young (1975) revealed that mothers regarding enuresis as a greater nuisance tended to have more anxious enuretic children; mothers from less skilled socioeconomic levels were found to be less tolerant of the problem and rated it as a greater nuisance. Also intolerant mothers were more likely to withdraw their children prematurely from treatment.

Stein, Susser and Wilson (1965) mentioned several studies dealing with social class in Great Britain, Sweden, Germany

and Israel which revealed a low prevalence of enuresis from children of professional and non-manual workers, and a higher incidence in children of unskilled manual workers. They attempted to identify social factors which would distinguish between working class families with and without enuretic children and identify specific pathological factors (such as the state of disorganization characteristic of deviant families and lack of enduring family relationships characteristic of the structure of the damaged family) associated with experiences of individual families. Overall, they found the distribution of enuresis varied according to social class and family setting. For example, general factors connected with social class seemed most relevant to a model of enuretic children in the three following positions: age upon entering school, pre-pubertal school children with family deviance, and pubescent children with discontinuous family relationships. Families of five-year-old enuretic children and their controls differed according to structural and cultural factors, with families of enuretics experiencing fewer extraneous marriages, establishing fewer independent households at marriage (kin within the home), and more mothers working in the child's early years. Families of ten-year-old enuretic children and their controls differed according to factors which were common of deviant families, with families of enuretics living more often in poverty and the mothers being handicapped

intellectually, emotionally or physically burdened (impinging problems of other family members) making them inadequate in their household roles. More specifically, they found continence achieved soonest among children having a continuous and relatively exclusive relationship with the mother, and somewhat delayed among children who are early exposed to a wider range of social interaction and less intense relations with any one adult. Moreover, continence was further delayed by relations with mothers who are handicapped, pre-occupied or inadequate to fulfill a maternal role. Lastly, delay in achieving continence was greatest for children who suffered total disruption of maternal relations.

A six year longitudinal investigation involving 161 kibbutz-born Israeli children examined the personality characteristics and attitudes of significant others which may contribute to the success or failure in the achievement of early bladder control (Kaffman & Elizur, 1977). The study recognizes the multiplicity of enuretic patterns but makes a clear distinction between "high risk" and "low risk" infants for enuresis. Within the "high risk" category, two personality and behavioral traits emerge. Children comprising the first (and largest, 30%) set of traits (referred to as "difficult child") exhibited one or more of the following characteristics: motor hyperactivity, difficulties in adjusting to new situations and stimuli, stubbornness, negativistic

responses to discipline demands, low frustration threshold, and increased aggressive behavior. The second and smaller category of children in the "high risk" group displayed the following characteristics: pronounced dependent behavior in their relations with parents, metapelet (Kibbutz caretakers), and peers; lack of assertiveness; and low levels of mastery and achievement motivation. Also, children in the "high risk" group had the occurrence of enuresis among parents and/or siblings and expressed a lack of negative reactions to wetness and urine tactile contact. Children constituting the "low risk" group (achieving bladder control up to the age of 4) possessed the following characteristics: developmental trend leading to self-reliance, independence, progressive freedom to explore, investigate, and manipulate their surroundings. They expressed a high level of motivation achievement with adequate capabilities and adopted easily to new situations. Interestingly, children who achieved timely bladder control expressed a higher level of anxiety at the age of three and a poor tolerance to wetness with waking occurring just after the onset of urination. In reference to the influence of the parent-child relationship, a significant association was found between insufficient daily contact between parents and child and the occurrence of enuresis. Children whose parents rarely visited the house at extra hours and showed limited interest in the child's activities there, exhibited

an increased rate of enuresis. Consequently, there was a trend for better bladder control among children whose parents (usually mothers) showed involvement in toilet training and encouraged the child to achieve early control. In addition, for most of the recorded parental attitudes and bladder-control achievements of the children no clear-cut relationship was found except for children whose parents were categorized as "emotionally cold and detached" or "overindulgent infantilizing" in which there was a trend for a higher incidence of bedwetting found. A temporary separation of the child from one of the parents during the period of toilet training was also related to an increase in bedwetting. A number of other variables examined in the study showed statistically nonsignificant relationships; for example, sex differences, sibling position, toilet training in groups, attitudes and approach of the metapelet (caretaker), depth of sleep and regressive enuresis.

Enuretic boys and their mothers appear to be field-dependent people as described by Witkin, Levis, Hertzman, Machouer, Meissner, and Wagner (1954). Field independence is the ability to perceive, think about, and react to events analytically. The field independent person can attend to relevant stimuli within a situation while he screens out those which are irrelevant. In contrast, the field dependent person is unable to set himself apart from



his environment and is drawn irresistibly toward distracting stimuli. In results of a study by Scallion and Herron (1969) enuretic boys, but not their mothers, tend to be field dependent.

In summary, the studies examining parent-child relations are difficult to compare due to the fact they separated groups according to different criteria and investigated various attitudes, behaviors and characteristics. However, two studies (Stein, Susser & Wilson, 1965 and Kaffman & Elizur, 1977) demonstrated that less intense relations with the parents and separation result in an increase in bedwetting on the part of the child. These same studies corresponded with other studies (Oppel, et al., 1968 and Ritvo, et al., 1969) in which the enuretic's mother was described as "emotionally cold", "detached", and "burdened" and responded to the child in an "infantile" manner. Other findings reported the effect of social class, types of family structure and mother's tolerance of enuresis which have an influence upon the occurrence of bedwetting.

#### Locus of Control - A Definition

The beginning of the locus of control phenomena began with two studies, Phares and James (cited in Phares, 1976). They attempted to develop a scale to measure individual differences in internal-external control. Phares attempted to develop a scale which placed individuals along a skill

(internal) to chance (external) continuum. In other words, he felt that some individuals believed it was their own skills that effected various situations as opposed to others who believed their behavior was determined more by fate or chance. The results of the Phares study were only successful in predicting those who fell on the "chance" end of the continuum. Building upon this research by revising Phares' scale and using an experimental task, James was able to predict both the "skill" and "chance" individual with his scale.

These test construction efforts were followed by a more orderly and extensive scale development work by Shephard, Liverant and his collaborators, J. B. Rotter and M. Seeman (1962). Their first task was to distinguish among ideal, theoretical and operational definitions of the I-E variable which are discussed later in more detail by Rotter (1966).

Rotter (1966) described the dimension of locus of control of reinforcement according to the framework established by the social learning theory. He said:

"When a reinforcement is perceived by the subject as following some action of his own but not entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external

control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this as a belief in internal control." (p. 1)

#### Development of the Rotter Locus of Control Scale

Rotter and his colleagues felt it was important to construct an I-E scale that would be multidimensional in nature. Liverant, Rotter and Seeman developed an I-E scale containing items from several areas: academic recognition, social recognition, love and affection, dominance, social-political and general life philosophy. An attempt was made to construct subscales from these areas. The early version of the scale consisted of 100 forced choice items in which one item in each pair dealt with an external belief and the other an internal belief. Social desirability was controlled and the scale was subjected to an item analysis and factor analysis. Liverant reduced the 100 items to 60 items. Weakness in the scale (due to social desirability measures, high intraconsistency of subscales, and the lack of subscales to make independent predictions) caused the subscale approach to be abandoned. Liverant, Rotter and Crowne then refined the 60 item scale into a 23 item version known as the Rotter Internal-External Control Scale. There were two considerations used for selecting the items: (1) internal consistency, and (2) validity data from two studies (Seeman & Evans, 1962; Rotter, Liverant & Crowne, (1961). The final version of



the scale consists of 29 items, of which six are filler items used to disguise the purpose of the test.

#### Problems of Various Locus of Control Scales

Though the Rotter Scale is one of the most popular I-E scales in use, there are several problems with this scale. Primarily, since the study entails both children and adults, it would seem appropriate to use parallel forms. Though the Rotter Scale (1966) and the Battle and Rotter Children's Picture Test of Internal-External Control (1963) could serve as an adult and child measure, they suffer in several ways. The Rotter Scale consists of only 23 valid items, has reported reliabilities varying from .49 to .83 and reports to assess over a wide range of situations yet it is unable to produce subscales. Battle and Rotter's measure (1963) is difficult to administer to large groups and has incomplete reliability information. Other locus of control measures for children exist, such as the Bialer scale (1961) and the Intellectual Achievement Responsibility Questionnaire (IARQ) by Crandall, Crandall and Katkovsky (1965), but they are also deficient in one way or another. The Bialer Scale has almost half of the items consecutively keyed in one direction, thus lending itself to a response style which may affect scores. Also, in a study by Schaffer, Strickland, and Uhl (Note 1) the scale had a split half reliability of only .49. The problem associated with the IARQ is that it is designed under the

pretense of an academic rather than general situation.

### The Nowicki-Strickland Locus of Control Scales

According to a recent reviewer (MacDonald, 1972), the best scale currently available for the measurement of locus of control for children is the Children's Nowicki-Strickland Control Scale (Nowicki & Strickland, 1973). Nowicki and Strickland provide three locus of control scales to be used from childhood to adulthood. These scales are the Preschool and Primary Internal-External Control Scale (PPNS-IE, Nowicki & Duke, 1974) for ages 4 to 8, the Children's Nowicki and Strickland Internal-External Control Scale (CNSIE, Nowicki & Strickland, 1973) for ages 9 to 18, and the Adult Nowicki-Strickland Internal-External Control Scale (ANS-IE, Nowicki & Duke, 1974) for ages 18 and older.

A very thorough review of each of the Nowicki-Strickland devices can be found in Appendices A, B and C.

### Relationship of Locus of Control to Children and Adult Personality Characteristics

There appears to be a relationship between locus of control, anxiety and other related variables. The results of Finch and Nelson's study (1974) indicates a significant negative correlation between internal locus of control and anxiety for emotionally disturbed children. These results support previous findings that a feeling of lack of control over the environment and the outcome of one's actions are

associated with anxiety (Ray & Katahn, 1968; Watson, 1967). Taking into account the social learning theory, anxiety is seen as a series of responses indicative of a high expectancy for punishment or a low expectancy of success in valued need areas. A person would expect external individuals to exhibit relatively high expectancies for punishment and therefore display greater anxiety than internals. Nelson and Phares (1971) predicted that locus of control would be associated with both anxiety and need values whose magnitude clearly outstripped their expectancies of satisfying those needs. As expected, externals rated themselves as being more anxious. Also, the difference between the value of their academic goals and their expectancies for achieving them were greater for externals than for internals.

There have been conflicting results in the research dealing with locus of control as it relates to cognitive processes. Finch (1975) investigated the area of reflection-impulsivity, persistence behavior, and locus of control in emotionally disturbed children and the results indicated that locus of control was related to externals being more impulsive in their cognitive tempo, meaning externals responded more quickly and made more errors on the test than internals. However, Finch, Nelson, Montgomery and Stein (1974) found no difference between emotionally disturbed children employing an impulsive and a reflective cognitive style on a measure of

locus of control.

Several studies have been done relating locus of control to the ability to retain material. Some studies indicate better retention on the part of the internals (Phares, 1968; Seeman, 1963; and Seeman & Evans, 1962). However, in the case of Phares, Ritchie and Davis (1968), better retention on the part of externals occurred in the context of threat, suggesting a greater potential for defensiveness that an internal locus of control can provide. In other words, externals appear to be much less denying of threat than internals. Rotter (1966) felt that his results suggest the external has "less need to 'repress' his failures since he has already accepted external factors as determining his success and failure to a greater extent than those subjects scoring as more internal on the I-E control scale (p.22)."

There has been research in the area of locus of control as it relates to various personality variables. Work by Butterfield (1964) indicated that internals tend to react to frustration in a constructive fashion with less blame, whereas reaction of externals to frustration seems to be intropunitive and less constructive. Brissett and Nowicki (1973) have also supported these results. Hersch and Scheibe (1967) in a large-scale reliability and validity study of the locus of control dimension reported significant relationships between the Rotter scores and numerous personality dimensions. In addition

to other tests, they also used the Adjective Check List (Gough & Heilbrun, 1965) and the California Psychological Inventory (Gough, 1964) and found that externals were more maladjusted, lower on defensiveness, achievement, dominance, endurance, and order, while they were higher on succorance and abasement. DuCette, Wolk and Soucar (1972) studied the relationships among I-E, responsibility attribution and maladjustment in groups of black and white problem children from schools and mental hospitals. They found neither internality nor externality to be related to maladjustment but rather variables such as race and IQ determining the relationship. Strickland (1973), using the Nowicki-Strickland Locus of Control Scale for Children, found internal beliefs related to a preference for delayed, larger rewards over immediate smaller rewards. Another study (cited in Nowicki, Note 2) dealing with children and locus of control, found internality to be related to lower anxiety.

In summary, the literature suggests external individuals tend to be more maladjusted, lower in the areas of defensiveness, achievement, dominance, endurance and order but higher in succorance and abasement. They tend to react less constructively to frustration, are less denying of threat and describe themselves as more anxious than internals. Some research dealing with children shows

internality to be related to the ability to delay gratification of rewards and lower anxiety. In addition, one study indicated race and IQ as being valuable in determining locus of control. There are conflicting studies as to the relationship of locus of control and impulsivity in children.

### Relationship of Locus of Control to the Parent-Child

#### Interaction

There are a number of potential antecedents of external beliefs, some which involve family origins and include parental attitudes in the parent-child relationship. Katkovsky, Crandall, and Good (1967), using the IAR, reported that protective, nurturing, approving and nonrejecting parental behavior is associated with the child's belief in internal control. Davis and Phares (1969) have investigated some antecedents of children's generalized locus of control. Regarding children's perceptions of parental behavior, the study revealed significant differences between internals and externals on the warmth and acceptance-rejection dimensions. Davis and Phares found that children who are internals report their parents showed less rejection, less hostile control, less withdrawal of relations, and more positive involvement. However, when parental child-rearing attitudes, such as control and rejection, were assessed in the parents themselves, there were no direct



relationships between these attitudes and the child's locus of control beliefs. In addition, no relationship was obtained between the parent's locus of control and that of the child. Davis and Phares results indicate that parents whose children have a locus of control similar to their own are less disciplinarian and more indulgent in their approach to childrearing than are parents whose children have a locus of control different from their own. In summary, the data of Davis and Phares (1969) indicate that children's perceptions of parental behavior, especially along the acceptance-rejection dimension, relate to the development of locus of control.

There appears to be a relationship between locus of control and how children describe their parents' attitudes. MacDonald (1971), in a college sample, reports that internal females describe their mothers as more nurturant and utilizing more achievement pressure. Fathers were described as more nurturant and using more physical punishment with their sons. Male subjects who reported their mothers were more protective and often used effective punishment were found to have higher external scores. Tolor and Jallowiec (1968), in a college sample, found that external subjects perceived their mothers to be rather authoritarian and to have hostile-rejecting qualities.

In terms of reinforcement it would seem logical to

relate inconsistencies to externality since externality is defined as an attributer of behavior to "chance" circumstances. Rotter (1966) hypothesized that the degree of consistency of discipline and treatment by the parents is one antecedent of an external orientation. Davis and Phares (1969) found that externals tended to report their parents as inconsistent in their discipline more often than internals did. Davis (as cited in Phares, 1976) studied triads of mothers, fathers, and their 11 or 12 year old sons (the sons either internal or external). Each family group was asked to perform together on two tasks. Several questionnaires were also filled out privately by each family member. Later, the family was confronted with several problematic situations involved in family living on which they had earlier disagreed as to the best way to handling it. Some support was found for the hypothesis that externality in children is associated with inconsistent parental behavior which results from a lack of consensus among family members regarding standards of behavior. There were also more discrepancies in child-rearing attitudes between mothers and fathers of externals than there were between the parents of internal children. Further, less agreement existed between external children and their parents regarding the solutions to various problems in family living. Levenson (1973) reported that subjects who viewed their parents as



having predictable standards had stronger beliefs that events are controlled by chance factors. Considering the preceding data it appears that there is an expected relationship between externality and inconsistency of reinforcement within the family.

Several studies have been done comparing birth order with locus of control. Chance (as cited in Phares, 1976) found a weak tendency for both male and female first-born children to be more internal than their later-born brothers and sisters. MacDonald (1971) found that later-borns from two-child families were more external than those later-borns from larger families. In contrast, Eisenman and Platt (1968) noted that it was first-born males who were more external in their locus of control beliefs.

To summarize all parent-child locus of control research, the following results were found:

- (1) family environments characterized by warmth, protection and nurturance seem to lead to belief in an internal locus of control.
- (2) history of consistent parental reinforcement seems to be related to internality.
- (3) too much nurturance or inconsistency of reinforcement could lead to an external locus of control.
- (4) in general, first-born and earlier-born children tend to be more internal.

#### Relationship of Locus of Control with Enuresis

Upon reviewing the literature, there appear to be no studies involving locus of control with enuretics and their parents. However, in comparing the characteristics of each,

there appears to be some overlapping qualities that would suggest certain hypothetical "trends". For example, the following variables are found in both externals and enuretic children: lower social class and achievement, emotional disturbance, psychological maladjustment and anxiety. In contrasting the characteristics of parent-child locus of control research with that of enuretic research, again some similarities can be found. For example, the following characteristics were shared by mothers of both external and enuretic children: they were described as rejecting, too overprotective and nurturing. Thus, there is some indirect indication of a relationship between locus of control and enuresis. However, a well designed study is needed to support this indirect evidence and establish the relationship between these two important areas of research.

#### Statement of the Problem

Based upon the above review of the literature, the author wishes to investigate those variables of enuretic children and their mothers, especially locus of control, that are significantly different from a non-enuretic group of similar children and their families. Further, this author wishes to find out the specific set of variables which would predict membership in the enuretic vs. non-enuretic group. Relevant to the discussion of locus of control, there will be a determination of what variables predict locus of control

of the child, its mother and even frequency of bedwetting behavior. Finally, it would be helpful to determine if there are any unique types of mother-child interactions associated with enuretic children, therefore the following hypotheses are offered.

### Hypotheses

1. Hypotheses concerning differences between the enuretic children and their mothers vs. the non-enuretic control.

To determine if there is a significant difference between the enuretic children and their mothers and those in the control group with respect to the sixteen dependent measures, the following null hypotheses are offered:

- a) There will be no significant difference between the enuretic children and the control children on the following child variables: locus of control, acting out, distractibility, immaturity, withdrawal, disturbed peer relations and self, home, social, school, and physical adjustment.
- b) There will be no significant difference between the mothers of enuretics and the mothers of controls on the following variables: locus of control, acceptance, overprotection, overindulgence, and rejection.

2. Hypotheses concerning the variables that discriminate the enuretic group (children and mothers) from the control group.

To determine if there are a unique combination of variables that significantly differentiate or discriminate between

the enuretic vs. control group, the following hypothetical question is offered:

a) What are the combination of variables that differentiate enuretic from control children?

3. Hypotheses concerning the predictors in the frequency of bedwetting, locus of control of the enuretic children and locus of control of the mothers of enuretic children.

To determine what are the personality and behavioral variables that predict the three relevant variables----- frequency of bedwetting, locus of control of child and parent-----in the enuretic group, the following hypothetical questions are offered:

a) What are the personality and behavioral variables that predict the frequency of bedwetting in the enuretic children?

b) What are the personality and behavioral variables that predict locus of control for adults (mothers) of enuretic children?

c) What are the personality and behavioral variables that predict locus of control for the enuretic children?

4. Hypotheses concerning the combination of all variables with regard to the mothers and children in the enuretic group.

To determine what ways the variables can be combined to discover unique combinations of mothers and children, the following hypothetical questions are offered:

a) Is the locus of control of the mother and her parenting

attitudes significantly related to personality and behavior characteristics of the enuretic child?

b) In what ways can the sets be combined to make correlation between components of the two sets a maximum?

CHAPTER 2MethodSubjects

All subjects were Caucasian middle class residents from two central Illinois towns and the surrounding countryside. The subjects for this study were divided into two main groups: (1) enuretic children and their mothers (2) "normal" children and their mothers.

The enuretic children and mothers were obtained and identified through another project (Hillner, Note 3) concerning enuresis carried on at the university. These subjects were contacted through newspaper and supermarket advertisements, and local physician contacts. Children were given a complete physical examination and urinalysis to screen for any possibilities of the bedwetting problem being of a physical nature. There were no children found with organic difficulties. The number of families beginning the project was 19 but one dropped due to other commitments, making the final number of mother-child pairs finishing 18.

Control group subjects (children and mothers) were matched with the enuretic group according to the following criteria:

- (1) Child's age must be within one year as determined from birthdate to time tested.
- (2) Sex of the child must be the same.



- (3) Number of children in the family had to match the enuretic child's family according to one of the following appropriate categories - Only Child, Two and three, Four or more.
- (4) Mother's age must be within three years according to age of the enuretic's mother.

There were 37 families initially contacted. From these, the 18 control subjects were chosen on the bases of matching characteristics with the enuretic group.

Within each group (enuretic and control), subjects were placed into three categories according to their age: (1) Pre-school and Primary - ages 4 to 8, (2) Children - ages 8 to 18, (3) Adult - ages 18 and over. Equal numbers were represented in both the enuretic and control groups. Table 1 presents the specific number and sex within each category for both groups.

Examiners for the enuretic group in the study were two psychology graduate students ( 1 male, 1 female) and one psychology female senior undergraduate. One female psychology graduate student tested the control group.

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Place Table 1 about here

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### Instruments

Children's Nowicki-Strickland Internal-External Control Scale (CNS-IE), (Nowicki and Strickland, 1973). This is a

Table 1

## Distribution of Enuretic and Control Subjects

	<u>Preschool and Primary Children</u>		<u>School Aged Children</u>		<u>Adults</u>	
	<u>Enuretic</u>	<u>Control</u>	<u>Enuretic</u>	<u>Control</u>	<u>Enuretic</u>	<u>Control</u>
Male	3	3	10	10	0	0
Female	<u>4</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>18</u>	<u>18</u>
Total	7	7	11	11	18	18
Mean Age	5yrs,8mo.	5yrs,9mo.	10yrs,3mo.	9yrs,10 mo.	35 yrs	34 yrs.

paper-and-pencil self-report device consisting of 40 yes-no questions designed to measure the locus of control for children age 8 through age 18. The items describe reinforcement situations across interpersonal and motivational situations involving affiliation, achievement and dependency. For a thorough review of this device please see Appendix A.

