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Stuttering, predelinquent, and adjusted boys: a comparative analysis of personality characteristics as measured by the Wisc and the Rorschach test

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1960

7687-36

BOSTON UNIVERSITY
SCHOOL OF EDUCATION

Dissertation

STUTTERING, PREDELINQUENT, AND ADJUSTED BOYS:
A COMPARATIVE ANALYSIS OF PERSONALITY CHARACTERISTICS
AS MEASURED BY THE WISC AND THE RORSCHACH TEST

submitted by

Hella Moller

(B.S., Boston University, 1951.)

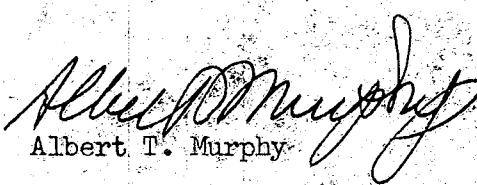
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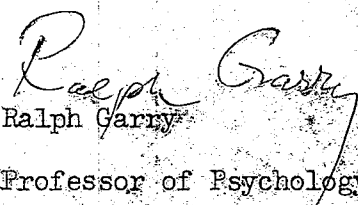
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TABLE OF CONTENTS

CHAPTER	Page
I. STATEMENT OF THE PROBLEM	1
1. Purpose of the Study	1
2. Source	4
3. Justification	5
II. PREVIOUS RESEARCH AND BACKGROUND OF THE PROBLEM.	7
1. Stuttering	7
2. Adjustment and Normalcy from Birth Through the Prepubert Period	20
3. Predelinquency	44
III. RESEARCH TECHNIQUES AND PROCEDURES	64
1. The Rorschach Test	64
A. Color Responses	64
B. Movement Responses	67
C. Popular Responses	69
D. Human Content Responses	72
E. Anxiety Indicators	74
F. Number of Content Categories	75
G. Good Form Percentage	75
H. Reliability and Validity of the Rorschach	76
2. The Wechsler Intelligence Scale for Children (WISC)	82
A. The Full, Verbal, and Performance I.Q.'s	82
B. Vocabulary Score	86
C. Comprehension Score	87
D. Similarity Score	88
E. Picture Arrangement Score	88
F. Reliability and Validity of the WISC	89
3. Criteria for the Selection of the Three Groups	89
A. Stutterers	90
B. Adjusted boys	90
C. Predelinquents	92

CHAPTER	Page
III.	
4. Socio-Economic Information for the Three Groups	93
5. Availability of Subjects	94
6. Controlled Variables	95
7. Statistical Treatment of Data	95
IV. HYPOTHESIS AND EXPECTED CONCLUSIONS	97
1. In the Rorschach Test	97
2. In the Wechsler Intelligence Scale for Children (WISC)	100
V. PRESENTATION AND ANALYSIS OF DATA	102
1. Selection of Subjects	102
2. Data Concerning Age and Father's Occupation	104
3. The Rorschach Experiment	106
A. The Index of Internalized Control; FC:CF+C	106
B. Experience Balance; M: sum C	112
C. The Human Movement Response; M	114
D. The Human Response; H	116
E. The Popular Response; P	118
F. The Good Form Percentage; F+%	119
G. Anxiety Indicators	121
H. Number of Content Categories	122
4. The WISC Experiment	123
A. Full Scale I.Q.'s	123
B. Verbal Scale I.Q.'s	125
C. Performance Scale I.Q.'s	126
D. Difference between Verbal and Performance Scale I.Q.'s	126
E. Vocabulary Subtest	128
F. Comprehension Subtest	128
G. Similarity Subtest	129
H. Picture Arrangement Subtest	130
I. Scatter Analysis of the WISC	130
α The Negative Vocabulary Scatter ..	131
β The Negative Mean Performance Scatter	132
γ The Negative Mean Verbal Scatter .	134

CHAPTER	Page
VI. DISCUSSION OF DATA AND RESULTS	136
1. Overall Impressions of the Rorschach Results	136
2. Specific Variables of the Rorschach Test..	139
A. The Ratio of Self-control versus Unstable Affectivity; FC:CF+C.....	139
B. The Ratio of Introversive Tendencies versus Extratensive Tendencies; M: sum C	141
C. The Score Indicating Self-awareness and the Ability to Empathize with Others; M	143
D. The Score Indicating a Person's Relationship to other People; H	144
E. The Popular Score, Indicating the Ability to Perceive the World as Others Do; P	145
F. The Score Indicating Ego Strength: F,%.....	146
G. The Score Indicating the Number of Anxiety Signs	147
H. The Score Indicating the Breadth or Narrowness of Interests	148
3. The WISC Results	149
A. The Full Scale I.Q.'s	149
B. Verbal and Performance I.Q.'s; Difference between Verbal and Performance I.Q.'s; Vocabulary; Comprehension; Similarity; and Picture Arrangement Subtests	150
C. Summary of WISC Variables Not Showing Statistically Significant Differences	151
D. The Need for Scatter Analysis	156
4. Subsidiary Observations	158
VII. SUMMARY AND CONCLUSIONS	161
1. The Problem of the Study ;.....	161
2. Personality Characteristics of the Three Groups as Ascertained by the Rorschach Test	162
3. The Intellectual Functioning of the Three Groups as Ascertained by the WISC	166

CHAPTER	Page
4. Implications for Therapy	169
5. Implications for Further Research	174
APPENDICES	176
· APPENDIX A: Tables of Rorschach and WISC Variables ..	177
· APPENDIX B: Five Psychological Reports	187
BIBLIOGRAPHY	214
ABSTRACT	221

LIST OF TABLES

Table	Page
1. Mean Ages of the Three Groups	104
2. Distribution of Ages	105
3. Fathers' Occupations in the Three Groups	106
4. Occupations of Fathers' of Subjects	107
5. Mean FC:CF+C ratio	108
6. Mean FC Scores	110
7. Mean CF+C Scores	112
8. Mean M: sum C ratio	113
9. Mean M Scores	115
10. Mean H and (H) Scores	117
11. Mean Number of Popular Responses	119
12. Mean F+ Percentage	120
13. Mean Number of Anxiety Indicators	122
14. Mean Number of Content Categories	122
15. Mean Full Scale WISC I.Q.'s	123
16. Distributions of I.Q.'s	124
17. Mean Verbal Scale I.Q.'s	125
18. Mean Performance Scale I.Q.'s	126
19. Mean of the Difference between Verbal and Per- formance Scale I.Q.'s	126
20. Mean Vocabulary Scores	128
21. Mean Comprehension Scores	129
22. Mean Similarities Scores	129
23. Mean Picture Arrangement Scores	130
24. Mean of Negative Vocabulary Scatter	132

Table	Page
25. Mean of Negative Mean Performance Scatter	133
26. Mean of Negative Mean Verbal Scatter	134
27. Verbal I.Q.'s and Performance I.Q.'s	152
28. Stutterers - Rorschach Variables	178
29. Adjusted boys - Rorschach Variables	179
30. Predelinquents - Rorschach Variables	180
31. Stutterers - WISC Variables	181
32. Adjusted boys WISC Variables	182
33. Predelinquents - WISC Variables	183
34. Stutterers Scatter Analysis	184
35. Adjusted boys Scatter Analysis	185
36. Predelinquents Scatter Analysis	186

CHAPTER I

STATEMENT OF THE PROBLEM

1. Purpose of the Study

Stutterers and Predelinquents show a striking contrast in their overt behavior. They seem to represent opposite types of behavior if measured on a continuum. Stutterers exhibit repressed, inhibited, and submissive behavior, whereas Predelinquents, by contrast, display impulsive, unrestrained, and defiant characteristics.

It is the purpose of this thesis to investigate the covert personality characteristics of the Stuttering personality by comparing him with Predelinquent and Adjusted boys of the same age. As the overt behavior of the Stutterers and Predelinquents manifest entirely different attitudes and reactions, the question arises whether this difference will show up in a consistent test pattern. The comparison will be made in the area of intelligence and personality dynamics.

It is specifically the variable of "internalized controls" with which this writer is concerned and which is the rationale for the comparison of Stutterers and Predelinquent boys by means of the Rorschach Test. It is

the hypothesis of this study that Stutterers have too strong "internalized controls" and that Predelinquents lack these controls. The term "internalized controls" is defined as the ability to postpone the gratification of needs and desires until the time, place, and occasion is appropriate. When the child has not learned and internalized the prevailing rules and values of our society, his impulsivity and blind spontaneity will prevent him from rational and controlled behavior. "Internalized controls" seem an extremely desirable and necessary attribute of behavior in our society. But in the Stutterer "internalized controls" thwart his natural expression of speech and emotions. There seems to be a point at which controls become an intense barrier and a severe inhibition that block speech.

The comparison of the personality characteristics of Stutterers with those of Predelinquents and Adjusted boys is made in order to have two control groups which are likely to bring out significant differences regarding the personality structure, the nature of socialized controls, and other personality variables as well as the use of intelligence in the three groups.

The Rorschach test has been chosen for the personality study because it is a powerful and sensitive diagnostic tool and provides the examiner with an understanding of a person's feelings, experiences, and attitudes which cannot

always be detected by outward behavior. Eight specific variables from the Rorschach will be used for a quantitative comparative analysis of the three groups.

1. FC:CF+G ratio
2. M : sum C ratio
3. M, the Human Movement Response
4. H, the Human Response
5. P, the Popular Response
6. F+%, the good Form Response
7. 10 Anxiety Indicators
8. The Number of Content Categories

The Wechsler Intelligence Scale for Children (WISC) has been selected to compare differences in intellectual functioning in the three groups.

1. Full Scale I.Q.
2. Verbal Scale I.Q.
3. Performance Scale I.Q.
4. Difference between Verbal and Performance Scale I.Q.
5. Vocabulary Score
6. Comprehension Score
7. Similarity Score
8. Picture Arrangement Score

The two tests will be used to compare differences and likenesses between Stutterers, Adjusted, and Predelinquent

boys, each group consisting of twenty boys, aged 10 through 12. It is assumed that the Stuttering and Predelinquent groups are emotionally disturbed, and it is assumed that they will show a different test configuration when compared with each other and to the Adjusted Group.

It is the first problem in this investigation to find out whether any statistically significant differences between the three groups can be found in the Rorschach and in the WISC.

It is the second problem to investigate in which area of personality these differences lie, and particularly whether the differences in the area of "internalized controls" will emerge in the expected way, namely that the Stutterers and Predelinquents present opposite poles of behavior patterns. In other words, is the Rorschach Test efficacious in registering the differences in overt behavior, and beyond that, is it able to indicate other, not immediately observable, personality variables in the three groups.

2. Source

As a school psychologist of a Public School system, the writer has encountered various types of emotional, learning, and behavior problems in school children. Each of these children has been studied thoroughly by means of

a battery of psychodiagnostic tests, case histories, and interviews with parents and teachers. By comparing the test patterns of the aggressive, acting-out boys with those of the other school children who present different problems, the writer has been impressed by the fact that certain variables seem to occur over and over again in the aggressive boys.

In the course of my work at the Boston University Speech and Hearing Center, the writer became familiar with the personality characteristics of stuttering children. All of these children were anxiety-ridden, inhibited and passive; they swallowed down their disappointments rather than express them. The writer came to surmise that the test pattern of this personality type will show the opposite features in some respects as those of the pre-delinquent boys.

3. Justification

Few psychodiagnostic studies on stutterers have been undertaken as compared with other behavior disorders. Only three published studies in which the Rorschach Test has been analysed have been found by this reviewer. In these research projects, one by Morris Krugman^{1/}, one by

1/Morris Krugman, "Psychosomatic Study of Fifty Stuttering Children," Round Table, IV, Rorschach Study, American Journal of Orthopsychiatry, (1946) 16: 127-133.

H. Meltzer^{2/}, and the study by Christensen^{3/}, the age range of the stuttering children was from 6 to 15, 8 to 17, and 5 to 14 respectively, which is too wide a range for drawing meaningful conclusions if not broken up. These Rorschach studies do not take into consideration that we have to use age norms for these children and that it is meaningless to use the same criteria for five and fifteen year olds.

No psychodiagnostic study on stutterers has been published which uses a combination of intelligence and projective tests. Also no clinical paper has been published which compares stutterers and delinquents and compares them as a study in contrast of behavior. The awareness of this behavior contrast should have implications in regard to the treatment of both disorders.

2/H. Meltzer, "Personality Differences between Stuttering and Non-Stuttering Children as Indicated by the Rorschach Test", Journal of Psychology, (1944) 17: 39-59.

3/A. H. Christensen, "A Wuantitative Study of Personality Dynamics in Stuttering and Non-stuttering Siblings," Speech Monographs, (1952) 19: 31-39.

CHAPTER II

PREVIOUS RESEARCH AND BACKGROUND OF THE PROBLEM

1. Stuttering

There are many theories trying to explain the etiology of stuttering, ranging from an entirely physiogenic explanation on the one side (Berry and Eisenson)^{1/}, to an entirely psychoanalytical causation on the other (Coriat)^{2/}. In addition, stuttering has been called an inhibition (Bluemel)^{3/}, a biochemical disorder (Robert West)^{4/}, an approach-avoidance conflict (Van Riper)^{5/}, a semantogenic disorder (Wendell Johnson)^{6/}, a lingu-speculative insufficiency (Dr. Edward Pinchon)^{7/}, the result of an

^{1/}M. Berry and J. Eisenson, The Defective in Speech, Crofts, New York, 1942, p. 74.

^{2/}I. Coriat, "The Psychoanalytic Conception of Stuttering," Nervous Child (1943), II, 167-171.

^{3/}Dominick Barbara, Stuttering: A Psychodynamic Approach, New York, The Julian Press, 1954, p. 25.

^{4/}Elsie S. Hahn, Stuttering, Significant Theories and Therapies, Stanford University Press, 1956, p. 149.

^{5/}Charles Van Riper, Speech Correction, Prentice Hall, New York, 1954, p. 410.

^{6/}Barbara, Op. cit., p. 28.

^{7/}Hahn, Op. cit., p. 99.

inferiority disposition (Alfred Appelt after Adler)^{8/}, a deficiency in visual process (Dr. Walter Swift)^{9/}, a neurological disturbance (Dr. Smiley Blanton)^{10/}, and a physiological causation with a psychological reaction (Dr. Emil Froeschel)^{11/}.

It is now generally admitted that stuttering is a psychogenic disorder, a symptom of anxiety of an unconscious neurotic conflict even if there is an neurogenic predisposition. This writer is trying to find a theoretical understand of stuttering by reviewing writers who have used a dynamic approach to this difficult problem.

"Stuttering is now being studied not only as a symptom but as a psychoneurotic manifestation, and psychosomatic aspects of the problem are being emphasized.... The complexity of interrelated factors is evident, and integrated findings were brought out by investigators working independently."^{12/}

Dynamically oriented psychology tries to explain the personality of an individual predominantly in terms of childhood experiences and in terms of environmental influences. Psychological as well as anthropological studies

^{8/}Barbara, Op. cit., p. 32.

^{9/}Hahn, Op. cit., p. 130.

^{10/}Ibid., p. 1.

^{11/}Ibid., p. 41.

^{12/}Louise Despert, "Psychosomatic Study of Fifty Stuttering Children", American Journal of Orthopsychiatry (1946), 16: 100-113..

support the view that generous sucking and later weaning are related to generosity, optimism, outgoing behavior, and cooperation. Ungenerous sucking and early weaning, on the other hand, seem to produce impatience, hostility, passivity, aloofness, pessimism and endocathexis. The shortening of the period of breastfeeding is likely to prove traumatic.

Margaret Ribble^{13/} writes that

"the influence of breast feeding on character formation has been found to be significant ... and early weaning tends to be associated with oral pessimism."

Of course the attitude of the mother, the constitution of the child and the interaction of both are also vital factors, not the breast feeding alone. The findings of direct clinical observation of babies tend to confirm that infants need cuddling experiences, mothering, and physical closeness from one person as Harry Stack Sullivan has pointed out. After the long intrauterine life such maternal protection serves to counteract anxiety. A close mother-child relationship in infancy is the basis of socialization for the child. If the infant does not receive satisfactions for his bodily needs a variety of conflicts will appear.

Research studies, which will be quoted on the next pages, point strongly to the fact that stuttering children

13/Margaret Ribble, "Infantile Experiences in Relation to Personality Development," Chapter 20, in Personality and the Behavior Disorders, Vol. II, J. Mc. V. Hunt, Editor, The Ronald Press, New York, 1944, p. 621-650.

have had feeding and weaning frustrations. Pleasure in sucking and swallowing will change to pleasure in vocalization and speech later. Conversely, frustration in sucking activity per se and frustration of thumb sucking and of other sensory pleasures, and prohibition of the expression of protest creates a severe feeling of anxiety and helplessness and may take the form of speech retardation. If, however, children are not only frustrated in the oral stage, that is in the first year of life, but also in the anal stage, usually at the age of two and three (i.e., they have very early toilet training along with an overemphasis on cleanliness), then a great deal of hostility and aggression is accumulated which has to be repressed already in early childhood. The aggression has to be repressed because if it were expressed, children fear even greater prohibitions.

Despert^{14/} in her article "Psychopathology of Stuttering", found in a clinical study of fifteen stuttering children that there was a most conspicuous psychodynamic factor in the development of speech disorders.

"The maternal neurotic attitude is seen in the early eating-speaking situation which takes place between one to three years."^{15/}

Since in feeding, the lips, mouth, tongue, and in breathing the pharynx — the same organs he needs for speaking — it

14/Louise Despert, "Psychopathology of Stuttering", Am. Journal of Psychiatry, 99 (1943), 881-885.

15/Ibid., p. 882.

is believed by all dynamically oriented speech pathologists, that there is a close relationship between oral frustration and later speech development. The maternal attitude in the early eating-speaking situation is the conspicuous psychodynamic factor in stuttering. Changes to solid food, self feeding, walking, sentence formation, imitating of hand preference, and elimination control take place during this time and are often adversely affected. Despert found that stuttering children as a rule are shy and overdependent on their mothers and the mothers were disciplinarians and perfectionistic.

"Anxiety dreams were prominent, and hostility was frequently found with oral aggressive phantasy more marked in the younger children... anxiety was found to be associated with transitory speech deviations similar to stuttering."^{16/}

Also in her later cooperative study of fifty stuttering children in 1946 where Despert, as psychiatrist, was concerned with the social, physical and psychiatric findings, Morris Krugman with the psychodynamic aspects by means of the Rorschach Test, and Jessie Carlson with the intelligence aspects of stutterers by means of the Revised Stanford Binet, Despert^{17/} confirms her earlier finding that stuttering children are earlier deprived of pleasurable functions.

^{16/}Ibid., p. 883.

^{17/}Louise Despert, "Psychosomatic Study of Fifty Stuttering Children", Am. Journal of Orthopsychiatry, 16 (1946), 100-113.

"The majority of mothers were domineering, with fathers playing secondary roles; 36 of 50 mothers were overanxious, especially about feeding and physical health... Early feeding problems were common and too early toilet training was found in more than half of the children. Mothers fostered emotional dependence of the children by keeping their children in a state of prolonged immaturity about social relations or personal habits which was often associated with their own unhappy marital relations. There was a strong compulsive trend noted in the maternal drive for perfection. Thirtyone mothers and twenty fathers could definitely be considered neurotic."^{18/}

The figures quoted regarding the health history of the parents of the fifty stuttering children were also noteworthy.

"Cardiovascular diseases was the cause of death of 37 grandparents between the ages of 36 to 80. The figures for primary causes of death related to upper respiratory, upper digestive and cardiovascular diseases, and are considerably higher than those obtaining in the general population. The hereditary factor could be interpreted as a somatic selectivity which would influence symptom choice in the stuttering case. Inner tension in parents and grandparents was frequently found. Mothers were most cooperative to give time for this investigation."^{19/}

Philip Glasner^{20/} made a similar observation on stuttering children under the age of five. He found that 54% were

^{18/}Ibid., p. 101.

^{19/}Ibid., p. 100.

^{20/}Philip Glasner, "Personality Characteristics and Emotional Problems in Stutterers under the Age of Five," Journal of Speech and Hearing Disorders, 14 (1949), 135-38.

characterized as feeding problems, 27% were enuretic and 20% had exaggerated fears or nightmares.

"Usually they have a background of over-protective, pampering, and obsessively perfectionistic parents. Average age of the mother was 28 years of age. Too much is expected in the area of cleanliness, eating, toilet habits, manners, considerations of others and general decorum. Too little credit is given them for the ability to look out for themselves. They are made anxious and inferior by their parents. They are frustrated and confused by the indecision and inconsistency characteristic of overanxious parents."^{21/}

^{22/} Moncur, who has studied somewhat older stuttering children, also found evidence in this direction. He writes that the "true" mother, meaning the good and well-adjusted mother, subordinates her desires to the needs of the child; the parent of stuttering children show their domineering characteristics by their discipline. By holding the child to excessively high standards, by oversupervision and over protection and undue parental criticism, they create insecurity and tension. In a rapport-type-interview, Moncur compared a stuttering and a non-stuttering group using 59 well-thought out and intelligent questions. He found that more mothers of stutterers used spanking as mothers of non-stutterers. Thirty-two of forty mothers of stutterers insisted on "blind obedience", while only fifteen of the

21/Ibid., p. 136.

22/John Moncur, "Parental Domination in Stuttering," Journal of Speech and Hearing Disorders, 17 (1952), 155-65.

non-stuttering group were so unrealistic in their discipline. Shaming and humiliation has been used as a form of discipline by four and a half times as many parents of stutterers. Moncur writes that it is well known that too much discipline fosters aggression, hostility, fear and hate in children; we need not be surprised if we find some of these characteristics in stuttering children.

These studies point out clearly that stuttering children seem to suffer a great deal of frustration in both the oral and the anal stages in their infancy development. Also when they grow older, they are often subjected to more rigid discipline than other children.

Travis^{23/}, in his most original and thought provoking paper "The Need for Stuttering", speaks of three kinds of impulses which are involved in stuttering: Love, Hate, and Fear. He writes:

"Stuttering is a defense created with extraordinary skill and designed to prevent anxiety from developing when certain impulses of which the stutterer dares not become aware, threaten to expose themselves... I am going to advance the proposition that stuttering is the expression of a conflict between either love or hate or both on the one hand, and fear on the other."

Travis believes that the curtailment of sensory stimulation that our culture demands, the satisfaction of which is one of the most urgent needs of the human organism, is

23/Lee E. Travis, "The Need for Stuttering", The Journal of Speech Disorders 5 (1940) 193-202.

a constant disappointment. This is Freud's original idea expressed in 1931 in Civilization and Its Discont^{24/}, in which Freud reminds mankind, however, that control of primitive strivings brings also a great feeling of satisfaction and that our culture is built on repression. However, the control and the curtailment of sensory pleasures must not come at too early an age. If it is enforced too early, it produces unhappiness and often neurosis. "Sensual craving and rage are repressed by means of withdrawal," writes Travis, and "sense craving and rage are pitted against fear. Every infant has to handle disappointments, but the baby's strength to tolerate tension is feeble, and self-control is not at his disposal, only despair, rage, and depression."^{25/}

Although this writer is generally in agreement with Travis, she seriously believes that Travis exaggerates here because these characteristics are the components of a psychosis and after all, the stutterer has not been so severely frustrated as the psychotic child. The stuttering child is at times frustrated and at times permitted to indulge, and the inconsistency of the overanxious parent, and the indecisive and capricious atmosphere seemed to be characteristic. One must also remember that primitive needs

^{24/}Sigmund Freud, Das Unbehagen in der Kultur, Internat. Psychoanalyt. Verlag, Wien, 1931.

^{25/}Travis, Op cit., p. 194.

are never entirely satisfied in any human being, though the stuttering mother finds it extremely difficult to give of herself. She treats the child like an object that has to be trained. Writes Travis:

"Repression evades but does not solve all... difficulties. The craving will go on in spite of the fact that it becomes unconscious. Normally the unavoidable repressions of childhood are accepted as unavoidable. But with the stutterer the original disappointment is turned from and therefore never accepted so that the primitive demands of sense-craving are retained in their original form... His early infantile wishes and hates remain dynamic and force their way into expression as the symptom of stuttering."^{26/}

Here then is the dynamic explanation for the stuttering symptom, repression and anxiety caused by early trauma from the nursing period (oral stage). The same strict demands from the mother are carried over into the anal stage. Speech is an oral activity and speech sounds are uttered at first for the sake of pleasure rather than for communication. If the feeding situation is not a happy and pleasurable one, there is apt to be an unwillingness to speak because speaking has suffered an empathetic disturbance.

"Elimination and speaking are both "letting out". All waste products are kept back, now words will be held back... Psychoanalysis of stutterers reveals a preponderance of anal material.... The stutterer wishes to express himself and at the same time fears doing so,"^{27/}

26/ Ibid., p. 197.

27/ Ibid., p. 198 and 199.

It is interesting that stutterers do not stutter when they are alone but only in an interpersonal situation; then they become self-conscious and embarrassed when they attempt to speak.

Another important and original contributor to the understanding as well as the treatment of stuttering is Peter Glauber.^{28/} He has especially treated and investigated "The Mother in the Etiology of Stuttering". Glauber believes that the etiological factor in the stuttering symptom lie in specific elements in the personality structure of the mother. This is based on an extensive research study of the family constellation of 75 stutterers and material from the analysis of stutterers and their families.