Adult Nowicki-Strickland Internal-External Control Scale (ANS-IE), (Nowicki and Duke, 1974). This is a paper-and-pencil self-report device consisting of 40 yes-no questions designed to measure the locus of control for adults age 18 and up. This device is mainly an alteration of the CNS-IE so that an upward extension of the scale could be available for developmental and other research. A thorough review of the ANS-IE is available in Appendix B.

Preschool and Primary Internal-External Control Scale (PPNS-IE), (Nowicki and Duke, 1974). This form of the Nowicki-Strickland locus of control scales is a 26 item self-report device in a yes-no response format designed for an interview-type of administration. The Scale is designed for children ages 4 to 8 years of age and is available in two forms (one for male and one for female). This device was developed as a downward extension of the CNS-IE. A thorough review is presented in Appendix C.

Mother-Child Relationship Evaluation (MCRE), (Roth, 1961). The MCRE is primarily exploratory and experimental, rather

than a refined clinical measurement device. It establishes a framework of attitudes by which mothers relate to their children. The evaluation consists of general statements so as to keep its meaning ambiguous. This objective approach gives an estimate of mother-child relations based on a profile involving five attitudes: Acceptance, Overprotection, Overindulgence, Rejection and Confusion-Dominance. The manual describes each attitude in the following manner:

Acceptance - "an expression of an adequate mother-child relationship in terms of sincerity of affect expression, interest in child's pleasures, activities, development, and the perception of the child as a good child."

Overprotection - "an expression of prenatal anxiety in terms of prolonged infantile care, prevention of development of independent behavior, and an excess of control."

Overindulgence - "expressed in excessive gratification together with lack of parental control, expressed in terms of oversolicitousness and excessive contact."

Rejection - "the denial of love and an expression of hate towards a child in terms of neglect, harshness, severity, brutality, and strictness."

The fifth attitude, Confusion-Dominance, is seen in terms of a continuum and expresses the degree to which the relationship between mother and child is dominated by an attitude, a combination of attitudes, or by confusion. The Confusion-Dominance scale was not used for the purposes of this study. Each of the 48 statements on the MCRE measures a specific attitude. The mother of the child rates the extent to which she agrees or disagrees with a

statement. See Appendix D for a thorough review of the device.

Child Behavior Rating Scale (CBRS), (Cassel, R. N., 1962).

The CBRS is a psychological instrument developed and standardized for the objective assessment of personality adjustments of preschool and primary grade pupils. This range includes kindergarden, first, second, and third grade pupils, also handicapped children and those unable to read. The scale consists of 78 items, describing some aspect of a child's behavior. The items are classified into five adjustment areas; such as Self, Home, Social, School, and Physical Adjustment. The CBRS is a self-administering instrument, completed individually or in groups, and may be used by any literate person who has observed or knows directly the behavior of the child being rated. In this study, mothers of the children are asked to serve as the raters. A thorough review is presented in Appendix E.

Walker Problem Behavior Identification Checklist (WPBIC), (Walker, H. M., 1976). The WPBIC is composed of observable, operational statements about classroom behavior that were furnished by a representative sample of elementary school teachers to identify children with behavior problems. The checklist is designed for use in the elementary grades and is standardized on grades four, five and six. There are 50 statements describing the subject's behavior. Each statement

measures degrees of Acting-out, Withdrawal, Distractibility, Disturbed Peer Relations and Immaturity (scales on the WPBIC). Most often the rater is a teacher but in this study mothers of the children were used. Scores on the scales computed together provide an overall total which indicates whether the child is classified as disturbed. See Appendix F for a thorough review of the device.

Table 2 lists the instruments and their scales used in this study.

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Place Table 2 about here

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### Procedure

Two morning meetings placed two weeks apart for the enuretic children and parents were scheduled. During the initial meeting for the enuresis dry-bed project (Hillner, Note 3) a brief orientation to the procedure was given. Examiners for the project then requested the parents to complete a treatment contract, baseline data, and questionnaires before the second meeting. The treatment contract explained the parent's and staff's responsibility, ethical concerns and fees. The mothers were also asked to complete the WPBIC, MCRE and CBRS. During the second meeting the parents were given a thorough explanation of the dry-bed procedure and details involving the use of a bell and pad device. After this, the director of the enuresis dry-bed



Table 2  
Instruments

Locus of Control Scales (LOC)

Adult Nowicki-Strickland Internal-External Control  
Scale (ANS-IE)

Children's Nowicki-Strickland Internal-External Control  
Scale (CNS-IE)

Preschool and Primary Internal-External Control Scale  
(PPNS-IE)

Personality and Behavioral Devices

Mother-Child Relationship Evaluation (MCRE)

Subscales

Acceptance  
Overprotection  
Overindulgence  
Rejection

The Child Behavior Rating Scale (CBRS)

Subscales

Self Adjustment  
Home Adjustment  
Social Adjustment  
School Adjustment  
Physical Adjustment

Walker Problem Behavior Identification Checklist (WPBIC)

Subscales

Acting-out  
Withdrawal  
Distractability  
Disturbed Peer Relations  
Immaturity

procedure project introduced the examiner and explained to the parents she was going to administer a personality questionnaire to their enuretic children during the meeting. At that point the group of children were divided into two rooms. Those eight and above were group administered the CNS-IE by the examiner and given the following instructions: "We are trying to find out what boys and girls your age think about certain things. We want you to answer the following questions the way you feel. There are no right or wrong answers. Don't take too much time answering any one question, but do try to answer them all." The examiner gathered the tests after each child finished.

Children below the age of eight were individually administered the PPNS-IE. Each child was given the same instructions as the eight and older group. After the instructions, in order to check if they understood the yes-no concept, they were asked: "Are you a boy (girl)?" The test also provided an example item which the examiner gave them for added practice. For each of the 27 items, the examiner read each question twice and waited for the child to respond yes or no, or nod his head indicating his answer, which was recorded by the examiner on his answer sheet.

After all the children had been tested, the examiner administered the ANS-IE Scale to the parents. They were told: "We are trying to find out what men and women your

age think about certain things. We want you to answer the following questions the way you feel. There are no right and wrong answers. Don't take too much time answering any one question, but do try to answer them all."

In order to obtain subjects which matched the experimental group (enuretics) regarding the set criteria, the examiner contacted a grade school principal in a small rural central town in Illinois. The purpose of the research project was explained to the principal. A list of ages of "normal" children needed were given to the principal and a secretary, where upon they went through the files and gave the examiner a list of possible names, addresses and phone numbers to contact. Also parents of "control" subjects gave additional names of people to contact.

The people were initially contacted by phone. The examiner introduced herself and her project as follows:

"Hello Mrs. \_\_\_\_\_, my name is Judy Bowlby and I'm a graduate student at Eastern Illinois University in Charleston. The reason I am calling is because this summer I am doing research in the area of personality of normal children and their mothers for completion of my Masters thesis. For my project I need children of specific ages to test so I went to the grade school principal in this area to obtain names of parents who have children of the approximate age I need. I understand that you have a son/daughter who is \_\_\_ years old. The testing is strictly confidential and of no cost to you. If you would like to know more about my project before you decide on whether to participate, I would like to come over and talk to you about it soon."

The examiner than set up a home visit to the individuals

who were receptive to the project. During the visit the examiner introduced herself once again and briefly explained her qualifications and purpose of her project. The mother was then shown the consent form for testing (see Appendix G), the MCRE, CBRS, WPBIC and the locus of control scales: ANS-IE and the GNS-IE or PPNS-IE (which ever was appropriate for the age of the child). If the mother agreed to the testing the examiner then checked to see if the family matched the criteria set by the experimental group (enuretics). If the criteria was met, the examiner then asked if the child had a bedwetting problem. If negative, testing began with the examiner instructing the mother how to fill out the top information form for each test and asked her to read the directions before beginning. The examiner then introduced herself to the child and went to a nearby room to explain the test in the same manner as she had done for the experimental group. When mother and child finished, tests were gathered and the examiner explained she would contact them by phone in three or four weeks to make an appointment for a home visit to explain the results. The family was thanked for the time and effort.

All families in the control groups as well as in the enuresis group were informed of the purpose of the experiment and were allowed access to the results of the assessment.

### Analysis of Data

In order to determine whether the locus of control devices for the preschool children (PPNS-IE) and school aged children (CNS-IE) were comparable, a one way analysis of covariance was conducted. Second, regarding the first set of hypotheses, a series of correlated t-tests were performed to determine significant differences between the groups. Third, to determine the discriminating variables in the second hypothesis a stepwise discriminant analysis, program form SPSS (Nie, Jenkins, Steinbrenner and Brent, 1975), was computed. Fourth, to determine the predictive variables for the third set of hypotheses, a series of stepwise multiple regression analysis (SPSS) were used. Finally, concerning the fourth hypotheses which determined the unique factors involving enuretic children and their mothers, a canonical correlation (SPSS) was performed.

## CHAPTER 3

### Results

Since the children in this study received two forms of the Nowicki-Strickland locus of control scales (CNS-IE, PPNS-IE), an analysis of co-variance was computed to see if the difference between the two forms was significant when adjusted for age as a co-variable. The results indicated there was no significant difference between the two forms,  $F(1,17) = .120, p > .05$ .

Hypothesis 1: Hypotheses concerning differences between the enuretic children and their mothers vs. the non-enuretic control.

Means, standard deviations and correlated  $t$ 's were computed to test the difference between enuretic children and their mothers with the paired non-enuretic children and mothers on all variables (Table 3). A significant difference,  $t(17) = -2.21, p < .05$ , was found between the two groups in regards to the mother's locus of control, with the enuretic's mother scoring more in the internal direction. The enuretic children's Total score for the Walker Problem Behavior Identification Checklist (WPBIC) was significantly higher,  $t(17) = 3.88, p = .001$ , than the non-enuretic group; this indicated that more behavior problems were reported by the enuretic's mother. Enuretics were also seen by their mothers as being



more immature,  $t(17) = 2.22$ ,  $p < .05$ , and acting out,  $t(17) = 3.14$ ,  $p < .01$ , when compared to the non-enuretic group. No other significant differences were found.

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Place Table 3 about here

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Hypothesis 2: Hypothesis concerning the variables that discriminate the enuretic group (children and mothers) from the control group.

Table 4 presents the results of the stepwise method criterion of Rao's V discriminant analysis, which is a generalized distance measure. The variable selected is the one which contributes the largest increase in V when added to the previous variables, therefore making the greatest overall separation of the groups. The results indicated the best set of variables to distinguish enuretics from non-enuretics in order of strength were acting out (WPBIC), locus of control of mother (ANS-IE), immaturity (WPBIC), mother's overprotection (MCRE), withdrawal (WPBIC), mother's acceptance (MCRE), self adjustment (CBRS), physical adjustment (CBRS), mother's rejection (MCRE), distractability (WPBIC), mother's overindulgence (MCRE), and home adjustment (CBRS). From this, an eigenvalue (1.940), canonical correlation (.81) and Wilks lambda (.340,  $p < .01$ ) were computed. In the present study, the high eigenvalue and low Wilks lambda indicated that the variables involved had a high discriminating

Table 3  
 Summary of Demographic and Test Variable Scores  
 for the Enuretic and Non-Enuretic Groups

Variable	Enuretic		Non-Enuretic		t-value
	Mean	Standard Deviation	Mean	Standard Deviation	
LOC Child	52.69	10.86	47.26	8.83	2.01
LOC Adult	6.83	3.53	9.28	3.40	-2.21*
MCRE Acceptance	44.33	3.85	46.28	3.61	-1.65
MCRE Overprot.	26.17	3.50	28.00	3.60	-1.56
MCRE Overindulg.	29.33	2.79	29.06	3.26	.28
MCRE Rejection	31.00	4.63	31.05	3.75	-.05
CBRS Self Adj.	90.00	15.00	97.28	10.62	-1.63
CBRS Home Adj.	104.28	7.71	106.39	7.78	-.89
CBRS Social Adj.	97.61	11.91	100.66	10.86	-1.00
CBRS School Adj.	54.56	22.65	55.61	21.50	-.33
CBRS Physical Adj.	33.72	2.99	34.83	1.76	-1.62
WPBIC Acting Out	7.11	5.55	2.83	2.50	3.14**
WPBIC Withdrawal	.56	1.04	.33	.84	.64
WPBIC Distractib.	2.56	3.07	1.78	1.70	1.05
WPBIC Dis.Peer Rel.	1.94	2.53	.83	1.29	1.66
WPBIC Immaturity	4.33	7.73	.28	.83	2.22*
WPBIC Total	14.78	10.60	6.06	4.02	3.88***
AGE (months)	108.22	44.55	99.56	33.06	1.48
Freq.Bed Wet.(pw)	10.33	7.63	0	0	0

\* $p < .05$   
 \*\* $p \leq .01$   
 \*\*\* $p \leq .001$

power.

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Place Table 4 about here

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Standardized discriminant function coefficients were computed for each of the twelve discriminating variables. The discriminant score was computed by multiplying each of these discriminating variables standard score by its corresponding coefficient and adding together these products. The group mean on a certain function was obtained by averaging these weighted scores for the cases within a particular group. A comparison of the group means on each function tells us how far apart the groups are in terms of the discriminating variable. The group centroids in this study were 1.354 for the enuretic group and -1.354 for the non-enuretic group. Prediction results indicated that 16 of the 18 enuretics (89%) were correctly classified as enuretics by computed discriminant scores, and 17 of the 18 non-enuretics (94%) were correctly classified as non-enuretics. Overall, the percentage of known cases correctly classified was 92% ( $\chi^2 = 25.000, p < .001$ ).

Hypotheses 3: Hypotheses concerning the predictors of frequency of bedwetting, locus of control of the enuretic children and locus of control of the mothers of enuretic children.

Three stepwise multiple regression analysis were used to find out what variables were the most predictive of frequency

Table 4

## Summary of the Most Discriminating Variables

Variables	F	Wilks lambda	Significance	V change	Sign.
WPBIC Acting-out	8.88	.79	.005	8.88	.003
LOC Adult	5.42	.68	.002	7.05	.008
WPBIC Immaturity	3.82	.61	.001	5.96	.015
MCRE Overprot.	4.03	.54	.001	7.26	.007
WPBIC Withdrawal	1.81	.51	.001	3.81	.051
MCRE Acceptance	2.41	.47	.001	5.56	.018
CBRS Self Adj.	1.02	.45	.001	2.66	NS
CBRS Physical Adj.	1.62	.43	.001	4.50	.034
MCRE Rejection	2.53	.39	.001	7.75	.005
WPBIC Distractab.	1.61	.37	.001	5.62	.018
MCRE Overindulg.	.72	.35	.002	2.81	NS
CBRS Home Adj.	.99	.34	.003	4.11	.043

of bedwetting, the adult and child's locus of control for the enuretic group. The first multiple regression analysis utilized was to find what six variables were the best predictors determining frequency of bedwetting for the enuretic group. Raw scores from the test's subscales were used in the data analysis with the exception of the scores from the two locus of control children's forms which were changed into z scores. Frequency of bedwetting was previously determined by number of wets per week ( $\underline{M} = 10.3$ ,  $\underline{SD} = 7.6$ ). The results of these analysis for the enuretic group are presented in Table 5. This table shows that the combination of scores on the following test subscales were the most predictive of frequency of bedwetting in the following stepwise order; Acting out (WPBIC), Adult Locus of control (ANS-IE), Disturbed Peer Relations (WPBIC), Home Adjustment (CBRS), Acceptance (MCRE), and Rejection (MCRE). The value of R (multiple R) that was reported was that value associated after the last predictor entered the equation. The multiple R for predicting frequency of bedwetting was .87, accounting for 76 percent of the variance.

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Place Table 5 about here

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A second stepwise multiple regression analysis was performed to find what six variables were the best predictors of an enuretic mother's score ( $\underline{M} = 6.8$ ,  $\underline{SD} = 3.5$ ) on the

Table 5

Summary Table of Stepwise Multiple Regression Analyses  
 Predictors in the Frequency of Bedwetting

Variables	R	R <sup>2</sup>	R <sup>2</sup> change	r	B	BETA	F (Incremental) <sup>D</sup>
WPBIC Acting-out	.74	.54	.54	.74	.250	.1817	19.122***
LOC Adult	.82	.67	.12	.56	1.205	.5581	15.141***
WPBIC Dist. Peer Rel.	.84	.70	.03	.67	1.696	.5627	11.052***
CBRS Home Adj.	.85	.71	.01	-.10	.356	.3602	8.121**
MCRE Acceptance	.85	.73	.01	.03	-.523	-.2638	6.437**
MCRE Rejection	.87	.76	.03	.07	-.379	-.2296	5.888**

Note. F values proceed in an incremental contribution of one step over previous steps in the regression.

\*\*p < .01

\*\*\*p < .001



Adult Nowicki-Strickland Internal-External Control Scale.

The results of this analysis for the group are presented in Table 6. This table shows that the combination of scores on the following test subscales and demographic data were the most predictive of the enuretic mother's locus of control score; Childrens Locus of Control (CNS-IE), Distractibility (WPBIC), Acceptance (MCRE), Social Adjustment (CBRS), Self Adjustment (CBRS), and the Age of the enuretic child. The multiple R for predicting the Adult's locus of control was .87, accounting for 76 percent of the variance.

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Place Table 6 about here

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The third stepwise multiple regression analysis performed concerned the six best variables predicting the enuretic child's locus of control score ( $\underline{M} = 52.6$ ,  $\underline{SD} = 10.8$ ). The results of this analysis for the group are presented in Table 7. This table shows that the combination of scores on the following test subscales and demographic data were the most predictive of the child's locus of control score: Overindulgence (MCRE), Rejection (MCRE), Disturbed Peer Relations (WPBIC), Age of the child, School Adjustment (CBRS), and Physical Adjustment (CBRS). The multiple R for predicting the child's locus of control score was .92, accounting for 85 percent of the variance.

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Place Table 7 about here

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Table 6

Summary Table of Stepwise Multiple Regression Analyses  
 Predictors in Locus of Control of Adult for Enuretic Group

Variables	R	R <sup>2</sup>	R <sup>2</sup> change	r	B	BETA	F (Incremental) <sup>2</sup>
LOC Child	.43	.19	.19	-.43	-.247	-.7577	3.625
WPBIC Distractability	.58	.33	.15	.42	.810	.7040	3.715*
MCRE Acceptance	.64	.41	.08	.32	.313	.3412	3.201
CBRS Social Adj.	.73	.53	.12	-.31	-.241	-.8122	3.608*
CBRS Self Adj.	.81	.65	.12	-.24	.203	.8608	4.458*
AGE	.87	.76	.11	.03	-.033	-.4215	5.951**

Note. F values proceed in an incremental contribution of one step over previous steps in the regression.

\*p < .05

\*\*p < .01

Table 7

Summary Table of Stepwise Multiple Regression Analyses  
 Predictors in Locus of Control for the Enuretic Child

Variables	R	R <sup>2</sup>	R <sup>2</sup> change	r	B	BETA	F (Incremental)
MCRE Overindulgence	.59	.35	.35	.59	2.762	.7088	8.417**
MCRE Rejection	.69	.48	.13	-.26	-1.081	-.4608	6.791**
WPBIC Dist. Peer Rel.	.77	.59	.12	.15	1.502	.3502	6.749**
AGE	.85	.72	.12	-.21	-.122	-.5007	8.151**
CBRS School Adj.	.90	.81	.10	.42	.179	.3732	10.382***
CBRS Physical Adj.	.92	.85	.04	-.01	-1.089	-.2995	10.509***

Note. F values proceed in an incremental contribution of one step over previous steps in the regression.

\*\*p < .01

\*\*\*p < .001

Hypothesis 4: Hypotheses concerning the combination of all variables with regard to the mothers and children in the enuretic group.

A canonical correlation analysis was used to study the relationship between children variables and mother variables for the enuretic population. Table 8 shows the number and significance of the canonical variates computed. The first and second canonical correlations (.999,  $p < .001$ ; .982,  $p < .01$ ) were found to be significant, while the other three were not. Table 8 reports the coefficients for variables of the first and second set of canonical variates one and two. The first pair (CANVAR 1) of canonical variates identified enuretic children who were strong in self adjustment, weak in social adjustment, and tended not to act out or be immature. The mothers of these children tended to be nonrejecting; but over-indulgent. The second pair (CANVAR 2) of canonical variates identified enuretic children who were strong in school adjustment, internally controlled, and tended not to act out, but weak in social adjustment and had disturbed peer relations. The mothers of these children tended not to be overprotective, but were low in acceptance.

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Place Table 8 about here

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Table 8

Canonical Correlations Coefficients on  
Mother and Child Variables for Enuretics

No.	EIGENVALUE	CAN.CORR.	LAMBDA	CHI-SQ	D.F.	SIG.
1	.9969	.9985	.0000	116.903	60	.000
2	.9634	.9815	.0004	67.563	44	.013
3	.9159	.9570	.0096	39.453	30	.116
4	.7465	.8640	.1147	18.410	18	.429
5	.5477	.7400	.4523	6.743	8	.565

Coefficients for Canonical Variables of the First Set

<u>Mother Variables</u>	<u>CANVAR 1</u>	<u>CANVAR 2</u>
LOC Adult	.5209	.3080
MCRE Aceptance	.0008	-.8710*
MCRE Overprotection	-.2392	-.9291*
MCRE Overindulgence	.9255*	-.1094
MCRE Rejection	-.7146*	.4113

Coefficients for Canonical Variables of the Second Set

<u>Child Variables</u>	<u>CANVAR 1</u>	<u>CANVAR 2</u>
CBRS Self Adj.	1.0991*	.3149
CBRS Home adj.	.4179	-.3903
CBRS Social Adj.	-.8980*	-1.1178*
CBRS School Adj.	.2823	.9735*
CBRS Physical Adj.	-.0414	.3709
WPBIC Acting-out	-.7703*	-.9238*
WPBIC Withdrawal	-.0257	-.3221
WPBIC Distractab.	.3926	.4916
WPBIC Dist. Peer Rel.	.0667	.7732*
WPBIC Immaturity	-.6170*	-.1416
Freq. of Bedwetting	.2798	-.3357
LOC Child	.0284	-.9736*

\* Coefficients considered significant. Values between .60 to -.60 were rejected.

## CHAPTER 4

### **Discussion**

#### Major Hypotheses

#### Differences between enuretic children and their mothers and the non-enuretic group.

Results, based on a series of null hypotheses, indicated four variables separated the two groups. The differences were seen in the mother's locus of control (enuretic mothers being more internal) and a higher total score on the WPBIC, especially in respect to the Immaturity and Acting-out Scales.

Earlier studies have demonstrated differences between enuretics and non-enuretics. House parents of a residential children's home considered a high proportion of the enuretic children to be disturbed, especially of the antisocial nature (Jehu, Morgan, Turner & Jones, 1977). One difference, among others, between 7 year old children who were never dry as to those permantly dry, was that the never dry group was more withdrawn (Oppel, Harper & Rider, 1968). If we consider impulsivity closely related to acting out, then one study showed 6 to 7½ year old children who had a relapse in bedwetting were more impulsive than those who were dry (Oppel, et al., 1968). In addition, a six year longitudinal study examining behavioral and personality traits enhancing the



probability of developing enuresis found the "high risk" group overall showed less adjustment than the "low risk" group, specifically in relation to motor hyperactivity (Kaffman & Elizur, 1977). These studies have demonstrated differences between enuretics and non-enuretics similar to the findings of the present study.

The results indicated that enuretics are more likely to have internal mothers. In reference to locus of control this investigator was unable to find any study which dealt with enuretic children or their mothers. One possible explanation could be that the mothers used in this study were (at the time) seeking treatment for their children in the control of bedwetting. These mothers may be "special" and not represent the total population of mothers of enuretics. In other words, the interpretation of enuretic mothers having an internal locus of control orientation could be like the following: "The mothers were seeking treatment for their children because they realized the bedwetting was not due to 'chance or fate' (external belief) but rather a condition which could be overcome by the efforts of the mother and child". Discriminating the enuretic group (children and mothers) from the control group.

Findings from the first major hypotheses and previous studies revealed that there are differences between the groups. However, there has not been a study analyzing the discriminating

factors of enuresis. The present study found the following variables responsible for separating the enuretics from the controls: acting-out, mother's locus of control, immaturity, mother's overprotection, withdrawal, mother's acceptance, self adjustment, physical adjustment, mother's rejection, distractibility, mother's overindulgence, and home adjustment.

There have been some previous studies showing results similar to the present study, especially in regards to attitudes expressed by the mother. Mothers of girls who had never been dry by the age of six were described as keeping the girls closely attached (similar to the overprotection scale), using fear to control the child, seeing the child as a burden and rejecting her (Oppel, et al., 1968). All of these descriptions were in the definition of the Rejection Scale which was used in this study. Similarly, Kaffman and Elizur (1977) found a higher trend of bedwetting in children when the mothers were characterized as being "emotionally cold" and "overindulgently infantilizing". In reference to the traits of these children, White (1971) cited one study which found enuretic black and white females to be more immature than their non-enuretic counterparts. Oppel's et al., (1968) study indicated one type of enuretic child to be withdrawn (never dry 7 year olds) and the other type to show increased impulsivity (children who relapsed) but in both types no difference was found in terms of distractibility. In

comparison, Scallan and Herron (1969) found enuretic boys to be field dependent, meaning they are "drawn irresistibly toward distracting stimuli".

In summary, previous studies go along with the present findings to suggest the attitudes expressed by the mothers (especially rejection) are very influential in separating enuretic from non-enuretic children. However, concerning specific characteristics of the enuretic child, further research is needed to support the conclusions of this study since it is the first of this kind.

#### Predicting the frequency of bedwetting.

Various studies have shown how the attitudes and behaviors in the mothers of enuretics have led to an increase, or onset, in their children's bedwetting (Stein, Susser & Wilson, 1965 and Kaffman & Elizur, 1977). However, there has not been an attempt to identify a combination of variables that could lead to the prediction of enuresis. The present study determined the following six variables as relevant in the prediction of bedwetting: acting-out, disturbed peer relationships, home adjustment, the mother's locus of control, acceptance and rejection.

A review of the literature indicated some commonalities in characteristics between mothers who are perceived as "externals" and those who have enuretic children, such as rejection (Katkovsky, et al., 1967; Oppel, et al., 1968) and excessive

nurturance (Oppel, et al., 1968; Ritvo, et al., 1969). It also suggested that children who perceive their mothers as warm (similar to Acceptance Scale) tend to be internally controlled. The point to be made is that different locus of control orientations lead to different characteristics and behaviors in individuals (mothers for instance), therefore various behaviors and attitudes may effect the occurrence of enuresis.

#### Predicting the locus of control in mothers of enuretics

The present study attempted to identify what combination of variables would lead to predicting the locus of control in the mothers of enuretics. The results indicated the child's locus of control, distractibility, age, social and self adjustment and the acceptance of the mother to be reliable predictors.

It is interesting to note that the majority of predictors are attributes and characteristics of the child, with locus of control of the child being the most important. Several studies (Davis & Phares, 1969 and Nowicki, Note 2) have revealed significant differences between internals and externals in regards to how they perceive parental behavior and attitudes, especially on the dimensions of acceptance and rejection. However, when parental child-rearing attitudes were assessed in the parents themselves, there were no direct relationships between these attitudes and the child's locus of control beliefs.

There are no clear explanations for the results, but one

may ask "if we assume a child's perception of his mother affects his locus of control, then can the reverse be true?"

It is important to remember that the mother was the one who assessed the child's behaviors so in essence we are seeing her views of the child. In other words, her perception of the child may be a reflection of her locus of control.

#### Predicting the locus of control in the enuretic child

The results obtained from the present study suggested the following six variables to be predictive of the enuretic child's locus of control; overindulgence and rejection of the mother, disturbed peer relations, age of the child, school and physical adjustment. Several studies have found similar characteristics to be related to locus of control in other populations. For example, externals have been reported to be in poor physical health (studies cited by Nowicki, Note 2) and perceiving their mothers as more rejecting than internals (Tolor & Jalowiec, 1968). Also, Nowicki and Strickland (1973) reported a significant correlation between internality and higher academic achievement. It would appear that the connection between school adjustment, physical adjustment, perception of parents' attitudes of "normal" children and their locus of control have previously been attested to and is congruent with this study. However, there has not been any research relating locus of control to enuretic children before the present study.

Unique combinations of enuretic children and their mothers

The present study found that locus of control and various personality characteristics were related to enuretic children and their mothers manifesting itself in two ways. Table 9 illustrates the two types of enuretic children and their mothers. For example, one type of enuretic child is seen as having good self adjustment, tends not to act out or immature but has poor social adjustment. The mother of this first type is described as non-rejecting and overindulgent in her attitudes toward him.

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Place Table 9 about here

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In Kaffman and Elizur's study (1977), examining personality characteristics and attitudes of significant others, they found a clear distinction between "high risk" (those that exhibited the variables that highly predicted enuresis) and "low risk" infants. Comparable to the present study, they found "high risk" children to have difficulty in adjusting to new situations (similar to poor social adjustment) and have overindulgent mothers. However, they also found the children to display motor hyperactivity and have "emotionally cold" mothers, which is somewhat different than the characteristics of the two mother-child types presented in this study.

There is insufficient research dealing with characteristics or personality patterns in combinations of enuretic



Table 9  
 Interpretation of CONVAR 1 and 2

CONVAR 1	Strengths	Weaknesses
<u>Enuretic Child</u>	Good Self-Adjustment Lack of Acting Out Lack of Immaturity	Poor Social Adjustment
<u>Mother</u>	Lack of Rejection	Over Indulgence
<hr/>		
CONVAR 2	Strengths	Weakness
<u>Enuretic Child</u>	Good School Adjustment Lack of Acting Out Internal Locus of Control	Poor Social Adjustment Disturbed Peer Relations
<u>Mother</u>	Lack of Over Protection	Lacks Acceptance

children and their mothers. Any further comparisons of previous studies or explanation of results would be presumptuous.

Overall, the present study examined a wide range of aspects which may influence the condition of enuresis. The results are not meant to be taken as pure and simple facts, but to create a foundation upon which further more specific studies can be built. The findings seem to confirm that there are differences between enuretics and non-enuretics and that some of this may be influenced by the behaviors and attitudes (especially along the dimension of acceptance and rejection) of the mother. The importance of locus of control was seen in the final results of every major hypotheses except one.

There is no question as to the need for further research in the area of personality and behavioral factors in enuresis, especially including locus of control variables. Specifically, there should be more in depth studies involving the types of relationships between enuretic children and their mothers. It would be advisable for future studies to employ a larger population than the present study used in order to validate the results. Another improvement would be to control for social class or status. The mothers used in the present study were seeking treatment for their children; it would be interesting to compare their attitudes with the attitudes of mothers who do not seek treatment.

In conclusion, the incentive for the study can be expressed in the words of Newton "for each action, there is an equal and opposite reaction". It was the belief of this researcher that bedwetting was the reaction and the purpose of this study was to identify the actions responsible for it. If therapists and other concerned individuals can recognize behaviors and attitudes which lead to the problem of enuresis they not only can remedy it with more efficiency but also have the possibility of doing the ultimate - preventing it.

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APPENDIX A

Children's Nowicki - Strickland Control Scale

### Children's Nowicki-Strickland I-E Control Scale

The CNS-IE is a paper and pencil test consisting of 40 questions that are answered in a yes-no format. This form was derived from work which began with a large number of items ( $n=102$ ), constructed on the basis of the Rotter's definition of internal-external control of reinforcement dimension. The items describe reinforcement situations across interpersonal and motivational areas such as affiliation, achievement and dependency.

School teachers were consulted for the purpose of constructing items for the test. Their goal was to make items readable at the fifth grade level, yet appropriate for older students. The items, plus Rotter's description, were given to a group of clinical psychology staff members ( $n=9$ ). They were asked to answer the items in an external direction and items on which there was not complete agreement were dropped, leaving 59 items. The 59 item form was then given to children ( $n=152$ ) ranging from the third through the ninth grades. Means from this testing ranged from 19.1 ( $SD=3.86$ ) at the third grade level to 11.65 ( $SD=4.26$ ) at ninth grade level, with higher scores associated with an external orientation. Controlling for IQ, internals performed significantly better than externals on achievement test scores ( $t(48)=3.78$ ). Test-retest reliabilities for a six week period were .67 for the 8 to 11

year old group ( $n=98$ ) and .75 for those in the 12 to 15 year old group ( $n=54$ ). After item analysis was computed and comments from teachers and pupils in the sample were collected, 40 items remained on the scale.

To obtain reliability estimates, demographic measures, and construct validity information; the 40 item scale was administered to 1,017 children (mostly Caucasian) ranging from the third through the twelfth grades in four different communities. School records provided socioeconomic data and Hollingshead Index of Social Position (Hollingshead, Note 4) rankings indicated that although the lower level occupations were somewhat over represented, all levels (except the very highest one) were well represented. For males and females in the third through the tenth grades, intelligence test scores ranged from means of 101 to 106 (as measured by Otis-Lennon scales) with no significant differences across groups. Testing took place midway through the spring quarter of 1969. Nowicki and Strickland (1973) present biserial item correlation for males and females at the third, seventh and tenth grades in which the majority of item total relations are moderate but consistent for all ages. Estimates of internal consistency, (by means of the split-half method), as reported by Nowicki and Strickland (1973), are  $r=.63$  (Grades 3, 4, 5);  $r=.68$  (Grades 6, 7, 8);  $r=.74$  (Grades 9, 10, 11);  $r=.71$  (Grade 12). Since



the test is additive and items are not comparable, the split half reliabilities tend to underestimate the true internal consistency of the scale.

Nowicki and Strickland (1973) reported test-retest reliabilities sampled at three grade levels, six weeks apart; .63 for the third graders ( $n=99$ ), .66 for the seventh graders ( $n=117$ ) and .71 for the tenth graders ( $n=125$ ). Thomas (as cited by Nowicki, Note 2) reported significant test-retest reliability for the CNS-IE based on 457 institutionalized children (age 7 to 14) over a one year period.

An important goal in the area of locus of control is to keep social desirability at a minimum. Nowicki and Strickland (1973) reported non-significant correlations between locus of control and social desirability for subjects in third through twelfth grades. The CNS-IE and other measures of locus of control show moderate relationships (Crandall, Katkovsky and Crandall, 1965; Nowicki and Strickland, 1973).

Numerous studies dealing in such areas as demography, academic achievement, persistence and constitutional characteristics have attested to the construct validity of the CNS-IE. Nowicki and Strickland (1973) reported a significant relation between CNS-IE and social class with internality being moderately but significantly related to higher social class. Mount (as cited in Nowicki, Note 2)

in a study of helplessness and locus of control orientation reported correlation ranging from .35 to .47 depending on the types academic achievement measure ( $n=50$ ). Nowicki and Strickland (1973) report significant correlations between internality and higher academic achievement for children in the third through the twelfth grades. Nowicki (Note 2) reports from several studies that in terms of persistence, internals persist longer than externals. He also reviewed several studies which indicated individuals with some kind of a handicap to be more external than those not so affected: such as the physically handicapped, emotionally disturbed, and delinquents.

Studies dealing in psychological maladjustment and personality characteristics have also attested to the construct validity of the CNS-IE. Thomas's study (as cited in Nowicki, Note 2) related psychological maladjustment to externality. In his study, he administered a short form of the CNS-IE to 2000 institutionalized and 1500 noninstitutionalized control subjects and found among other things that those who were institutionalized were more external than their yoked controls. Internality has also been related to other personality variables. For example, Nowicki (Note 2) reviewed several studies and found internality to be related to higher self esteem, higher self concept, higher moral development, more honesty and less interpersonal



distance. In addition, parent behavior such as consistency, warmth and rewarding one more often is associated with internality (Nowicki and Segal, 1974; Wichern and Nowicki, Jr. 1976).

YES NO

- \_\_\_ \_\_\_ 1. Do you believe that most problems will solve themselves if you just don't fool with them?
- \_\_\_ \_\_\_ 2. Do you believe that you can stop yourself from catching a cold?
- \_\_\_ \_\_\_ 3. Are some kids just born lucky?
- \_\_\_ \_\_\_ 4. Most of the time do you feel that getting good grades means a great deal to you?
- \_\_\_ \_\_\_ 5. Are you often blamed for things that just aren't your fault?
- \_\_\_ \_\_\_ 6. Do you believe that if somebody studies hard enough he or she can pass any subject?
- \_\_\_ \_\_\_ 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?
- \_\_\_ \_\_\_ 8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?
- \_\_\_ \_\_\_ 9. Do you feel that most of the time parents listen to what their children have to say?
- \_\_\_ \_\_\_ 10. Do you believe that wishing can make good things happen?
- \_\_\_ \_\_\_ 11. When you get punished does it usually seem it's for no good reason at all?
- \_\_\_ \_\_\_ 12. Most of the time do you find it hard to change a friend's(mind) opinion?
- \_\_\_ \_\_\_ 13. Do you think that cheering more than luck helps a team to win?
- \_\_\_ \_\_\_ 14. Do you feel that it's nearly impossible to change your parent's mind about anything?
- \_\_\_ \_\_\_ 15. Do you believe that your parents should allow you to make most of your own decisions?
- \_\_\_ \_\_\_ 16. Do you feel that when you do something wrong there's very little you can do to make it right?
- \_\_\_ \_\_\_ 17. Do you believe that most kids are just born good at sports?
- \_\_\_ \_\_\_ 18. Are most of the other kids your age stronger than you are?
- \_\_\_ \_\_\_ 19. Do you feel that one of the best ways to handle most problems is just not to think about them?

- YES NO
- \_\_\_ \_\_\_ 20. Do you feel that you have a lot of choice in deciding who your friends are?
- \_\_\_ \_\_\_ 21. If you find a four leaf clover, do you believe that it might bring you good luck?
- \_\_\_ \_\_\_ 22. Do you often feel that whether you do your homework has much to do with what kind of grades you get?
- \_\_\_ \_\_\_ 23. Do you feel that when a kid your age decides to hit you, there's little you can do to stop him or her?
- \_\_\_ \_\_\_ 24. Have you ever had a good luck charm?
- \_\_\_ \_\_\_ 25. Do you believe that whether or not people like you depends on how you act?
- \_\_\_ \_\_\_ 26. Will your parents usually help you if you ask them to?
- \_\_\_ \_\_\_ 27. Have you felt that when people were mean to you it was usually for no reason at all?
- \_\_\_ \_\_\_ 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
- \_\_\_ \_\_\_ 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
- \_\_\_ \_\_\_ 30. Do you think that kids can get their own way if they just keep trying?
- \_\_\_ \_\_\_ 31. Most of the time do you find it useless to try to get your own way at home?
- \_\_\_ \_\_\_ 32. Do you feel that when good things happen they happen because of hard work?
- \_\_\_ \_\_\_ 33. Do you feel that when somebody our age wants to be your enemy there's little you can do to change matters?
- \_\_\_ \_\_\_ 34. Do you feel that it's easy to get friends to do what you want them to?
- \_\_\_ \_\_\_ 35. Do you usually feel that you have little to say about what you get to eat at home?
- \_\_\_ \_\_\_ 36. Do you feel that when someone doesn't like you there's little you can do about it?
- \_\_\_ \_\_\_ 37. Do you usually feel that it's almost useless to try in school because most other children are just plain smarter than you are?
- \_\_\_ \_\_\_ 38. Are you the kind of person who believes that planning ahead makes things turn out better?
- \_\_\_ \_\_\_ 39. Most of the time, do you feel that you have little to say about what your family decides to do?
- \_\_\_ \_\_\_ 40. Do you think it's better to be smart than to be lucky?

APPENDIX B

Adult Nowicki - Strickland Control Scale

Adult Nowicki-Strickland I-E Control Scale

The Adult Nowicki-Strickland Internal-External Control Scale (ANS-IE) came about due to several reasons: (1) an adult scale was needed which does not possess the problems of the Rotter scale (for instance it has language appropriate for noncollege educated adults), (2) there was a need for a scale which is not related to social desirability; and (3) with slight alteration this scale is capable of being used with younger age groups, thus yielding developmental comparison.

The original construction of the test, in which three groups of college students and one group of adults from the general community were used to gather psychometric data, was presented by Nowicki and Duke (1974). The ANS-IE consists of 49 items (derived through modification of the CNS-IE) which are answered in a yes - no format and describe reinforcement situations across interpersonal and motivational areas. These alterations consisted mainly of changing the word "children" to "people" and changing the tense of some statements to make them more appropriate for adults.

Nowicki and Duke (1974) report split-half reliabilities in the 60's for college ( $n=156$ ) and community samples ( $n=33$ ). They also report test-retest reliability for college subjects over a six week period to be .83 ( $n=48$ ), which is comparable to that found by Chandler (1976) over a seven week period

( $r=.65$ ,  $n=70$ ). Mink (as cited by Nowicki, Note 2) reports a test-retest reliability over one year of  $r=.56$  ( $n=854$ ) for community college students.

Nowicki and Duke (1974) investigated the relation between ANS-IE scores and social desirability. Two samples of college students ( $n=48$ ,  $n=68$ ) were asked to complete the Marlow-Crowne Social Desirability scale. Consistent with the requirements of discriminative validity, ANS-IE scores were not related to scores from the social desirability measure ( $r(47)=.10$ ;  $r(67)=.06$ ). Nowicki (Note 2) has reported other studies to have found ANS-IE scores to be unrelated to social desirability scores.

In the area of intelligence, Nowicki and Duke (1974) found the relation between ANS-IE and Scholastic Aptitude Test scores were not significant ( $n=48$ ,  $r=.11$ ). This study might suggest that whatever results were obtained in terms of differences in achievement between internals and externals were not attributed to differences in intelligence.

In the area of obtaining convergent validity for the ANS-IE, a favorable comparison with the Rotter is indicated since Rotter and others using the scale have assembled a large amount of data consistent with theoretical predictions from the social learning theory. Nowicki and Duke (1974), to assure the relation between ANS-IE and the Rotter, administered both scales to two college samples



and one community adult sample. In all three samples, the correlations between the two scales were significant and consistent with requirements. The results indicate the two measures to be assessing the same construct, but not in an identical manner. Nemas (as cited in Nowicki, Note 2) also administered both scales to her subjects ( $n=91$ ) and found a correlation of  $r=.59$  ( $p<.01$ ).

The subject of race is another area in which the Rotter scale results have been consistent with the social learning theory and enables one to assess the ANS-IE's ability to measure the locus of control construct. Responses to the ANS-IE in two studies demonstrated the reasoning that years of living under conditions where reinforcement were in the hands of powerful others would lead blacks to respond in a more external manner than whites. In a study by Johnson and Nowicki (as cited by Nowicki, Note 2) middle class black college students were tested and in another middle class white students were used (Duke & Nowicki, 1972). These two studies helped support the hypothesis that blacks significantly scored more in the external direction ( $r=6.32$ ,  $p<.01$ ).

Previous investigators, using the Rotter scale, have found externality to be related to psychological maladjustment (Rotter, Chance & Phares, 1972). If the ANS-IE is similar to the Rotter and an accurate measure of locus of control in reinforcement, subjects who score in an external direction

should also show more evidence of maladjustment than internals. In support of this, Nowicki (Note 2) found that externality on the ANS-IE was positively related to higher neuroticism scores on Eysenck's scale and to anxiety scores as measured by the Taylor Manifest Anxiety Scale. Further, Duke and Mullens (1973) reasoned from the social learning theory; the greater the degree of psychological maladjustment, the more external the orientation of the individual.

Dortzback (cited in Nowicki, Note 2) reported that those subjects who were in poor physical health were more external than the average person. Also, Finlyson and Rouche (cited in Nowicki, Note 2) reasoned that the left side of the brain is more importantly involved in behavior, especially verbal behavior, and that damage to the left hemisphere would lead to greater externality than damage to the right side. In terms of motivation for treatment and physical illness, Nowicki (Note 2) has reviewed several studies which found that externality was greater than average but that within the physically disabled groups internality was related to greater motivation for treatment in kidney disease and kidney machine use, heart disease, open heart surgery, obesity and dental care.

In the area of personality variables associated with the internal-external orientation, Nowicki (Note 2) found in a review of other studies that internals are higher in self concept, moral judgement, and self esteem while externals

show more interpersonal distance (Duke & Nowicki, 1972),  
debilitating anxiety, authoritarianism and self actualization  
(Hjelle, 1975).

NOWICKI-STRICKLAND  
PERSONAL OPINION SURVEY

NAME \_\_\_\_\_ AGE \_\_\_\_\_ DATE \_\_\_\_\_

Please circle "Yes" if you agree with the statment, or "No" if you disagree with the statement.