"Because of her relationship to her own parents, the mother had to possess and control both husband and child. . . A stutterer feels a oneness with his mother and has a wish to be incorporated by the masculine mother. Separation from her causes serious anxiety . . . The mother usually feels she needs to earn money and help her 'weak' husband."^{29/}

Mothers of stutterers usually complain of difficult birth and many were "torn in the process", i.e., childbirth is a castration fear. In the medical histories of stutterers, Glauber states, there are always feeding difficulties,

^{28/} Peter Glauber, "The Mother in the Etiology of Stuttering", Psychiatric Quarterly, 20 (1951), 160-163.

^{29/} Ibid., p. 160.

they feed their children in contradictory ways which may be responsible for their children's multiple identifications and certainly for their marked ambivalence. Strangely enough they show oral as well as anal traits belonging to the obsessive-compulsive character, which makes treatment very difficult, much more than the ordinary neurosis.

"The rejection of the child is tempered - perhaps more accurately aggravated - by compensatory giving -- ... The mother mistakes control for love and she has many bisexual traits. The rejection is covered by much attention especially to food... In the stutterer the conflict centers around expressing attitudes of dependence and passive resistance."^{30/}

In another article in which Helen and Peter Glauber, a couple who work as a team, have treated a family of three in which the son was a stutterer, they write:

"In our experience, the mother has no initial awareness of her own involvement in the symptom formation ... Mother is inclined to project blame for the stutterer on her husband, often on a hereditary, constitutional basis... She rarely rejects treatment for herself."^{31/}

Glauber's findings are extremely close to those of Travis, Despert, Moncur, and Glasner, when he summarizes his point of view:

^{30/}Peter Glauber, "Social Psychiatric Therapy for the Stutterer", The News Letter of the Am. Assn. of Psychiatric Social Workers, (1944) XIV: 3-30.

^{31/}Helen and Peter Glauber, "The Impact of a Shift in the Psychological Constellation of the Family on the Treatment of a Stuttering Boy," Am. Jour. of Orthopsychiatry, 23 (1953), 755-774.

"The mother's influence in the causation of the stuttrer starts with the fateful experience of birth. It reaches a high point during nursing and weaning, experiences in which separation and clinging anxieties are tied at a very early age to the musculature which is the same physical apparatus later used for speaking. Her anxiety rises again when the child begins to speak.... The child unconsciously recognizes that his mother regards his speech function with anxiety and becomes apprehensive about it."^{32/}

Glauber, states that the treatment of the stuttering child is basically the same as that of any neurotic child. He shows defects in ego-functions, in identification, and has great difficulties in separating from the mother.

"Anxiety as to separation from the mother occupies a central position in both the stuttrer and his mother."^{33/}

A somewhat different theory has been proposed by Gertrude Wyatt, a clinical psychologist. She is opposed to Peter Glauber's view that "a special type of mother" is responsible for the stuttering personality. In her studies of 21 stuttering children aged three to nine years, the mother-child relationship is also the core of the problem but for her it is

"separation anxiety concerning the mother occurring at the time when the child is in the practicing stage of grammatical speech... If the close relationship between mother and child which is common during early infancy is threatened or actually disrupted during the period

^{32/}Ibid., p. 771-772.

^{33/}Peter Glauber, "Dynamic Therapy for the Stutterer", in G. Bychowski and L. Despert. (Editors), Specialized Techniques of Psychotherapy, Basic Books, New York, 1952, p. 236.

when the child is at the threshold of early relational speech, we will witness a double crisis: disturbance in the mother-child field... and disruption of reciprocal identification between mother and child."^{34/}

Wyatt reports that in the cases she studied, the disruption of the mother-child relationship was caused by circumstances beyond the mother's control, because of the child's illness and hospitalization or other events which necessitated separation at this crucial time of speech learning.

This theory, however, does not account for the "masculine" mother, her obsessive-compulsive character make-up, her need to marry a "weak" husband, her fear of the birth process and her contradictory ways of feeding and curtailing the infant. This writer believes that stuttering is a result of "the special type of mother." Because of her own ambivalent needs the stutterer's mother has created a stuttering personality with difficulty in identification.

2. Adjustment and Normalcy from Birth Through the Prepubert Period

The characterization of an individual as "adjusted" or "normal" should include biological, psychological, and sociological aspects. No individual grows up in a vacuum, and the family environment, especially the early parent-

^{34/}Gertrude L. Wyatt, in Stuttering, Significant Theories and Therapies, Elsie S. Hahn, Editor, Stanford University Press, Stanford, 1956, p. 158.

child relationship, and the larger societal and cultural influences like the school and the peer relationship, are of vital importance in his development.

Psychologists and mental health specialists usually know more about disturbed people and the causes of their difficulties than about healthy personalities. But "the presence of health is more than the absence of disease... Health implies a state of surplus energy, vitality, and awareness."^{35/} In order to comprehend deviant behavior it is necessary to establish norms for the assessment of subjects who do not fall outside the expected behavior norms in their society.

Anthropologists have pointed out that many of our expectations and rules regarding "normal" behavior are culture-bound. Margaret Mead^{36/} has shown that adolescence is not necessarily a stormy period because of the biological changes taking place in young people. In Samoa, adolescence is apparently a very happy time in the lives of the young people, probably their most happy time. The transition from childhood to adolescence can apparently be relatively easy, if society makes the way smooth.

^{35/}E. H. Erickson, "Growth and Crisis of the Healthy Personality", in C. Kluckhohn and H. Murray, Personality in Nature, Society, and Culture, New York, Knopf, 1953, p. 186.

^{36/}Margaret Mead, Coming of Age in Samoa, Mentor Books, The New American Library, New York, 1949, p. 33.

This chapter, however, is concerned with the psychological determinants of "normal" boys in our society. Especially, aspects of affective reactions, emotional control, fantasy life, human relationships, and of the ability to adapt to the prevailing mores of our society will be considered for the age group of ten to twelve year old boys.

"It is obvious that what is normal or abnormal for the adults, is not normal or abnormal for the child. Thus one cannot find 'abnormal' indications in the records of children, until one has standards of normality for the group of like age."^{37/}

This study will not use the sociological approach of authors such as Davis and Havighurst^{38/} who deal with differences in normal and deviant behavior in terms of middle- and lower-class attitudes. Whereas these findings are very valuable for the explanation of different value systems, they do not sufficiently uncover the roots of delinquent and deviant behavior. Later studies by Kaufman^{39/}, the

^{37/}M. R. Hertz, "Evaluation of the Rorschach Methods in its Application to Normal Childhood and Adolescents," Character and Personality, X (1941-42), pp. 151-162.

^{38/}Allison Davis and R. Havighurst, "Social Class and Color Differences", in Readings in Child Psychology, Wayne Dennis, Editor, Chapter IX, Prentice Hall, New York, 1952, pp. 512-530.

^{39/}Irving Kaufman, "Three Sources for Predelinquent Character", The Nervous Child, XI, Oct. 1955, pp. 12-15.

Gluecks ^{40/}, and Healy and Bronner ^{41/} have shown that it is not primarily the socio-economic background that determines delinquent behavior. The study by Healy and Bronner has demonstrated clearly that, in numerous cases, one of two twins may become delinquent and the other not. This shows that it is the inner psychological makeup of the individual and specific frustrating experiences which are the primary influence making for deviant and delinquent behavior. The child's ego selects that pattern in his environment which serves his psychological needs.

"Every attempt simply to deduce attitudes or a basic personality structure from social determinants is futile. Even in a single group, individual differences are more impressive than conformities, the exception more frequent than the rule... Cultural environment accounts only for certain similarities in persons of the same cultural group. For the tremendous individual differences among human beings living in the same group, constitution, and specific human influences are responsible."^{42/}

Since the confrontation of the stutterer and the pre-delinquent leads to problems of psychological causation which goes back to early stages in character formation, it seems indicated to outline the pertinent facts of the early

^{40/} Sheldon and Eleanor Glueck, Unraveling Juvenile Delinquency, The Commonwealth Fund, New York, 1950, p. 274.

^{41/} William Healy and Augusta Bronner, Treatment and What Happened Afterwards, Judge Baker Guidance Center, Boston, 1939.

^{42/} Franz Alexander, "Educative Influences of Personality Factors in the Environment," Chapter 26, in Clyde Kluckhohn and Henry A. Murphy, Personality in Nature, Society, and Culture, Alfred A. Knopf, New York, 1953, pp. 421-435.

development in children. The schools of psychological thought which have especially emphasized these early periods and built them into a consistent theory of personality development are psychoanalysis and its derivation, modern ego psychology.

In a study of child behavior it is necessary to distinguish between the various developmental stages and to indicate on which particular age group the study is focusing. Normal human development is often divided into eight stages; it is understood, of course, that there is some overlap from any one period to the following.

1. Infancy or prelanguage period, roughly from birth to age two.
2. The preschool period, ages three to five.
3. The early and late latency period, ages six through nine.
4. The prepuberty period, ages ten through thirteen.
5. Adolescence, ages fourteen through seventeen.
6. Young adulthood.
7. Maturity.
8. Old Age. ^{43/}

Infancy and preschool years are the foundation period upon which the future character structure of an individual

^{43/}Pauline G. Vorhaus, "The Use of the Rorschach in Preventive Mental Hygiene," Journal of Projective Techniques, 16 (1952), 179-92.

is built. Feelings of trust or mistrust in the mother or mother-substitute are learned in this stage. The first need of the infant for bodily closeness, warmth, and protection must be fulfilled.

"The infant's first social achievement then is his willingness to let the mother out of sight without undue anxiety or rage, because she has become an inner certainty as well as an outer predictability."¹¹¹

Maternal care which provides consistency, continuity, and repetition of experiences, which can be trusted and counted upon, lays the corner stone of a sense of ego-identity and basic trust.

In psychoanalysis this stage is referred to as the oral stage. The absence of a basic sense of trust during the first two years of life is believed to be the cause of childhood psychosis. Certain frustrations cannot be endured during this age without permanent injury to the personality. If the child is left to "cry itself out", it becomes distrustful and fearful of people, and finally apathetic. Such an experience can become a model for a radical disturbance in later life, which will manifest itself in a basic distrust in the world, in people, and especially in family members or authority figures. Such children will later, almost certainly, fail to perceive any humans on the Rorschach Inkblot tests.

¹¹¹/Erickson, Op. cit., p. 219.

If basic trust is considered the first component of mental health, the second component, according to Erickson, is a sense of autonomous will. Erickson believes that feelings of shame and doubt are easily created in the infancy period, if the child is not gently helped and guided. "Bowel and bladder training has become the most obvious disturbing item of child training in wide circles of our society."^{45/} Many contradictory tendencies are present at this time in the small child. Ambivalent feelings of love and hate, cooperation and willfulness can come in very quick succession without much rhyme and reason and must be understood by the parents as part of the process by which the child is learning to control himself.

In this phase of development, to which psychoanalysts refer as the anal stage, the infant learns sphincter control. In this process he experiments with two new modalities, "holding on and letting go". If he is trained gradually and gently guided, he will mature naturally and accustom his untrained musculature to control. As mothers in our society are usually anxious about this training phase, the child can please or punish his mother if she tries to train him too quickly. Both patterns can become sources of basic conflict in later life.

"To hold on can become a destructive and cruel restraining, and it can become a pattern of

45/ Ibid., p. 198.

care: to have and to hold. To let go, can turn into an inimical letting loose of destructive forces, or it can become a relaxed 'to let pass', 'to let be'." 46/

At this stage, the child begins to develop certain personality traits which determine whether he will be a dependent, or an autonomous person. As the parents urge the child to learn bowel and bladder control, it is important for his healthy development to avoid arousing in him experiences of shame and self-abasement. The infant should be given plenty of time to learn to self-regulate himself. Often he will over-manipulate himself in order to please, and will learn to gain power by stubborn and minute control, and so he will develop an anal character, that means, a compulsive character whose main characteristics are over-orderliness, stinginess, and obstinacy.

The preschool period, roughly between four to six years of age, is referred to by psychoanalysts as the oedipal phase of development. At this age level, the child becomes more conscious of his relationships to the members of his nuclear family, that is, his mother and father and his siblings, as far as they are dependent on the parents. The child identifies more with one of the parents and feels jealousy, rivalry, and guilt about his loyalty and preferences in the family situation. As a

further complication, jealousies develop towards siblings which leads to new feelings of insecurity or guilt. This web of relationships of the child with the other members of his family is of supreme emotional importance and forms the contribution of this phase of life to the formation of his character.

"It is at this stage... that the great governor of initiative, namely conscience, becomes firmly established. The child now feels not only ashamed when found out but also afraid of being found out... He begins automatically to feel guilty even for mere thoughts and for deeds nobody has watched. This is the cornerstone of morality in the individual sense."^{47/}

Many individuals, unfortunately, have not negotiated this developmental phase successfully, and will be plagued by guilt feelings in regard to parental relationships in adolescence. The kind of relationship he has established with the parents will serve as a prototype for the relationships he will establish to his male and female peers. In the oedipal phase of development, when the conscience or superego is established, the child becomes more proficient in the control of his impulses. But if the superego becomes too strong, as in the stutterer, the child will be afraid of showing any of his emotions, often not even laughter or tears.

In the Rorschach test, this restriction will show itself

47/Ibid., p. 209.

in the inability to perceive any colors. When the superego or conscience is too weak, the child will become impulsive, uncontrolled, and is on the way of becoming a delinquent if other influences do not counteract this lack of control. By the time the child has reached the latency period, approximately about six years of age, some of his special characteristics have been formed, but his personality has not yet been rigidly set, though the foundation has been laid.

In the early latency period, between six and nine, the child enters school and must learn to adopt himself to the fact that he does not hold the important position any more he held at home. The "normal" child is quite ready for such a step, ready to find his more modest place in a new social environment. School requirements will not be experienced as a threat to the well-adjusted child. Other adults than the parents become suddenly important. The sense of industry that suddenly comes over the children in the latency period is often accompanied by a sense of inadequacy and inferiority when they are not yet able to do and produce what they wish. They cannot learn as quickly as they desire. When the little boy cannot read the newspaper but only his pre-primer, he has a tendency to compare himself unfavorably to his parents. Developing a sense of workmanship and a desire to learn is acquired in this socially most decisive stage.

The latency stage leads into the prepuberty period, the age range with which this study is particularly concerned. Unfortunately, less has been written about this stage than about the earlier and later phases of personality development. During the prepuberty period, between ten and thirteen years of age, the child is beginning to stand on his own feet. It seems that he now turns his back towards the home and ventures out into the community. He tries to widen his sphere of interest, and he is seeking another world, one which centers in his peer group. He will easily feel lonely and have a sense of isolation.

"Just as formerly his security was anchored in the small world of his home, now the approval of his contemporaries is needed for personal satisfaction and maturational growth. This group or 'gang' age then is the period when sameness becomes important, when the child's need is to merge with his age group and to gain the sense of solidarity on which age strength depends."⁴⁸

The chief danger is that the parents — mostly the mother — cannot understand the child's need to grow up and to separate himself from them in order to become independent. Some mothers wish to keep their children under their wings because they fear they cannot find another task or meaning for their own lives. Parents often are hurt when the approval of the peer group means more to their youngsters than their own word.

⁴⁸/Vorhaus, Op. cit., p. 184.

The striving for ego identity becomes now a great problem, and the child begins to grope for a solution during this stage. Actually, it will be only in the succeeding phase, in adolescence, that his childhood experience and identification will be integrated into a new self. Unhappy or emotionally disturbed parents are poor identification figures and so are members of a delinquent gang. The normal development in this phase is the one which makes it possible, in addition to the parental identification figure, to find friends among his peers, because the personality develops through acquisition and internalization of the attitude of others.

Harry Stack Sullivan has made an outstanding contribution to the understanding of the latency period to which he refers by the name of the juvenile era, "the years between the entrance in school and the time when one actually finds a chum."^{49/} The importance of the juvenile era for the development of good interpersonal relation lies in the fact that this developmental phase is the time for becoming social.

This is the first developmental stage in which the limitations and peculiarities of the home as a socializing influence begin to be open to remedy. The school and the

49/ Harry Stack Sullivan, The Interpersonal Theory of Psychiatry, Norton & Co., New York, 1953, p. 227.

peers are the most vital forces in influencing inappropriate aspects of the personality, because the educative process of the school tends to correct characteristics of past socialization and opens a new world to the child. The juvenile learns "social subordination" and the experience of "social accommodation" in school.^{50/} By "social subordination" Sullivan means the great change that takes place in the child's attitude towards authority, and in the kind of subordination to authority. The juvenile is suddenly exposed to a variety of authority figures, such as teachers, principals, art and music supervisors, and the crossing policeman, who are all different from the authority figures in the home. In school, the child is expected to do things by demand, and he is given rewards and punishments with respect to compliance or rebellion.

The juvenile era provides another vitally important set of experiences. It induces the child to adapt to the various personalities of his peers with all their peculiarities. In the previous phase before school age, children are extremely insensitive to the rights and feelings of others. In the juvenile era, they begin to become acquainted with the personal qualities and faults of other children. As Sullivan says

"In addition to the adult authorities, there are in almost every school situation malevolent

50/Ibid., p. 228.

juveniles — bullies. Part of the incredible gain in ability to live comes from one's finding a way of getting by under the episodic and destructive exercises of authority by such compeers."^{51/}

Sullivan differs from the theory of classical psychoanalysis by his observation that experiences after age five have a vital importance for the social development of the individual, because previously he had no sufficient experiences to compare what other children of his age were doing or getting away with. For Freud, all vital influences on character formation occur before the first six years of life and are related to the child's psychosexual development. Neo-Freudians, however, have become aware of important cultural and social influences such as the school, the gang, the neighborhood, and take them into consideration in addition to the intrapsychic mechanisms.

Differentiation in authority figures is part of the acculturation process. The child discovers merits in some teachers and demerits in others. Even more important, he also compares his parents with other adults and checks their relative virtues and weaknesses.

"But if he comes out of the juvenile era with no freedom to compare his parents with other parents, with teachers, and so on — if they still have to be sacrosanct, the most perfect people on earth — then one of the most striking and important of the juvenile contributions to socialization has sadly miscarried."^{52/}

51/ Ibid., p. 229.

52/ Ibid., p. 231.

Sullivan speaks of two types of attitudes that are required in the juvenile era which are typical for the early school situation, "competition and compromise". Especially competition gets a great deal of encouragement in our culture, and the juvenile society encourages competitive efforts of all kinds in sports and games. Compromise is also encouraged by the peer group and by school authorities.

"Both competition and compromise, while very necessary additions to one's equipment for living with one's fellows, are capable of being developed into outstanding troublesome traits of the personality."^{22/}

Competitive trends have value in our society, but they may also warp the personality by fostering a desire to get the better of the other fellow. This may become the outstanding pattern of interpersonal relations. Compromise also may become a vice if the juvenile is willing to yield all his convictions and rights for the sake of acceptance or simply to be left alone. Competitive and compromising attitudes are adopted, because the youngster needs to preserve his feeling of self-esteem and self-worth. Under no circumstances does he want to be ostracized, although this does happen to a number of unfortunate children who cannot adapt to the rules of the group. What makes the juvenile era so complicated is the presence of other people. "Three

53/Ibid., p. 235.

groups of people make up the world of the juveniles — the family, the non-family authority, and the other juveniles."^{54/}

It is the reputation of the juvenile by the in-group of juveniles which contributes greatly to his feelings of self-worth. If he is an outsider, he feels devaluated.

In juvenile society, being average is very desirable. If one cannot be popular, it is better to be average. Various factors may be responsible for preventing a child from fitting himself into his peer groups. Factors such as ill health which exclude the juvenile from participating in games, interfering parents, or mobility of parents who move from place to place, may give the youngster no chance to adjust to juvenile society, and he always remains a stranger. Sullivan also points out that some parents, for some reason of their own, always disparage other people, other peers, other teachers, and so the child cannot find out what is a good way of acting and behaving, a situation that can lead to severe maladjustment.

"If you have to maintain self-esteem by pulling down the standing of others, you are extraordinarily unfortunate in a variety of ways. Since you have to protect yourself of personal worth by noting how unworthy everybody around you is, you are not provided with any data that are convincing evidence of your having personal worth.... I think that this is probably the most vicious of the inadequate, inappropriate, and ineffectual performances of parents with juveniles — this interference with a sound

54/Ibid., p. 235.

development of appreciation of personal worth, by universal derogatory and disparaging attitudes toward anybody who seems to stand out at all."^{55/}

The juvenile era then provides opportunities for social experiences in the larger world which the younger child does not have. By the end of the sixth grade, he has given up many ideas and attitudes which in childhood and in the home were all right. In fact, childhood experiences are forgotten so that he can learn to read and write and to become better adjusted to all the people in his environment. The critical reactions of other juveniles and the predictable attitudes of adult authority figures increase the power of his self-awareness of his ego.

Preadolescence is a period that shades into the juvenile phase. Sullivan uses these two terms without giving quite definite age specification. The juvenile phase comprises roughly the years from six through ten, and pre-adolescence from eleven through thirteen. As the juvenile stage was significant for the need for playmates and peers, the preadolescent era is characteristic for a sudden interest in another person of the same sex. There appears a need for interpersonal intimacy in the sense of closeness involving two people who have a common goal. There is a great deal of collaboration and cooperation to supply each

55Ibid., p. 243.

other with satisfaction. Sullivan believes that this pre-adolescent phase has great inherent psychotherapeutic possibilities.

"The preadolescent phase of personality development is especially significant in correcting autistic, fantastic ideas about oneself or others... this phase is of incredible importance in saving a good many rather seriously handicapped people from otherwise inevitable serious mental disorder."^{56/}

The capacity to have friends in later life seems to be related to the experience of having had a chum in the pre-adolescent phase of personality development; this appears to be especially true of boys. The preadolescent relationship is usually a group of two boys; each of these boys then has another acquaintance or chum whom he introduces to the first, so that a certain linkage of "two-groups"^{57/} is formed. For this reason, the preadolescent phase has been called the group or gang age which has its peculiar positive and negative cultural possibilities. The intimate interchange with one chum in preadolescence also contributes toward a more positive attitude toward the self. Many pre-adolescents who up to that period in their lives were entirely uncertain of themselves, because they had never been treated as equals or otherwise taken seriously and who in their interpersonal relations had been 'gotten by' with

56/Ibid., p. 247.

57/Ibid., p. 249.

diplomacy and deceit, are now establishing a relationship of intimacy and mutual support. In this newly won mutuality of acceptance between friends, the preadolescent becomes surer of himself, because he knows he is taken seriously by his chum, as he takes him seriously.^{58/} If the intimate friend cannot be found, the preadolescent can suffer under exasperating loneliness. "Loneliness in itself is more terrible than anxiety", says Sullivan.^{59/} Deprivation of companionship is painful to the self, and juveniles make conscious efforts to find friends, even though many are fearful of meeting rejection. They often lack the skill of making contact with another juvenile and act in such a foolish way as to defeat their own purpose.

The time of puberty change varies considerably among individuals in our culture, and it is unfortunate if the need for intimacy arises several years later than is normal. In that case, the preadolescent doesnot have an opportunity to satisfy his need because it is hard for him to find another adolescent who is also delayed in his development. Sullivan observes that

"in our society, the age when early adolescence appears varies within three or four years, I think. This remarkable developmental discrepancy which is possible among people of the same chronological age... is one of the important factors which make adolescence such a time of stress."^{60/}

58/Ibid., p. 261.

59/Ibid., p. 264.

60/Ibid., p. 261.

In adolescence, a change of object in the need for intimacy takes place. Instead of seeking a person quite like oneself, of the same sex, the adolescent is seeking someone of the opposite sex.

"This change in choice is naturally influenced by the concomitant appearance of the genital drive... a growing interest in the possibility of achieving some measure of intimacy with a member of the other sex."^{61/}

The significant physiological changes taking place in early adolescence are accompanied by a change in attitudes and in fantasy life. Now that the interest begins to move towards the other sex, we find strong repressive influences brought to bear on the young adolescent by the family, the school, and society as a whole. Ridicule, interference, and criticism are often used to prevent the young adolescent to establish a relationship with a person of the other sex. With the great conflict between his physiological and psychological needs new insecurity arise which center on feelings of self-esteem and self-worth. These have to be worked out in later adolescence, a period which is beyond the age-level of this study.

In sum, Sullivan's most pertinent observations concerning personality development up to the adolescent phase, contribute the following points to the theory of interpersonal relationships: The need for intimacy starts in

^{61/}Ibid., p. 264.

infancy and manifests itself in a striving to avoid loneliness. The need for contact, for tenderness and protective care continues into childhood. In childhood a desire for adult participation is added. The child needs to play and be together with the significant adults in his life in order to achieve in his life the maturation of coordination and sensory development, the development of language, and abstract as well as concrete thought. In the juvenile phase, the need for compeers is indispensable for learning, by trial and error, how to relate to others; and this in turn is followed by a need to be accepted by the group. In preadolescence, the need for an intimate exchange of experience with a friend of the same sex paves the way for a relationship with a member of the opposite sex in adolescence. Although not all people are fortunate enough to go through this development in the ideal sequence, it is the powerful need for intimacy that guides the development of human beings.

Stone and Church in their recent book, Childhood and Adolescence,^{62/} agree with Sullivan regarding the great importance of this age period for the socialization of the child, and they have done comprehensive research on the age range between six and twelve which they call "the

^{62/}L. Joseph Stone and Joseph Church, Childhood and Adolescent, Random House, New York, 1957.

middle years". Although Stone and Church's presentation does not match Sullivan's penetrating insight, they have added important observations on the middle years to our knowledge which are particularly welcome because less has been written about this period than about either early childhood or adolescence.