- |     |    |   |
|-----|----|---|
| Yes | No | 1. Do you believe that most problems will solve themselves if you just don't fool with them?                        |
| Yes | No | 2. Do you believe that you can stop yourself from catching a cold?  |
| Yes | No | 3. Are some people just born lucky?   |
| Yes | No | 4. Most of the time do you feel that getting good grades meant a great deal to you?                                 |
| Yes | No | 5. Are you often blamed for things that just aren't your fault?   |
| Yes | No | 6. Do you believe that if somebody studies hard enough he or she can pass any subject?                              |
| Yes | No | 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?         |
| Yes | No | 8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do? |
| Yes | No | 9. Do you feel that most of the time parents listen to what their children have to say?                             |
| Yes | No | 10. Do you believe that wishing can make good things happen?  |
| Yes | No | 11. When you get punished does it usually seem its for no good reason at all?                                       |
| Yes | No | 12. Most of the time do you find it hard to change a friend's mind?   |
| Yes | No | 13. Do you think that cheering more than luck helps a team to win?  |
| Yes | No | 14. Did you feel that it was nearly impossible to change your parent's mind about anything?                         |
| Yes | No | 15. Do you believe that parents should allow children to make most of their own decisions?                          |

- Yes No 16. Do you feel that when you do something wrong there's very little you can do to make it right?
- Yes No 17. Do you believe that most people are just born good at sports?
- Yes No 18. Are most of the other people your age stronger than you are?
- Yes No 19. Do you feel that one of the best ways to handle most problems is just not to think about them?
- Yes No 20. Do you feel that you have a lot of choice in deciding whom your friends are?
- Yes No 21. If you find a four leaf clover, do you believe that it might bring you good luck?
- Yes No 22. Did you often feel that whether or not you did your homework had much to do with what kind of grades you got?
- Yes No 23. Do you feel that when a person your age is angry at you, there's little you can do to stop him or her?
- Yes No 24. Have you ever had a good luck charm?
- Yes No 25. Do you believe that whether or not people like you depends on how you act?
- Yes No 26. Did your parents usually help you if you asked them to?
- Yes No 27. Have you felt that when people were angry with you it was usually for no reason at all?
- Yes No 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
- Yes No 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
- Yes No 30. Do you think that people can get their own way if they just keep trying?
- Yes No 31. Most of the time do you find it useless to try to get your own way at home?
- Yes No 32. Do you feel that when good things happen they happen because of hard work?
- Yes No 33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?
- Yes No 34. Do you feel that it's easy to get friends to do what you want them to do?

- Yes No 35. Do you usually feel that you have little to say about what you get to eat at home?
- Yes No 36. Do you feel that when someone doesn't like you there's little you can do about it?
- Yes No 37. Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you are?
- Yes No 38. Are you the kind of person who believes that planning ahead makes things turn out better?
- Yes No 39. Most of the time, do you feel that you have little to say about what your family decides to do?
- Yes No 40. Do you think it's better to be smart than to be lucky?



APPENDIX C

Preschool and Primary Nowicki - Strickland  
Control Scale

### Preschool and Primary I-E Control Scale

The preschool and primary internal-external control scale is a 26 item cartoon format for children from 4 to 8 years of age. The scale is available in two forms (one for male and one for female) and is keyed in the external direction - like the ANS-IE and CNS-IE scales.

A number of items were constructed which were appropriate to children from ages 4 through 8. Items were taken from the CNS-IE and devised by two PhD level psychologists and two preschool teachers. The questions were short and presented in yes - no format. A list of items ( $n=78$ ), along with a definition of locus of control (Rotter, 1966) were given to five PhD psychology staff members and five graduate psychology students and they were instructed to answer in an external direction. Items were dropped in which there was disagreement, leaving 44 items in the preliminary pool.

The subjects for the investigation consisted of 36 males and 44 females. These white preschool students came from a private school in a large southern metropolitan area, which consist of predominately middle to upper socioeconomic levels. Analysis of the data (Nowicki and Duke, 1974) determined which of the 44 items had means in the .3 to .7 range and which of the items had moderate total correlations. Also, an item analysis was conducted

using the ten highest and ten lowest scores. Based on this criteria, 36 of the 44 items were accepted and cross validated with a comparable population of preschool children ( $n=21$ ). Items ( $n=26$ ) accepted in both groups were included in the preliminary form of the PPNS-IE.

The 26 items obtained from the pilot study by Duke and Nowicki (cited in Nowicki, Note 2) were keyed in an external direction in which four items were taken verbatim from the CNS-IE. In order to disguise the intent of the locus of control questions and determine the effects of social desirability, eight questions from Crandall's scale (Crandall, Kathovsky and Crandall, 1965) were interspersed among the other test questions. In an attempt to increase attention and make administration easier and more personal, a cartoon format using male and female forms were constructed. The final form was administered to 240 children, (120 males and 120 females) ranging from 5 to 8 years of age. They were randomly selected from two schools in the Georgia school system. Subjects scoring below an IQ of 80 and blacks were excluded from the study. A second testing session included administering the appropriate form of the PPNS-IE to all seven year old children six weeks after the first testing, for the purpose of test-retest reliability.

In summary a study by Nowicki and Duke (1974) suggest that the PPNS-IE has met the minimal requirements of construct

validity. Internally, the instrument shows high item total correlations, item means ranging between .3 and .7 and a similar factor structure to the CNS-IE. Externally, the instrument demonstrated significant test-retest reliability ( $r=.79$ ,  $n=60$ ,  $p<.001$ ), a significant relation to CNS-IE scores ( $r=.78$ ,  $n=60$ ,  $p<.001$ ), nonsignificant relations to social desirability, and positive and significant relations to higher achievement and less distancing (allowing less physical distance from others). The scale, thus, possesses much the same pattern of psychometric properties as its comparable forms for older subjects. With the development of the PPNS-IE, researchers now have available to them reliable and valid measures of locus of control from childhood to adulthood.

# PPNSIE

for girls

Name: \_\_\_\_\_

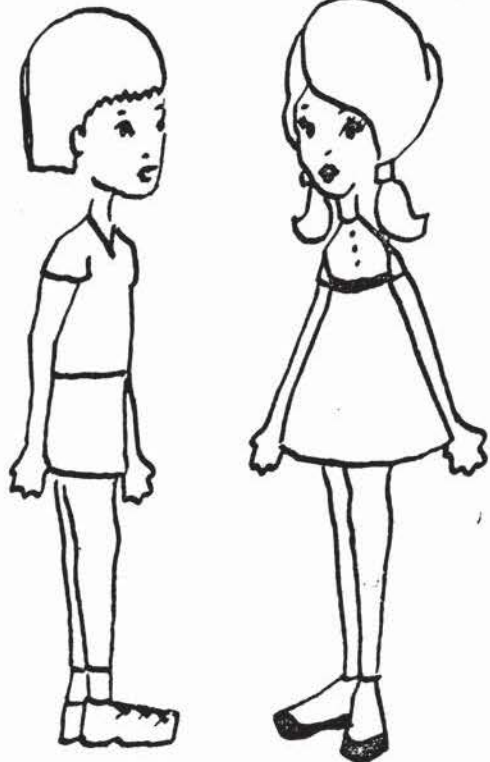
Age: \_\_\_\_\_

Date: \_\_\_\_\_

© S. Nowicki / M. Duke 1973

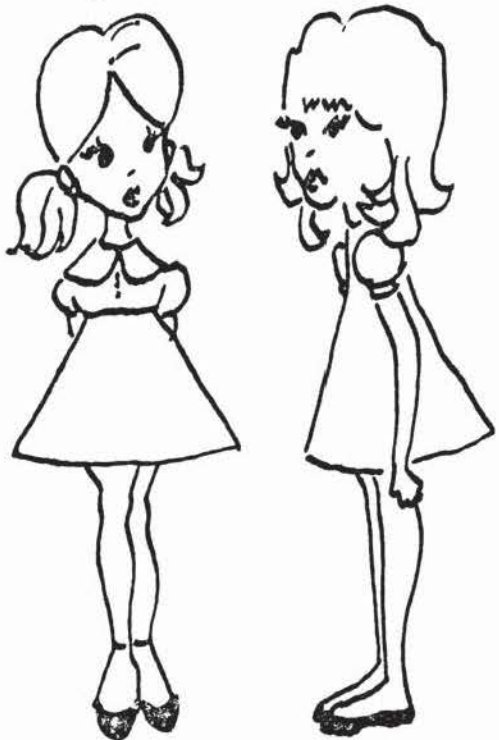
Do you always do the right things?

yes no



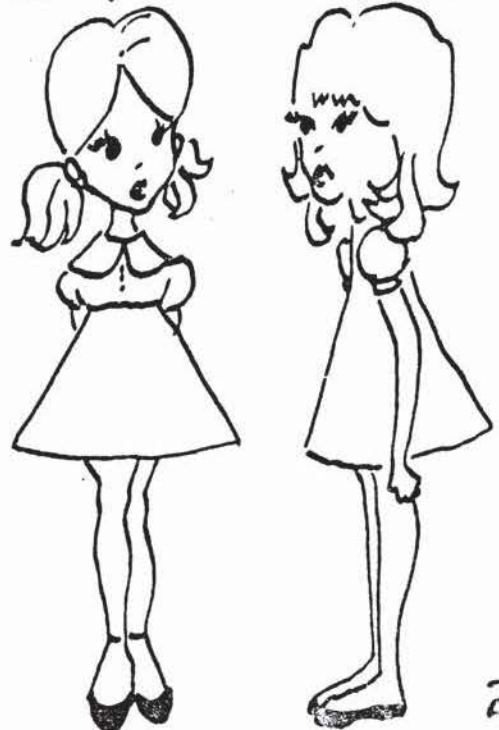
Can you make other kids like you?

yes no



Do you believe that you can stop yourself from catching a cold?

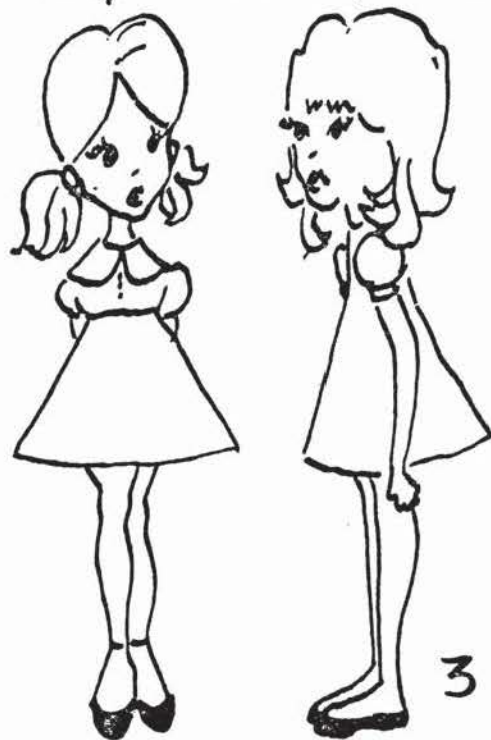
yes no





Do you feel that getting the teacher to like you is very important?

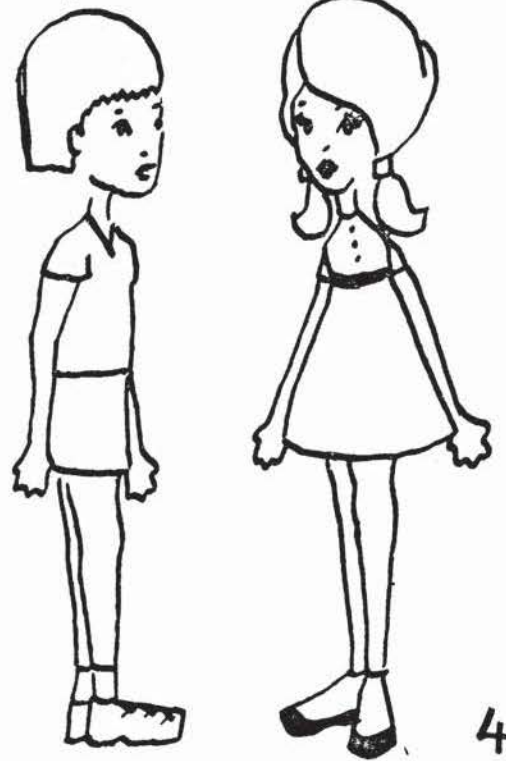
yes no



3

Do you have a good luck charm?

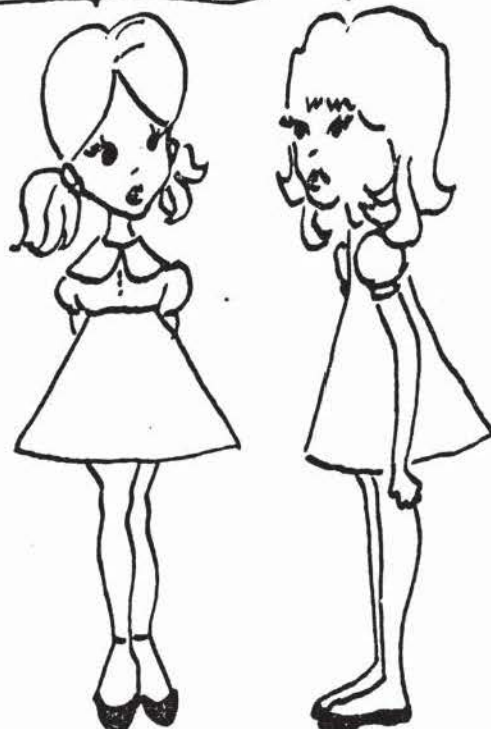
yes no



4

Are you often blamed for things that just aren't your fault?

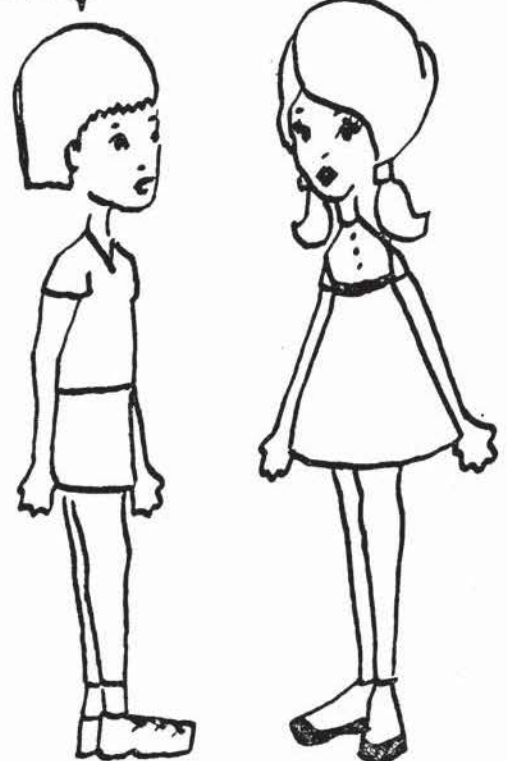
yes no



5

Will people like you no matter how you act?

yes no

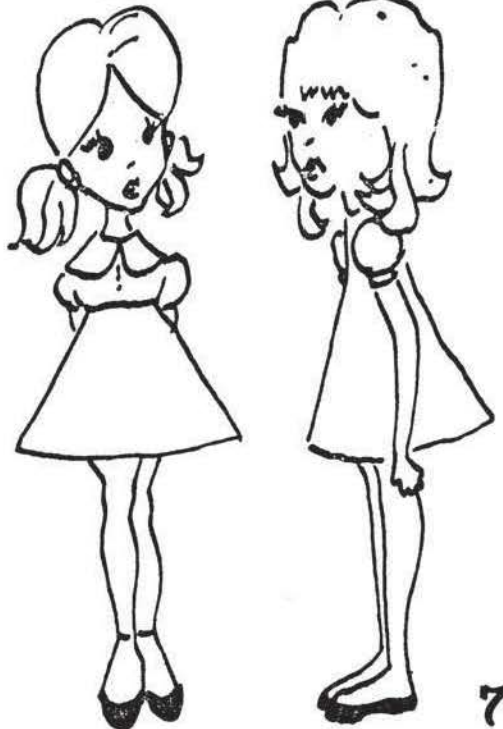


6



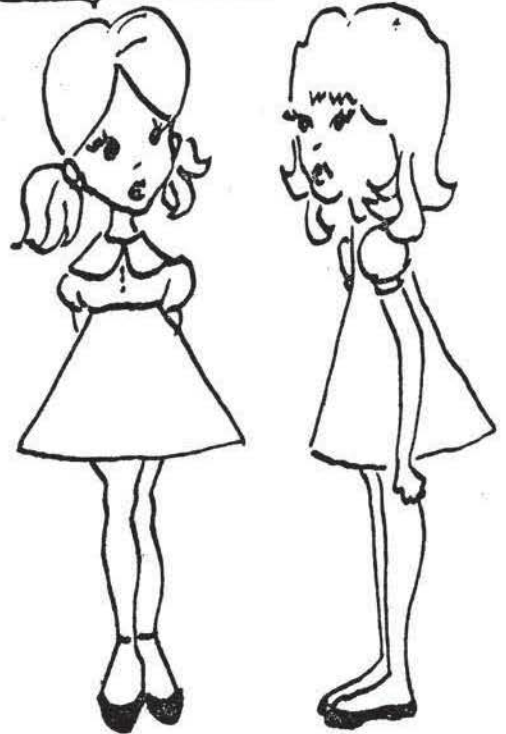
If you ask for something enough, will you get it?

yes no



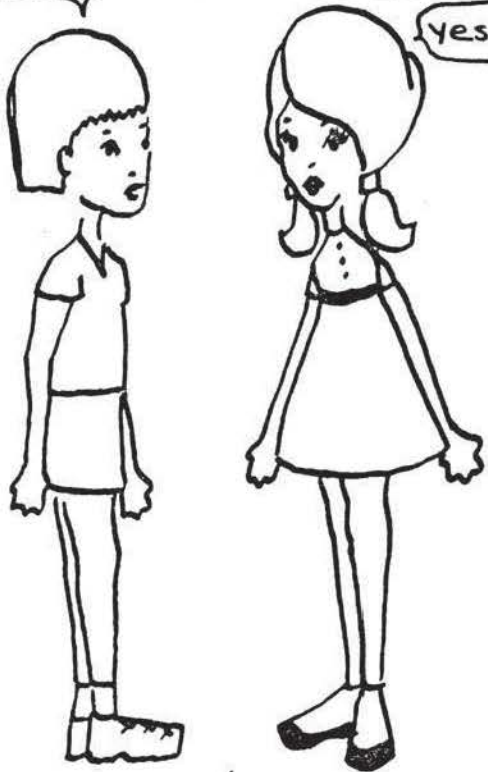
Do you believe that wishing can make good things happen?

yes no



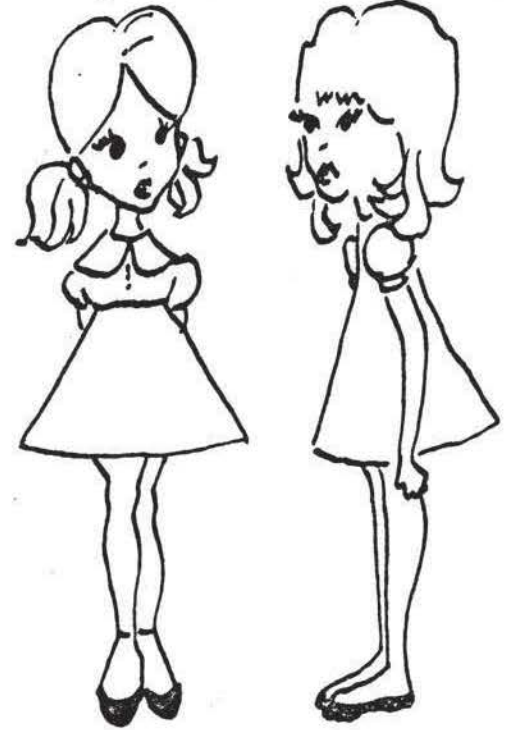
When a kid your age decides to hit you, is there anything you can do to stop him or her?

yes no



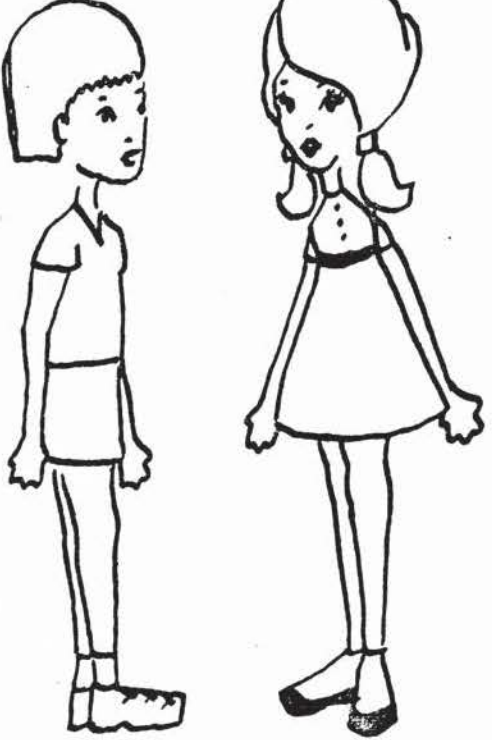
Can you get friends to do what you want them to do?

yes no



you have a ky number?

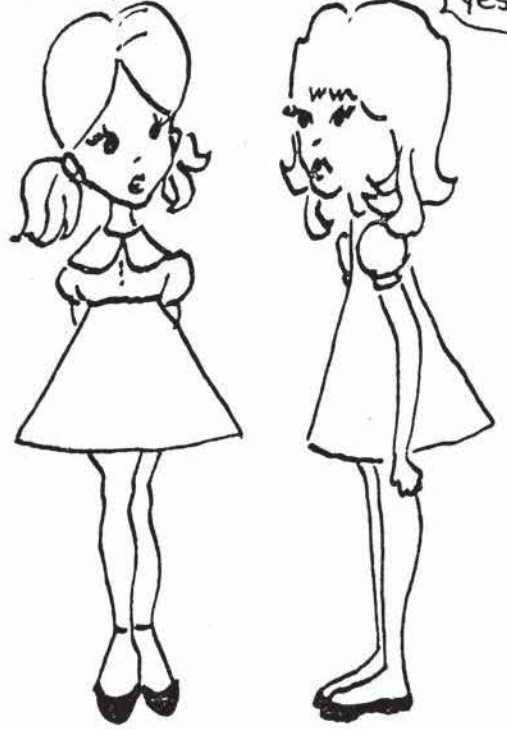
yes no



11

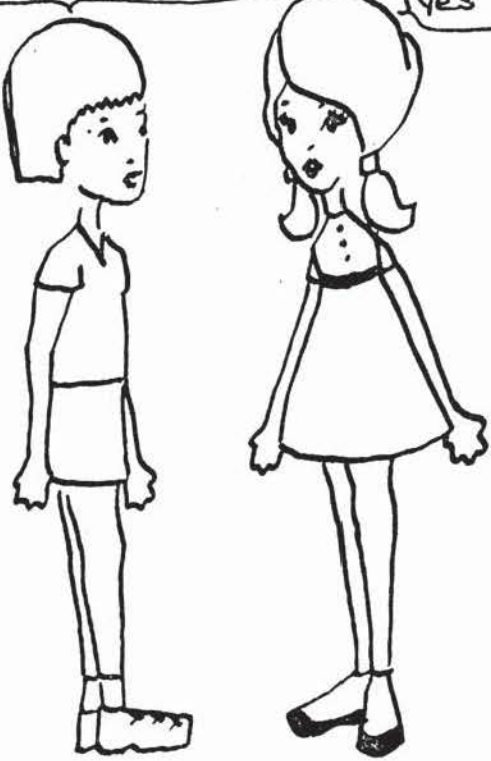
Can you get your Mommy and Daddy to do what you want to do instead of what they want to do?

yes n



whether or not Mommy Daddy like you depend n how you act?

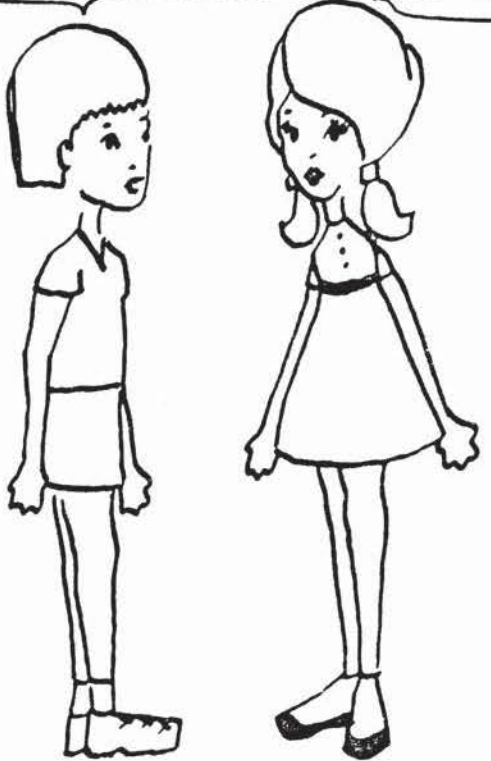
yes no



13

When people were mean to you, was it usually for no reason at all?

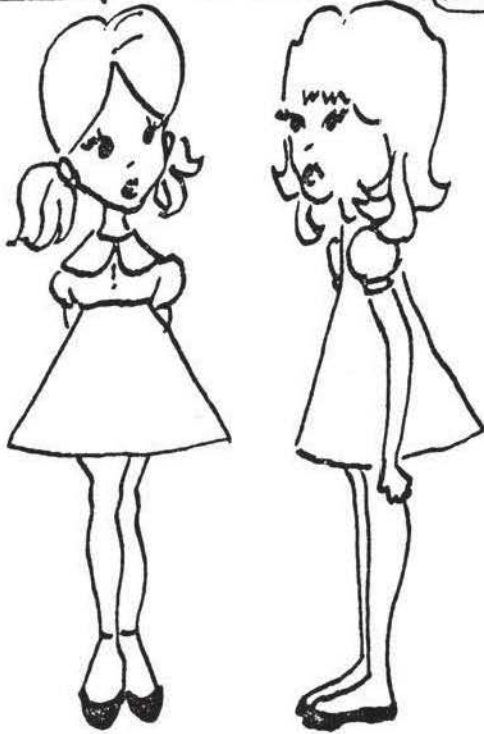
yes no



14

When you do something wrong, there's little you can do to make it right again?

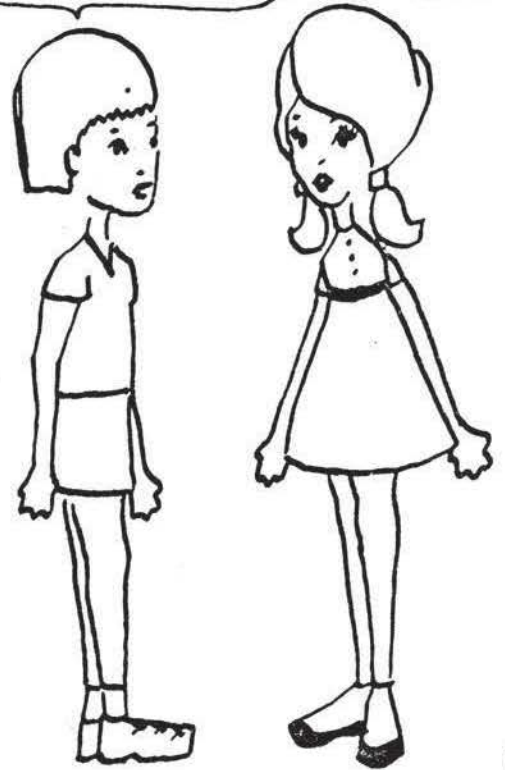
yes no



15

Most of the time do you find it easy to get your own way at home?

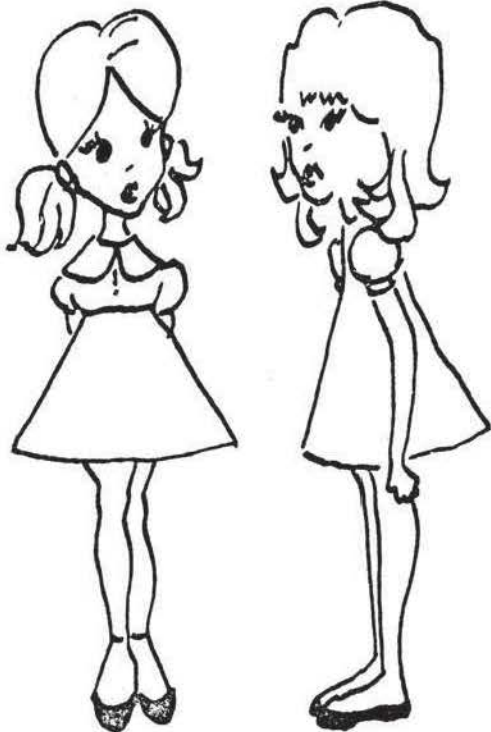
yes no



16

Are most kids just born good at running races?

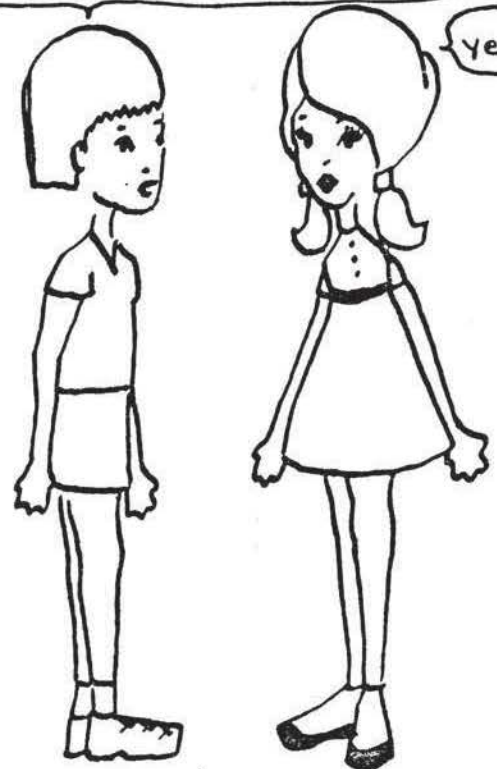
yes no



17

When somebody your age wants to be your enemy, is there anything you can do to make him or her like you?

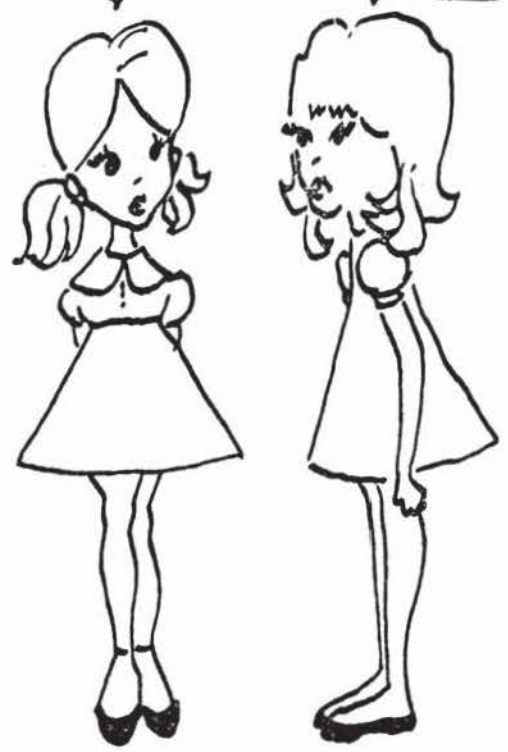
yes n





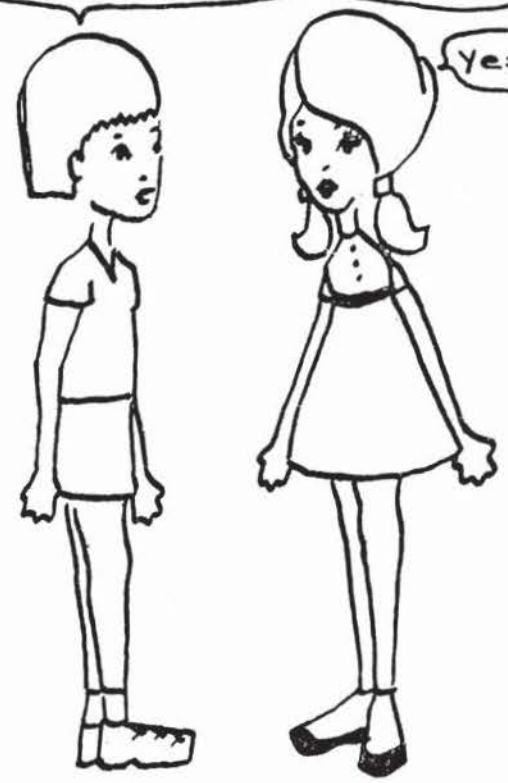
Should your Mommy and Daddy decide what you should do?

yes no



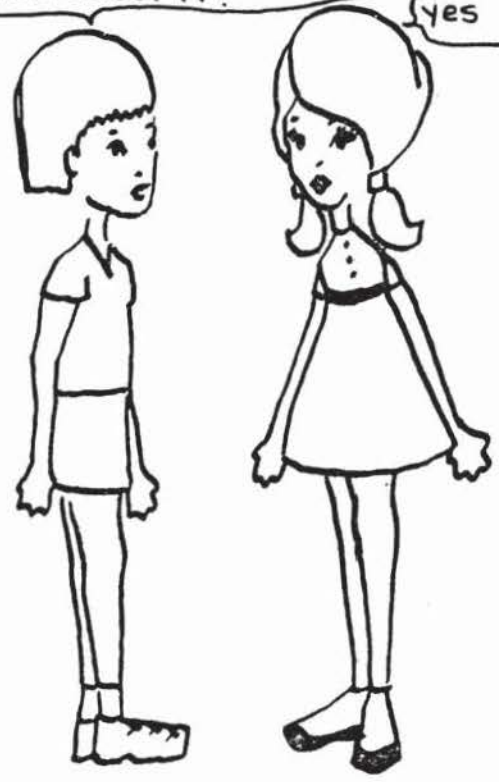
Is it almost impossible to try to win a game because most of the other kids are just plain better than you are?

yes n



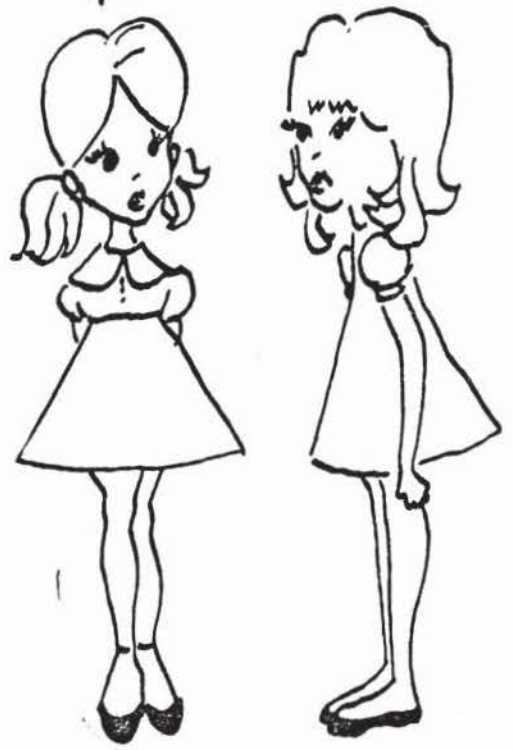
When a person doesn't like you, is there anything you can do about it?

yes no



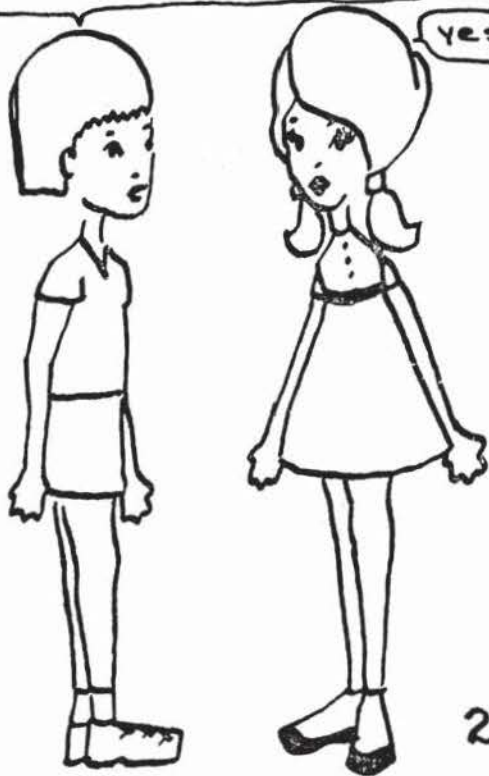
Are most of the other girls your age stronger than you are?

yes no



Are you the kind of child who believes that thinking about what you are going to do makes things turn out better?

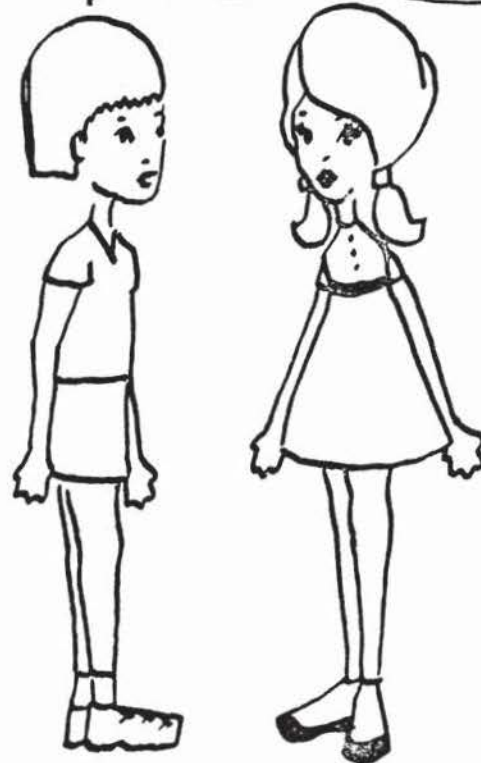
yes no



23

Do you think it's better to be smart than to be lucky?

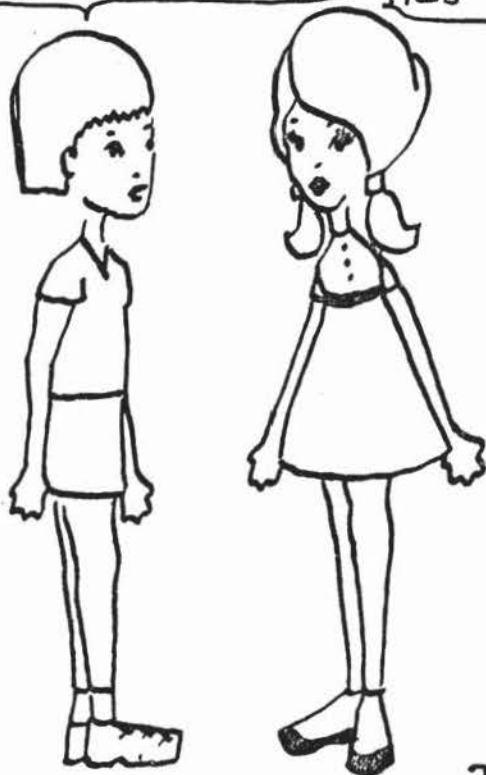
yes no



2

When another child hits you, is it usually because of something you did?

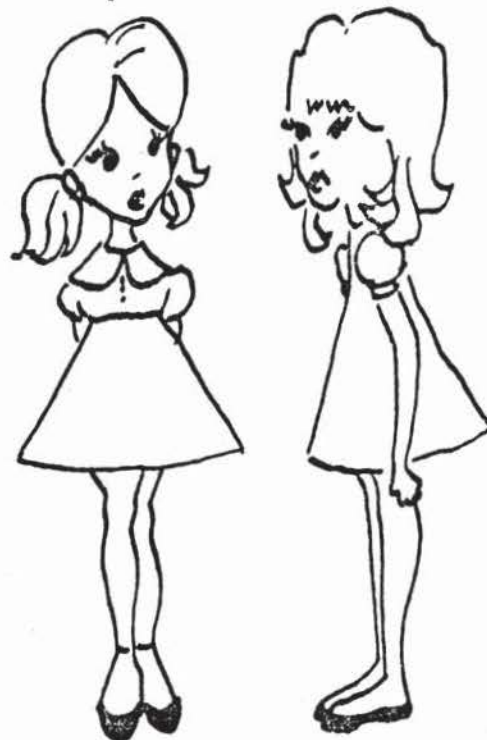
yes no



25

Is one of the best ways to handle a problem just not to think about it?

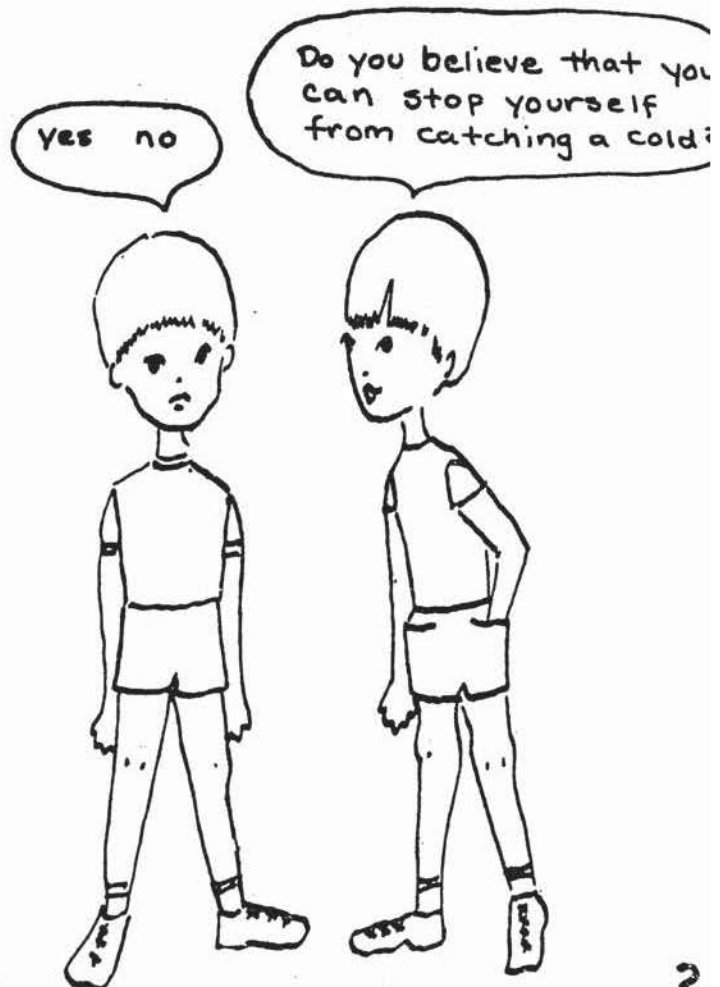
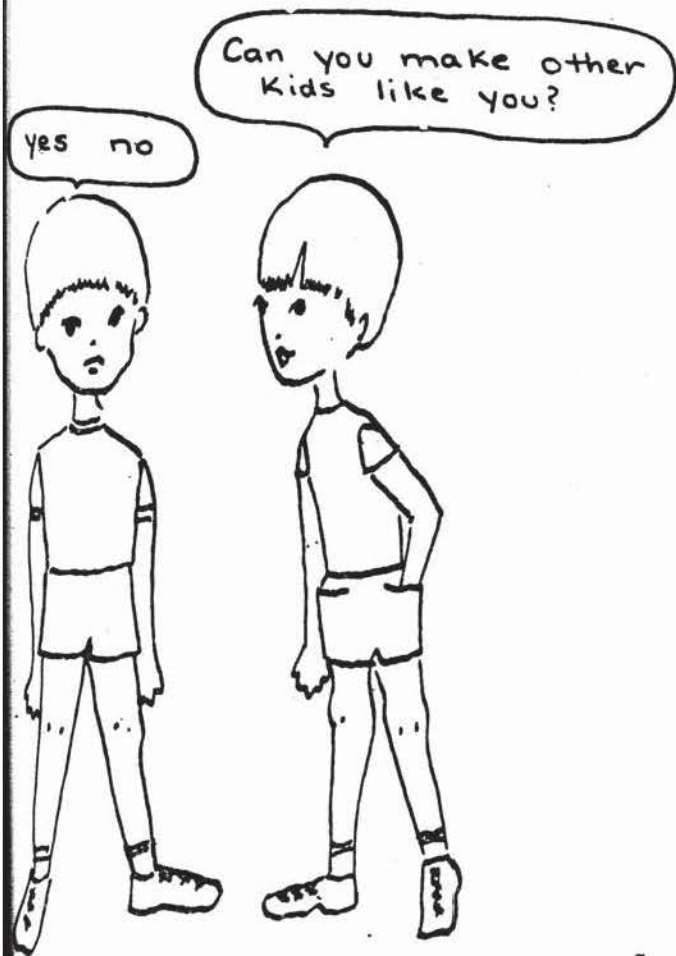
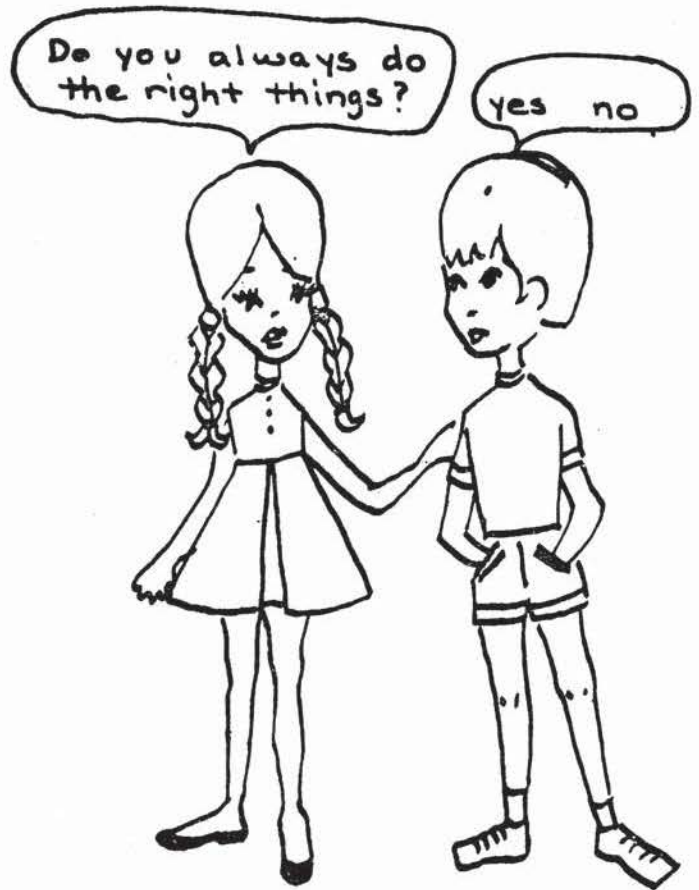
yes no