The middle years are a time of essentially moving away from the parents to find a separate identity. The "middle age" child succumbs to peer-group authority in place of absolute parental authority. The boy, especially, begins to declare his independence and often uses the gang as a fortress. 'Gee, Ma, all the kids can listen to this TV program, why can't I', are statements one can hear quite often from ten year olds.

"Every child in the middle years is more or less in the position of what Mead has called 'the immigrant personality'. The child of immigrant parents in the U.S. typically finds himself ashamed of his parents' 'foreign and old-fashioned' ways and he strives feverishly to be as unlike them as he can. So it is with the middle year school child. His parents, no matter how American they are, are no longer the source of all wisdom and power. Indeed, they may appear all too contemptibly weak and mundane and merely human."⁶³

Groups and gangs exist at first exclusively for the sake of belongingness, and the gang spirit in itself is something valuable and new. Later the value lies in the things the gang does. In boys' gangs, prestige is gained by what a fellow

is able to do, and what the toughest can accomplish in competitive bravery. Ten year olds feel that they cannot afford to like school — like the girls. "No ten year old will be caught dead saying that he 'loved' anything."^{64/}

During the middle years, boys and girls start to pursue separate interests. Their games, their taste in reading, and their collections are often quite different. From schools and Child Guidance Clinics we have learned that boys have a much harder time to adjust to a new situation.

"Boys are consistently more prone than girls to minor or major emotional, scholastic, and behavior problems. Boys are more likely to stutter, to have reading disabilities, to wet the bed, to develop tics, to be undisciplined, and to get into trouble with the law. The most central male difficulty seems to be control of aggression."^{65/}

Ruth Benedict has pointed out that the identification process for girls is somewhat easier than for boys, because education in the early and middle years is mostly in the hands of women. While boys may lack identification figures, girls lack males to relate to. Boys are expected to meet the standards of good behavior laid down by female authorities, but boys also must show a certain amount of spirit and aggressiveness if they want the prestige of their peer group. "He is expected to be

64/Ibid., p. 220.

65/Ruth Benedict, "Continuities and Discontinuities in Cultural Conditioning," Psychiatry, I (1938), pp. 161-167.

both, Tom Sawyer and Little Lord Fauntleroy."^{66/} In this way, the boy has to meet conflicting demands between adult standards and peer-group standards. Benedict believes that these conflicting standards are the main cause for the greater number of problems among boys.

Another important area during the middle years, which is rarely discussed, is the children's eagerness in regard to information about "the facts of life". It is inevitable that children who are not given honest information by their parents about sexual matters will try to get this information from their peers or some older friends.

"Children are eager to acquire forbidden information from friends and to pass it on to other friends. When the gang is not looking — or more rarely under its aegis — boys and girls do meet and compare anatomy and even make awkward, largely ineffectual sexual experiments. By the middle years there is a steady traffic among children in smutty stories which may be poorly apprehended but which are sure to elicit giggles. Children likewise giggle together over the dictionary in which they look up words referring to sexual and excretatory matters, or over the Bible... Most sexual activity in this period, though consists in the exploration of one's own body... Children are aware that genital curiosity and masturbation and inquiry into 'dirty' things, brings them face to face with very explicit threats from adults, or at the very least, with a strained reserve and vague but strong taboos. As a result most children experience some anxiety in connection with their sexual investigations."^{67/}

^{66/}Stone & Church, op. cit., p. 225.

^{67/}Ibid., pp. 232.

We do not really know, statistically, how much sexual information boys under the age of twelve have, or which sexual activities they engage in, but Stone and Church maintain that a great many boys have at least one actual homosexual experience during the middle years and are usually initiated by an adolescent or an adult. Kinsey claims a high frequency of actual sexual activities of boys slightly under fourteen, and it is obvious that for adolescents official morality and actual practice are very far apart.

3. Predelinquency

Much has been written in the field of delinquency and many disciplines have done independent research. At least three major professional disciplines have been trying to define and explain delinquency; law, sociology, psychology and psychiatry.

In Massachusetts, the General Laws define a delinquent child as "a child between the ages of seven and seventeen who violates any city ordinance or town by-law, or commits an offense not punishable by death."^{68/} It is quickly apparent that such a definition is not helpful for a psychological investigation, because legally a child may be considered delinquent only after he has committed a specific delinquent act. The psychologist, however,
68/Acts and Resolves of Massachusetts, 1948, Ch. 310, Sec. 3.

would assume that there are intra-psychic factors that have existed within the personality structure of the child for some time which predispose him to so-called pre-delinquent behavior.

For the purpose of this study, the behavioral characteristics of predelinquent behavior include the following symptoms:

1. A school history of coming into conflict with teachers and principals.
2. Truancy (more than twice).
3. Defiance to authority (Refusal of doing what teachers or principals ask).
4. Impulsive and reliable behavior.
5. Aggressive behavior towards younger and weaker children.
6. Theft of minor objects (either from peers or in the Five-and-Ten Store, etc.).
7. Setting fire out of doors, or a general fascination with fire.
8. Socially undesirable behavior (loud, unconcerned about property).

The boys included in this study must show at least four of the above characteristics.

It is, however, much more difficult to describe the internal factors that predispose a child to become a delinquent. Psychiatrists and sociologists have attempted

to understand delinquency in terms of a two-part system of classification.

The old term 'psychopathic personality' has been replaced in the nomenclature of the American Psychiatric Association by the term 'sociopathic personality disturbance'. This term denotes that the person is disturbed in his relations to the social environment, in his lack of conformity with his culture, as opposed to the neurotic delinquent who has difficulties in terms of inter-personal relationships with individuals and suffers from intrapsychic distress. The term 'psychopathic personality' was, however, an improvement over the previous terminology of 'constitutional psychopathic inferior' which entailed a strong negative value judgment and indicated little sympathy with the delinquent.

Sociologists often maintain that there is a typical pattern of delinquency rates in low socio-economic urban regions; less seldom do they indicate that the majority of citizens do not become asocial or delinquent.

"The studies fail to emphasize that this influence affects only a selected group compromising a relatively small proportion of all the residents. They do not reveal why the deleterious influences of even the most extreme delinquent areas fail to turn the great majority of its boys into persistent delinquents. They do not disclose whether the children who do not succumb to the evil and disruptive neighborhood influence differ from those who become delinquents and if so in what respects.

Until they take this factor into account, they cannot penetratingly describe even the culture of the delinquency area."^{69/}

Sociologists as well as psychologists have to find the point of impact where social as well as personal controls begin to fail. To understand the extent of the physical, social, and emotional factors within the individual upon the social disorganization, an inter-disciplinary approach seems indicated.

Modern ego psychology generally accepts the role of early environmental and emotional conditioning upon the development of the character formation of the individual. A way of combining the sociological and psychological approach has been suggested by two social psychologists, Sarbin and Jones:

"Since most of the residents of deteriorated neighborhoods do not become delinquents and criminals, we are forced to the conclusion that certain characteristics of the individual child predispose him toward acceptance or rejection of the criminal value system. These characteristics are laid down early in the child's development... We shall refer to these characteristics as having to do with acquired techniques of impulse control."^{70/}

Children who have not learned impulse control at the proper age, are not accepted by all the agents of the

^{69/}S. Glueck and E. Glueck, Unraveling Juvenile Delinquency, Harvard University Press, Cambridge, Mass., 1954, p. 5.

^{70/}T. R. Sarbin and D. S. Jones, "Intra-Personal Factors in Delinquency", The Nervous Child, Vol. II (1955), p. 23-27.

conventional value system. They are rejected by other children, teachers, neighbors, recreation workers, etc., and therefore they are happy when they find a peer group which not only accepts them as they are, but reinforces them in their uncontrolled behavior. We must therefore focus upon the intrapersonal characteristics of pre-delinquent children and youth, and find out how they differ from their nondelinquent peers.

Sarbin and Jones, in their research, found that delinquent and nondelinquent groups could be differentiated significantly in the following ways:

- "1. Delinquents are less successful than others to bind tension...
2. Delinquents' evaluation of their own past performances and predictions of their own future performances will be less accurate than other persons' self-evaluation and self-predictions.
3. Delinquents will show inaccurate performances in situation which require coordination of motor responses...
4. Delinquents will show slower and inaccurate performance where difficult discriminations are required.
5. If only conflicting or ambiguous cues are available for judgment, delinquents will show fast (impulsive) and variable performance."⁷¹

The authors showed by a series of tests that their delinquent group was different from the non-delinquent group in perceptual cognitive sphere, and that the delinquents were more retarded intellectually than the non-delinquents.

⁷¹/Ibid., p. 24.

There is a good deal of evidence that most children who come before the court have a history of poor school achievement ^{72/,73/} and are doing poorer on academic types of intelligence tests like the Stanford-Binet. But as Merrill has pointed out

"the average I.Q. of the delinquents is 92.5, that of American-born white children ... is 101.8. This is statistically significant difference in the direction of greater intellectual inferiority of the delinquent group, but this mean is within the range of normal of average intelligence."^{74/}

Merrill used 500 records of the County Juvenile Court and compared them with the 3000 school children upon whom the Stanford-Binet was standardized.

The Gluecks, in their extensive study, Unraveling Juvenile Delinquency, ⁷⁵ which appeared in 1950, have tried to arrive at similarities and differences in the background and make-up of delinquents. They have carefully matched delinquents and non-delinquents in regard to age, intelligence, socio-economic status, and ethnic origin. On the basis of their findings, the Gluecks have constructed prognostic tables by means of which the probability of delinquency in certain boys may be early and meaningfully determined without waiting for the actual appearance of

^{72/}S. Glueck and E. Glueck, Op. cit., p. 143.

^{73/}W. C. Kvaraceus, The Community and the Delinquent, World Book Co., Yonkers, N. Y., 1954.

^{74/}Maud A. Merrill, Child Delinquency, Houghton Mifflin Co., Boston, 1947, p. 168.

^{75/}Op. cit., p. 261.

delinquent behavior. They used three levels of inquiry, each conducted independently of each others. Level One: Social background information gathered from material concerning home conditions and family life. Level Two: Character traits determined from the Rorschach test. Level Three: Personality traits determined from psychiatric interviews.

For the Level One Inquiry, a Social Prediction Table comprising five factors was constructed:

1. Discipline of Boy by Father.
(Overstrict, lax, firm, but kindly)
2. Supervision of Boy by Mother.
(Unsuitable, fair, suitable)
3. Affection of Father for Boy.
(Indifferent or hostile, warm including overprotectiveness)
4. Affection of Mother for Boy.
(Indifferent or hostile, warm, including overprotectiveness).
5. Cohesiveness of Family.
(Unintegrated, some elements of cohesion)

For the Level Two Inquiry, Rorschach protocols were analysed to ascertain the presence or absence in "marked" or "slight" degree of the following five personality traits:

1. Social Assertion
2. Defiance
3. Suspicion

4. Destructiveness
5. Emotional Liability

In the Level Three Inquiry, materials from psychiatric interviews were evaluated to ascertain the absence or presence of the following five personality traits:

1. Adventurous
2. Extroverted
3. Suggestible
4. Stubborn
5. Emotionally unstable^{76/}

The variables listed all have been found to be statistically significant as prognostic indicators. The Social Prediction Table especially, seem to be "blowing in the right direction" as a number of studies such as those by Black and Glueck^{77/} of the Jewish Board of Guardians in New York and a study of the Douglas A. Thom Clinic for Children in Boston^{78/} have indicated.

A valuable explanation about basic elements in delinquent behavior can be derived from psychoanalytic theory, where impulsiveness and lack of control are understood as normal but infantile human behavior.

Alexander states, "the human being enters the world as

76/Ibid., p. 263-264.

77/E. T. Glueck, "Spotting Potential Delinquents," Federal Probation Quarterly, (Sept. 1956), p. 7-13.

78/Ibid., p. 10.

criminal, i.e., socially not adjusted. During the first years of his life, the human individual preserves his criminality to the fullest degree."^{79/} What we consider unacceptable behavior in older children and adults is perfectly normal for young children. They gratify all their instinctual impulses. Actual social adjustment happens during the latency period, starting around the age of four and ending at puberty.

According to Alexander the only difference between a normal and a delinquent person is that

"the future normal individual succeeds (mostly in the latency period) in partly repressing his genuine criminal instinctual drives, and thus cuts them out of motor expression, and partly in transforming them into socially acceptable striving; the future criminal more or less fails in carrying out this adjustment."⁸⁰

For Alexander, all men have criminal tendencies: the bull fights in Spain, the boxing fights in America, the soldier-playing in Europe, are all indicators of a need for violent physical outlets. Only the normal person finds socially acceptable channels and learns to postpone gratification of these needs for a proper time.

In psychoanalysis, it is the ego which emerges in the oedipal period and then makes its first attempts to repress

^{79/}Franz Alexander and H. Staub, *The Criminal, The Judge, and The Public*, (Rev. ed.) Glencoe, Illinois, Free Press, 1956, p. 30.

^{80/}*Ibid.*, p. 30.

the primitive instincts, and in the latency period the ego begins to sublimate the psychic energy into more socially acceptable forms, such as school learning for instance. If the ego develops normally, then the child will give up some of his instinctual needs in return for the love of a mothering person. If the mother child relationship is not sufficiently close, the ego stays weak and the child will not be able to relinquish its early impulse satisfaction.

Joseph J. Michaels, a Boston Psychiatrist, has conducted many research studies on delinquents, and he finds a unique configuration of personality which he considers to be

"usually ill-balanced, poorly integrated, immature, and not highly differentiated... There is a high degree of irritability, explosiveness, impulsiveness and uninhibitedness which permeates the whole personality."^{81/}

Michaels states that delinquents are somewhat more primitive people, they are more action-motivated and are dominated by the pleasure principle because "pleasure cannot be postponed and gratification must be immediate."^{82/} The impulsive delinquent cannot control his primitive impulses and cannot hold his tension. These individuals

^{81/} Joseph J. Michaels, Disorders of Character: Persistent Enuresis, Juvenile Delinquency, and Psychopathic Personality, Charles C. Thomas, Springfield, 1955, p. 57.

^{82/} Ibid., p. 59.

"feel the urgency of the moment psychologically as at an earlier date they could not hold their urine."^{83/}

Other psychiatric investigators^{84/, 85/} have found that young delinquents as well as adult psychopaths collect things rather than people, meaning they are not attracted to people but only to objects. So that words, and language in general, and abstract ideas do not attain the significance they acquire for neurotic or even psychotic individuals. Delinquents seem to react better to non-symbolic and concrete situations than to verbal ones. There also seems to be some evidence^{86/, 87/} that delinquents do not have a latency period in their development. Michaels and Hamilton believe that this insufficient repression in the latency period might be responsible for the greater tendency for concrete interests and performances than in abstract thinking.

A related observation about delinquents concerns their limitation to learn from experiences, and if they learn

83/Ibid., p. 57.

84/Roy Schafer, Clinical Application of Psychological Tests, Inter. Univ. Press, N. Y., 1948.

85/K. Eissler (Ed.) Searchlights on Delinquency: New Psychoanalytic Studies, Internat. Univer. Press, New York, 1949.

86/Michaels, Op. cit., p. 63

87/G. Hamilton, Psychotherapy in Child Guidance, Columbia Univ. Press, New York, 1947.

certain physical controls, they do seem to learn them much later than others.

"This delayed maturation occurs on all the bio-psychosocial levels. Enuresis, when continued from childhood, usually persists until puberty."^{88/}

There is also a deep-seated relationship between fire and water, and enuresis is very often connected with fire setting, a relationship to which Freud had earlier referred, realizing that the acquisition of power over fire was one of the first acts of civilization and control over instincts.

"It is as if primitive man had the impulse when he came into contact with fire, to gratify an infantile pleasure in respect to it and put it out with a stream of urine. Whoever was the first to deny himself this pleasure and spare the fire, was able to take it with him. This great cultural victory was thus a reward for refraining from gratification of an instinct."^{89/}

The impulsive delinquent with his need to action, his tendency toward concrete thinking and his proneness to quick discharge of tension which permits a minimum of phantasy creation and sublimation, is an

"interesting antithesis...with the person of the compulsive neurotic type who is given more to abstract conceptual thinking and the world of the spirit — the type which may suffer from apparent block of affect due to extensive defensive measures which have been instituted —."⁹⁰

^{88/}Michaels, Op. cit., p. 66.

^{89/}Ibid., p. 67.

^{90/}Ibid., p. 65.

Here one cannot help but think of the neurotic stutterer who is blocked due to 'extensive defensive measures' such as inhibition, repression and the resulting anxiety. The combination of maleness, psychopathy, enuresis, and fire setting is often found in delinquents. In contrast,

"in the individual with the predominant character structure of a psychoneurotic... when confronted with impulses of hate, the person wards them off through the mechanism of repression... When psychosomatic symptom formation is the chief tendency of a personality disorder, the patient has the possibility of binding or neutralizing aggressiveness in an organ or organ system."^{91/}

Here we have practically a true confrontation of the psychosomatic symptomatology of the stutterer who internalizes his aggressiveness with the impulsive delinquent who has no psychosomatic disorders but externalizes his impulses in the form of aggressive behavior.

A most original contribution to the understanding of delinquent behavior has been made by Redl, who has coined the term 'delinquent ego'. Redl and Wineman describe twentytwo specific points of breakdown of the ego in their book, Children Who Hate.^{92/} In their later book, Controls From Within^{93/} they give a description of the ego-support-
91/Ibid., p. 98.

^{92/}Fritz Redl and David Wineman, Children Who Hate, The Free Press, Glencoe, Illinois, 1951.

^{93/}Fritz Redl and David Wineman, Controls From Within, The Free Press, Glencoe, Illinois, 1952.

ing programs used in a Group Therapy Home to treat these seriously disturbed delinquent boys. They describe how these deprived boys have an unusually low frustration threshold, and how they are unable to handle their own feelings which are the result of sometimes inevitable frustrating situations. The ego is completely helpless in view of the onrush of impulses and cannot control the quantities of aggression, fear, and discomfort produced by even the mildest of frustrating circumstances which are simply part of every day life. The children with a "delinquent ego" become immediately effected by the behavior of only one other 'wild' youngster, and their acting-out behavior spreads like an infectious disease. The boys are described as trying with all their strength to remain the way they are and they meet the adult who tries to change them with a consistant and well-planned resistance of counter-techniques to which Redl and Wineman refer as the "delinquent ego". It is used like an armor in their fight against the world.

"The delinquent ego are actually techniques of defenses anywhere, whenever an ego makes up his mind to stick to impulsive demands or to its pathology against changes which the educator or clinician is trying to bring out." 94/

The delinquent boys also have known so few persons with whom they could identify and whom they could like, that they 94/Redl and Wineman, Children Who Hate, p. 195.

have no "identification readiness". The boys may go so far, after a great deal of initial resistance, to accept a counselor's love and affection, but they cannot change their affection into a desire to improve and identify, or accept the value system of the counselor.

"The children who hate... are the children of neglect. They have been chronically traumatized through repetitive frustrations of many of their basic needs..These youngsters are not ready to benefit from a good educational setting. Their frustration tolerance is too low, learning represents no challenge as they have no life goals and no previous life experiences to guide them. Their basic ego disturbance has to be repaired first in a therapeutic group setting."^{95/}

Redl, who is one of the first psychologists to use methods of group dynamics with delinquents, points out that such a boy can only identify with his peer-culture and his friends of the same age which to him stand in opposition to the behavior represented by adults. Through his emotional ties with the group, he can eventually identify with the "group code" which corresponds to what we call a conscience or a superego. It represents all the values the group stands for. The delinquent has a tremendous gang loyalty and will avoid all persons or influences that will endanger his identification with the group. In the delinquent, the group loyalty is the only satisfying relationship he has

95/Ibid., p. 240.

ever experienced,^{96/} while in the normal boy, the group allegiance follows the relationship he has had with the parental figures and maybe, a peer of the same sex.

Alexander, Michaels, Friedlander, and Redl are all psychoanalysts who have described the boy with the so-called sociopathic or psychopathic personality. For the purpose of this study, I will call this type of individual the impulsive delinquent because the predelinquents in this study have been selected according to behavioral characteristics; this term also does not connote any genetic implication as Alexander and Michaels are apt to do.

The impulsive delinquent has suffered such basic disturbance in the development of his personality that his normal relationship to his parents, and therefore to other authority figures, has been permanently disturbed. His ego development is weak because he has not been able to give up his primitive instinctual gratification in return for a secure and trusting relationship with the maternal figure. The parental care he had was either rejecting or over-indulgent, but never did he acquire the "basic sense of trust" about which Ericson is so concerned in the normal child. Therefore the boy with the impulsive character tends

^{96/}Fritz Redl, "The Psychology of Gang Formation and the Treatment of Juvenile Delinquency," The Psychoanalytic Study of the Child, Vol. I., International University Press, New York, 1945, pp. 367-377.

to perceive adults, and especially the school and teachers, as threatening and punitive. He does not even want to make friends with adults, because he fears he will again be abandoned and rejected. The continuous frustrations of all his dependency needs have caused a great deal of hate and aggression in him which he discharges freely. He has never learned control in return for mother's love and recognition.

There is also another type of delinquent. He also does not trust his parents and other authority figures, holds ambivalent images of good and bad parents, and usually is referred to as the neurotic delinquent. Just as his parents have treated him in an inconsistent way, other authority figures also are perceived as sometimes rejecting and not trustworthy, and at other times as accepting and kind. In the neurotic delinquent primitive needs have usually not been quickly satisfied, but rather have been dammed up and repressed. As the impulsive delinquent could indulge his primitive instincts and never learned sufficient control, the neurotic delinquent has been urged to repress his instinctive urges at a much too early a time and also by harsh treatment, making use of the child's anxieties, especially of his fear of being left alone.^{97/} Such children are never permitted to express

97/Kate Friedlander, The Psychoanalytic Approach to Juvenile Delinquency, Internat. Univer. Press, New York, 1947, p. 67.

any negative feelings. The immediate repression of aggression can be just as frustrating as non-satisfaction of other vital needs. The aim of social adaptation and of controls is to learn good human relationships. Most of the human relationships formed in later life are built on the pattern adapted in the early life of the child. One of the most important factors in this first close relationship with the mother

"is the child's growing perception that it is more satisfactory to keep the mother's attention and to earn her love and approval than to fulfil his desires immediately. Within this relationship the child learns to wait for satisfaction. This leads to the acceptance of the reality-principle instead of the original pleasure-pain principle. Without this, social adaptation is impossible."^{98/}

While outwardly, the neurotic-delinquent child seems to grow up in a normal and socialized manner,^{99/} he has not had any opportunity to express negative feelings or anti-social impulses which all young children possess to a very strong degree and older children and adults to a slighter one. When such youngsters grow up and reach preadolescence, internal and external pressures can be so strong as to cause the repression to break down and to cause acting out behavior which is often anxiety-arousing

98/Ibid., p. 68.

99/Nicholas Verven, The Effect of Teacher-Presented Cues Upon The Learning of Delinquents and Nondelinquents, Unpublished Doctoral Dissertation, Boston University, Graduate School, 1959.

to the neurotic delinquent. His attitude towards authority figures is not definite; it is ambivalent and non-integrated. At times, he may act out in an overcontrolled desperation; at others, he may show rebellious, uncontrolled, and hostile kinds of behavior.

"What is suggested is that the mother of the neurotic delinquent child is unable to tolerate any instinctive demands from the child beyond the most minimal ones. She is able to feed and care for her child, but the child soon learns that her demands upon him are strict and rigid. A child learns to sublimate only if his mother has been able to approve of channels in which his excessive energy may be drained off. The mother of the neurotic child is unable to do this, but instead, implies by her behavior that only repression of impulses is acceptable to her. "100

It is therefore important to differentiate between the delinquent boys who act out because they are completely uncontrolled and have to fulfill every whim of their primitive needs, and those who act out because the outer pressure put upon them by their family to be well behaved at all cost, is unbearable and cannot be repressed any longer.

The differentiation between the impulsive delinquent and the neurotic delinquent may be important for the hypothesis of this paper. In the impulsive delinquent, the personality disturbance started in early infancy and was very severe, similar to the deprivation of children

with character disorders. The neurotic delinquent, as Verven assumes, ^{101/} has had some satisfying and normal infantile experiences because he has lived in a more organized environment. The disturbance in the parental relationship has come at a later age, probably in the preschool period. He had to stifle all his aggressive needs because mother was unable to provide love and care unless he renounced all his aggressive impulses. In this way, the neurotic delinquent has identified with the parental figure and has acquired a superego, but it is very rigid and uncompromising and in constant struggle with the ego. In adolescents, when the strength of the impulses is increasing due to sexual maturation, repression cannot be maintained any longer, and delinquent behavior can occur.

101/Ibid., p. 80.

CHAPTER III
RESEARCH TECHNIQUES AND PROCEDURES

1. The Rorschach Test

A. Color Responses.— A color response is defined as one in which "a color other than black, gray, or white has played a determining role".^{1/} The manner in which a person uses color on the Rorschach Test reflects his handling of feelings, impulses, and actions. There are three basic kinds of color responses.

First - those in which color is the sole determinant, the pure color response "C", like "it looks like blood, because it is red."

Second - those in which color plays the predominant role but where some form elements are involved, the Color-Form response, "CF", as for instance, "an ice cream cone, because of the color and the shape of the cone," and

Third - those in which the color contributes to the response but is contained with-

^{1/}David Rapaport, Diagnostic Psychological Testing, Vol. II, The Year Book Publishing Co., Chicago, 1946, p. 224.

in a definite form response, the Form-Color response, "FC", such as "a flower, because of the shape of the petals and because of the color."

That color and emotions are connected has been known by artists for a long time. Figures of speech, such as "he sees everything in black," or "she sees the world through rose-colored glasses," indicate that language-usage has recognized this connection. If color is considered the representative of the emotions, form is considered the indicator of repressive control of the emotions.

"FC responses mean that in everyday life, the subject's association processes are guided by factual assessment of reality, yet include an appropriate expression of affect."^{2/}

The presence of FC responses only, however, is also not desirable as it means that the subject is well adjusted to reality but is limited to cold reasoning.

"FC responses only, with no other color responses, are given by affable persons who lack zeal and impetus in their actions and merely 'fit in' with their environment. The presence of these responses in great number (4 or more) without other color responses is frequent in over-pliant persons bent upon pleasing everyone, lacking 'punch' in the pursuit of their own ends."^{3/}

On the other hand, the pure Color response without any

2/Ibid., p. 241.

3/Ibid., p. 243.

'softening' features, indicates the potentiality for violent emotional outbursts. Beck calls the undiluted color reaction the equivalent of the uninhibited feeling experience.^{4/} It is an infantile response mode and therefore not abnormal in the very young child. In the adolescent, the presence of more than one pure C leads to expectations of tantrums and other outbursts.

The Color-Form response is still characteristic of impulsivity, but developmentally it marks some degree of control. Rapaport^{5/} states that about one CF response should be present in the average-length normal record where it stands for impulsive, strong affect. In children when CF responses outweigh the FC, disobedience, and poor spasmodic control are revealed.

"When the number of C plus CF responses is greater than the number of FC responses there is evidence for a self-centered and encysted person who tends to be exclusively concerned with himself and his own interests. The extent of C plus CF dominance is a measure of the extent of egocentricity."^{6/}

In children, the capacity for control is much smaller than in adults. In six to seven year olds, the CF plus C surpasses the FC responses, and CF continues to dominate other uses of color up to adolescence. According to

^{4/}Samuel J. Beck, Rorschach's Test, 2 vols., Grune and Stratton, New York, 1949, Vol. II, p. 27.

^{5/}Ibid., p. 264.

^{6/}L. Phillips and J. Smith, Rorschach Interpretation: Advanced Technique, Grune and Stratton, New York, 1953, p. 45.

Phillips and Smith^{7/} the optimal proportion of social adjustment to warmth and spontaneity as expressed in the FC:CF+C ratio is 1:2 in the mature adult. Interestingly, FC has been found to be a contraindication to bodily assertiveness and to be correlated with the capacity to learn under stress. In schizophrenics, for instance, FC is virtually absent.

B. Movement Responses.— The Movement response represents the individual's fantasy world, his capacity for creative thinking, and his ability for empathetic responsivity. The production of M is a creative act, because the subject imagines that the inkblot he interprets is in motion. A response is scored M, when Movement is perceived in human content, such as "men doing a dance" or "a woman sitting down." When the action which is perceived in animal content such as "dogs gossiping" or "lions dancing," is human, it is also scored M. Beck believes that Rorschach made his most original contribution to methods of personality study in the interpretation of the Movement response.

"The Movement response really reproduces... activities that the subject is carrying on within his mental life. Since the mental activities are those in which we should like to engage in the outer world but cannot, or dare not, they are our own wishful-filling activities. Thus they are our fantasy life."^{8/}

^{7/}Ibid., p. 44-45.

^{8/}Beck, Vol. I., Op. cit., p. 92.

M reflects patterns of adjustment which are unique for the individual and are therefore of great clinical significance. Empirically, Phillips and Smith state M is the determinant which becomes most markedly restricted as anxiety increases. As M reveals attitudes and feelings, there is a close relationship between caution and production of M. Infrequent M responses in a guarded Rorschach record become therefore of great importance. A once prominent businessman who lost all his money gave the following M response:

"Falling giants of former times, resting." Or, a very dependent woman saw "figures supporting themselves against strong poles in the middle."^{9/} Without information of the person's life history, interpretation of M responses becomes more difficult. There are active and passive M responses, and the normal subject produces ideally both active and passive M responses presumably having the capacity for independent and aggressive attitudes as well as for passive and submissive ones. Persons who give only passive or static M's such as "sitting" or "bending down," reflect a conflict between activity and passivity.

"Static M always reflects some unresolved difficulty in inter-personal relations, and to the extent that it occurs beyond expectancy, i.e., more than one-third of the M responses, this disturbance will be sufficient to prevent constructive planning for the future."^{10/}

^{9/}Phillips and Smith, Op. cit., p. 62.

^{10/}Ibid., p. 77.

Conversely, persons who give predominantly active M, especially if they have an aggressive connotation, such as "fighting" or "killing" lack inhibitory control. In an averaged-sized record of thirty responses, Rapaport found in his control group of 53 that two to three M should occur.^{11/} Phillips and Smith^{12/} who have a control group of 88 normals, find that the average normal adult gives two to four M. They state that M increases with intelligence. Underproduction of M represents absence of empathetic responsibility and may be a function of mental deficiency, organic impairment, anxiety states, depression, or of chronically immature persons such as psychopaths.

C. Popular Responses.-- A Popular response is one that is seen by the majority of the healthy population. According to Rorschach it must occur once in at least every fourth or fifth record. Diagnostically, the P response represents compliance with the thinking of the community, a certain adaptability to conventional even stereotyped thinking. Too many P responses mean that compliance is extreme, resulting in lack of individuality and in overconventionality.

"The areas to which Popular responses are given represent a relatively clear-cut piece of reality which is so compelling that its 'meaning'

^{11/}Rapaport, Op. cit., p. 218.

^{12/}Phillips and Smith, Op. cit., p. 81.

is a matter of 'social agreement'. The responsiveness of a subject to these compelling areas on the inkblot thus become a measure of his sense of the 'obvious'."^{13/}

Phillips and Smith state ^{14/} that in their normal population of 88 the median number of P was five, two-thirds developed between four to six P. In a normal record it is only rarely that less than three or more than eight are obtained but they use Beck's 20 Populars. Klopfer states that group frequency suggests that certain responses are popular among

"five-year old children, others are more popular among the Hopi Indians than among the population of New York City. The great value of establishing such a group frequency for any concept is undeniable... No Rorschach expert has yet been able to assemble and tabulate a sufficient number of records to claim universal validity for his frequency counts."^{15/}

Ames et al, ^{16/} in their Child Rorschach Responses show in their statistical analysis that normal 10-year olds have a mean P average between five to eight. Fewer than five P, more than nine P would need further investigation. A low number of P reflects a weak contact with reality. In the feebleminded, writes Beck, the P is usually low, reflecting failure to develop a community point of view and

^{13/}Rapaport, Op. cit., p. 315.

^{14/}Phillips and Smith, Op. cit., p. 320.

^{15/}Klopfer and Kelly, Op. cit., p. 177.

^{16/}Louise Bates Ames, J. Learned, R. Metraux, and R. N. Walker, Child Rorschach Responses, Hoeber-Harper, New York, 1954.

an uncooperative attitude with potential delinquency not excluded. In one clinical group the P findings are consistent, namely in schizophrenics.

"The individuals are nonconformists, not only clinically but also statistically... A finding for P lower than four in an adult, gives certainty that we are dealing with one whose thinking fails in identification with that of the group... A score of 0 or 1 almost certainly reflects a mind far estranged from the world."^{17/}

^{18/}

The following Populars have been used in this study

Card

- I Bird, bat, butterfly (W)
Face, human animal, mask (WS)
- II Two people (W)
Two animals, bears, dogs, elephants
- III Two persons
Butterfly, moth (center D)
Bow, tie (center D)
- IV Skin, fur, rug, pelt (W)
Boot, shoe (lower side D)
Person, giant (W)
- V Bat, butterfly, bird (W)
- VI Skin, fur, rug, pelt
- VII Two persons or one person mirrored (tiers
1+2 or W)
Two animals, two animals (tiers 1+2 or W)
- VIII Animals (side figures)
- X Spider, crab, octopus (side blue D)
Rabbit's head (lower green D)

17/Beck, Vol. II, Op. cit., p. 17.

18/Louise Bates Ames, R. W. Metraux, R. N. Walker, Adolescent Rorschach Responses: Developmental Trends from Ten to Sixteen, Harper and Brothers, 1959, p. 19.

D. Human Content Responses.— The Human Content response indicates the extent to which interpersonal relationships with others are possible and comfortable. H implies interest in and sensitivity to others. Phillips and Smith^{19/} write:

"To the extent that H exceeds expectancy the subject is quite likely to be both sensitive to, and hypercritical of, others. Individuals who develop H below expectance typically are persons who lack understanding of and sensitivity to others and who have few warm relationships."

Subjects who are, for instance, not able to perceive human figures on card III are probably unable to accept others or identify with others. If this is the case, the child cannot form an ego-ideal which in turn makes the formation of a moral conscience very difficult.

In general, the more H is de-emphasized, the more the subject tends to establish a wall between himself and others and the greater is his social isolation.

"In two-thirds of normal records, Human content is present, and absence throws doubt on the adjustive pattern of the individual. Three to four Human responses are considered optimal in a record of average length, although superior individuals develop as many as twelve or more. Only one third of schizophrenic patients produce any full Human content."^{20/}

^{19/}Phillips and Smith, Op. cit., p. 138.

^{20/}Ibid., p. 137.

In children, Ames et al.^{21/} report that from age seven on upwards, they perceive an average of 2.60 Human Content responses. Klopfer et al.^{22/} make an interesting remark in regard to the Human Content response. They point to the problem of sexual role in our culture and state that concepts of masculine and feminine roles are not clear-cut and definite as they used to be. Individuals who refer to their Human figures as "persons" indicate their unwillingness to face the problem of identification. Subjects may be confused and identify two identical figures one as a man and the other as a woman. The kind of description that is given also lends itself to interpretation.

"The Rorschach consists of inkblots and not of pictures of people; therefore when ugly or beautiful, menacing or seductive people are perceived, it is strictly projection of the subject's own feelings about human beings."²³

The lack of Human Content responses in the final tabulation is an indicator of poor human relations and lack of flexibility in interpersonal adjustment. An individual who perceives a number of Humans in his Rorschach is apt to enjoy the company of others and to have satisfying interpersonal relationships.

21/Ames et al., Op. cit., p. 90.

22/Bruno Klopfer, Mary Ainsworth, Walter Klopfer, and Robert Holt, Development in the Rorschach Technique, Vol. I, World Book Co., New York, 1956, p. 380.

23/Ibid., p. 381.

E. Anxiety Indicators.— The following ten Anxiety Indicators have been selected from the Rorschach literature:

1. Frequent turning of cards.
2. A reaction time longer than 15 seconds for the first response to each card.
3. No response (blocking) to an entire card.
4. More than 1 little m score. Little m stands for minor movement in which neither people nor animals are the center of activity, such as "rocks falling," or "a stream running," or "an explosion."
5. C', i.e., the Achromatic Color responses, in which the black and gray nuances of the inkblot are the determinants of the response. More than two indicate trends towards depression. Responses like "a fur pelt because of the black and light shades" is scored "C'".
6. Dr, i.e., the rare Detail response is scored when the area chosen is unusual and perceptually unbalanced.
7. Hdx or Adx responses are scored when the subject sees part of a human or animal where most healthy subjects see the whole human or animal, such as "a head" or "a wing."

8. Animal content over 50%.
9. A short response protocol, less than fifteen responses.
10. Evasive responses, such as "a line in the middle," "little dots on the outside" responses like "tiny island" or "bones" which cannot be scored. They avoid the risk of being wrong and are signs of insecurity and anxiety.

F. Number of Content Categories.— The range of interest of the three groups will be measured by counting the number of content categories in each Rorschach protocol. A boy who has given only few categories indicates that he has too narrow a range of interest and few inner resources; a subject who has a variety of categories indicates a spread of interests and intellectual flexibilities.

G. Good Form Percentage (F+%).— All responses which involve the use of form as determinants are scored F. Form responses are distinguished between good (F+) Form and poor (F-) Form. The criteria for "good Form" are based in this study on the statistical tables by Hertz.^{24/} Every single F+ response will be checked in the Hertz tables. Responses which occur with frequency in the general population are considered good Form. Hertz compiled

24/M. Hertz, Frequency Tables for Scoring the Rorschach Inkblot Test, The Press of Western Reserve University, 1951.

her tables on the responses of 300 students aged 11-16. Her F+ tables were determined on the basis of (1) statistical frequency, (2) similarity with the Forms given, (3) subjective estimates of 3-5 judges who agreed that the inkblot can be perceived as "a bat" or a "human face". The psychological meaning of F+ is predominantly "a respect for reality". Person with F+% between 70 to 80 show good intellectual control and see the world accurately in contrast to those who twist much of it. They see in the Forms the reality it represents. F- implies poor perception or denial of reality, and a high percentage of F- responses are usually seen by feebleminded and schizophrenic subjects. According to Rorschach and Beck^{25/} F+ is an indicator of self control and ego strength. Rapaport states that "F+ indicates the general delay of impulses in the subject and the sharpness of critical control."^{26/} The more intelligent the individual, the higher the F+%, but the highest F+ scores are sometimes found in the depressed because of their overguardedness. The critical minimum for the healthy is 60%.^{27/}

H. Reliability and Validity of the Rorschach.---

Validation for the entire Rorschach is a difficult problem,

^{25/}S. Beck, Rorschach Tests, Vol. II, Grune and Stratton, New York, 1949, p. 19.

^{26/}Rapaport, Op. Cit., p. 193.

^{27/}Phillips and Smith, Op. Cit., p. 23.

because projective techniques deal with many variables (many of them not yet known) in an attempt to understand the whole personality in terms of a dynamic pattern of interrelated functions. The typical psychological test deals with one variable or function, such as intelligence or achievement.

Validity studies of the Rorschach show considerable variations with validity coefficients ranging from .35 to .83. These studies have been using one variable at a time, each with a different hypothesis. Since Rorschach interpretation is in general based on Gestalt principles and not only on individual scores, this multiplicity of interdependence of variables in projective techniques constitutes a great problem of validation.

The most up-to-date study on validation of the Rorschach which quotes all the available specific studies up to the year 1956 is the comprehensive work by Bruno Klopfer et al., Developments in the Rorschach Technique, I, ^{28/} from which all of the following references are taken. "Matching Studies", such as the one used by Vernon in which judges were required to match personality sketches written by teachers and therapists, are validation experiments which take the whole personality into account and

28/Ibid., p. 414.

still indicate a high degree of similarity. Vernon obtained a contingency coefficient of $.833 \pm .0315$.

Altus and Thompson^{29/} investigated a set of Rorschach "signs" originally suggested by Rorschach as indicators of intelligence, such as clearly perceived Forms, Movement Responses, and many Whole responses. They compared these variables with scores on a group intelligence test and received a coefficient of $.35$ and $.45$ respectively for M and W, but F+ was not significantly related to the criterion. Today this procedure has been somewhat refined and intelligence is based not only on the numbers of W and M but also on the Form Level ratings, although intelligence is still better assessed by an individual intelligence test.

Krugman also reports an average contingency coefficient of $.830$ between Rorschach appraisal of problem children and sketches based on reports. Siegal has shown that in a child guidance clinic, the diagnosis of the psychiatrist and of the Rorschach coincide closely, and that the initial Rorschach is a more accurate predictor of the psychiatrist's eventual diagnosis than is the psychiatrist's own initial diagnosis.^{30/}

A fourth validity study, which is of interest for

29/Ibid., p. 412.

30/Ibid., p. 414.

this research project, was made by Ernest G. Schachtel, who was the Rorschach examiner in the Glueck study. Schachtel, who received 1000 Rorschach records of 500 delinquents and 500 non-delinquents without being told to which group an individual belonged, was able to classify on the basis of the Rorschach record 91% of the delinquents and 89% of the non-delinquents.

Regarding reliability, it is hard to say which of the three usual methods is more suitable. The split half method does not seem useful, because the first five cards have a different stimulus value than the last five cards which have much more color. An alternate form of a Rorschach has been worked out by Behn, and for most scoring categories and quantitative relationships a high reliability coefficient was found, although a few were quite low. Eichler found that they ranged from .45 to .82 for W and M, but the alternate form yields more animal responses and is therefore not exactly comparable. A third method, retesting, is also not considered satisfactory because of the possible memory factor, though it is considered to be still the best reliability measure available at present. A study by Swift on school children gives a test retest coefficient ranging from .59 to .82 after two weeks.

In measurement literature, it is usually stated that

a test cannot be valid without being reliable. However, these psychometric concepts may not be applicable to projective techniques which are very sensitive and are able to measure changes within the personality before and after treatment, for instance. If the person does not change much within a few months, the repeated Rorschach should be very similar. Most Rorschach studies have been conducted with disturbed people and there have not been a sufficient number of retests with a normal population. Projective tests may have to find other criteria to show their usefulness; as Abt writes

"I am of the belief that projective tests have developed from a climate of opinion so radically different from that which made possible other personality assessment procedures that their validity and reliability can never be established in the same ways. To demand these things of the projective methods is to require something that simply cannot be met."^{31/}

Many Rorschach workers believe, however, that there are better ways than the usual psychometric techniques to show the validity and reliability of the Rorschach. For instance, Brosin and Fromm report on patients who have received therapy and were markedly improved,^{32/} both according to the judgment of the therapist and the Rorschach

^{31/}Lawrence E. Abt in Projective Psychology, L. Abt and L. Bellack Editors, Alfred A. Knopf, New York, 1950.

^{32/}Ibid., p. 442.

examiner. They showed a marked shift in the factors that contribute towards improvement and greater stability. A shift in the FC: CF plus C balance toward FC took place and also an increase in F+%, as well as an increase in Popular responses.

Piotrowsky^{33/} reports that schizophrenics who improved through insulin treatment showed improvement in Rorschach performance. He set up "signs" on the basis of which the patients' reaction to therapy might be predicted. He reported that 88% of 60 cases were predicted correctly.

Also diagnostic studies in mental hospitals based on "blind analysis" can truly be called validation studies. We learn from an article by Benjamin and Ebaugh^{34/} that in thirtynine out of fortysix cases the Rorschach diagnoses were in complete agreement with the final diagnoses by the psychiatric conference; and in the remaining seven cases there was no serious discrepancy. This represents a very high degree of agreement.

On the whole, the writer believes that the rationale of the Rorschach is the same as that of other psychological tests, namely, a generalization made from the subject's test behavior to the behavior outside of the test situation. The appraisal of an individual's personality or the predic-

33/Ibid., p. 448.

34/Ibid., p. 449.

tion of his future behavior rests upon a sample of his actual behavior. Thus, if a subject selects a very tiny unimportant area on the Rorschach cards and completely neglects the whole blot or never mentions any of the large obvious details, it seems reasonable to predict that in his actual life he also pays little attention to the obvious and the generally accepted important factors. Empirically, the Rorschach Ink Blot test has proven itself increasingly in the course of four decades and every well-staffed Child Guidance and Mental Health Clinic has found the Rorschach an invaluable aid in the diagnosis of personality disorders.

2. The Wechsler Intelligence Scale for Children (WISC)

A. The Full, Verbal, and Performance I.Q.'s.— The Wechsler Intelligence Scale for Children has been developed five years after the Wechsler-Bellevue Intelligence Scales for adolescents and adults had evolved in 1944. In fact, some of the test items overlap, but the main difference is that the WISC permits examination of children from age five through fifteen.

All the Wechsler Tests are based on a global theory of intelligence, namely that every intelligence test measures much more than intellectual ability or specific aspects of it such as verbal or numerical skill. Variables such as drive, motivation, persistence, and attention span are all

included in the composite score of an intelligence test.

"In brief, intelligence is part of a larger whole, namely, personality itself. The theory underlying the WISC is that intelligence cannot be separated from the rest of the personality, and a deliberate attempt has been made to take into account the other factors which contribute to the total effective intelligence of an individual... No attempts has been made to get together a series of tests that measure "primary ability" or to order them in a hierarchy of relative importance."^{35/}

The WISC consists of ten subtests which are divided into two subgroups identified as Verbal and Performance scales. The Verbal Scale consists of five subtests: Information, Comprehension, Arithmetic, Similarities, and Vocabulary. The Performance Scale consists of five subtests: Picture Completion, Picture Arrangement, Block Design, Object Assembly, and Coding. By the term "Full Scale" is meant all the ten subtests combined. Both scales, the verbal and the performance are of equal importance, and Wechsler states that an individual manifests his intelligence by doing things as well as by talking about them. However, differences in I.Q. scores between the two scales are of special interest to the clinician "because discrepancies are frequently associated with certain types of mental pathology."^{36/} Emotional

^{35/}David Wechsler, WISC Manual, The Psychological Corporation, New York, 1949, p. 5.

^{36/}David Wechsler, The Measurement of Adult Intelligence, The Williams and Wilkins Co., Baltimore, 1944, p. 146.

disorders often have a way to change an individual's intellectual functioning, but it affects only certain abilities, not the whole personality.

Another interesting factor in the WISC is the possibility of comparison between a subject's individual test scores throughout the intelligence scale. The Comprehension subtest, for instance, is given at one time up to the level in which the individual cannot perform any longer, not in every age level, as in the Stanford Binet. In this way, all the tests can be compared and it is possible to look for significant test patterns. Since all the subtests have been equated, the mean expected score on any given subtest can be obtained by dividing the total score by 10. The question of what constitutes a significant variation between scores has been answered by Wechsler. "For total scores on the Full Scale lying within the limits of 80 to 110, a difference of more than two points from the mean subtest score is significant."^{37/}

The reliability of the subtests varies. For the ages $10\frac{1}{2}$ Wechsler gives the following reliability coefficient and Standard Error of Measurement for the WISC. (For the I.Q.'s the SE_m is in I.Q. Units, for the individual tests, the SE_m is in Scaled Score units which makes for a confusing discrepancy in the Standard Error of Measurement interpretation.)

37/Ibid., p. 149.

Full Scale I.Q.	$r = .95$	$SE_m = 3.36$
Verbal Sc. I.Q.	$r = .96$	$SE_m = 3.00$
Performance Sc. I.Q.	$r = .89$	$SE_m = 4.98$
Vocabulary Score	$r = .91$	$SE_m = .90$
Comprehension Sc.	$r = .73$	$SE_m = 1.56$
Similarity Sc.	$r = .81$	$SE_m = 1.31$
Picture Arr. Sc.	$r = .71$	$SE_m = 1.62$ <u>38/</u>

The reliability of the subtests, especially those used by this writer, is adequate, and the SE_m of the Full Scale, Verbal Scale, and Performance Scale I.Q.'s is as high as the P.E. of the 1937 Revision of the Stanford Binet.

By using these test score differences and by finding out what constitutes a significant deviation, the clinical problem of discovering significant test patterns is opened up. Certain "signs" or low test scores can be found to be characteristic of a mental disorder or dysfunction. For instance, a very low Block Design combined with a very low Object Assembly and Arithmetic scores have been found to be typical signs of organic brain damage by Wechsler. Or, the characteristic pattern of the neurotic can often be discovered by his Object Assembly score where he is often so overcritical and apprehensive that his assembling of the puzzles is often characterized by a great deal of trial and error. His lack of social alertness and his inability to deal with social situations is also usually reflected in his Picture Arrangement subtest score.

38/WISC Manual, Op. cit., p. 13.

Before starting a test, it is always most desirable to establish a good relationship with the individual. This writer usually asks children if they like to draw a picture, and she provides paper, pencil, and crayons for this purpose. A question like: Would you like to tell me something about your picture? usually helps the child to overcome the feelings of tension which new authority figures usually create in disturbed persons. Like the Stanford-Binet, the WISC is very interesting for adjusted children and usually also enjoyed by the less adjusted, though they prefer the Performance subtests above the Verbal ones, because they feel more insecure and restless during the Verbal part of the test.

In addition to the Full Scale I.Q., the Verbal Scale I.Q., and the Performance Scale I.Q., four other subtests have been especially selected for comparison of differences between the three groups of children.

B. Vocabulary Score.— The range of word knowledge gives information covering schooling, backgrounds, and alertness to the environment. Vocabulary is usually considered a standard of comparison for other tests and depends more than other subtests on early educational opportunities. The quality of the verbalization is important, though qualitative aspects can only be noted, not scored. Is it a quick, unreflective description,

or a slow carefully thought-over response with many details or many if's and but's? For instance, the word "sword" can be defined (1) "It is a long knife", or (2) "It is an instrument used for killing or duelling; it was extensively used in the Middle Ages and knights used it for tournaments to show their skills." Incomplete answers receive one point, complete answers two; but both the above answers are complete and would receive two points, though they show great differences. The latter definition reveals nearly an obsessive compulsive need to tell all he knows to be sure to make the best possible impression.

C. Comprehension Score.— This subtest indicates to a high degree the kind of judgment a person has, whether it is impaired or acute. According to Rapaport,^{39/} the Comprehension Score is most sensitive in measuring maladjustment. The responses are scored 2, 1 and 0, depending on the degree of generalization and the quality of the response. Two points are given for a response which indicates at least two of the generally acceptable responses. An answer which has only one such response mentioned, is given one point. For example, if the child indicates that he understands what should be done but places the responsibility on someone else, i.e., "ask Mother," he receives only one point, though one can make a qualitative check.

39/Op. cit., p. 111.

The question: What is the thing to do if you lose one of your friend's balls? can be answered in two ways. (1) "Try to find it and tell mother to look" which receives one point; and (2) "Try to get it back or replace it when you can't find it", which would receive two points. It shows greater independent judgment.

D. Similarity Score.— In this subtest different levels of concept formation are tested: the concrete and the abstract. This type of questioning, "in which way are these two things alike?" indicates abstracting ability better than any other subtest. These questions also can be answered on two levels. The question: "In what way are a cat and a mouse alike?" can be answered on the concrete level, "they both have legs and eyes and ears", which receives one point; or on the abstract level: "They are both animals", for which the score would be two points.