# PPNSIE for boys

© S. Nowicki / M. Duke 1973

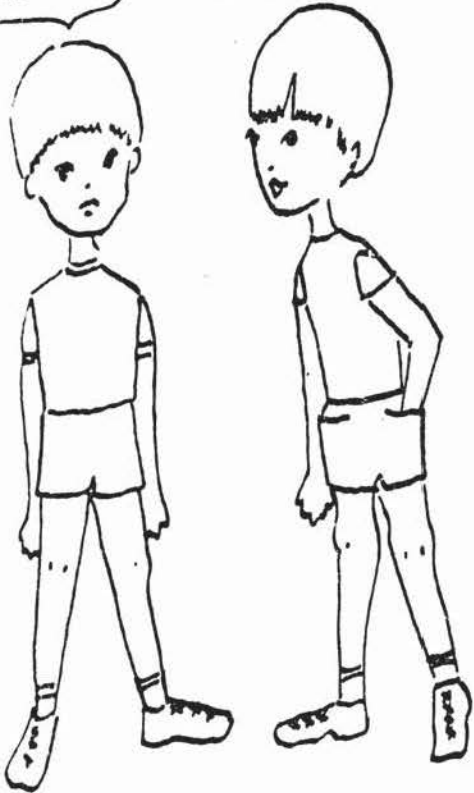
me: \_\_\_\_\_  
e: \_\_\_\_\_  
te: \_\_\_\_\_





Do you feel that getting the teacher to like you is very important?

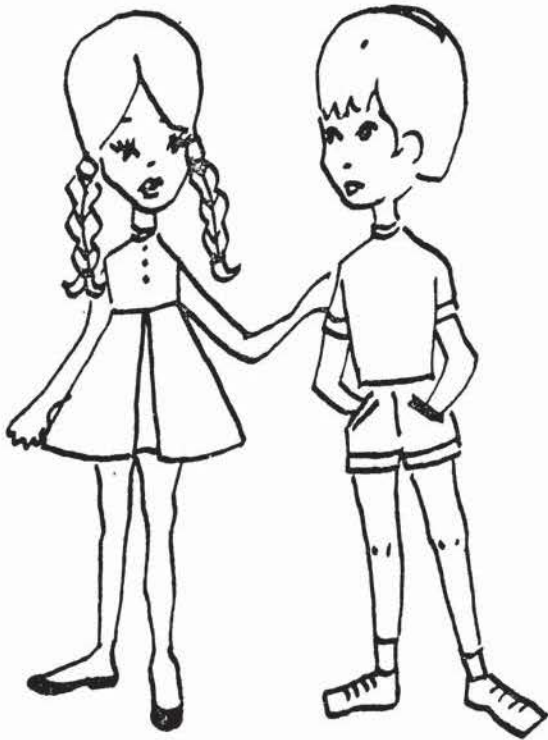
yes no



3

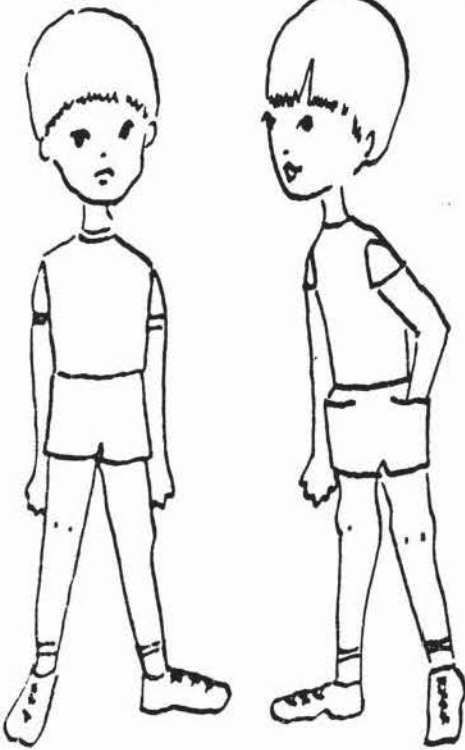
Do you have a good luck charm?

yes no



yes no

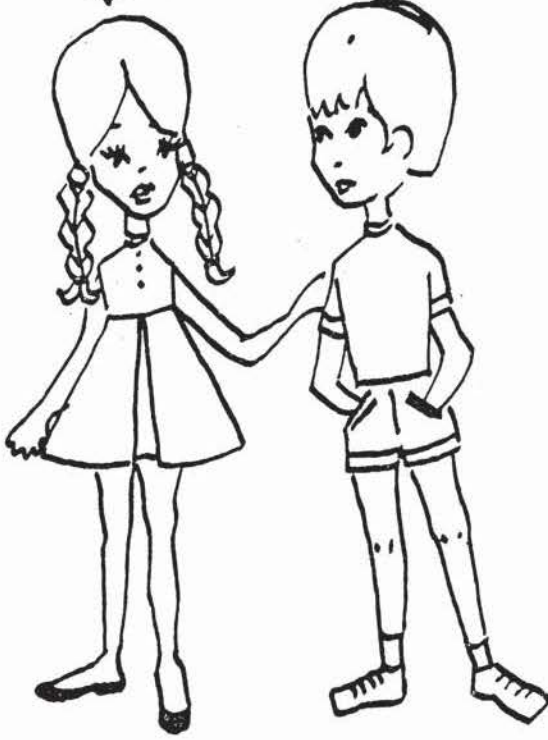
Are you often blamed for things that just aren't your fault?



5

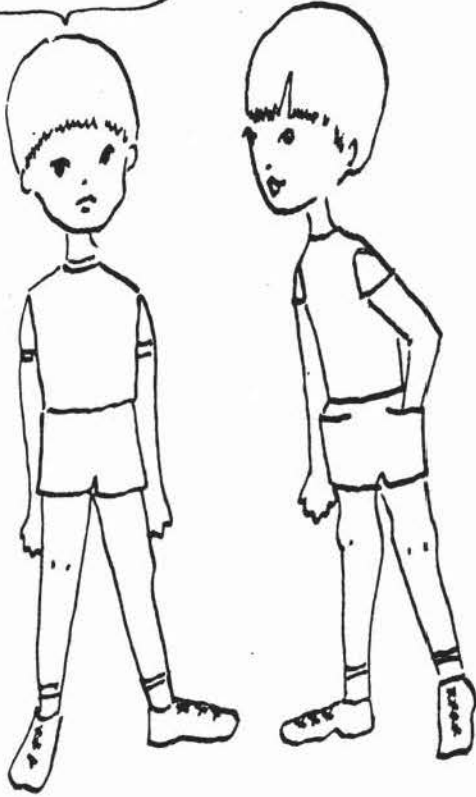
Will people like you no matter how you act?

yes no



If you ask for something enough, will you get it?

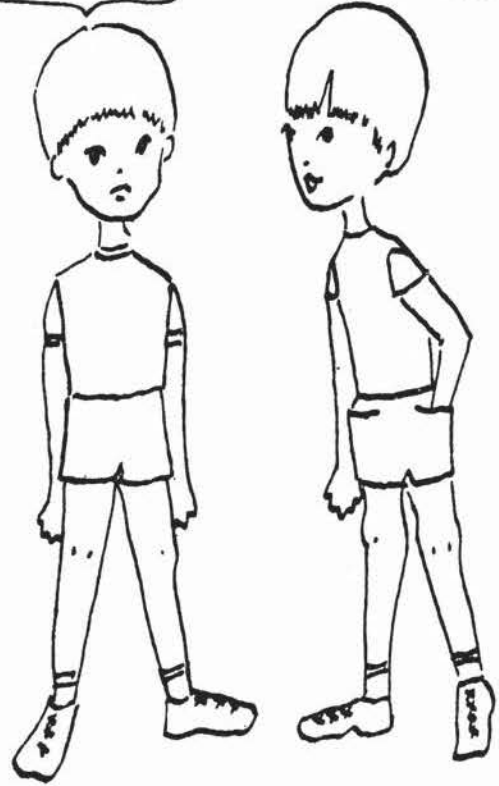
yes no



7

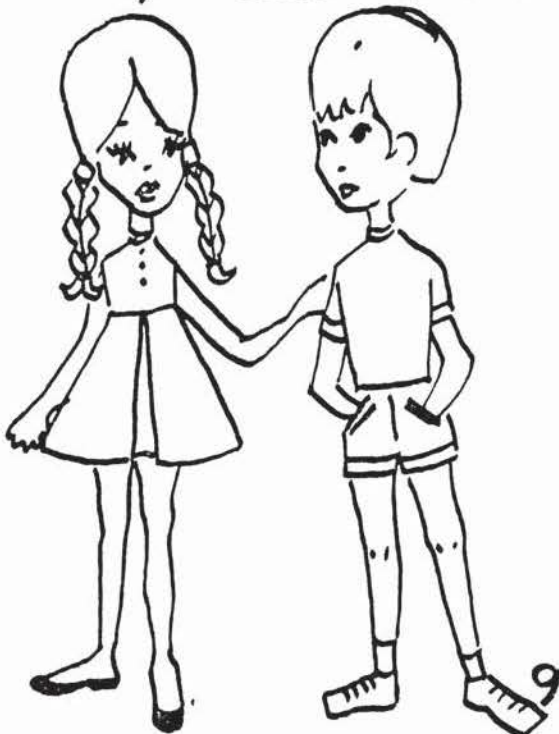
Do you believe that wishing can make good things happen?

yes no



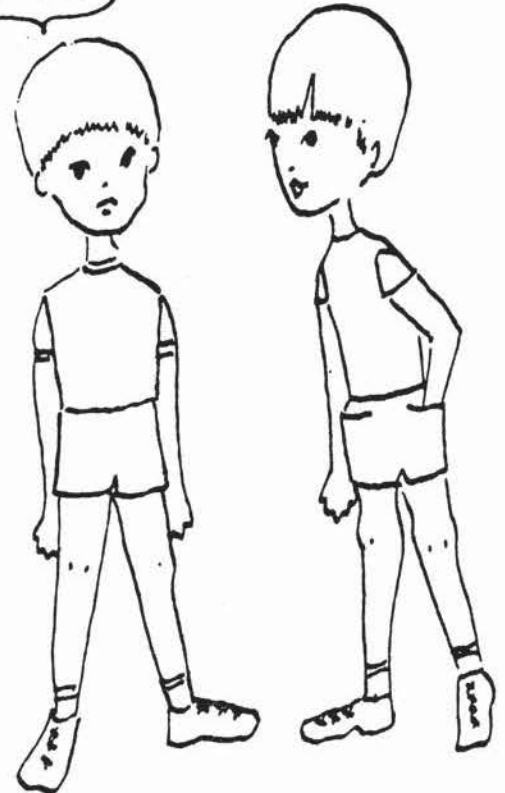
When a kid your age decides to hit you, is there anything you can do to stop him or her?

yes no



Can you get friends to do what you want them to do?

yes no

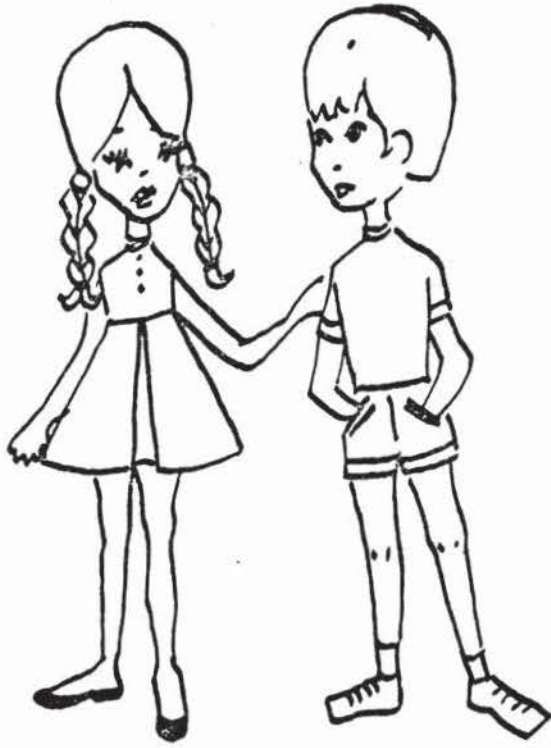


1



Do you have a lucky number?

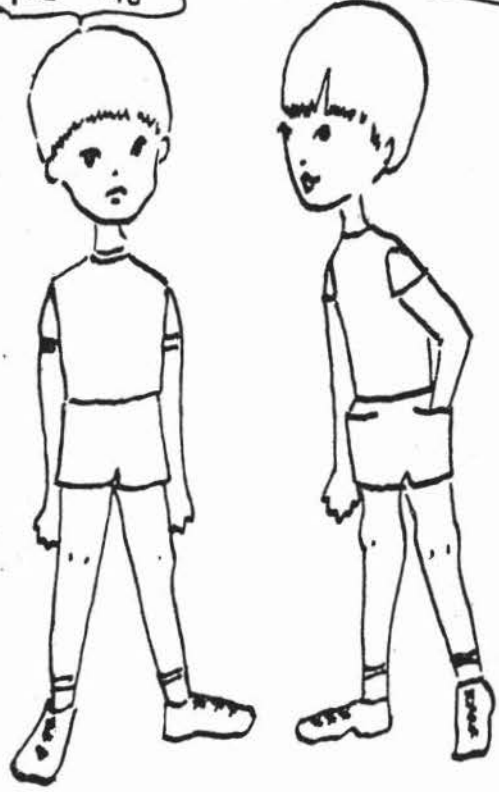
yes no



11

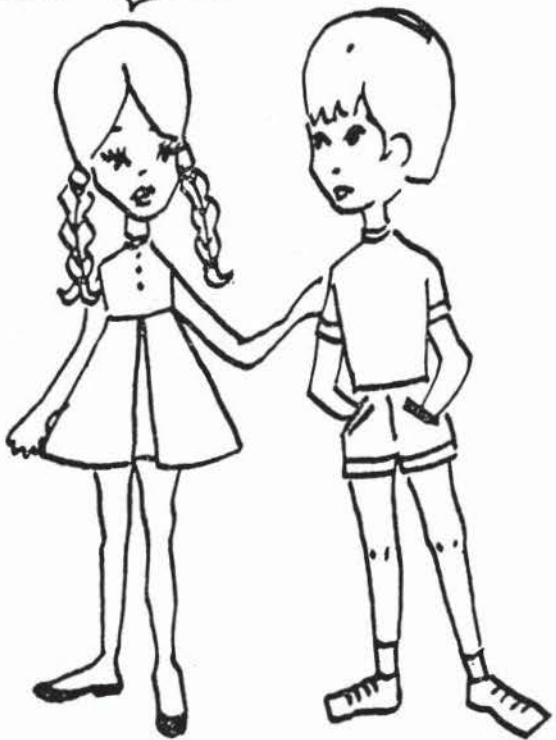
Can you get your Mommy and Daddy to do what you want to do instead of what they want to do?

yes no



Does whether or not Mommy and Daddy like you depend on how you act?

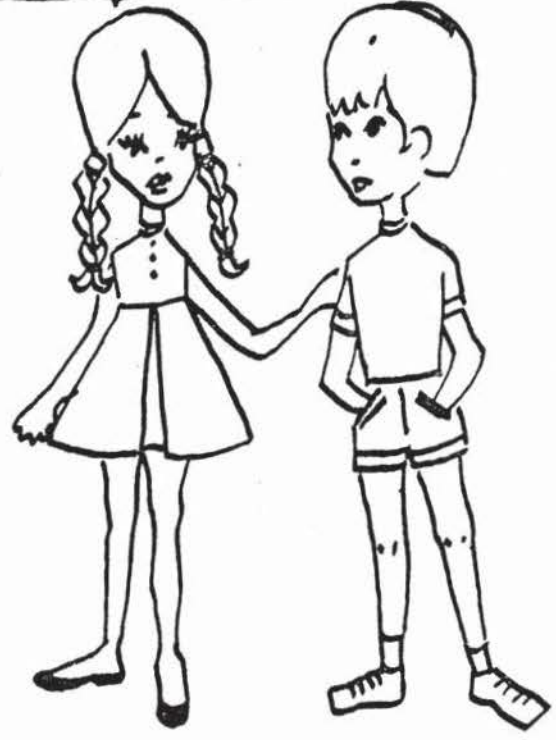
yes no



13

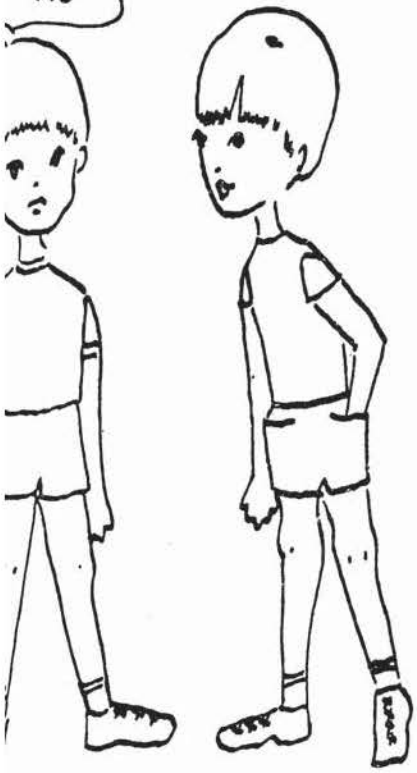
When people were mean to you, was it usually for no reason at all?

yes no



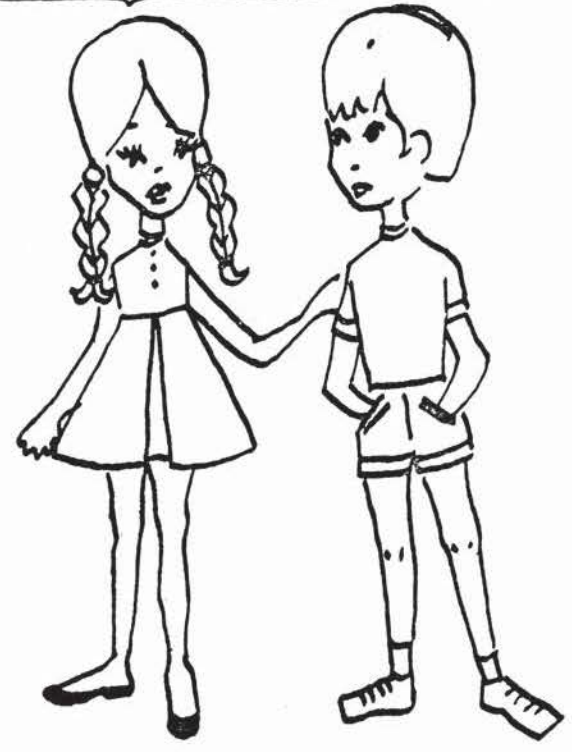
When you do something wrong, is there little you can do to make it right again?

no



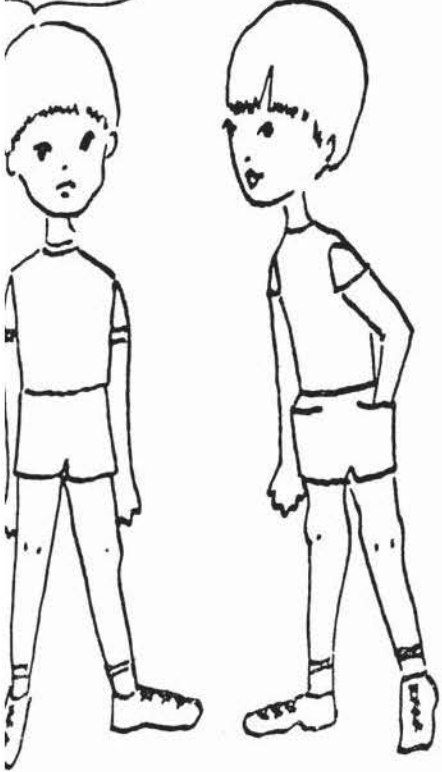
Most of the time do you find it easy to get your own way at home?

yes no



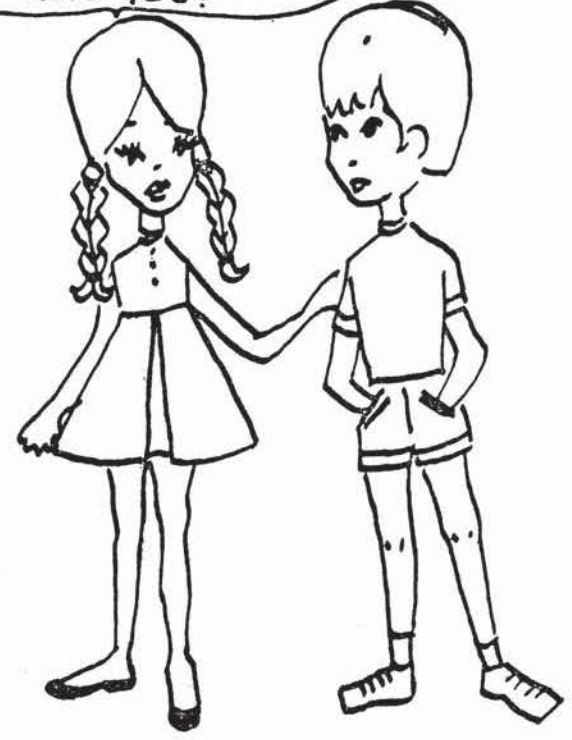
Are most kids just born good at running races?

no



When somebody your age wants to be your enemy, is there anything you can do to make him or her like you?

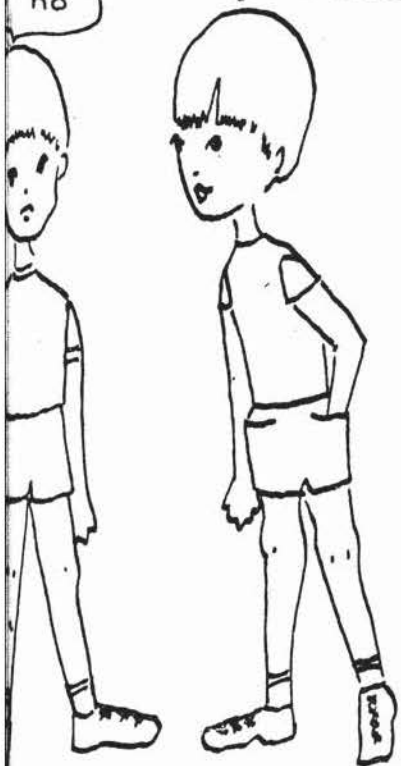
yes no





Should your Mommy and Daddy decide what you should do?

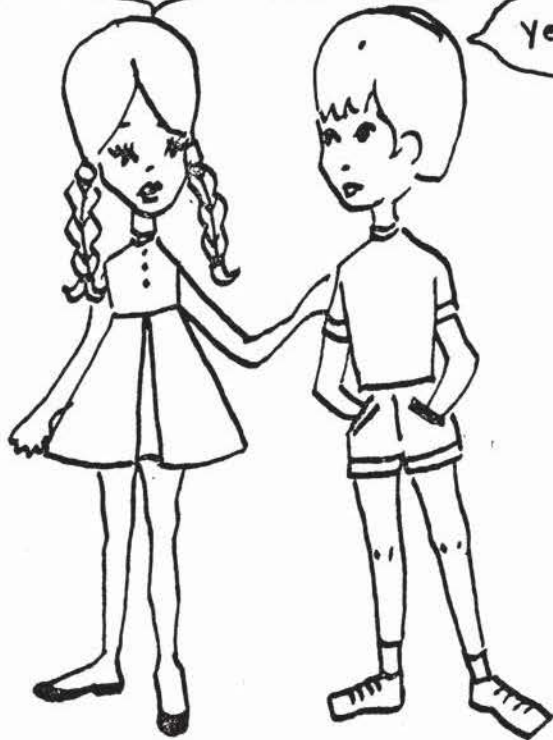
no



19

Is it almost impossible to try to win a game because most of the other kids are just plain better than you are?

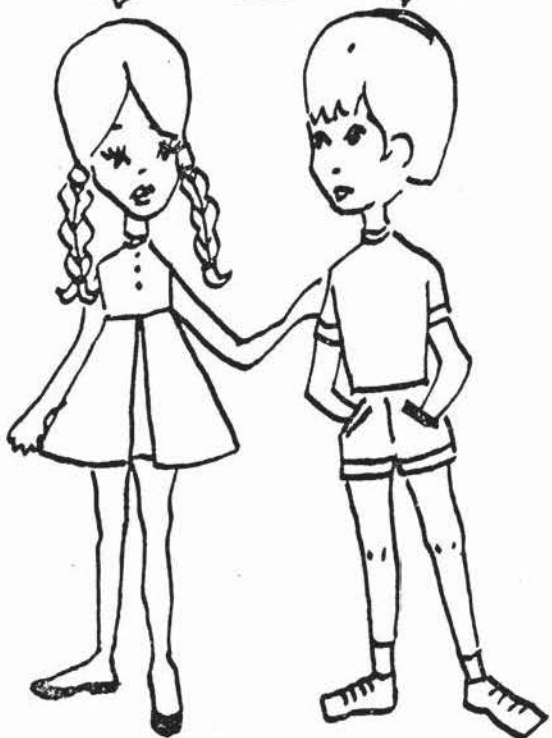
yes no



20

When a person doesn't like you is there anything you can do about it?

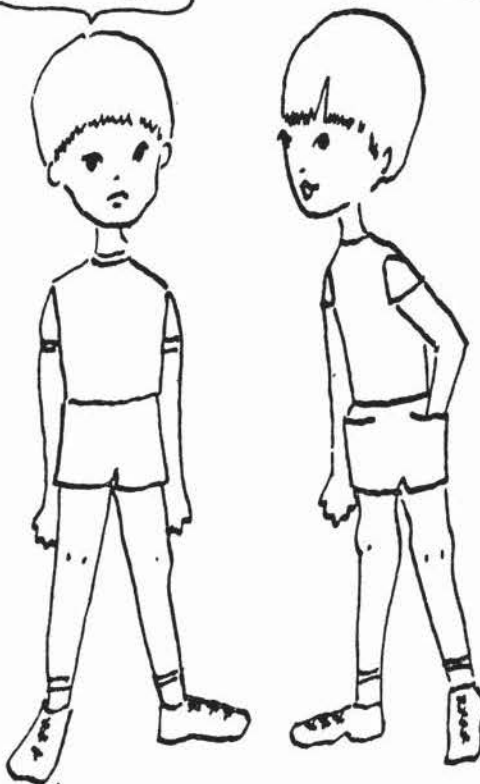
yes no



21

Are most of the other boys your age stronger than you are?

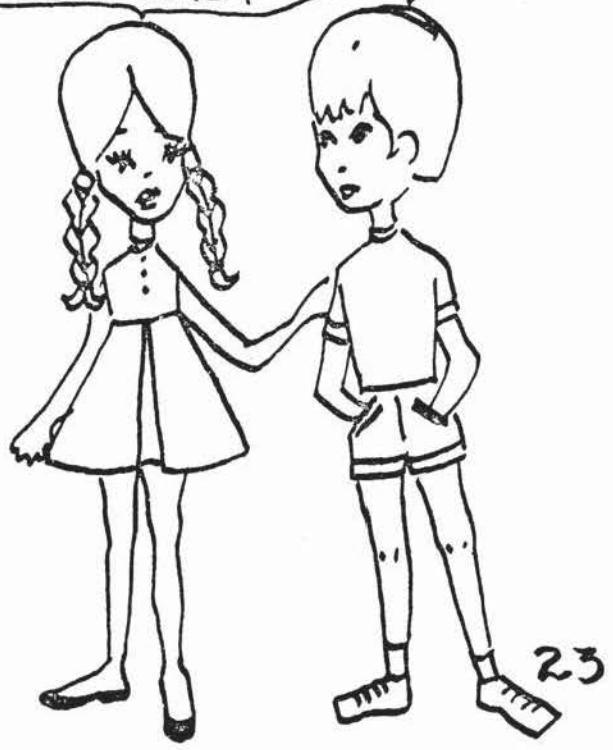
yes no



22

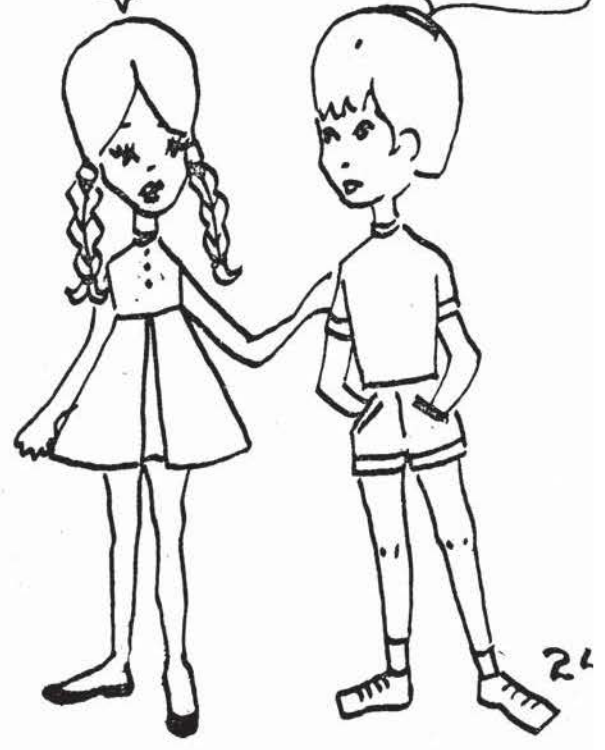
Are you the kind of child who believes that thinking about what you are going to do makes things turn out better?

yes no



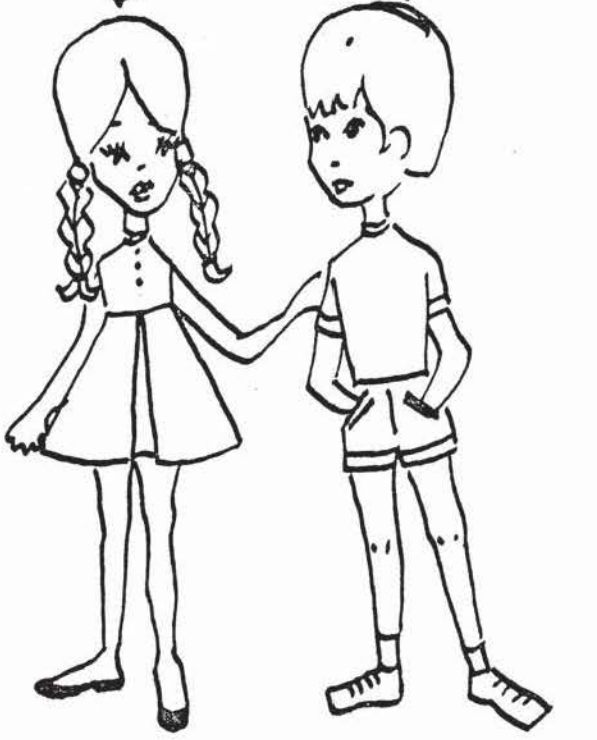
Do you think it's better to be smart than to be lucky?

yes no



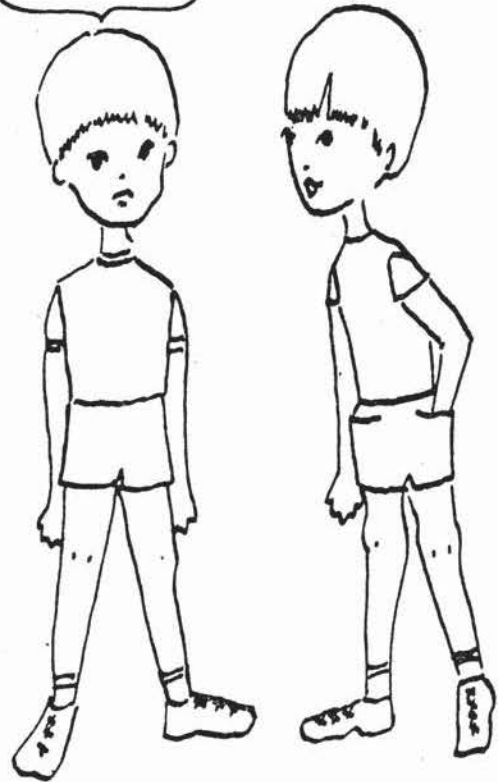
When another child hits you, is it usually because of something you did?

yes no



Is one of the best ways to handle a problem just not to think about it?

yes no





APPENDIX D

Mother-Child Relationship Evaluation

### Mother-Child Relationship Evaluation

The Mother-Child Relationship Evaluation provides an estimate by which a mother relates to her child based on a profile including five attitudes such as acceptance, overprotection, overindulgence, rejection and confusion-dominance.

The MCRE is given to the mother who is told to fill out the top part of the first page and read the directions. In scoring, each statement is on a five point scale and given letters to identify the attitude scale which it measures. To obtain the raw score of an attitude scale the examiner adds the number values for each circled response for the first four scales. To obtain the raw score of the fifth scale (Compulsion-Dominance), add the number of attitude scales in the highest quartile. The four attitude scale raw scores can be converted to percentile values and then connected to form a profile. The higher the scale score, the greater is the amount of the attitude; the lower the scale score, the lesser is the amount of the attitude. The MCRE can be completed, scored and profiled in about 30 minutes.

The population on which it was based consisted of 80 middle class mothers between the ages of 25 - 35 years and residing in the same community.

In reference to reliability, Pearson's product-moment

correlations were applied to first-half verses second-half scale scores; thus the first three scale's correlations are .57 for Acceptance, .53 for Overprotection and .41 for Overindulgence.

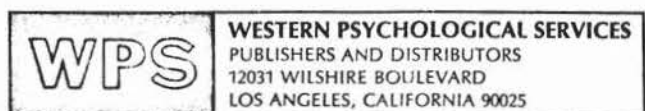
Concerning validity a rather high negative correlation should be expected to exist between the Acceptance scale and the nonacceptance scales (Rejection, Overprotection and Overindulgence). The mean coefficient of correlation was  $-.55$ . The Overprotection and Overindulgence scales are most closely associated to nonacceptance attitudes.

Findings from the MCRE can be useful in facilitating treatment of a particular mother and child. It can also be used for research in areas such as: relationships between maternal attitudes and children's behaviors, self-perceptions and attitudes; relationships between maternal attitudes and maternal self-perceptions; social status identity, and other related areas.

# The Mother-Child Relationship Evaluation

By  
Robert M. Roth, Ph.D.

Published By



A DIVISION OF MANSON WESTERN CORPORATION

Name	Age	Years Married	Date
Address		Telephone No.	
No. of Children	Names and Ages of Children		
Child Presented			

## DIRECTIONS:

To better understand you and your child, and your relationship with your child, please express your opinions or your feelings about the statements which follow, when you turn this page. There are no "right" or "wrong" answers, only your opinions or feelings. Let your personal experiences decide your answers. Keep in mind the child for whom you are seeking help.

Do not spend too much time on any one statement. If you are in doubt, circle the opinion or feeling closest to expressing your feelings at this time. **BE SURE TO ANSWER ALL STATEMENTS.**

Read each statement carefully, then draw a circle around the opinion or feeling to the right of the statement which comes closest to your opinion or feeling.

If you **STRONGLY AGREE** with the statement or feeling, circle the letters SA; if you **AGREE**, circle the letter A; if you are **UNDECIDED**, circle the letters UN; if you **DISAGREE**, circle the letter D; and if you **STRONGLY DISAGREE**, circle the letters SD. You will have time to answer all the statements. When you finish, please turn in your booklet. **NOW TURN THE PAGE AND BEGIN.**

		STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE
		5	4	3	2	1
.OP	If possible, a mother should give her child all those things the mother never had.	SA	A	UN	D	SD
.R	Children are like small animals and can be trained the same as puppies.	SA	A	UN	D	SD
.OP	Children cannot choose the proper foods for themselves.	SA	A	UN	D	SD
.R	It is good for a child to be separated from its mother from time to time.	SA	A	UN	D	SD
.OP	"Having fun" usually is a waste of time for a child.	SA	A	UN	D	SD
.OP	A mother should defend her child from criticism.	SA	A	UN	D	SD
.OI	A child is not at fault when it does something wrong.	SA	A	UN	D	SD
.R	When a mother disapproves an activity of her child, she should over-emphasize its danger.	SA	A	UN	D	SD
.OP	My child cannot get along without me.	SA	A	UN	D	SD
0-R	My child does not get along with other children as well as it should.	SA	A	UN	D	SD
1-A	A mother should be resigned to the fate of her child.	SA	A	UN	D	SD
2-OP	A mother should see that her child's homework is done correctly.	SA	A	UN	D	SD
3-R	To raise a child suitably, the mother should know fairly well what she would like her child to be.	SA	A	UN	D	SD
4-OI	A mother should "show off" her child at every opportunity.	SA	A	UN	D	SD
5-OI	It takes much energy to discipline a child properly.	SA	A	UN	D	SD
6-OP	A mother should never leave her child by itself.	SA	A	UN	D	SD
7-R	With the right training, a child can be made to do almost anything.	SA	A	UN	D	SD
8-OI	It is good for a mother to cut her child's hair if it dislikes going to the barber.	SA	A	UN	D	SD
9-OI	I often threaten to punish my child but never do it.	SA	A	UN	D	SD
0-R	When a child disobeys in school, the teacher should punish it.	SA	A	UN	D	SD
1-R	My child annoys me.	SA	A	UN	D	SD
2-OP	It is the mother's responsibility to see that her child never is unhappy.	SA	A	UN	D	SD
3-R	A child is an adult in small form.	SA	A	UN	D	SD
4-OI	A mother cannot spend too much time reading to her child.	SA	A	UN	D	SD
5-OP	A child needs more than two medical examinations each year.	SA	A	UN	D	SD
6-OP	Children cannot be trusted to do things by themselves.	SA	A	UN	D	SD

		STRONGLY AGREE	AGREE	UNDECIDED	DISAGREE	STRONGLY DISAGREE
		5	4	3	2	1
27-R	Breast feeding should be stopped by the mother as soon as possible.	SA	A	UN	D	SD
28-OP	Children should always be kept calm.	SA	A	UN	D	SD
29-OI	A child should not have a fixed allowance.	SA	A	UN	D	SD
30-R	I often play practical jokes on my child.	SA	A	UN	D	SD
31-OI	The mother should lie down with her child if it cannot sleep.	SA	A	UN	D	SD
32-R	Often children act sick when they are not sick.	SA	A	UN	D	SD
33-OP	Children can never bathe themselves as they should.	SA	A	UN	D	SD
34-OI	A child should not be scolded for grabbing things from an adult.	SA	A	UN	D	SD
35-A	When a mother has problems with her child with which she cannot deal, she should seek the proper help.	SA	A	UN	D	SD
36-OI	When a child cries, it should have the mother's attention at once.	SA	A	UN	D	SD
37-OI	Somehow, I cannot refuse any request my child makes.	SA	A	UN	D	SD
38-A	Children have rights of their own.	SA	A	UN	D	SD
39-OI	A mother should always see that her child's demands are met.	SA	A	UN	D	SD
		1	2	3	4	5
40-A	A child should not get angry at its mother.	SA	A	UN	D	SD
41-A	Young children, like toys, are for their parents' amusement.	SA	A	UN	D	SD
42-A	Child-bearing is a responsibility of marriage.	SA	A	UN	D	SD
43-A	There are certain right ways of raising a child, no matter how the parents feel.	SA	A	UN	D	SD
44-A	Children should be seen but not heard.	SA	A	UN	D	SD
45-A	A mother should control her child's emotions.	SA	A	UN	D	SD
46-A	Since thumbsucking is an unhealthy habit, it should be stopped by all means.	SA	A	UN	D	SD
47-A	It is not too helpful for a mother to talk over her plans with her child.	SA	A	UN	D	SD
48-A	A child should please its parents.	SA	A	UN	D	SD

END

Please see that you have answered all statements, then turn in your booklet.



Scales	Raw Scores	Percentiles															
		1-5-10-20-25-30-40-50-60-70-75-80-90-95-99															
<u>ACCEPTANCE</u>																	
1. ACCEPTANCE (A)		29-31-33-37-38-39-41-42-43-44-45-47-50-52															
<u>NON-ACCEPTANCE</u>																	
2. OVERPROTECTION (OP)		20-23-25-28-28-29-30-34-34-36-36-37-39-42-45															
3. OVERINDULGENCE (OI)		21-24-25-28-28-29-30-31-33-34-34-35-39-39-41															
4. REJECTION (R)		19-23-25-28-29-30-32-34-35-36-36-37-39-40-43															
5. CONFUSION-DOMINANCE (Number of scale scores in the highest quartile)		<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><u>Confusion</u></td> <td></td> <td></td> <td style="text-align: center;"><u>Dominance</u></td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">3</td> <td style="text-align: center;">2</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">C+</td> <td style="text-align: center;">C-</td> <td style="text-align: center;">D-</td> <td style="text-align: center;">D+</td> </tr> </table>	<u>Confusion</u>			<u>Dominance</u>	4	3	2	1	C+	C-	D-	D+			
<u>Confusion</u>			<u>Dominance</u>														
4	3	2	1														
C+	C-	D-	D+														

Interpretation-Evaluation

APPENDIX E

Child Behavior Rating Scale

### The Child Behavior Rating Scale

The Child Behavior Rating Scale is a psychological instrument in which an individual rates preschool and primary children in various personality adjustment areas; such as self, home, social, school and physical. The person who serves as a rater must have observed or know directly the behavior of the child being rated.

The CBRS is a self-administering instrument. Instructions are provided on the cover page to orient the rater. On each item the child is rated on a six-point scale as to the extent he presents a specific aspect of the behavior to the rater.

Scoring is easily accomplished and takes only a few minutes. Each of the five adjustment areas receive a weighted score. Three of the five adjustment area weighted scores are used to compute the Personality Total Adjustment Score (PTAS). Each adjustment area weighted score and PTAS can be converted to two sets of T-scores; one from normative data of the group of typical children, the second from normative data of the group of maladjusted children. With two sets of T-scores, two profiles can be constructed for the child rated, thus comparing him with the typical group and the maladjusted group.