E. Picture Arrangement Score.— This performance subtest gives the individual an "idea" of a story by having to arrange cut-up pictures in a sensible way. Rapaport states that this subtest measures planning ability and selective anticipation. "We do not build bridges by trial and error, but by anticipation and planning the 'future.'" ^{40/} Planning ability can be considered a part of the emotional adjustment of a person, a part of his "set" or "Einstellung". On 40/Rapaport, Op. cit., p. 215.

the Picture Arrangement subtest,

"the subject's achievement is a reflection of his ability to anticipate the consequences of initial acts or situations, and hence is a reflection of his planning ability."^{41/}

This is a timed picture test and in some cases additional credit is given if the story is completed in less than the defined time.

F. Reliability and Validity of the WISC.— In the Manual of the WISC by Wechsler, the reliability and the standard error of measurement are given for the ages $10\frac{1}{2}$ and $13\frac{1}{2}$ and are for the Full Scale .95 and .94 respectively. The reliability for the Verbal Scale for both ages is .96.

No validity statistics are given in the 1949 manual; however, a correlation study between the Wechsler Bellevue Intelligence Test and I.Q.'s obtained by the Stanford-Binet show a correlation of .82 for 75 cases. This indicates, as Wechsler states, that

"the Wechsler Bellevue Scales measure about the same (thing) as the Binet but leaves unanswered the question as to which of them measures it better."^{42/}

3. Criteria for the Selection of the Three Groups

Three groups of boys, aged 10-0 to 12-11 shall be

^{41/}Ibid., p. 217.

^{42/}Op. cit., p. 13.

given the WISC and the Rorschach tests, each group consisting of twenty boys. The testing and scoring time for each boy will take approximately five hours. The boys will be selected according to the following criteria.

A. Stutterers.— The Stuttering boys who will be subjects of this study will be selected according to the following symptoms of stuttering: Labored, difficult, hesitant, and repetitive (clonic) speech, often produced with very noticeable strain; sometimes blocking of speech (tonus) and frequent and extensive pauses are observable. Stuttering speech may be accompanied by compulsive body movements or other defense mechanisms (tics). Boys who stutter and in addition show articulation difficulties are included. However, boys with known organic difficulties (hearing, visual, and crippling conditions) are excluded. Boys who have more than three known non-speech psychosomatic symptoms are also disqualified as subjects of this study. Finally, boys who have had dynamically oriented speech therapy, or psychological counseling for over twelve months, are excluded as their personalities may have undergone changes under therapy. All Stuttering boys have been referred to the Arlington Public School Speech Therapist.

B. Adjusted Boys.— The sheet on the following page will be given to the present teacher who makes the selec-

Criteria for selection of "Adjusted" Boys

(5th, 6th, and 7th Grade)

When I refer to "adjusted" boys, I mean boys, aged 10-0 to 12-11 months, who have neither become conspicuous to their teachers, by particularly withdrawn and quiet behavior, nor especially aggressive, loud, and defiant behavior. The group of "adjusted" boys which I need as a control group of my study should not be composed of exceptionally diligent and overly compliant boys who are apt to be teacher's pet, nor boys who take no interest in their school work and their surroundings.

An "adjusted" boy of this age plays with his peers and is primarily concerned with how they accept him, but he is also interested in achievement and in his parent's and teachers' opinion of him. He does not daydream to a large extent and is not easily hurt, physically or emotionally. However, an "adjusted" boy does fight occasionally with his peers and is angry and moody at times. But hostility and destructiveness, or inhibited and fearful behavior are not dominant features of his personality.

In sum, adjustment is the conformity with the behavior expected of a specific age group in our society: The expected behavior norms in an urban American community for 10 to 12 year old boys, of which the teachers and principals should be aware in making their selections, can be formulated as follows:

1. A certain amount of self-confidence (Feeling of security).
2. Companiable (Is liked by his peers).
3. Helpful and cooperative (Does not tease the weak and the underdog).
4. Not aggressive, as a dominant trait (Can tolerate that others are praised without showing hostility himself).
5. Not withdrawn, as a dominant trait.
6. Can control anger, in general (Has a reasonable frustration tolerance).
7. Has no unusual fears or outstanding dislikes.
8. In general, respects authority.
9. Is reasonably sensitive and concerned about others.
10. Not self-centered or rigid in his opinions.

The foregoing criteria will be given to the present teachers who make the selection from their classes. Last year's teacher and the school principal should also approve the selection.

tion from her class. Last year's teacher and the school principal must also approve the selection. The criteria and the meaning of the study was also discussed with all the teachers and principals involved.

C. Pre-delinquents.— This diagnostic category is not meant to apply indiscriminantly to all overtly aggressive boys who act out at times because of some conflict. Also, boys who show any observable signs of organic pathology shall not be included. This group is meant to include school boys from 10-0 to 12-11 years of age who do not necessarily have a police record but who are characterized by at least four of the following characteristics:

1. A school history of coming into conflict with teachers and principals.
2. Truancy (more than twice).
3. Defiance to authority (Refusal of doing what teacher asks).
4. Impulsive and unreliable behavior.
5. Aggressive behavior towards younger and weaker children.
6. Theft of minor objects (either from peers or from the Five and Ten Cent Store).
7. Setting fire out of doors, or a general fascination with fire.
8. Socially undesirable behavior (loud, unconcerned about other people's property).

4. Socio-Economic Information for the Three Groups

In order to match the experimental and control groups in regard to socio-economic background, the Warner Stratification of Occupation and Classes has been used as described in W. Lloyd Warner, The Social Life of the Modern Community.^{43/}

Warner divides the population of Yankee City into six Occupational Groups.^{44/}

1. Professional and Proprietor
2. Wholesale and Retail Dealers
3. Clerks and Kindred Workers
4. Skilled Workers
5. Semiskilled Workers
6. Unskilled Workers

Warner divides the Class Hierarchy of Yankee City into six classes.^{45/}

Upper Upper Class	1.44 per cent		
Upper Class	1.56 " "	3	per cent
Upper Middle Class	10.22 " "		
Lower Middle Class	38.34 " "	38.34	" "
Upper Lower Class	32.60 " "		
Lower Lower Class	25.22 " "	57.82	" "

^{43/}W. Lloyd Warner, The Social Life of the Modern Community, Yale Univ. Press, New Haven, 1941, p. 88.

^{44/}Ibid., p. 88.

^{45/}Ibid., p. 261.

If each of the three groups are divided into three socio-economic classes, my sample would then have the following distribution:

Class I, Upper Class, 3%	(for a sample of 20, i.e., 1 subject
Class II, Middle Class, 38%	8 subjects
Class III, Lower Class, 57%	11 subjects

The Alphabetical Index of Occupations by Alba H.

^{46/}Edwards can be employed to check the relative position of the occupations.

"As might be expected, the most popular criterion of class placement is occupation. Usually some form of the Edwards census classification is employed, the breakdowns ranging on either side of the original sixfold division."⁴⁷

Warner's "Index to Status Characteristics" consists actually of four different items: Occupation, home type, dwelling area, and source of income, each of which are rated on a seven-point scale. However, test validation and psychological studies usually use paternal occupation only, to indicate an awareness of the stratification problems involved in our society.

5. Availability of Subjects

A. The stuttering boys will be a selected group referred to the Arlington Public Schools speech therapist.

^{46/}Alba H. Edwards, The Alphabetical Index of Occupation, Bureau of the Census, Dept. of Commerce, Washington, D. C., 1940.

^{47/}Harold W. Pfantz, "The Current Literature on Social Stratification," American Journal of Sociology, (1953), LVIII, p. 395-418.

- B. The Predelinquent boys will be a selected group referred to the Arlington Public School Guidance Department by their respective teachers, principals, police, or occasionally their parents.
- C. The Adjusted boys shall be selected according to the carefully worked out definition of the term "adjusted" which will be given to teachers and principals in the Arlington Public Schools.

6. Controlled Variables

- A. Sex (all male)
- B. Chronological Age (10-0 to 12-11)
- C. Intelligence, range (I.Q. 90 to 135)
- D. Socio-economic status
- E. All living at home

7. Statistical Treatment of Data

All single scores in this study have been subjected to student's t for testing the significance of a difference between the means of two small samples. The formula ^{48/} is:

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum X_1^2 + \sum X_2^2}{N_1 + N_2 + 2}\right) \left(\frac{N_1 + N_2}{N_1 \times N_2}\right)}}$$

48/Allen Edwards, Experimental Design in Psychological Research, Rinehart & Co., New York, 1950.

There are two ratio's in the Rorschach Test which do not lend themselves to a t Test. They have been subjected to the Sign Test in order to find the degree to which they depart from chance. The formula^{49/} is:

$$z = \frac{|x - \frac{1}{2}n| - \frac{1}{2}}{\frac{1}{2}\sqrt{n}}$$

In order to correlate the ages of the three groups, the Product Moment Correlation by Diamond has been used. The formula⁵⁰ is:

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}}$$

^{49/}F. Mosteller and R. Bush, "Selected Quantitative Techniques", Chapter VIII in Handbook of Social Psychology, Vol. I, G. Lindzey, Editor, Addison Wesley Publishing Co., Cambridge, 1954, pp. 289-334.

^{50/}Salomon Diamond, Information and Error, Basic Books Inc., New York, 1959.

CHAPTER IV

HYPOTHESIS AND EXPECTED CONCLUSIONS

The general hypothesis of this study is the occurrence of significant differences in the test scores of the Rorschach and the Wechsler Intelligence Scale for Children between the experimental group of Stutterers and the two control groups of Predelinquents and Adjusted boys.

It is furthermore specifically hypothesized that the Stutterers will show a very high degree of emotional control and the Predelinquents a very low one, whereas the Adjusted group is expected to fall somewhere midway between the two emotionally disturbed groups. In this manner, the subjects are viewed as located on a continuous line representing various degree of impulse control. The same pattern is expected to exist in other test scores: Stutterers and Predelinquents, according to this hypothesis, will show widely different test scores diverging significantly in opposite directions from the normal subjects.

1. In the Rorschach Test

We can measure emotional balance and control in the Rorschach by two ratios, namely the FC:CF+C ratio, and

the M: sum C ratio. The first ratio represents a balance between Form and Color perception. Form perception demands greater mental activity and intellectual control; dominant color perception is an expression of directness and immediacy with lack of detachment and absence of controlling thought. It is well known that color and emotions are closely related.^{1/} ^{2/} For instance, children and adults who have temper tantrums "see red" on the Rorschach. Conversely, individuals who avoid expressing their feelings, also avoid seeing colors on the Rorschach. They are repressed and have aversion against the expression of emotions.

The Stutterer is repressed, he turns his emotions inward and binds them to a somatic symptom, the speech organs. In this way he will not reveal any of his true feelings towards authority and parental figures. The ratio FC:CF+C is expected to be larger for the Stutterer on the FC side, the side representing control. The Pre-delinquent expresses his hostility more freely than the Stutterer and projects it outward. The ratio is expected to be larger on the CF+C side, the side with the dominant color score. If the FC:CF+C ratio is larger on the FC side, then this is an indicator of socialized control and

^{1/}Herman Rorschach, Psychodiagnostics, Huber, Bern, 1937.

^{2/}Ernest Schachtel, "On Color and Affect", Psychiatry, VI, 1943, pp. 393-409.

that difference should be apparent in the Adjusted group.

The M: sum C ratio refers more to inner than to environmental control. The chief sign of inner control is the Movement response (M). When M outweighs sum C (sum C = $1/2$ FC, + 1 CF, + $1\ 1/2$ C), there is an introversive balance, which represents a retreat from emotional involvement. When sum C outweighs M, there is an extratensive balance. This ratio indicates in which direction the individual is going: If there is a higher M, the person is withdrawing from active interest in the environment by fantasy life. An even ratio is desirable and it is hoped that the Adjusted group will approximate this balance. However, preadolescence is known to be a period of introversion, generally, and it is possible that this ratio cannot be well evaluated for this age range of general constriction.

In addition to the Form Color ratio and the Introversive-Extratensive ratio, other Rorschach variables should show some significant differences between the three groups: The Movement (M) Response, which reveals the individuals ability for empathetic responsivity; The Human Response (H) which indicates the extent to which personal relationships with others are possible; The Popular Response (\bar{P}) which represents awareness of and compliance with the thinking of the community; the ten Anxiety Indicators

which represent a composite score of indications of anxiety in the testing situation; and finally the number of Content Categories, which give an indication of the range of interest the individual can think of in an unstructured situation.

2. In the Wechsler Intelligence Scale for Children (WISC)

It is expected that a comparison of the total I.Q., the Verbal Scale I.Q., the Performance Scale I.Q., and the difference between the Verbal and Performance I.Q., might throw into focus some aspects which make up the global picture of intelligence and might further help to differentiate the three groups. In addition to the four variables named above, a comparison of four of the subtests is expected to show that adjusted and disturbed individuals make different use of their intelligence.

From the ten different subtests of the WISC, this writer has chosen three Verbal ones and one Performance subtest. Vocabulary was chosen as the best single index of general intelligence, Comprehension as an indicator of "common sense" in understanding a situation, Similarity for its differentiating power between concrete and abstract type of thinking, and Picture Arrangement was selected for its predictive value in "sizing up a situation" in non-verbal manner.

As no comparative study between Stutterers and Delinquents have ever been attempted, it is not possible to

predict in which direction, if any, these two might diverge and whether typical constellations can be discerned. The Gluecks have compared Delinquents and Non-Delinquents by means of the Wechsler-Bellevue Full-scale Intelligence Test and have found some significant differences. Although it is not completely possible to equate the Verbal Scale subtests with abstract intelligence and the Performance Scale subtests with practical intelligence, the Gluecks have indicated that

"nevertheless, the two groups of subtests in question may roughly be differentiated as contrasting, essentially, the more verbalistic with the more hand-minded aspects of intelligence."^{3/}

Their age span, however, is different; it ranged from ages 11 through 16, whereas this study is confined to ages 10 through 12 years. Many other studies have compared the intelligence of Delinquents as a whole with Normals, but not with Stutterers (see Chapter II, section 3 on Delinquency).

3/ Op. cit., p. 199.

CHAPTER V

PRESENTATION AND ANALYSIS OF DATA

1. Selection of Subjects

The sixty boys who have been selected for the study are all from the Arlington Public Schools, and they are all aged 10 through 12.

The twenty stuttering boys have been referred to the Arlington Speech Therapist by their teachers, principals, or parents, and they have been considered Stutterers of various degrees by the speech therapist.

The twenty Predelinquent boys have been referred for acting-out behavior problems to this writer in her capacity as a school psychologist. In order to have a more specifically defined group of subjects, only such boys have been selected of those referred who met at least four of the following criteria: A school history of prolonged conflict with teachers and principals; truancy more than twice; defiance to authority; impulsive and unreliable behavior; aggressive acts towards younger and weaker children; theft of minor objects (often in the Five and Ten Cents Store); and socially undesirable behavior.^{1/}

1/See page 45 for details.

The twenty Adjusted boys have been selected according to a carefully worked-out definition^{2/}, which has been given to their present teachers, and if possible also to last year's teachers and to the principals. In spite of this carefully worked out plan, the selection of the Adjusted boys presented a certain difficulty. It became soon apparent that teachers and principals were inclined to suggest the more intelligent boys with I.Q.'s of 115 and up. After this bias had been realized and remedied another problem arose, namely a tendency on the part of the teachers to select obedient and well behaved boys who had never given them any trouble in school. This tendency was discussed with the teachers and principals. In spite of the great care, two of the Adjusted boys turned out to be children whom this writer considered to have considerable emotional problems which were, however, not apparent to the teachers. An investigation of the home situation later revealed that these two boys lived in a non-harmonious home situation. However, this writer left these two boys in the sample, because these disturbances were not realized by the teachers, and the identification by the teacher according to well-defined criteria was, after all, the principle of selection.

^{2/} See page 91 for details.

2. Data Concerning Age and Father's Occupation

The following figures present ages and correlations for all the three groups.

TABLE 1. Mean Ages of the Three Groups

Mean Ages of the Stutterers	11.6
Mean Ages of the Adjusted boys	11.4
Mean Ages of the Predelinquent boys	11.4
The <u>r</u> between Stutterers and Adjusted is	.88
The <u>r</u> between Predelinquents with Stutterers is	.88
The <u>r</u> between Predelinquents with Adjusted is	.98

The correlation between the ages is very high.

To ascertain that the three groups are comparable in regard to socio-economic composition, the classification as defined by Warner has been adopted as criteria for socio-economic selection, as explained above.^{3/} The actual distribution in this study does not agree exactly with that suggested by Warner but is a fair approximation. See Tables 2 and 3.

The Fathers' occupations for each of the sixty sub-

^{3/}See pages 93-94.

TABLE 2. Distribution of Ages

Stutterers	Adjusted Boys	Predelinquents
1. 10-0	10-1	10-0
2. 10-5	10-1	10-0
3. 10-7	10-3	10-0
4. 10-10	10-4	10-1
5. 10-10	10-7	10-3
6. 10-11	10-8	10-6
7. 10-11	10-10	10-8
8. 11-1	11-1	11-3
9. 11-5	11-2	11-5
10. 11-7	11-4	11-7
11. 11-7	11-4	11-7
12. 11-8	11-7	11-7
13. 11-11	11-10	11-8
14. 11-11	11-11	12-3
15. 12-3	12-1	12-4
16. 12-5	12-2	12-5
17. 12-5	12-3	12-8
18. 12-7	12-9	12-9
19. 12-7	12-10	12-11
20. <u>12-11</u>	<u>12-11</u>	<u>12-11</u>
232 mean 11.6	228.3 mean 11.4	228 mean 11.4

TABLE 3. Fathers' Occupations in the Three Groups

<u>Stutterers:</u>		
Class I	Upper Class, Professional or Proprietors	3
Class II	Middle Class, Clerks, Skilled Workers, Independent Businessmen	7
Class III	Lower Class, Semiskilled and Unskilled Workers	10
<hr/>		
<u>Predelinquents:</u>		
Class I	Upper Class, Professional or Proprietors	2
Class II	Middle Class, Clerks, Skilled Workers, Independent Businessmen	8
Class III	Lower Class, Semiskilled and Unskilled Workers	10
<hr/>		
<u>Adjusted boys:</u>		
Class I	Upper Class, Professional or Proprietors	2
Class II	Middle Class, Clerks, Skilled Workers, Independent Businessmen	8
Class III	Lower Class, Semiskilled and Unskilled Workers	10

jects will be found in Table 4.

3. The Rorschach Experiment

A. The Index of Internalized Control; FC:CF+C.— The FC:CF+C ratio is an indicator of internalized control. If the FC side of the ratio is preponderant over FC+C, the subject has some controlling defense mechanisms in his personality make-up. In fact, where there is a very high

TABLE 4. Occupations of Fathers' of Subjects

No. of Case	Stutterers	No. of Case	Preelinquents	No. of Case	Adjusted Boys
	<u>Class I</u>		<u>Class I</u>		<u>Class I</u>
7.	Chem. Eng.	7.	Engineer	1.	District Sales Man.
14.	Physician	13.	Lawyer	2.	Mech. Engineer
19.	Lawyer				
	<u>Class II</u>		<u>Class II</u>		<u>Class II</u>
1.	Business Man.	2.	Skilled Electro- nics foreman	1.	Cabinet Maker
3.	Accountant	3.	Union Organizer	4.	Salesman for Ins. Co.
5.	Restaurant Owner	8.	X-ray technician	5.	Salesman for Ins. Co.
10.	Accountant	9.	Accountant	7.	Owner, Hard- ware Store
13.	Business Owner	12.	Office Manager	10.	Dental Tech.
15.	Life Insurance Salesman	15.	Printer, Globe	14.	Bookbinder, Designer
16.	Bookkeeper	17.	Business Man.	18.	Salesman, foods
		20.	Salesman, Auto- mobile parts		
	<u>Class III</u>		<u>Class III</u>		<u>Class III</u>
2.	Machine Sh.W.	1.	Shipyard W.	6.	Mason
4.	Car mechanic	4.	Typewriter repairman	8.	P.O. Clerk
6.	Machinist	5.	Truck Driver	11.	Auto mechanic
8.	Truck Driver	6.	Barber	12.	Laborer
9.	Laborer	10.	Chauffeur	13.	Sailor
12.	Plumber	11.	Stock Clerk	15.	Truck Driver
12.	Truck Driver	14.	P.O. Clerk	17.	Rubber Worker
16.	Bus Driver	16.	Telefon Tester	19.	Custodian
17.	Plumber	18.	Milk Route Dr.	20.	Custodian
20.	Factory Worker	19.	Odd-job Laborer		

preponderance of FC, there may be over-control. If the CF+C side of the ratio is preponderant, then it is evident that the individual expresses his needs and feelings in an uncontrolled, childlike fashion. It is especially the bal-

ance in this ratio which indicates how an individual uses his psychic energy; a lopsided ratio implies maladjustment in the area of internalized control.

Unfortunately one ratio cannot be compared with another ratio by means of the t test or any other statistic. Therefore the ratios can only be handled by the Sign Test which is designed for two-sided figures. Whereas in the t Test, levels of significance are usually given at .01 and .05, for the Sign Test they are given for 1%, 5%, 10%, and 25%.^{4/}

The data regarding this ratio for the three groups are presented in Table 5. The ratios have been subjected to the Sign Test in order to find out which side is significantly larger statistically.

TABLE 5. Mean FC:CF+C Ratio

Stutterers	1.0 : 1.1
Adjusted boys	2.4 : 2.2
Predelinquents	.95 : 3.3

FC < CF+C in Stutterers; Sign Test sig. at .25 level

FC < CF+C in Predelinquents; Sign Test sig. at .25 level

The Predelinquents have the smallest FC score of the three groups and the highest CF+C score, the difference is significant at the .25 level and indicates clearly that

4/Mosteller and Bush, Op. cit., p. 313.

their lack of control (low left side) and the acting out potential (high right side). In the Adjusted group, the difference between the two sides is too small to be statistically significant which indicates a rather even balance. Most of all the Adjusted boys have two FC each and the Stutterers and Predelinquents only one FC. In the Stutterers, the control side is also smaller than the acting-out side, though this is not obvious by comparison of the two sides of the ratio. This finding is unexpected and may be explained in terms of the distribution of psychic energy of the three groups. Judging from the ratios, the Stutterers have a very low energy level since they have only one color score on each side of the ratio. The Predelinquents have a high energy level because they have one color score on one side and three color scores on the other. The Adjusted group has just as much energy as the Predelinquents but their psychic energy is evenly distributed, two color scores on each side.

All the Rorschach variables for each group are presented in Appendix A.

In order to compare not only the ratios, i.e., one side with the other side, but also to compare all the three left sides of the three ratios with each other and all the three right sides of the ratios with each other, they have been subjected to a further t Test to see whether there

are any significant differences by comparing the three FC scores with the three CF+C scores. This has been done because FC alone is such an important Rorschach variable, the presence or absence of which is of vital importance for the stability of a child above 10. FC implies that Form dominates color, or that a person's affectivity is rational, socialized, and adaptive.

TABLE 6. Mean FC Scores

Stutterers	1.0
Adjusted boys	2.4
Predelinquents	.95

Adjusted boys $>$ Stutterers; t sig. at .01 level

Adjusted boys $>$ Predelinquents; t sig. at .05 level

The Adjusted boys have much more control over their emotions than the Stutterers, t equals 7.1. The Adjusted boys have also more FC than the Predelinquents, but the Predelinquents are not as low in internalized control as the Stutterers. As it was pointed out in the comparison of the ratios, the Stutterers have much less emotionality at their disposal and therefore also less control.

Rorschach workers agree that for the normal adult ideally the optimal ratio FC:CF+C is 2 FC to 1 CF and no pure C. The number of FC should exceed the number of all

other color responses, thereby indicating a normal control of affect and action. In very young children we know that CF plus C responses surpass the FC responses, and this is also true for most schizophrenics and feebleminded. In older children, ages 9-12, when CF responses outweigh the FC responses considerably, we find disobedience and spasmodic control, as was mentioned in Chapter III. As Beck points out, the young child has no FC as yet.

"The Fc or Form Color association is a new developmental phase. In it F dominates C. In this reaction, regard for Form is the principal behavior determinant. The individual is actuated by feelings, but even while responding to these, he masters them, out of consideration of others... The capacity for affective rapport appears to be established at about midadolescence.... FC bespeaks the level of the grown person who has more fully integrated the outside world. He knows its feeling and feels with it... He is now not egocentric."^{5/}

Specific color norms for preadolescent normal children have not been established, but they are expected to lie between the uncontrolled responses of the young child and the more mature responses of the adult.

The comparison of the CF+C scores indicates how much impulsivity the groups have if they are compared with each other.

Comparison of the CF+C scores reflects the overt behavior differences of the three groups clearly and

^{5/}Beck, Vol. II, Op. cit., p. 28-30.

TABLE 7. Mean CF+C Scores

Stutterers	1.1
Adjusted boys	2.2
Predelinquents	3.3
Adjusted boys >	Stutterers; t sig. at .01 level
Predelinquents >	Stutterers; t sig. at .01 level

they are statistically significant. The Predelinquents are the most impulsive, the Adjusted come next, and the Stutterers come last. It is because of the behavior that is reflected in the CF+C score that observers gain the impression that Stutterers and Predelinquents are basically so different, but the difference holds true only in the color scores CF+C and in the sum C score which we will consider next.

B. Experience Balance; M:sum C.— The Experience Balance is expressed in the Rorschach by the ratio M:sum C and is based on Rorschach's construct of the Erlebnistypus which indicates whether a person is predominantly an introversive or an extratensive type. This dichotomy has not always been found clinically very useful for the evaluation of adults, but it seems to this writer particularly applicable to the present investigation because Stutterers appear to be typically introversive and Predelinquents typically extratensive personality types, especially in the preadolescent age group.

When the M side of the ratio predominates and the sum Color side shows evidence of very little color perception, we can conclude that the individual is guarded and self-controlled. If the ratio is completely unbalanced towards the M side, such a person would be very inhibited and would live completely in a make-believe world of fantasy, like the psychotic. Conversely, individuals who have a higher sum C over M are more in contact with reality. If the ratio is very uneven in favor of sum C, the person is considered impulsive, acting out, and often unstable. If neither side is dominant, the person is rather flat emotionally and shows lack of affective interaction with the environment.

The data bear out these assumptions for the three groups.

TABLE 8. Mean M: sum C ratio

Stutterers	1.3 : 1.7
Adjusted boys	2.4 : 3.6
Predelinquents	2.0 : 3.9

Sum C \gt M in Adjusted boys; sig. at .05 level, Sign Test

Sum C \gt M in Predelinquents; sig. at .05 level, Sign Test

The Stutterers have the smallest mean M score and the smallest mean sum Color. Rorschach has coined the term "coarctation" when both sides of the ratio are low and undifferentiated. It means there is very little emotional ex-

pression at all and a general affective flatness. Stutterers are actually "colorless" persons, both in the colloquial and in the Rorschach sense, because of their impoverished and meager output of emotional energy. In the Stutterers, there is no significant difference between the introversive and extratensive side of the ratio. In both the Adjusted and Predelinquent groups, the extratensive side is predominant, and the difference is significant on the .05 level. In the preadolescent age range, it is expected that young boys have a stronger extratensive outlet, it will probably change during adulthood.

C. The Human Movement Response; M.— The Movement Responses have been considered indicators of the "introversive" tendencies in people. They are, however, much more than that. They are indicative of the subjects' ability to empathize with others, of their fantasy life, and their creative abilities. In perceiving Movement in a static inkblot, the individual empathizes with the movement-impressions; also thought processes are utilized and impulses are controlled in perceiving Movement. The ego of an individual who perceives Movement is more fully developed because such a person thinks first and can delay his impulses, rather than the individual who acts first and then tries to rationalize.

Curbing and delaying impulses is desirable, but extreme

delay paralyses actions and causes obsessive doubts and fantasies. In the Adjusted, the M response should be neither too high nor too low. The median M response should be between two to three in the average 10 to 16 year old^{6/} and is indicative of the person who can anticipate thought processes and who can also show a certain spontaneity and flexibility. If the M score is too high, there is too much delay of action and spontaneity, and the emotions are watered down.

In this experiment, there is a significant difference in the M score as expected.

TABLE 9. Mean M Scores

Stutterers	1.3
Adjusted boys	2.4
Predelinquents	2.0

Adjusted > Stutterers, t significant at .05 level

As expected, the Adjusted boys have the highest M score; this indicates they are still flexible, because the M score is not extremely high, but it also means they have sufficient control for the delay of impulses. Both control groups, the Stutterers as well as the Predelinquents, have a lower M score, indicating that they cannot empathize with others and cannot use the intellectual potential to the same extent as

^{6/}Ames, Metraux, Walker, Op. Cit., p. 289.

the Adjusted boys. It is on the color side of the ratio, the extroversive side, when the two maladjusted groups are not alike, but as far as the Movement response is concerned, they have very much in common. They both cannot produce as much M, indicating that they both lack the degree of empathy and creative intellectual ability of the Adjusted boys. As Rapaport states, "the M responses are the most vulnerable to maladjustment."^{7/}

How much all the Rorschach responses are actually inter-related can also be seen in the next variable, the Human response, which is closely related to the Movement response. The individual has to see Humans in action before a Movement Response is scored; if Animals are seen in action, it cannot be scored as a Movement response, unless the Animals are engaged in Human-like actions.

D. The Human Response; H.— Human content is present in about two thirds of all normal Rorschach records;^{8/} if there are few or no Human responses, it is usually a sign of poor adjustment. Individuals who do not perceive any Humans in the Inkblots have been found not to be interested or sensitive to people. The person who develops a number of H responses is usually a sensitive and perceptive individual with good social contacts. H responses are

^{7/}Rapaport, Op. cit., p. 266.

^{8/}Phillips and Smith, Op. cit., p. 137.

often equal in numbers to the M responses in normal subjects. When H exceeds expectancy, the subject is likely to be hypercritical of others.

"Individuals who develop H below expectancy, typically are persons who lack understanding of and sensitivity to others and who have few warm human relationships. In general, the more H is de-emphasized, the more the subject tends to establish a wall between himself and others and the greater is his isolation."^{9/}

Human-like content (H) includes variations of the Human form, such as statues, puppets, witches, Donald Duck, and so on. (H) implies that the person is interested in others but has anxiety about interpersonal relations and tends somewhat towards social isolation. Ghosts, witches, and cartoon figures are however, still closer to children than adults, and therefore H and (H) have been counted together as one score. The Human Detail response (Hd), like arms or teeth, has not been included in this score.

TABLE 10. Mean H and (H) Scores

Stutterers	2.4
Adjusted boys	4.9
Predelinquents	4.2

Adjusted boys > Stutterers; t significant at .05 level

The Stutterers perceive significantly less Humans and
^{9/}Phillips and Smith, Op. cit., p. 138.

Human-like content on the Rorschach than the Adjusted boys. This is, of course, a function of their emotional flatness and restriction, which makes them fearful of being close to people. The difference between Adjusted boys and Stutterers is significant on the .05 level; there is no difference between Predelinquents and Adjusted boys; the difference between Stutterers and Predelinquents runs in the expected direction, t equals 1.3, but is not statistically significant. It indicates that Predelinquents have actually better human relationships than Stutterers do.

E. The Popular Response; P.— The number of expected Popular responses in ten to twelve year olds is between 5 to 8. The hypothesis underlying the P responses is that a person who gives the expected number of Populars, sees the world like others do without being unduly conventional. Such an individual has a good contact with reality. Some of the inkblots are so compelling and its meaning is so obvious to the majority of people that failure to perceive at least a few of them indicates a weak tie with reality and poor adjustment to the expected patterns of socialization.

The Adjusted boys have the highest number of P responses as expected, and this difference of Stutterers and Adjusted boys is significant on the .01 level; the difference

TABLE 11. Mean Number of Popular Responses

Stutterers	5.7
Adjusted boys	7.1
Predelinquents	6.0
Adjusted > Stutterers; t sig. at .01 level	
Adjusted > Predelinquents; t sig. at .05 level	

between the Adjusted boys and the Predelinquents is only significant on the .05 level. Here again, both Stutterers and Predelinquents show their maladjustment, and the Adjusted boys show a significant difference in perceiving the world as others do. The Stutterers show less contact with reality than the Predelinquents are doing, and the Predelinquents are closer to the Adjusted boys than the Stutterers.

F. The Good Form Percentage; F+%.— Every Form response in the Rorschach of the sixty boys has been checked in the Hertz tables ^{10/} for F+, which means good Form, or for F-, which means poor Form. The tables are based on statistical frequency in the normal population. The psychological meaning of F+ is predominantly a respect for reality. Individuals who perceive clearly visualized forms show a high level of intelligence and a sense of reality. F+ is also an indicator of self control and 10/Marguerite Hertz, Op. cit., pp. 1-239.

ego strength. The difference between F+ and F- answers indicates whether a subject sees the world accurately or whether he twists much of it to his own liking. Feeble-minded and schizophrenic subjects have a predominance of F- responses. Adult expectancy is around 80%. In preadolescence, the expectation of F+% is rather high because of a sudden inhibition, guardedness, and critical attitude which appears around the age of ten. In children, the F+% reaches 89 at age ten, the Gesell Institute reports; and it rarely falls much below 80 in normals till age sixteen.^{11/}

$$\text{The formula for } F+\% = \frac{F+ \times 100}{F+ \text{ plus } F-}$$

TABLE 12. Mean F+ Percentage

Stutterers	79.5
Adjusted boys	80.0
Predelinquents	74.3

Although the mean of the Predelinquent boys is considerably lower than the mean of the Adjusted boys, t equals only 1.4, which is in the expected direction but not statistically significant. The writer assumes that this lack of significant differences in F+% is a function of the preadolescent age during which youngsters are so constricted and controlled that they do not permit themselves sufficient freedom and spontaneity in interpreting

^{11/}Ames, Metraux, and Walker, Op. cit., p. 39.

the unstructured inkblots. The differences between Stutterers and Adjusted individuals can be expected to be significant in younger or older individuals.

G. Anxiety Indicators.— This indicator represents a composite score of ten different anxiety signs outside of the content itself. They are: Initial turning of cards more than three times; a reaction time of more than 15 seconds for the first response to each card; the occurrence of "little m"; C', the achromatic color response; Dr, the number of Rare Details; Hdx responses; Animal content of over 50%; a response protocol with less than 15 answers; evasive responses that cannot be scored, such as "Little dots here" or "A line there". All these signs of insecurity and anxiety have been added up for each record, and it is quite interesting that even the Adjusted boys have a considerable number of anxiety indicators. It seems that growing up in our society demands a certain amount of at least "socialized anxiety". No one has used this indicator before as a composite score and therefore no expected score can be given.

These scores are highly significant for both emotionally disturbed groups, because they differ so decisively from the Adjusted group, but not very significantly from each other. The Stutterers and Predelinquents do not represent opposite poles in a continuum as far as Anxiety

TABLE 13. Mean Number of Anxiety Indicators

Stutterers	7.2
Adjusted boys	4.9
Predelinquents	6.6

Predelinquents > Adjusted boys; t sig. at .01 level

Stutterers > than Adjusted boys, t sig. at .01 level

is concerned, they both suffer from a great deal of anxiety. In fact, they are very similar, except that the Stutterers have even more indices of anxiety than the Predelinquents.

H. Number of Content Categories.— The number of Content Categories have been counted to compare the interests of the three groups. A person who has recourse to a wide range of contents in the Rorschach will have a more variegated range of interests than individuals who can only perceive a few "Animals" and "Clouds."

TABLE 14. Mean Number of Content Categories

Stutterers	6.6
Adjusted boys	8.2
Predelinquents	7.9

Adjusted > Stutterers; t sig. at .01 level

The Adjusted boys have significantly more Content Categories than the Stuttering group, with a t as high as 4.5. The difference between the Adjusted boys and the Predelinquents is not significant. Apparently the Predelinquents

have a sufficient range of interests at this age level, though they do not make much use of it. In this area, there is no significant difference between the two disturbed groups.

4. The WISC Experiment

A. Full Scale I.Q.'s.— The three groups of this study have been selected in such a manner as to make their intelligence ranges comparable (I.Q.'s from 90 to 130). In fact, a special effort had to be made to find a sufficient number of Adjusted boys with I.Q.'s below 107, while several boys with higher I.Q.'s had to be eliminated. The twenty Stutterers and the twenty Predelinquents fell into a more natural distribution from I.Q. 90 to 130 without any effort on the part of the examiner. As a consequence of the selection, the average total I.Q.'s of the three samples cannot show any considerable differences.

TABLE 15. Mean Full Scale WISC I.Q.'s

Stutterers	108.6
Adjusted boys	108.8
Predelinquents	105.3

The difference between the mean of the Adjusted boys and the Predelinquents is not statistically significant, although the difference is in the expected direction with t equal .083. The I.Q.'s for each of the sixty subjects

TABLE 16. Distributions of I.Q.'s (Full Scale WISC)

Stutterers	Adjusted Boys	Predelinquents
1. 131	130	128
2. 128	125	122
3. 123	125	122
4. 123	122	121
5. 115	117	116
6. 115	116	113
7. 112	115	107
8. 112	111	107
9. 109	110	104
10. 108	110	104
11. 107	109	103
12. 106	108	102
13. 105	107	96
14. 102	103	95
15. 101	101	94
16. 99	99	93
17. 98	98	93
18. 97	95	91
19. 90	91	91
20. 90	90	90
2170 mean 108.5	2176 mean 108.8	2092 mean 104.6

will be found in Appendix A.

The above mean I.Q.'s are somewhat higher than that of the average population which is 101.8 in the Stanford Binet.^{12/} However, the I.Q.'s in this study are higher for the entire group of children and apparently reflect the predominant middle class character of the town of Arlington, Massachusetts. The mean I.Q. of the children studied for their Rorschach norms at the Gesell Institute for Child Development^{13/} is 115.9, representing an even higher socio-economic group. It might therefore be useful to compare the Verbal and Performance Scale I.Q.'s and the subtests among each other to look for specific characteristics for each of the three groups.

B. Verbal Scale I.Q.'s.— The Verbal Scale consists of five subtests: Information, Comprehension, Arithmetic, Similarities, and Vocabulary.

TABLE 17. Mean Verbal Scale I.Q.'s

Stutterers	109.3
Adjusted boys	107.9
Predelinquents	105.8

Although these means seem to differentiate the groups in favor of the Stutterers and show the lowest mean for

^{12/}Maud A. Merrill, Op. cit., p. 168.

^{13/}Ames, Matraux, Walker, Op. cit., p. 17.

the Predelinquents, the difference is not statistically significant.

C. Performance Scale I.Q.'s.— The Performance Scale consists of five subtests: Picture Completion, Picture Arrangement, Block Design, Object Assembly, and Coding.

TABLE 18. Mean Performance Scale I.Q.'s

Stutterers	105.6
Adjusted boys	106.5
Predelinquents	103.9

Here also the difference is not statistically significant.

D. Difference Between Verbal and Performance Scale I.Q.'s.— This variable of the difference between the two scales has been used to measure whether the Stutterers, the Adjusted boys, or the Predelinquents have a larger difference between the two scales.

TABLE 19. Mean of the Difference between Verbal and Performance Scale I.Q.'s

Stutterers	10.8
Adjusted boys	6.9
Predelinquents	8.9

Stutterers > Adjusted boys; t sig. at .05 level

The difference between the Verbal and Performance Scale I.Q.'s differentiates the Stutterers and Adjusted boys sig-

nificantly at the .05 level of confidence. It is generally accepted by Rapaport,^{14/} Schafer,^{15/} and other psychodiagnostic investigators that the larger the discrepancy between the Verbal and Performance Scores in one individual, the greater is the degree of emotional disturbance. It follows that the Stutterers are more severely disturbed in their use of intelligence than the Predelinquents, and of course, much more so than the Adjusted boys. The gap between verbal and non-verbal ability shows a discrepancy in the Stutterers. The t Test only indicates that there is a significantly greater difference in the Stutterers between their verbal and non-verbal skills, but it does not say anything about the distribution within the Verbal or Performance Scales. This will become important in the Scatter Analysis given below.

The Mean of the Difference between the Verbal and Performance Scale I.Q.'s has been arrived at by taking the difference of the Verbal or Performance I.Q. from the Full Scale I.Q. of each individual child in each of the three groups and by dividing the total of each group by 20. The mean of the difference is not the same as the difference between means. The direction of the difference between

14/Rapaport, Op. cit., Vol. I, p. 61.

15/Roy Schafer, Clinical Application of Psychological Tests, International University Press, New York, 1950, p. 64.

Verbal and Performance Scales is in favor of the Verbal Scale I.Q. for all the three groups, but it is not differentiating the groups. Stutterers and Adjusted boys show twelve cases in which the Verbal Scale is higher and the Predelinquents have eleven cases in which the Verbal Scale is higher than the Performance Scale. A likely explanation for this will be found in Chapter Vi, section 3 C.

E. Vocabulary Subtest.— This subtest was chosen because Vocabulary is known to be the best single indicator of intelligence.

TABLE 20. Mean Vocabulary Scores

Stutterers	11.3
Adjusted boys	10.3
Predelinquents	11.3

No significant differences among the three groups regarding the Vocabulary Score has been found. This analysis does not include qualitative differences. It is possible that at this age the influence of schooling and the environment is not yet such a differentiating factor as it is expected to be in adults.

F. Comprehension Subtest.— This subtest has been chosen because it measures the person's ability to size up a situation and gives the examiner information regarding the kind of judgment an individual is using.

TABLE 21. Mean Comprehension Scores

Stutterers	10.6
Adjusted boys	11.4
Predelinquents	10.0

Though the Predelinquent mean is the lowest, the difference between the three groups is not statistically significant. Comprehension dropped in both maladjusted groups below the level of Vocabulary. This seems to support a point mentioned by Rapaport^{16/} in regard to the Wechsler Bellevue Scales, that Comprehension is the most vulnerable of the Verbal subtests. This finding will be important for the Scatter Analysis which will be discussed later.

G. Similarity Subtest.— The Similarity subtest is of special interest because it measures a person's ability to differentiate between concrete and abstract kind of thinking.

TABLE 22. Mean Similarities Scores

Stutterers	11.8
Adjusted boys	11.8
Predelinquents	11.4

There is no difference between the three groups in regard to Similarities Scores; in fact, all three groups did about equally well on this subtest.

16/Rapaport, Op. Cit., p. 110.

H. Picture Arrangement Subtest.— Picture Arrangement is the only Performance subtest picked out for a t Test comparison, because there has been considerable work done with other Performance subtests such as Block Design and Object Arrangement in connection with the study of brain injuries. Picture Arrangement is an important subtest because it measures a person's ability to size up a situation in a non-verbal manner.

TABLE 23. Mean Picture Arrangement Scores

Stutterers	10.8
Adjusted boys	11.4
Predelinquents	10.5

The difference between the three groups in regard to Picture Arrangement is not statistically significant. This subtest comes closest to investigate a person's planning and anticipating ability, as opposed to trial and error type of thinking.

I. Scatter Analysis of the WISC.— As the WISC and its subtests did not yield any statistically significant differences among the three groups except for the difference between the Verbal and Performance I.Q.'s of the Stutterers and the Adjusted boys, this writer has borrowed a technique used by Rapaport, usually referred to as Scatter Analysis, in order to investigate the inter-

relationship of the various subtests. It seems important to approach a body of raw data with several types of statistical measures to extract the greatest amount of information from the collected material. "The scatter is the pattern or configuration formed by the distribution of the weighted subtest scores of an intelligence test."^{17/} Three types of intra-test comparisons have been worked out: The Negative Vocabulary Scatter, the Negative Mean Performance Scatter, and the Negative Mean Verbal Scatter.

α. The Negative Vocabulary Scatter

Rapaport and his co-workers found by careful statistical analysis of various clinical groups that Vocabulary is one of the most stable subtests. It seems to be least affected by maladjustment and therefore can serve as an indicator of the original intelligence. The Vocabulary level can then be used as a base line from which to estimate a drop in other functions. The Vocabulary Scatter of the WISC is the difference between all the scores and the score on the Vocabulary. "Vocabulary Scatter measures the drop of efficiency of one or more functions below the hypothetical original level of the individual."^{18/} This scatter is called the Negative Vocabulary Scatter, because

17/Ibid., p. 48.

18/Ibid., p. 52.

only the differences of those scores which are lower than Vocabulary have been added up. The differences which are higher than Vocabulary are referred to as Positive Vocabulary Scatter. The Positive Vocabulary Scatter has not been used because it has been found not to be clinically very helpful.

TABLE 24. Mean of Negative Vocabulary Scatter

Stutterers	12.9
Adjusted boys	6.4
Predelinquents	12.9
Predelinquents	> Adjusted boys; t sig. at .01 level
Stutterers	> Adjusted boys; t sig. at .05 level

From the comparison of the Negative Vocabulary Scatter of the three groups it becomes obvious that both Stutterers and Predelinquents show a considerable drop in a number of subtests below the level of Vocabulary. This indicates that the scatter of the WISC, just like the scatter of the Wechsler-Bellevue Scale, is diagnostically differential between normal and clinical groups. For the Predelinquents the difference is so great that it is significant on the .01 level of confidence; for the Stutterers, the difference is also significant, but only on the .05 level of confidence.

B. The Negative Mean Performance Scatter

A Mean Scatter represents the variations of the subtest

scores away from their central tendency. The Mean Performance Scatter or the Mean Verbal Scatter represents the interrelationship of the different verbal or performance functions underlying the subjects' subtests achievements.

"The Vocabulary Scatter represents the subjects achievement in relation to his own original highest achievement.... the Mean Scatter measures the relationship of single achievements of a subject to the central tendency of all his achievements."^{19/}

This writer has used the Negative Mean Verbal Scatter and the Negative Mean Performance Scatter, because only the drop below the mean of either the Verbal or the Performance Scale would indicate differences between the Adjusted boys, the Stutterers, and the Predelinquents. The mean of the Performance subtests is the sum of the five Performance tests divided by 5. If any decimals are encountered they are omitted if they are below .5, they are increased to the next digit if they are .5 or above.

TABLE 25. Mean of Negative Mean Performance Scatter

Stutterers	4.2
Adjusted boys	3.3
Predelinquents	4.8

Stutterers > Adjusted boys; t sig. at .05 level

Predelinquents > Adjusted boys; t sig. at .01 level

These results show clearly that both maladjusted groups

^{19/}Ibid., p. 53.

do much poorer on their Performance subtests than their Performance Mean indicates. One can also see here, that the Performance subtests are more vulnerable to maladjustment than the Verbal subtests. The drop below the Verbal Mean is not significant as can be seen by the next scatter analysis.

8. The Negative Mean Verbal Scatter

The mean of the Verbal Scale is the sum of the five Verbal tests divided by 5. The Negative Verbal Scatter is again the algebraic addition of the subtests which fall below the Verbal Mean.

TABLE 26. Mean of Negative Mean Verbal Scatter

Stutterers	3.2
Adjusted boys	2.2
Predelinquents	3.2

There is also a greater drop of scores of the Verbal Mean Scatter in the Stutterers and the Predelinquents than in the Adjusted boys, but it does not reach statistical significance, whereas the drop of the Predelinquents below the Adjusted boys in the Negative Mean Performance Scatter was so great that the t value of 4.7, was beyond that needed to be significant at the .01 level of significance, which brings out the greater vulnerability of the Performance subtests over against the Verbal subtests.

This scatter analysis then tries to understand the intra-individual comparison of functions underlying an intelligence test, rather than a comparison of the individual scores with each other. As a result it becomes evident which groups do not work up to their potential.

CHAPTER VI

DISCUSSION OF DATA AND RESULTS

1. Overall Impressions of the Rorschach Results

In order to understand the complex pattern of the human personality, several Rorschach variables have been used for a quantitative study. The significance of individual scores is useful in detecting emotional disturbances but it should not be the sole measure, because the interrelationships of the different variables is vital, and psychological test data are most meaningful in the context of the total configuration. The following Rorschach variables have been selected for a statistical comparison of the Stutterers, the Adjusted boys, and the Predelinquents, and their meaning is briefly indicated here.

1. Control over, and expression of, emotions;
FC:CF+C ratio.
2. Self-awareness and outlet of affectivity;
M : sum C ratio.
3. The ability to have self-control and empathy
for others; M.
4. The ability to establish human relations
comfortably; H.

5. Communalinity of thinking with the rest of society; P.
6. The ability to perceive the world accurately; F+%.
7. Breadth and narrowness of interests, Number of Content Categories.
8. The degree of anxiety; measured by 10 anxiety indicators.

The statistical analysis has significantly demonstrated by means of the t test and the Sign Test that the Stutterers differ in all of the above-mentioned areas considerably from the Adjusted boys; and the Predelinquents differ greatly from the Adjusted boys. However, the Predelinquents are much closer to the Stutterers than has been expected. On the eight variables selected for this comparative study, seven have shown significant differences among the three groups, and only in one aspect, the impulsive acting-out emotionality (the right side of the FC:CF+C ratio), have the Stutterers and Predelinquents shown to be very different from each other. Therefore, Stutterers and Predelinquents do not really represent opposite poles in a behavior continuum as had been assumed.

Sheehan^{1/} reviewed several personality studies of

^{1/}Joseph G. Sheehan, "Projective Studies of Stuttering," Jour. of Speech and Hearing Disorders, (Feb. 1958), 23: 18-25.

Stutterers in which various projective techniques were used, and found that none of them showed a reliable difference from normal speaking subjects. If the present study has shown the existence of statistically significant differences, this is due to the following reasons:

In the first place, all the authors who used Rorschach tests for comparison had much too wide an age range to make their studies meaningful. They also did not use children's norms. What is considered well adjusted for a six year old boy is by no means well-adjusted behavior for a fifteen year old. But these authors took the mean of the Rorschach scores of age ranges which are incomparable.

Meltzer took age ranges from 8 to 17,

Krugman, from $6\frac{1}{2}$ to 15, and

Christensen, from $4\frac{1}{2}$ to $12\frac{1}{2}$.

Secondly, it has to be stressed that the fifty controls in Melzer's study were not a selected group just non-stutterers, they could have had any kind of disturbances. The mere fact that a child does not stutter does not make him a "normal" person. The fifty children used by Krugman were problem children who were referred to a Child Guidance Clinic for a variety of symptoms. Christensen compared thirty siblings with his Stutterers, but since they have had a very similar background, it is not surprising that they did not sufficiently differentiate. The present study,

by contrast, compares Stutterers with a selected group of Predelinquents and a selected group of Adjusted boys, all of them in the same age range from ten through twelve, whereas the above studies were not set up correctly to find significant differences.