In interpretation, the PTAS is the most significant score on the CBRS. This score indicates the overall adjustment of the child. The PTAS is converted into a T-score and

if it is between 40 and 60, regardless of the  $T$ -scores for the five adjustment areas; the overall adjustment of the child is comparable to that of the average typical child. If the PTAS  $T$ -score is 60 or higher, it can be assumed the child is making excellent personality adjustment; but if the PTAS  $T$ -score is 40 or below it can be said the child is in some way emotionally handicapped.

The 78 items comprising the CBRS were obtained by a study screening over 1,000 case studies of elementary school pupils referred for psychological and psychiatric services. Reports studied were official records of professionally serviced clinics and represented findings of professional workers in the major discipline of child study and treatment. Items appearing most frequently in the records and considered critical were selected for the CBRS. Six psychologists, all members of APA, assembled the final 78 items into five adjustment areas: Self, Home, Social, School and Physical.

In reference to reliability, the Spearman-Brown formula was used on odd-even CBRS items and indices of reliability were computed for the entire CBRS. On a sample of 800 typical children, the resulting  $r$  was  $.873 \pm .003$ ; on a sample of 200 maladjusted children, the  $r$  was  $.589 \pm .042$ . In two other studies of reliability, coefficients of correlations indicate a high degree of test reliability or consistency in the scoring of the CBRS. Raters completed the CBRS on two

separate occasions and Pearson  $r$ 's were computed correlating scores of the first CBRS with scores on the second CBRS. The results for the first study were; 50 parents,  $\underline{r} = .913 \pm .024$ , the second study; 50 teachers,  $\underline{r} = .739 \pm .065$ .

The CBRS has demonstrated several types of validity. Since items were obtained from summary case reports by trained professionals dealing with child behavior, the CBRS is presumed to have high face validity. In terms of construct validity, scores on the CBRS are highly significant statistically when related to school achievement test scores, intelligence quotients and social development. It has been an effective instrument for predicting performances on the Metropolitan Achievement Tests, intelligence quotients and social quotients of the Vineland Social Maturity Scale. The CBRS manual (Cassel, 1962) reviewed several studies which dealt with criterion validity. They attempted to differentiate well adjusted from maladjusted by scores on the CBRS and found a significant difference between the two groups.

The CBRS serves many purposes, such as comparing ratings of a specific child with the normative data of both typical children and emotionally handicapped children, comparing ratings of different raters, giving objective measurements of adjustment, gaining understanding of interpersonal relationships between raters and child, and facilitating research studies of the young child.

# The Child Behavior Rating Scale

116

By

**Russell N. Cassel, Ed.D.**

Published By

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	PUBLISHERS AND DISTRIBUTORS 12031 WILSHIRE BOULEVARD LOS ANGELES, CALIFORNIA 90025

A DIVISION OF MANSON WESTERN CORPORATION

Name				School
Address				Grade
Birthdate	Age	Boy	Girl	Rated By:
Date				Position of Rater:

### GENERAL INSTRUCTIONS

This rating scale is designed to assess the personality adjustment of primary grade school children who do not have sufficient reading skill to complete the group type of psychological tests. The ratings are to be accomplished by the teacher and/or parents. The person rating the child should read each item on the scale carefully, and then place a check mark (✓) in the appropriate place where he believes the particular child belongs for the specific item involved. If the item is "yes" for the child, put a check mark on the "yes". If the item is "no", put a check mark on the "no". If the answer is somewhere in between the yes and no, put a check mark on the four point scale indicating where the item is most true. Study the example.

Example: Mary is prettier than Lois.

yes	✓			no
-----	---	--	--	----

### C.B.R.S. Profile (2000 Typical Pupils)

T-Score	Self-Adjustment	Home-Adjustment	Social-Adjustment	School-Adjustment	Physical-Adjustment	Personality Tot. Adjust.
80	120	120	120	72	36	552
75	119	119	119	71	36	547
70	118	118	118	70	35	542
65	117	117	117	68	34	536
60	112	112	112	65	33	513
55	105	105	105	62	32	483
50	99	98	99	59	30	452
45	92	91	92	56	29	421
40	85	84	85	53	27	390
35	78	77	78	50	26	360
30	72	70	72	46	24	329
25	65	62	65	43	22	298
20	58	55	58	40	21	267
Weighted Scores						
Weight Values	2	2	0	1	0	P.T.A.S.
Personality Total Adjustment Score		+	X	+	X	=

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## The Child Behavior Rating Scale

	Scale Values						
	1	2	3	4	5	6	
<b>Self Adjustment</b>							
1. Often prefers to be alone.	yes						no
2. Often seems unhappy or depressed.	yes						no
3. Often cries, and with little or no reason.	yes						no
4. Feelings are often easily hurt.	yes						no
5. Often appears to feel unwanted or disliked.	yes						no
6. Often seems to have little self confidence.	yes						no
7. Often sulks when unable to get own way.	yes						no
8. Often daydreams and "mind" tends to wander.	yes						no
9. Often giggles even when nothing is funny.	yes						no
10. Often makes alibis or excuses for mistakes.	yes						no
11. Personal values often not accepted by others.	yes						no
12. Often is slovenly and unkempt in appearance.	yes						no
13. Often talks dirty, swears, or uses foul words.	yes						no
14. Often bites nails or sucks thumbs and fingers.	yes						no
15. Often tends to be on the go and can't relax.	yes						no
16. Often is very nervous and excited about things.	yes						no
17. Often has trouble controlling temper.	yes						no
18. Often is not very tactful with others.	yes						no
19. Often does things which later regrets having done.	yes						no
20. Often behavior goes in cycles of good and bad.	yes						no
NUMBER CHECKS							TOTAL WEIGHTED SCORE
WEIGHTED VALUES							

<b>Home Adjustment</b>							
21. Often expresses strong dislike for home and family.	yes						no
22. Sometimes talks about running away from home.	yes						no
23. Often fears parents when something is wrong.	yes						no
24. Doesn't get along well with one or both parents.	yes						no
25. Parents often find fault with child's conduct.	yes						no
26. Parents often are too strict about minor matters.	yes						no
27. Parents often use corporal punishment (whipping).	yes						no



- 56. Often has difficulty finding things to do with self.
- 57. Often tends to be very selfish and self-centered.
- 58. Often is not a very good listener in conversation.
- 59. Often is dishonest and not very trustworthy.
- 60. Often does not attend Sunday school or church.

Scale Values					
1	2	3	4	5	6
yes					no
yes					no
yes					no
yes					no
yes					no

NUMBER CHECKS							TOTAL WEIGHTED SCORE
WEIGHTED VALUES							

**School Adjustment**

- 61. Often expresses a strong dislike for school.
- 62. Often is very sleepy or restless in school.
- 63. Often has difficulty expressing self in words.
- 64. Often seems afraid to speak-out in class.
- 65. Often has difficulty keeping "mind" on school work.
- 66. Often distracts other students in school program.
- 67. Often has difficulty doing school work.
- 68. Takes little or no part in co-curricular activities.
- 69. Gets along poorly with one or more teachers.
- 70. Parents often "nag" child about school work.
- 71. Seldom works hard or long on school assignments.
- 72. Quality of school work varies from day-to-day.

yes					no
yes					no
yes					no
yes					no
yes					no
yes					no
yes					no
yes					no
yes					no
yes					no
yes					no

NUMBER CHECKS							TOTAL WEIGHTED SCORE
WEIGHTED VALUES							

**Physical Adjustment**

- 73. Generally is in rather poor health.
- 74. Has poor muscular control and coordination.
- 75. Teeth are often unclean; and is unkempt.
- 76. Often doesn't have much energy or "pep".
- 77. There is evidence of perceptual malfunctioning.
- 78. Has uncorrected poor vision or poor hearing.

yes					no
yes					no
yes					no
yes					no
yes					no
yes					no

NUMBER CHECKS							TOTAL WEIGHTED SCORE
WEIGHTED VALUES							

APPENDIX F

Walker Problem Behavior Identification Checklist

### Walker Problem Behavior Identification Checklist

The Walker Problem Behavior Identification Checklist is a device consisting of observable, operational statements about behavior used to identify children with behavior problems in the elementary grades. More specifically, the WPBIC looks at such behaviors as acting out, withdrawal, distractibility, disturbed peer relations and immaturity.

There are 50 statements describing the subject's behavior. Each statement has a number ranging from one to four, in one of five columns to the right of the statement. The rater (in this study, the child's mother was used) completes the checklist after observing the subject's behavior for a minimum of two months. The rating is accomplished by reading each of the 50 statements, and for each statement that represents a condition that is present, circling the number adjacent to that statement in one of the five columns to the right. Each of the five vertical columns to the right of the statements represents one of the five scales measured by the checklist.

In scoring, the score for any one scale is the arithmetic sum of the circled numbers in that scale's vertical column. Each of the five scales are computed and added together to obtain the Total Score. In interpretation, if a male subject receives a Total Score of 22 (T score of 60) or higher and a female receives a Total Score of 12 (T score of 50),

he or she is classified as disturbed. A Profile Analysis Chart (PAC) provided on the checklist facilitates the interpretation of scores.

To obtain the 50 checklist items, a random sample of 30 teachers from a local (Oregon) school district for grades four, five and six were asked to nominate children in their classes who demonstrated chronic behavior problems. In individual interviews, the teacher described and gave an operational description of the behavior. These descriptions initially yielded 300 items which were later reduced to 50 of the most frequently mentioned behavior.

To arrive at item weights, five behavioral scientists were selected to rate each item for its influence in handicapping a child's adjustment. Judge's item ratings, on a 20 point scale, were pooled and averaged. Each item was given a score weight ranging from four to one based on the ratings. The means of the five judges on all items were pooled and assigned as score weights for the scale items since the interjudge reliability was .83.

To standardize the checklist, a 21 teacher sample from four, five and six grades evaluated all pupils after observing them for approximately two months. Scores on 534 children were yielded from this procedure ( $M = 7.76$ ,  $SD = 10.53$ ). It was then necessary to select a point within the frequency distribution (checklist scores) to screen and identify



disturbed from non-disturbed children. Since the WPBIC is made up of 50 negative behaviors, the regular school population yielded a positive skewed distribution; whereas a treatment facility for disturbed children could conceivably yield a negatively skewed distribution. Behavioral adjustment is considered to be normally distributed in ordinary populations, thus the raw data on 534 subjects were converted to a T score distribution so as to normalize the data and determine separation points within the distribution.

The reliability of the WPBIC has been estimated by the Kuder-Richardson split-half method and by the test-retest method. The split-half reliability coefficient obtained on the checklist ( $r = .98$ ,  $SD = 10.53$ ,  $SE = 1.28$ ) indicates that 97 percent of the variance of checklist scores in the sample were true score variance and three percent was error variance; thus the checklist is capable of making individual separations among subjects with a considerable degree of reliability. The studies of Walker and Bull (Note 5) and Bolstad (Note 6) produced two estimates of the test-retest stability of the WPBIC. In the Walker and Bull study, 200 children enrolled in grades one through six were rated on the WPBIC by their teachers twice within a three-week period. The overall test-retest coefficient was .80 for a three week interval. For individual teachers, the test-retest coefficients ranged from .43 to .96. The first rating time ( $M = 7.6$ ,  $SD = 9.3$ ) when

compared to the second time ( $M = 6.4$ ,  $SD = 7.9$ ) produced similar results. Rolstad (Note 6) used the WPBIC, along with other rating instruments, to study the relationship between teacher ratings of pupils' classroom behavior and actual observed rates of behavior. Two samples of teachers were included in the study. In the first sample, five regular classroom teachers in the third and fourth grades were asked to select a total of six pupils (total of 30) comprised of boy-and-girl pairs whose behavior corresponded to the global labels: (1) "best behaved", (2) "average behaved", and (3) "least well behaved". In the second sample, which replicated the first, six teachers were asked to make these nominations from a total of 36 pupils. The teachers rated the children on WPBIC twice within a four-week period. Test-retest correlations were computed on the WPBIC ratings for the "least behaved" pupils within each sample. The stability coefficient was .89 for the first sample, .81 for the second sample, and .86 for both samples. The mean WPBIC scores for the "least-", "average-" and "best-" behaved pupils in the first sample were, respectively, 19.50, .60, and .40; the mean scores for the second sample were, respectively, 18.00, 1.75 and .83.

Four types of validity were estimated on the WPBIC from the normative sample.

(1) In the contrasted group method of testing validity, two

independent groups were defined in relation to the construct of behavioral disturbance. Thirty-eight subjects in the 534 pupil sample were identified as behaviorally disturbed according to one or more the following criteria; 1) referred to a clinical facility by a psychologist, 2) specific educational provisions made in the school because of the child's behavior. 3) received instruction at home because of his behavior problem prohibits school instruction. These 38 subjects were matched with 38 subjects from the normative sample, not so identified, in reference to age, grade and sex. The random selection of 38 control subjects to be paired with the experimental subjects was facilitated by use of a table of random numbers. The difference between the means of the experimental subjects ( $\bar{M} = 16.63$ ,  $SD = 12.68$ ) and control subjects ( $\bar{M} = 6.47$ ,  $SD = 5.47$ ) was significant beyond the .001 level of confidence. The behaviorally disturbed subjects received a significantly higher score on the WPBIC than the non-behaviorally disturbed subjects.

(2) In reference to criterion validity, a biserial correlation was computed to examine the degree of relationship between scores on the WPBIC and the construct of behavioral disturbance as measured by the three criteria used to identify the behaviorally disturbed subjects. The biserial correlation between checklist scores and the criterion was .68, with a standard error of .039 and a predictive

efficiency index of .33. The predictive efficiency index indicates the WPBIC has utility in the prediction of behavior disturbance in populations of elementary school children.

(3) Data obtained from the 354 pupil normative sample on the WPBIC was factor-analyzed, yielding five factors along with their constituent items and factor loadings. There is very little overlap among the five factors, except for the correlation (.67) between Acting-out and Distractability which accounts for 44 percent due to overlap or common factor variance. Content of the items for each factor supports the assumption that the two factors represent common factor elements. Several studies demonstrate that acting-out or hyperactive children often manifest high rates of non-attending and distractive behavior (Patterson, Jones, Wright and Whittier, 1965; Walker and Buckley, 1968). Data for the five factors from the normative sample was scored and converted to a T score distribution for each factor according to sex of the pupil.

(4) Item variance indices, item validity indices and item inter-correlations were computed on all 50 items of the WPBIC. Since 10 to 20 percent of the school children have serious behavior problems, the criterion for WPBIC item selection was established somewhat lower (.09 to .16) than the value most commonly recommended (.24 or .25). Setting a value too high would result in selection of items so narrow

and limited to be used for the purpose of identification. The range of item variance indices is from .00 to .21 (SD range = .12 to .93) with 17 of the item falling within the optimal range of .09 to .16. The remaining variance indices fall slightly below or above the range, with the exception of three items (33, 36 and 47). Intercorrelations among 50 scale items yielded 1,225 coefficients ranging from .00 to .83; thus the results confirm that the WPBIC is measuring separate functions of the same behavior domain and not excessively duplicating one another's functions. In reference to internal consistency between individual items and test score; upper and lower groups (determined by checklist scores) were selected and each item was correlated with the total score for the groups. Item validity indices vary from .03 to .67 indicating that individual items correlate highly with the total score and discriminate between subjects in the upper and lower 27 percent of the sample. It also suggests that items making up the WPBIC constitute a homogeneous related set of behaviors with the exception of three items (33, 36 and 47).

The WPBIC is most often used to enhance the total identification process of emotionally disturbed or socially maladjusted children. It serves as a tool for the elementary teacher to identify children with behavior problems and refer them for further psychological evaluation, referral and treatment.

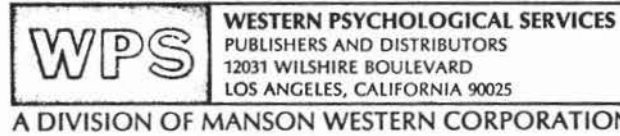
The checklist may also be rated by several individuals as counselors, school psychologists or others who have worked directly with the child in order to obtain comparative analysis.



# Walker Problem Behavior Identification Checklist

Revised 1976  
by Hill M. Walker, Ph.D.

Published by



Name: \_\_\_\_\_ School: \_\_\_\_\_  
 Address: \_\_\_\_\_ Grade: \_\_\_\_\_  
 Age: \_\_\_\_\_ Sex: M F Date: \_\_\_\_\_ Classroom: \_\_\_\_\_  
 Rated By: \_\_\_\_\_ Position of Rater: \_\_\_\_\_

### INSTRUCTIONS

Please read each statement carefully and respond by circling the number to the right of the statement if you have observed that behavioral item in the child's response pattern during the last two month period. If you have not observed the behavior described in the statement during this period, do not circle any numbers (in other words, make no marks whatsoever if the statement describes behavior which is NOT present).

Examples:

1. Has temper tantrums .....
2. Has no friends .....
3. Refers to himself as dumb, stupid, or incapable .....
4. Must have approval for tasks attempted or completed. ....

Scales

1	2	3	4	5
②		4		
		①	3	

Statements 1 and 4 are considered to be present while statements 2 and 3 are considered to be absent. Therefore, only the numbers to the right of items 1 and 4 are circled, and the numbers to the right of 2 and 3 are NOT circled.

### Profile Analysis Chart (PAC)

T-Score	Scale 1		Scale 2		Scale 3		Scale 4		Scale 5		T-Score
	Acting out		Withdrawal		Distraction		Disrupted Peer Relations		Immaturity		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Over 110		20-26					7-11				
110		19								10	110
105		18				13					105
100		17				12	6			9	100
95		16				11			10	8	95
90		15				10	5		9		90
85		14				9			8		85
80		13		14		8			7		80
75		12	14	13		7			6	5	75
70		11	13	12		6	11	4		6	70
65		10	12	11		5			5	4	65
60		9	11	10		4			4	3	60
55		8	10	9	13	3			3	2	55
50		7	9	8	12	2			2	1	50
45		6	8	7	11	1			1	0	45
40		5	7	6	10	0			0	0	40
35		4	6	5	9	0			0	0	35
30		3	5	4	8	0			0	0	30
25		2	4	3	7	0			0	0	25
20		1	3	2	6	0			0	0	20
15		0	2	1	5	0			0	0	15
10			1	0	4	0			0	0	10
5			0	0	3	0			0	0	5
0			0	0	2	0			0	0	0
Σ	3.20	1.05	1.59	1.59	3.77	1.33	1.18	.35	.76	.52	Σ
SD	5.70	2.98	3.32	3.08	3.74	2.05	3.01	1.00	1.99	1.64	SD

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2 3 4 5 6 7 8 9

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SCALE

	1	2	3	4	5
1. Complains about others' unfairness and/or discrimination towards him.	3				
2. Is listless and continually tired.					2
3. Does not conform to limits on his own without control from others.			1		
4. Becomes hysterical, upset or angry when things do not go his way.	3				
5. Comments that no one understands him.				1	
6. Perfectionistic: Meticulous about having everything exactly right.			2		
7. Will destroy or take apart something he has made rather than show it or ask to have it displayed.				3	
8. Other children act as if he were taboo or tainted.					4
9. Has difficulty concentrating for any length of time.			1		
10. Is overactive, restless, and/or continually shifting body positions.			2		
11. Apologizes repeatedly for himself and/or his behavior.					2
12. Distorts the truth by making statements contrary to fact.	1				
13. Underachieving: Performs below his demonstrated ability level.			1		
14. Disturbs other children: teasing, provoking fights, interrupting others.			2		
15. Tries to avoid calling attention to himself.		1			
16. Makes distrustful or suspicious remarks about actions of others toward him.	2				
17. Reacts to stressful situations or changes in routine with general body aches, head or stomach aches, nausea.					3
18. Argues and must have the last word in verbal exchanges.	1				
19. Approaches new tasks and situations with an "I can't do it" response.			1		
20. Has nervous tics: muscle-twitching, eye-blinking, nail-biting, hand-wringing.					3
21. Habitually rejects the school experience through actions or comments.	1				
22. Has enuresis. (Wets bed.)					1
23. Utters nonsense syllables and/or babbles to himself.				4	
24. Continually seeks attention.			1		
25. Comments that nobody likes him.				2	
26. Repeats one idea, thought, or activity over and over.				4	
27. Has temper tantrums.	2				
28. Refers to himself as dumb, stupid, or incapable.				3	
29. Does not engage in group activities.		2			
30. When teased or irritated by other children, takes out his frustration(s) on another inappropriate person or thing.	2				
31. Has rapid mood shifts: depressed one moment, manic the next.	4				
32. Does not obey until threatened with punishment.	1				
33. Complains of nightmares, bad dreams.					1
34. Expresses concern about being lonely, unhappy.				3	
35. Openly strikes back with angry behavior to teasing of other children.	3				
36. Expresses concern about something terrible or horrible happening to him.					1
37. Has no friends.		4			
38. Must have approval for tasks attempted or completed.	1				
39. Displays physical aggression toward objects or persons.	1				
40. Is hypercritical of himself.				1	
41. Does not complete tasks attempted.			1		
42. Doesn't protest when others hurt, tease, or criticize him.		3			
43. Shuns or avoids heterosexual activities.				3	
44. Steals things from other children.					1
45. Does not initiate relationships with other children.		4			
46. Reacts with defiance to instructions or commands.	1				
47. Weeps or cries without provocation.					1
48. Stutters, stammers, or blocks on saying words.				1	
49. Easily distracted away from the task at hand by ordinary classroom stimuli, i.e. minor movements of others, noises, etc.			1		
50. Frequently stares blankly into space and is unaware of his surroundings when doing so.			1		

+  +  +  +  =

Scale 1 Score    Scale 2 Score    Scale 3 Score    Scale 4 Score    Scale 5 Score    Total Score

APPENDIX G

Consent Form

## PARENTAL AUTHORIZATION

for

EIU / Psychology Department Research Project

We (I), the undersigned, do hereby give our (my) permission for our (my) son or daughter \_\_\_\_\_ (print name) to undergo psychological interviews and assessment regarding his/her personality. The purpose of this project is to better understand the personality of normal children and their mothers. Names and results are kept confidential. Results are available to the examinee if so desired. Judy Bowlby, EIU graduate student, is conducting the research for completion of a Masters thesis in clinical psychology. She is under the supervision of William M. Hillner, P.h.D., who is doing research on this topic within the Psychology Department at Eastern Illinois University and is a Registered Psychologist in the State of Illinois.

Name (s) \_\_\_\_\_

\_\_\_\_\_  
(legal guardian only)

Date: \_\_\_\_\_

Relationship: \_\_\_\_\_