2. Specific Variables of the Rorschach Test

A. The Ratio of Self-control versus Unstable Affectivity; FC:CF+C.— In this ratio, the left side is compared with the right side. For the Stutterers, both sides of the ratio are very low, namely 1 : 1.1; it indicates that they are not capable of deep emotional experiences at all and have a very shallow affectivity. What appears on the surface as control over emotions because of their quiet, inhibited behavior, is actually a lack of affectivity and of emotional energy, a deep-seated inertness. Stutterers have a low FC score, i.e., they have few self-controlling mechanisms, but they also have a low acting-out potential as indicated by the CF+C score; they are blocked in both directions.

The Predelinquents also have a very low FC score, also very little self-control just like the Stutterers, but they have a great deal of emotionality at their disposal, although it is distributed in a lopsided fashion, namely .95 : 3.3. The right side of this ratio of the Predelinquents is very different from the left side of

the ratio of the Stutterers and reflects their unstable and impulsive behavior. It reflects untamed expression of affect and immature and irrational emotionality. The Predelinquents are egotistic and act like four to five year old children who have not yet learned to control their desires. The Stutterers however, have not yet gone through the stage of the young child where he learns that he is only permitted certain things but not others. He has been so reduced in the expression of his energy and emotionality that he has no freedom of choice.

The Adjusted boys, by contrast, have a much more balanced ratio, 2.4: 2.2. They have affect at their disposal but they can distribute it more evenly between self-control (on the left side) and socialized emotionality (on the right side). At this age, the difference between the two sides is insignificant, but the Adjusted boys show already the beginnings of a larger FC score which is expected in the mature adult. In any case, the right side is not larger, as is the case in our two maladjusted groups. It is also the balance that is reflected in these ratios which is such a valuable indicator for emotional adjustment. When the FC:CF+C ratio approaches an optimal proportion, then the individual is a warm, spontaneous person with relative freedom of expression. Only the Adjusted boys produced this balance, the Stutterers and the Predelinquents

are immature in this respect. It has been pointed out by many Rorschach specialists ^{2/}, ^{3/} that any well-adjusted individual should have a sizable FC score because "FC is positively correlated with emotional stability." Paulsen points out that at age 10, FC exceeds CF+C for the first time and maintains its predominance in the normal throughout life. The Stutterers with their absence of self-expression hardly perceive any colors where others are affectively responsive. This inhibition is an active attempt to prevent the expression of unacceptable feelings and forbidden wishes. Self-control, however, cannot be learned without the expression of both negative and positive feelings, a fact of which psychotherapists are well aware.

B. The Ratio of Introversive Tendencies versus Extratensive Tendencies; M : sum C.— The M:sum C ratio has much in common with the previous ratio because M also implies self-control and sum C emotional impulsivity. But in addition it connotes much more. The presence of several M scores in a record means maturity, intelligence, self-awareness, and most of all the ability to respond empathet-

^{2/}Arthur L. Benton, "The Experimental Validation of the Rorschach Test", Am. Jour. of Orthopsychiatry, (Oct. 1952), 22: 755-763.

^{3/}Alma A. Paulsen, "Personality Development in the Middle Years of Public School Children by Means of Rorschach Test and Social Histories," Am. Jour. of Orthopsychiatry, (April 1954), 24: 336-350.

ically towards others. Also in this ratio, the Stutterers have much less of this M quality than either the Adjusted or the Predelinquent groups. The Adjusted boys have most of this quality, they have 2.4 M, but the Predelinquents also have some of this and much more than expected. They have a mean of 2 M, while the Stutterers have only a mean of 1.3 M. On the emotional acting-out side of this ratio, it is again the Predelinquents who have the poorest balance between the two sides, namely $2.0 \div 3.9$, while the ratio in the Adjusted group is $2.4 \div 3.6$. In the Stutterers each side of the ratio is so low, namely $1.3 \div 1.7$, that it implies the same emotional restriction as the first ratio. The Stutterers are actually passive and constricted individuals, and their failure to develop sufficient color responses on the Rorschach indicates that they guard against any kind of self-expression. The experience type can therefore be called introversive, while the Predelinquents who react immediately to color stimuli can be referred to as extratensive. Extratensive individuals are by definition more outgoing personalities, but they need not be delinquent. The explosive and unstable affectivity of the Predelinquents often implies egocentricity, but a sufficiently high M score would counteract such a personality characteristic.

The Adjusted children try to achieve an integration of intrapsychic needs and environmental pressures. The M:sum C

ratio basically reflects this struggle. With age, the M side, the introversive side, increases in the normal, and the sum C side, the extratensive side, decreases. Around age ten, adjusted children try "to deal with the inner and outer worlds of experiences and they learn to bring the two into relationship with each other in a balanced way."^{4/} Our maladjusted groups are unbalanced, their inner world has not developed sufficiently, and the outer world makes only demands which they are unable to fulfill.

C. The Score Indicating Self-awareness and the Ability to Empathize with Others; M.— Stutterers have a serious lack of self-awareness which is expressed in their low M score. At the preadolescent age one cannot expect a high degree of self-awareness. The Adjusted boys, however, have a significantly higher score. A deep repression of the awareness of their own attitudes towards themselves shields the Stutterers to face their problems. Such findings are very valuable for therapy, because these attitudes are of a long-enduring quality, rather than only of momentary significance. The low M score as well as the low FC score reveal how much more difficult the Stutterers will be to reach therapeutically than the Predelinquents, who have more of the M quality and better human relationships. The preadolescent is still very accessible to therapy;

4/Ibid., p. 342.

whereas entrance into adolescence diminishes the chances for reachability, especially for delinquents.

Schachtel states that a low M score or absence of M

"means that a person is not open to stimuli and incapable of projecting himself in an empathetic environment. When people cannot view themselves, they also cannot attribute qualities and feelings of their own to other people."^{5/}

In adjusted youngsters, emotional growth and inner stability occurs during the ages from eight to ten, and therefore the Movement responses and the Human responses climb steadily from ten years up. The Adjusted boys become more aware of their own inner resources and more aware of themselves as people, and therefore they can undertake active steps to change their behavior when such a suggestion is given to them.

D. The Score Indicating a Person's Relationship to Other People; H.— The Stutterers have very few warm human relationships; their Human Response is the lowest of the three groups. The Adjusted boys have the highest H score and the Predelinquents are only slightly below the Adjusted boys. Here again, they rank much closer to the Adjusted boys than to the Stutterers. In the M and H scores, the Predelinquents are closer to the Adjusted boys, which implies that the Stutterers have the severer maladjustment.

^{5/}Ernest G. Schachtel, "Projection and Its Relation to Character Attitudes," Psychiatry, (1950) 13: 69-100.

Instead of perceiving people on the Rorschach, the Stutterers often see "rocks", "icebergs," or "statues" on Card VII, where the Adjusted boys often perceive "girls" or "ladies", or at least "dogs" or "bunnies". On Card IV, where the Adjusted usually perceive "a giant walking", or "a clown dancing", the Stutterers often see "a bat" or at best "a gorilla", or "a monster", indicating that male figures are perceived as frightening and female figures as cold. This study is not concerned with the qualitative features of the Rorschach test, but a wealth of information can be found in the type of Movement and Human responses, though they do not lend themselves to a quantitative analysis.

E. The Popular Score, Indicating the Ability to Perceive the World as Others Do; P.— Both Predelinquents and Stutterers have a significantly lower Popular response score than the Adjusted boys. This means that Stutterers and Predelinquents are not sufficiently aware what is socially expected of them. This is not so surprising for the Stutterers, but unexpected for the Predelinquents. The Stutterers do not really understand what is expected of them and do not see the world in quite the same terms as other people do, because they have been overprotected by an anxious, often punitive, mother who is herself maladjusted, and because they have not mixed sufficiently with their peer group. The Predelinquents have not incorporated

conventional patterns of behavior, because the parental figures do not spend sufficient time with them to act as ego-ideals. Although the reasons for a lower Popular response score for both maladjusted groups are different, the effect seems to be the same. The Stutterers even have a somewhat lower score than the Predelinquents, though the scores for both groups are not so low that one could say that they have lost touch with reality; they are both well in the normal range. The score is rather high for all, because the eighteen possible Populars were taken from the new norms in "Adolescent Rorschach Responses",^{6/} as mentioned before.

F. The Score Indicating Ego Strength; F+%.— The F+% is the only variable in the Rorschach which did not turn out to be statistically significant, although the trend is definitely present for a higher F+% in the Adjusted group over against the Predelinquents. The Stutterers have a Mean F+% of 79.5 and the Predelinquents of 74.3. It was not expected that the Stutterers would have a lower score in ego strength than the Adjusted boys, on the contrary, this writer assumed that the Stutterers would have a high F+% to indicate their rigidity. This Rorschach analysis actually reveals less mental health on the side of the Stutterers than expected.

^{6/}Ames, Metraux, and Walker, Op. cit., p. 19.

Ego strength is apparently difficult to assess at the preadolescent and adolescent age range. The Gesell Institute's findings indicates that there is a steady progression toward greater precision of responses from $5\frac{1}{2}$ years on with an F+% of 80 at the age of ten and of 90 to 94 up to the age of sixteen. After sixteen years of age, the percentage of Form responses takes its sharpest dip again. In feeble-minded and schizophrenic subjects this score is of great differentiating power between just retardation and pathogenic forms of brain injuries. Apparently the maladjustment at this age has to be more drastic to show a significant differential in this score.

G. The Score Indicating the Number of Anxiety Signs.—

The sum of the ten anxiety indicators has turned out to be a very significant differentiator for the three groups, significant on the .01 level. As expected, the Adjusted boys have the lowest anxiety score, but they have more anxiety than is usually assumed in normal individuals. The reason for less anxiety in the Adjusted boys can actually be explained by the Rorschach scores. They have better relations to their parental figures, more friends, and do not get so often into trouble because they know what is expected of them socially and individually, and they have sufficient control over their basic needs to be able to do the right thing.

Both maladjusted groups have significantly more anxiety than the Adjusted boys. The Stutterers have even more anxiety indicators than the Predelinquents. The presence of anxiety can be considered a valuable asset from the point of view of therapy. Individuals without any anxiety are hard to reach psychotherapeutically; they do not see the need for any change. It is generally assumed that Predelinquents and Delinquents "don't care", because this is precisely what they say. The Rorschach Test, however, can so to speak X-ray the personality and can find these covert indicators to which observers who are only concerned with conscious material have no access. Anxiety can show itself in many different ways, often physically by unrest, jumpiness, tics, high pitched voice and constant movement of hands, but some subjects manage to keep anxiety well under control, so that it is detectable only through projective tests. Keeping anxiety well hidden is in itself a sign of strength.

H. The Score Indicating the Breadth or Narrowness of Interests.— The difference of the range of interest between the three groups is significantly differentiated between the Adjusted boys and the Stutterers. The Adjusted boys have a much higher score because they have more inner resources, and therefore they can associate better to the Inkblots than the Stutterers. The emotional constriction

of the Stutterers can be held responsible for their smaller range of interest. The Predelinquents also have a smaller range of interest than the Adjusted boys, although their mean of 7.9 is much closer to the mean of Adjusted group which is 8.2. The mean Interest Score of the Stutterers is as low as 6.6. Sociologists might conceivably say that a person's range of interest is connected with his socio-economic level, but since no specific knowledge is required in the Rorschach to associate a larger variety of content categories, the reason for this difference must lie much deeper. The person or child who is anxious, rigid, and preoccupied is usually unproductive and usually gives some stereotyped answers, such as a profusion of Animal, Anatomy, and vague responses. Flexible and intelligent boys who feel free to absorb a new experience with an open mind can think of many more associations than just the obvious ones. They are ready to absorb the many stimulations that the school, the environment, the radio and TV present, and do not have to rely on stereotypes only.

3. The WISC Results

A. The Full Scale I.Q.'s.-- As already explained in the chapter dealing with Analysis of Data, the I.Q.'s of the three groups have been more or less equated, because the comparison of the three groups was based on five controlled variables of which the Intelligence Range

from 90 to 130 was one. The Stuttering and Predelinquent groups of twenty boys each have been referred by school personnel to this writer, and their I.Q. range fell into a natural distribution without any effort on the part of this examiner. The twenty Adjusted boys, however, had to be specially selected so that their I.Q.'s conformed to the range of the two other groups. For this reason the three groups are rather well matched in regard to I.Q., and there is no statistically significant difference between the groups. The Adjusted boys, however, have the highest mean I.Q. of 108.8 and the Predelinquents the lowest of 105.3 and the Stutterers come close to the Adjusted boys with a mean I.Q. of 108.6. Since the overall I.Q. does not differ significantly, it is not surprising that most of the subtests also do not show a greatly differentiating score.

B. Verbal and Performance I.Q.'s; Difference Between Verbal and Performance I.Q.'s; Vocabulary; Comprehension; Similarity; and Picture Arrangement Subtests.— From the above-named eight scores which have been selected for comparison, only one showed a difference among the three groups that was statistically significant, that is, the score indicating the Difference between the Verbal and Performance Scale I.Q.'s. The Adjusted boys have much less a difference between their two scales than the Stutterers and Predelinquents. The Stutterers have a mean difference of 10.8

points between their two scales, the Predelinquents have a mean difference of 8.9, and the Adjusted boys only 6.9.

These differences among the Verbal and Performance Scales gave the clue to look for differences among the scatter of the test scores, as has been reported by Rappaport in his book Diagnostic Psychological Testing as a unique device to make the Wechsler Bellevue Scales not merely a psychometric test, but a diagnostic tool.

C. Summary of WISC Variables Not Showing Statistically Significant Differences.—

(1) Full Scale I.Q.

The Full Scale Mean I.Q.'s of the three groups did not show any statistically significant differences. This is not surprising, since the three groups of subjects have been matched for intelligence. I.Q. was one of the five controlled variables, as a high correlation between the groups in regard to intelligence is a necessary precondition for the research design. The Mean Full Scale I.Q.'s were 108.6 for the Stutterers, 108.8 for the Adjusted boys, and 105.3 for the Predelinquents.

(2) and (3) The Verbal and Performance Scale I.Q.'s

If the mean differences of the Verbal Scale

I.Q.'s and those of the Performance Scale I.Q.'s were not statistically significant, it might be assumed that the reason is the same as that given for the lack of statistical significance of the Full Scale I.Q.'s

TABLE 27. Verbal I.Q.'s and Performance I.Q.'s

	Verbal I.Q.'s	Performance I.Q.'s
Stutterers	109.3	105.6
Adjusted boys	107.9	106.5
Predelinquents	105.8	103.9

In the preceding Table, a comparison of the two scales shows the noticeable fact that in this study the three groups have higher Verbal than Performance I.Q.'s. This might have to be explained for each group separately.

Stutterers - are known to be quite verbal, once they feel somewhat at ease with people, in spite of their submissive behavior and their difficulties in verbal expression. That they are talkative has been well explained by Meltzer who made a count of the number of words they used in Rorschach responses.

"The median number of words used by the fifty Stuttering children in responding to the Rorschach test is 200 words, whereas the median of the controls is 135. The smallest number of words given by a stutterer was 74, by a control 26. This clearly indicates that stuttering children are significantly more talkative than non-stuttering children. The per-

centage of difference is 38.80."^{7/}

For the Predelinquents - this writer expected a higher Performance I.Q. because in the Glueck study there is among the delinquents

"more of a gap between these two aspects of intelligence than among non-delinquents (a difference of -9.55 points between their mean verbal and mean performance weighted scores)."^{8/}

One might explain the higher verbal scores in the Arlington sample in terms of the composition of this Predelinquent group. There were twelve Neurotic and eight Impulsive Predelinquents in the group. (The diagnosis is based on the FC:CF+C ratio and the M: sum C ratio and on their actual behavior). The Neurotic Predelinquents are inclined to be more verbal, as neurotics usually are; the Impulsive Predelinquents are inclined to act out their aggression and do not need to verbalize their feelings any longer. The predominance of Neurotic Predelinquents might be responsible for the higher Verbal I.Q.'s in the Predelinquent group.

The Adjusted boys - might be more verbal because they were selected by their teachers and principals as especially well-adjusted children, i.e., boys who participated in class

7/H. Meltzer, "Talkativeness in Stuttering and Non-Stuttering Children," Jour. Genetic Psychology, (1935), 46: 371-390.

8/Gluecks, Op. Cit., p. 204.

discussions, were known to be friendly and polite when asked to do an errand, who reacted positively to verbal suggestions and related well to their peers. The application of these criteria may have led to a selection of boys who have what Allison David calls "socialized anxiety", i.e., a need to succeed in school owing to a constant subtle pressure at home. These boys are not just "non-delinquents", as in the Glueck study, but are well-adjusted from the viewpoint of society.

(4), (5), and (6) Vocabulary, Comprehension, and Similarity Tests

These three verbal subtests are considered together, because they have a great deal in common and, according to Rapaport, measure more or less the same intelligence "factors". The Verbal subtests, in fact, correlate better with each other (.45, .51, .55 respectively) than the Performance subtests with each other. The fact that the three verbal subtests do not yield any statistically significant differences might find its explanation in a clinical observation made by Rapaport according to which "the Verbal subtests are much more stable and resistive to encroachment of maladjustment than the

Performance subtests."^{9/} He concludes that verbal functions are in general stubborn and resistive to impairment by maladjustment and that generalized lowering of the Verbal level below the Vocabulary level is a sign of a schizophrenic deterioration process in adults.

(7) Picture Arrangement Subtest

The mean scores of the three Picture Arrangement subtests are 10.8 for the Stutterers, 11.4 for the Adjusted boys, and 10.5 for the Predelinquents. The differences are not statistically significant, although this is a Performance subtest.

It is difficult to find an explanation for this outcome, unless it could be reasoned that Picture Arrangement is not a visual-motor test such as Block Design, Object Assembly, and Coding. Although Picture Arrangement is a non-verbal test, it requires comparatively more intellectual and abstract skills than the other Performance subtests. In this respect, it is similar to the ability needed in the verbal tests; as Rapaport says,

9/Rapaport, Op. Cit., p. 55.

it requires "judgment and anticipation ability."

Picture Arrangement, furthermore, is undoubtedly the most popular item on the whole WISC, and even poorly motivated children enjoy arranging the mixed-up pictures so as to make a sensible story. The subjects may have done so well, because they all enjoyed it greatly. The Negative Performance Scatter and the Negative Vocabulary Scatter, however, took all the WISC subtests into account, and in this combination they yielded statistically significant differences.

D. The Need for Scatter Analysis.— Wechsler himself has pointed out that significant diagnostic clues can be obtained only by intra-test comparison. The mean expectancy for any of the ten subtests is 10, and any deviation of more than two points from this weighted score is significant. ^{10/}

As Vocabulary is one of the most stable subtests which seems to deteriorate least under stress, all scores falling below the Vocabulary level have been counted up and have been referred to as the Negative Vocabulary Scatter. This

10/David Wechsler, Op. cit., p. 149.

statistic does bring out very clearly that the Stutterers and Predelinquents have dropped 12.9 points below the Vocabulary Score, whereas the Adjusted boys have only dropped 6.4 points -- a very significant difference statistically. The conclusion is, therefore, justified that the size of the scatter in the WISC indicates maladjustment, and that it is very much worthwhile to calculate the drop below the Vocabulary score.

The same diagnostic importance holds true for the Mean Performance scatter which represents the variation of the five subtests below the Performance Mean. The Mean Performance Scatter measures the relationship of single achievements to its central tendency. In this case again the difference between the Adjusted boys and the two maladjusted groups is statistically significant and shows clearly that the scatter on the Performance Scale is much larger for the Stutterers and the Predelinquents than for the Adjusted boys, although it is usually assumed that Delinquents have a higher Performance than Verbal I.Q. This was not borne out by the present study, but it was found that the Performance subtests have a greater scatter than the Verbal subtests. Apparently the Verbal Scale measures more of the same thing, and its subtests are more related with each other than the Performance subtests.

On the whole, the WISC analysis did not bring out any

significant subtest patterns, but it did show that a large scatter can be diagnostically differentiating between normal and maladjusted groups. Such a scatter is only a guideline and gives a general orientation in experimental studies for whole groups. The differential diagnostic significance for an individual, however, is of much greater value, because group trends do often obscure individual variations.

4. Subsidiary Observations

During the process of testing the sixty boys, one difference among the three groups became apparent rather quickly; it took much less time to test the Adjusted boys than the Stutterers and Predelinquents. It never took more than three hours to test an Adjusted boy, whereas it often took between four to five hours to give the same tests to some of the Stutterers and Predelinquents. The Adjusted boys answered faster, needed less reassurance that the testing had nothing to do with their promotion or school work, and they generally enjoyed the whole procedure much more. Especially during the Performance test items, nearly all the Adjusted boys mentioned that the "puzzles" or the "Picture Arrangements" were "lots of fun", and they wished examiner had more for them to do. The Predelinquent boys were often somewhat suspicious of examiner and needed to make sure that no measures would be taken as a result of the tests. Last not least, many of the Stutter-

ers refused to take any candy from examiner which was offered to them between the two tests. All of the Adjusted boys appreciated the chocolates offered to them during the small intermission between the WISC and the Rorschach, and also the Predelinquents liked them very much. This difference in behavior indicates the insecurity of the Stutterers. One of them, who had been seen by this writer for a full year for play therapy, had not helped himself to candies for over four months. He confided to the writer afterwards that he felt he had to ask his mother first, whether it would be all right to take candy from her; but he did not dare to do so for over four months.

As reported in the chapter on Predelinquency, it is possible to divide the group of twenty Predelinquents into Neurotic and Impulsive Predelinquents on the basis of their color scores on the Rorschach. Correlations between Stutterers and Neurotic Predelinquents, and between Stutterers and Impulsive Predelinquents were run to find out whether the Stutterers would be closer to the Neurotic or the Impulsive Predelinquents in the remaining six Rorschach categories selected for this study. It was found by the use of the Product Moment Correlation technique that the Stutterers and the Impulsive Predelinquents are more alike in these six Rorschach variables, than the Stutterers and the Neurotic Predelinquents, although the trend was not statis-

tically significant. In other words, the Stutterers are closer to the more seriously disturbed of the two Predelinquent groups, the Impulsive Predelinquents, except for the use of color, i.e., the expression of emotions. This indicates again the new finding of this disseration that the Stutterers are more seriously disturbed in regard to the total personality than the Predelinquents. As the Stutterers, however, appear meek and quiet, their disturbance is not as obvious and as difficult for their environment to bear as that of the Predelinquents, and it is not apparent in their overt behavior.

CHAPTER VII

SUMMARY AND CONCLUSIONS

1. The Problem of the Study

It is the purpose of this investigation to compare the personality characteristics of twenty Stutterers with those of twenty Predelinquents, and twenty Adjusted boys, aged 10 through 12, in order to find out whether there are significant differences between the three groups.

As the Stutterers and Predelinquents represent overtly opposite types of behavior, it has been hypothesized that Stutterers will show a high degree of emotional control and Predelinquents a low one, whereas the Adjusted boys are assumed to fall somewhere midway between the two emotionally disturbed groups. This hypothesis is based on the overt personality characteristics of Stutterers who exhibit repressed, inhibited, and submissive behavior, whereas Predelinquents exhibit more impulsive, aggressive, and unrestrained behavior. For this reason, Stutterers and Predelinquents are viewed as located at the opposite ends of a continuum representing various degrees of self

control and impulsivity. It is further hypothesized that Stutterers and Predelinquents will show significant overt differences in various other areas of the personality which can be detected by means of the Rorschach and WISC analysis.

The theory underlying this study is rooted in the conviction that the conditioning of personality, though greatly influenced by social and cultural factors, is basically dependent on early environmental factors in the life of the individual.

2. Personality Characteristics of the Three Groups as Ascertained by the Rorschach Test

Of the eight Rorschach variables which have been selected for the comparison of the personality characteristics of the three groups, seven have shown statistically significant differences. The outstanding finding of this investigation reveals that Stutterers have many more signs of maladjustment in their personality structure than the Predelinquents. The Adjusted boys have the most favorable scores in all the mean Rorschach variables, the Stutterers the least favorable. The Stutterers have less self-awareness and less ability to empathize with others than either the Predelinquents or the Adjusted boys, as is indicated by their mean Movement (M) responses. The Stutterers have considerably poorer human relationships than both the Pre-

delinquents and the Adjusted boys, as is indicated by their Human (H) responses. The Stutterers are less aware of what is socially expected of them than the two other groups, as is indicated by their Popular (P) responses. The Stutterers also have many more Anxiety Indicators, and they have a smaller range of interests than the Pre-delinquents and Adjusted boys, as is indicated by the number of Content Categories.

A surprising finding from the collected data is the realization that Stutterers and Predelinquents do not represent opposite poles on a behavior continuum of internalized control and impulsivity as has been hypothesized. It is only in the color score, indicating affectivity and impulsivity, that the Predelinquents score three times as high as the Stutterers and twice as high as the Adjusted boys. The lack of balance between internalized control and impulsivity is outstanding in the Predelinquents but not in the Stutterers. The test data of the Adjusted boys show the ideal distribution in the FC:CF+C ratio which begins to be balanced at this age and has a higher total numerical value than that of the Stutterers.

Mean FC:CF+C Ratio

Stutterers	1.0:1.1
Adjusted boys	2.4:2.2
Predelinquents	.95:3.3

These ratios are most revealing in the comparative set-up

of this study. In the Adjusted boys, the FC side of the ratio indicates a more intensive response to feelings and at the same time a ready mastery over them in consideration of reality. The CF+C side, which is characterized by little delay of emotions and more impulsivity, is not higher than the other side, as is the case in the Stutterers and in the Predelinquents. It can be further deduced from this ratio that the Stutterers have very little emotional energy at their disposal at all and what has been considered emotional control, is a very shallow affectivity and a most restricted personality. Stutterers have just as little internalized controls or socialized controls as the Predelinquents, but they do not act out impulsively because they lack the emotional energy that the Adjusted boys and the Predelinquents have. The Predelinquents, by contrast, have a completely lopsided balance between self control and impulsivity, and it is this lack of balance that is expressed in their overt behavior.

The other ratio, M: sum C, selected for this study, indicates whether an individual thinks and acts predominantly according to well-developed inner resources and to his own system of values, or whether he responds in his thinking and acting predominantly to forces coming upon him from the environment. The first tendency (with

M dominance) is called "introversive" by Rorschach, the second tendency (with sum C dominance) is referred to as "extratensive". For the Adjusted boys, it appears, this ratio is more evenly balanced than for the Predelinquents who respond strongly to environmental stimuli without much weighing and delaying. The Stutterers have weak introversive as well as weak extratensive tendencies. In this they emerge as in the previous ratio as passive and constricted individuals, in fact they are blocked, because neither side of the ratio is big enough to give them a push to act. Adjusted children, starting from the age of ten upwards, try to bring their inner and outer experiences into a relationship with each other in an increasingly balanced fashion. The Predelinquents fail to do this. The Stutterers, by contrast, do not have an overwhelmingly strong conscience as was expected, they are simply weak and passive. It follows then, that the Adjusted boys, both in inner life and responses to the outside world, have an optimum balance which makes them warm and spontaneous boys who, despite their youthfulness are well on their way to balance their affective life with reason and conscience. All the findings reported have been subjected to the t Test and are statistically significant on the .01 or .05 level of confidence.

The score indicating ego strength, $F+\%$, did not dif-

ferentiate with sufficient statistical significance among the three groups. The preadolescent age range, in which all the sixty boys find themselves, seems to be responsible for the relatively equally high $F\frac{1}{2}$ score owing to the high degree of constriction in ten to twelve year old children.

The Anxiety Indicators, a score that has never been used in this fashion as a composite score of ten selected anxiety manifestations, have proved to be not only highly differentiating, but surprisingly showed that also the Adjusted boys have a sizeable mean Anxiety Indicator of 4.9 per record, a reminder that in our society even Adjusted children have to bear a considerable amount of anxiety. The anxiety of the other two groups, however, is very much higher; the Stutterers have a mean Anxiety score of 7.2 and the Predelinquents of 6.6. In sum, all the variables in the Rorschach test except the Color score have testified to the good mental health of the Adjusted group and have consistently established the finding that the Stutterers are emotionally more severely maladjusted than the Predelinquents.

3. The Intellectual Functioning of the Three Groups as Ascertained by the WISC

As the three groups have been equated for Intelligence as well as for age, sex, and socio-economic background, it

is not surprising that no overall difference in intelligence among the three groups have been found. Of the eight variables in the Wechsler Intelligence Scale for Children which have been selected for a comparison of the intellectual functioning of the three groups only one shows a statistically significant difference, namely the score indicating the Difference between Verbal and Performance Scale I.Q.'s. The Adjusted boys have a mean difference of 6.9, whereas the Stutterers have a mean difference of 10.8, and the Predelinquents of 8.9. This statistically significant difference suggested an investigation of further differences not among the subtests but among the scatter, that is the relationship of the different subtests to each other.

A Vocabulary Scatter Analysis was suggested by Rapaport's finding that Vocabulary seems to be least affected by maladjustment and can therefore be used as a baseline of comparison. The so-called Negative Vocabulary Scatter is found by adding up all the weighted scores that fall below the weighted Vocabulary score. The Negative Vocabulary Scatter proved to be statistically significant and showed that the Stutterers and the Predelinquents dropped very much more below the Vocabulary level than the Adjusted Boys.

Mean of Negative Vocabulary Scatter

Stutterers	12.9
Adjusted boys	6.4
Predelinquents	12.9

As Vocabulary is considered the indicator of the original level of intelligence, it follows that the intellectual efficiency of the Stutterers and Predelinquents has suffered a considerable drop due to their emotional maladjustment. The above differences in intellectual functioning between the Adjusted boys and either the Stutterers or the Predelinquents are statistically significant on the .01 level of confidence. The Negative Vocabulary Scatter indicates that the maladjusted groups have dropped considerably below their own original highest achievement score.

The same holds true for the Mean Performance Scatter which represents the variations of the subtests scores away from their central tendencies. By adding up all scores that fall below the Performance mean, it has been proven statistically that the Stutterers and the Predelinquents dropped considerably more below their Performance mean than the Adjusted boys. This drop does not hold for the Mean Verbal Scatter, which indicates that maladjustment shows clearer in the Performance subtests than in the Verbal subtests. They seem to measure more

or less the same verbal ability, whereas the Non-Verbal subtests seem to differentiate better and to tap a number of different mental qualities.

The Scatter Analysis, suggested by the difference between the Verbal and Performance I.Q.'s among the three groups, is a method of understanding the intra-individual comparison of functions underlying an intelligence test. As a result it becomes evident which nosological groups do not work up to their intellectual potential, in this case the Stutterers and Predelinquents, although the grand total, the Full Scale I.Q., does not show any significant differences among the groups.

4. Implications for Therapy

The data collected from the WISC and the Rorschach Test convey important psychotherapeutic implications. Of the two maladjusted groups, the Predelinquent boys will be much easier to reach than the Stutterers. In times of overcrowded Child Guidance Clinics and long waiting lists in the Hospitals' Psychiatric Outpatient Departments, this is an important consideration. The Predelinquents, first of all, have better human relations than the Stutterers and therefore will be able to establish rapport or a transference relationship more easily. They have greater empathetic responsivity and will therefore be more eager to reveal themselves to a sympathetic therapist. Pre-

delinquents actually know better what the rules of our society are, although they do not always follow them. They have considerably less anxiety than the Stutterers and a greater breadth of interest which the therapist can use to good advantage in order to stimulate them to exchange new interests for old ones. They need most help in learning to control their affects and to master their childlike impulsivity and egocentricity. This control, the Predelinquent usually learns in a therapeutic relationship, if he wishes to please the therapist who eventually becomes a parent surrogate who shows himself willing to accept the child in spite of his faults. In return for this acceptance, the Predelinquent will eventually adopt the therapist's values of right and wrong, provided the home or the neighborhood gang do not counteract this.

The psychotherapeutic treatment of Stutterers, by contrast, is extremely time consuming, because they need help in so many areas of their personality. The first and most difficult step in reaching Stutterers will be the establishment of a relationship with the therapist. This necessarily takes considerable time, because the child who stutters failed to have a close relationship with his mother, the first person with whom any human can feel safe and secure. In the new relationship with

the therapist, he must learn for the first time to trust and feel free from pressures. The Stutterer has so many anxieties that, unconsciously, he will block off most of the areas that can be used in the treatment of other neurotic children to make them feel that the therapist is concerned about them. The writer's own experiences in counseling relationships with Stutterers bear out these findings. The Stutterer is at first not able to choose anything to do by himself in a therapeutic play room; he has never learned to make choices and has always been told what to do. He stays away from all creative materials such as clay or paints for which he will feel an additional dislike, because he is obsessively clean and abhors to make himself dirty. He is inclined to settle for checkers or another board game in which objective rules have been set up. When he finally makes his first move toward a toy like a dart gun, he is beginning to loosen up and to express a slight amount of aggression. When he use it for longer periods of time, he is beginning to act out some of his emotions whose expression he had always denied himself. It will be a long time, before he will feel free enough to turn his attention to more specifically human situations by playing with the therapeutic doll family or the hand puppets. When he makes them speak for himself and lets them project

his real feelings, so that the therapist can react to them, he is finally well on the way to recovery.

Mothers of Stutterers, as a rule, have never permitted their children to express angry or even happy feelings. Feelings as such are taboo and not discussed at all. These mothers are not conscious of their sternness and rigidity which they tend to rationalize. For this reason mothers of Stutterers need help from a counselor or social worker concomitantly with their child's treatment in order to change their own attitudes in the home. Treatment of Stutterers is usually not only more time consuming but often also less successful than therapeutic work with the Predelinquents. Predelinquents below the age of twelve can make a much more economical use of therapeutic sessions. A three to four months' weekly meeting, with occasional follow-up visits, have been found to be effective by this writer, provided the parents do not object to the therapeutic relationship and the teacher and the principal are concerned and sympathetic. For the acting-out boys the strategic time for psychotherapy is before their delinquent tendencies harden in the age of adolescence and before they begin to struggle against authority figures. Stutterers of the ages of ten through twelve, however, have already begun to withdraw from people and have become emotionally shallow. This lack of normal

emotivity results from a need to exert a tight control over their impulses, because of their strong negative feelings towards all authority figures. As a consequence their emotional energy is largely exhausted by this struggle to repress and the desire to live without conflict with the mother. Once the child can gain the courage to verbalize his angry feelings, his hostility will not cause him to block any longer on certain words. Once the Stutterer has learned to become more independent from his mother's wishes and less guilty about his fantasies of hostility, his strong inhibition and repression will begin to crumble. He has felt so helpless for such a long time that his passivity and dependency needs can be removed only in a slow therapeutic process.

In sum, different therapeutic goals have to be set up for Stutterers and Predelinquents. Stutterers have to become more free and independent by unlearning some of the inhibitions and repressions which thwarts their emotional energy. Predelinquents have to learn to accept limits and to control their immature affectivity. Because Predelinquents are much more difficult to live with than Stutterers, they are considered the more seriously disturbed and attention is drawn to them immediately when their difficulties arise. Actually, the Stutterer who suffers within himself is much more seriously disturbed

in many more areas of his personality, although outwardly he seems well behaved and untroubled except for his speech defect. The appropriate time to help the Stutterer would be when his symptom appears and before his whole personality is pervaded by feelings of complete helplessness, defeat, and passivity.

A knowledge of the intellectual level in itself, has no bearing on the ability to use a therapeutic relationship, provided the boys are within a normal intelligence range. The value of an intelligence test for therapy consists rather in its diagnostic potential of the Scatter Analysis which may be obscured by the overall I.Q. score.

5. Implications for Further Research

To bring further elucidation in regard to the comparison of several nosological groups, such as Stutterers, Predelinquents, and Adjusted children, a comparison in the area of Performance Tests might prove valuable, as the above study has indicated that the difference among the Performance Scale subtests is much larger than the difference among the Verbal subtests. Non-Verbal Intelligence Tests such as the Raven Progressive Matrices, the Chicago Non-Verbal Examination, the Grace Arthur Point Scale of Performance Tests, and the Goldstein-

Scherer Tests for Abstract and Concrete Thinking may be expected to be revealing in finding significant differences in the use of intelligence between various selected groups.

Another experiment that would lead toward a better understanding of Stutterers is a 10-year longitudinal Rorschach Study at ages 4, 6, 8, 10, 12, 14 in order to observe developmental trends in these ages comparable to normal subjects who should be tested at the same time intervals. In such an experiment, it would be possible to pinpoint the ages at which certain characteristics appear in adjusted children and not in Stutterers or vice versa. On the basis of such findings, valuable clues could be found regarding the strategic time for the earliest beginning of therapy. Up till now, no longitudinal study regarding Stutterers has been conducted at all, neither in the area of achievement nor in regard to personality factors.

APPENDICES

APPENDIX A

TABLES OF RORSCHACH AND WISC VARIABLES

TABLE 28. Stutterers - Rorschach Variables

No. of Sub.	Age	F+%	FC: CF+C	M	P	H+(H)	M: sum C	Anxiety Indic.	No.Cont. Categories
1.	10-10	76	0:2	0	5	3	0:3	12	9
2.	10-5	97	0:0	2	8	4	2:0	4	6
3.	10-7	100	3:1	2	4	4	2:2	10	7
4.	10-10	70	0:2	3	6	3	3:2	11	5
5.	10-10	71	2:4	0	4	2	0:5	10	9
6.	10-11	81	0:1	1	8	7	1:1	3	7
7.	10-11	76	0:1	1	7	4	1:1	8	5
8.	11-1	84	1:0	0	4	2	0:	7	2
9.	11-5	88	1:1	1	5	3	1:1	9	8
10.	11-7	93	0:2	2	8	5	2:2	2	6
11.	11-7	72	3:0	1	8	5	1:1	8	8
12.	11-8	89	2:1	2	5	5	2:2	4	10
13.	11-11	80	0:0	1	6	2	1:0	11	6
14.	11-11	88	0:0	1	7	1	1:0	7	5
15.	12-3	83	0:0	3	7	5	3:0	8	8
16.	12-5	87	3:0	1	4	2	1:1	15	7
17.	12-5	75	3:0	4	8	6	4:1	1	4
18.	12-7	53	0:1	1	3	1	1:1	7	4
19.	12-10	75	2:3	1	4	1	1:2	7	7
20.	12-11	70	0:4	0	3	3	0:5	10	9
232		1591	20:23	27	114	48	27:34	144	132
mean	11.6	79.5	1:1	1.3	5.7	2.4	1.3:1.7	7.2	6.6

TABLE 29. Adjusted Boys - Rorschach Variables

No. of Sub.	Age	I.Q. WISC	F+%	FC: CF+C	M	P	H+(H)	M: sum C	Anxiety Indic.	Cont. Categ.	No.	
1.	10-1	98	75	4:3	2	6	3	2:3½	4	10		
2.	10-1	101	82	0:0	1	5	2	1:0	6	8		
3.	10-3	110	70	3:2	3	8	6	3:4	2	8		
4.	10-4	125	85	2:3	5	7	8	5:4½	2	7		
5.	10-7	115	75	3:4	1	6	1	1:6	6	12		
6.	10-8	130	90	1:1	1	7	3	1:2	2	8		
7.	10-10	117	86	4:2	2	8	5	2:4	2	10		
8.	11-1	107	73	5:1	2	10	11	2:4	9	10		
9.	11-2	110	90	1:1	1	9	1	1:1½	4	9		
10.	11-4	91	77	1:2	2	5	3	2:3	6	6		
11.	11-4	99	63	5:4	6	7	10	6:6	6	8		
12.	11-7	103	83	0:0	3	6	8	4:0	5	2		
13.	11-10	103	76	1:2	1	6	1	1:3	2	10		
14.	11-11	122	85	2:0	2	8	7	2:1	3	4		
15.	12-1	90	80	3:1	4	6	6	4:2½	6	6		
16.	12-2	116	91	1:3	1	8	3	1:3	6	8		
17.	12-3	109	87	2:4	2	6	3	2:6	3	7		
18.	12-9	111	78	3:5	3	8	6	4:6½	6	11		
19.	12-10	95	84	4:4	3	7	5	3:6½	2	10		
20.	12-11	111	70	2:2	1	9	6	1:4	7	9		
		228.3	2176	1600	47:44	46	142	98	48:71	89	163	
mean	11-4	108.8	80	2.4:2.2	2.3	7.1	4.9	2.4:3.6	4.4	8.2		

TABLE 30. Predelinquents - Rorschach Variables

No. of Sub.	Age	I.Q.	F+%	FG: CF+C	M	P	H+(H)	M: sum C	Anxiety Indic.	Cont. Categ.	
1.	10-0	96	76	1:6	1	7	2	1:6½	12	13	
2.	10-0	99	80	0:2	0	6	1	1:2	5	3	
3.	10-1	128	50	1:1	7	5	7	7:2	4	6	
4.	10-0	91	72	1:4	0	5	4	0:5	8	3	
5.	10-6	107	92	0:1	6	3	3	1:1½	1	5	
6.	10-3	122	56	2:12	6	7	11	6:7	4	13	
7.	10-8	102	50	2:6	1	3	4	1:8	3	8	
8.	11-3	121	80	1:1	3	6	6	3:2	8	7	
9.	11-6	122	100	0:0	1	4	3	1:0	8	3	
10.	11-7	116	89	0:0	1	5	3	1:1½	7	7	
11.	11-7	113	89	2:4	0	5	4	0:5½	5	8	
12.	11-7	114	79	0:1	1	5	4	1:1	7	4	
13.	11-8	91	75	0:2	1	7	2	1:2	6	10	
14.	12-3	104	77	0:2	0	8	1	1:2½	5	14	
15.	12-4	94	44	1:1	4	7	6	4:2	5	2	
16.	12-5	103	89	0:3	3	8	5	3:3½	7	6	
17.	12-8	116	81	4:3	4	10	11	4:6	15	14	
18.	12-9	93	72	0:5	1	4	2	1:5½	11	13	
19.	12-11	95	65	3:7	1	7	3	3:8½	7	12	
20.	12-11	90	70	1:5	1	6	1	1:5½	4	7	
		228	2107	1486	19:66	43	118	83	40:77½	132	158
mean		11-4	105.3	74.3	.95:3.3	2.1	5.9	4.15	2:3.87	6.6	7.9

TABLE 731. Stutterers - WISC Variables

No. of Sub.	Age	Full Sc. I.Q.	Verb. Sc. I.Q.	Perf. Sc. I.Q.	Voc. Sc. Sc.	Comp. Sc. Sc.	Sim. Sc. Sc.	Pict. Sc. Sc.	Ar. Sc. Sc.	Diff. Verb. Perf.
1.	10-0	111	106	114	9	9	13	8	8	
2.	10-5	97	94	101	7	9	10	12	7	
3.	10-7	131	134	121	17	13	15	15	13	
4.	10-10	112	108	114	12	11	12	10	6	
5.	10-10	90	84	96	10	6	9	11	12	
6.	10-11	107	106	107	13	12	11	12	1	
7.	10-11	108	109	106	10	10	10	14	3	
8.	11-1	123	134	106	18	13	14	9	28	
9.	11-5	105	108	101	8	16	11	8	7	
10.	11-7	109	109	107	11	10	13	10	2	
11.	11-7	102	94	111	10	10	8	9	17	
12.	11-8	98	92	104	8	11	11	14	12	
13.	11-11	115	110	118	13	8	11	11	8	
14.	11-11	128	130	120	13	13	14	13	10	
15.	12-3	90	94	87	11	9	11	11	7	
16.	12-5	99	105	93	12	11	10	10	12	
17.	12-5	115	123	104	10	13	16	10	19	
18.	12-7	123	131	107	16	14	15	11	24	
19.	12-7	101	103	99	9	15	9	10	4	
20.	12-11	106	113	97	10	10	14	10	16	
	232	2170	2187	2113	227	212	238	217	216	
mean	11.6	108.5	109.3	105.6	11.3	10.6	11.8	10.8	10.8	

TABLE 32.. Adjusted - WISC Variables

No. of Sub.	Age	Full Sc. I.Q.	Verb. Sc. I.Q.	Perf. Sc. I.Q.	Voc. Sc. Sc.	Comp. Sc. Sc.	Sim. Sc. Sc.	Pict. Sc. Sc.	Ar. Sc. Sc.	Diff. Verb. Perf.
1.	10-1	98	101	94	10	11	9	13		7
2.	10-1	101	101	101	10	10	10	10		0
3.	10-3	110	111	107	12	10	13	12		4
4.	10-4	125	115	131	12	11	15	16		16
5.	10-7	115	120	107	12	14	13	11		13
6.	10-8	130	129	125	16	16	14	13		4
7.	10-10	117	118	114	12	14	12	13		4
8.	11-1	107	111	100	12	14	11	8		11
9.	11-2	110	104	115	12	10	12	10		11
10.	11-4	91	89	96	7	9	11	9		7
11.	11-4	99	96	103	11	8	11	9		7
12.	11-7	103	101	104	9	11	9	14		3
13.	11-10	103	99	107	10	10	9	12		8
14.	11-11	122	129	110	13	16	14	13		19
15.	12-1	90	91	90	8	8	9	6		1
16.	12-2	116	115	114	11	11	12	12		1
17.	12-3	109	115	101	10	14	13	11		14
18.	12-9	111	109	111	11	9	14	13		2
19.	12-10	95	96	94	10	10	9	9		2
20.	12-11	111	109	106	8	12	15	15		3
		228.3	217.6	215.9	213.0	216	228	235	228	137
mean	11-4	108.8	107.9	106.5	10.8	11.4	11.8	11.4		6.9

TABLE 33. PreDelinquents WISC Variables

No. of Sub.	Age	Full Sc. I.Q.	Verb. Sc. I.Q.	Perf. Sc. I.Q.	Voc. Sc. Sc.	Comp. Sc. Sc.	Sim. Sc. Sc.	Pict. Sc. Sc.	Ar. Diff. Verb. Perf.	
1.	10-0	96	96	96	11	10	11	7	0	
2.	10-0	99	96	101	9	9	10	11	5	
3.	10-0	91	94	89	11	8	11	6	5	
4.	10-1	128	128	124	16	12	18	17	4	
5.	10-3	122	123	117	12	17	15	13	6	
6.	10-3	107	100	114	12	10	7	14	14	
7.	10-8	102	110	93	12	12	13	10	17	
8.	11-3	121	126	111	14	12	15	14	15	
9.	11-6	122	121	118	13	10	15	11	3	
10.	11-7	116	124	104	14	15	12	10	20	
11.	11-7	113	133	111	12	17	12	12	12	
12.	11-7	104	104	104	9	10	10	12	0	
13.	11-8	91	84	100	9	8	7	13	16	
14.	12-3	104	97	110	9	9	12	11	13	
15.	12-4	94	99	90	12	10	11	10	9	
16.	12-5	103	101	104	12	9	10	10	3	
17.	12-8	116	108	122	11	10	12	10	14	
18.	12-9	93	101	86	9	12	11	9	13	
19.	12-11	95	104	87	12	10	7	9	17	
20.	12-11	90	86	96	7	8	9	10	10	
		228	2107	2117	2077	2007	200	228	209	178
mean	11.4	105.3	105.8	103.9	11.3	10	11.4	10.5	8.8	

TABLE 34. Stutterers - Scatter Analysis

	Neg. Voc. Scatter	Positive Voc. Sc.	Neg. Mean Verb. Sc.	Neg. Mean Perf. Sc.
1.	1	26	2	5
2.	0	26	2	1
3.	28	0	2	3
4.	6	3	1	3
5.	17	3	3	4
6.	20	0	3	4
7.	1	12	3	4
8.	48	0	3	4
9.	13	10	4	6
10.	8	10	1	7
11.	8	11	2	8
12.	3	20	5	5
13.	13	4	5	5
14.	3	11	5	3
15.	24	0	4	4
16.	21	0	2	2
17.	1	22	6	4
18.	29	1	3	3
19.	3	14	4	4
20.	<u>4</u>	<u>12</u>	<u>4</u>	<u>4</u>
	258	185	64	83
Mean	12.9	9.3	3.2	4.2

TABLE 35. Adjusted Boys - Scatter Analysis

	Neg. Voc. Scatter	Positive Voc. Sc.	Neg. Mean Verb. Sc.	Neg. Mean Perf. Sc.
1.	10	7	3	4
2.	6	8	2	4
3.	9	3	3	3
4.	5	17	3	4
5.	6	7	2	3
6.	20	1	4	6
7.	4	10	2	3
8.	15	4	4	3
9.	7	5	6	4
10.	0	28	1	0
11.	13	2	3	2
12.	1	15	2	4
13.	4	8	2	3
14.	8	8	4	3
15.	3	9	3	6
16.	2	14	2	3
17.	3	16	2	3
18.	4	9	2	4
19.	7	0	1	0
20.	<u>0</u>	<u>31</u>	<u>3</u>	<u>4</u>
	127	202	54	66
Mean	6.4	10.1	2.7	3.3

TABLE 36. Predelinquents - Scatter Analysis

	Neg. Voc. Scatter	Positive Voc. Sc.	Neg. Mean Verb. Sc.	Neg. Mean Perf. Sc.
1.	22	6	3	7
2.	0	8	0	2
3.	24	1	5	3
4.	24	3	4	6
5.	4	14	6	3
6.	14	3	3	4
7.	18	1	3	4
8.	12	3	2	6
9.	8	8	3	5
10.	20	1	3	4
11.	10	8	5	5
12.	2	22	4	5
13.	13	10	1	7
14.	1	16	4	3
15.	27	0	4	6
16.	19	3	1	6
17.	3	15	2	7
18.	7	8	3	4
19.	28	2	5	5
20.	<u>2</u>	<u>18</u>	<u>3</u>	<u>3</u>
	258	150	64	95
Mean	12.9	7.5	3.2	4.8

APPENDIX B

FIVE PSYCHOLOGICAL REPORTS

PSYCHOLOGICAL REPORT OF A STUTTERER

Wayne Age 11-7Confidential

Grade 5

Reason for Referral:

Parents are worried because Wayne does very poorly in school and is only being "transferred" because the principal and his teacher feel that staying back would not help him and make him very unhappy, as he seems to try so hard. He also stutters and has a speech defect, off and on, since he was four years old. The speech therapist worked with him, and his stutter has greatly improved, but as soon as he is under tension, it appears again. He has been referred for psychological evaluation.

Cumulative record:

Kindergarten: "Well-liked, was first unable to adjust, but made great gains."

First Grade: "Mother intensified her work with him at home and asked that pressure be applied in school, when she heard he would not be promoted. As a result he became nervous and his stuttering increased considerably."

Repeated First Grade: "Wayne is immature and for this reason is unable to succeed. He is well liked by the children."

Second Grade: "Has made good progress in most areas, reading is a problem. He works too quickly at times."

Third Grade: "Wayne seems very nervous and excitable. He works too rapidly, which hinders accuracy. He is a nervous type boy and has a speech defect. He cooperates with others and cooperates in group activities."

Fourth Grade: "Wayne is a likeable boy but nervous and excitable. He lacks self-control at times. He needs much help in Arithmetic, Reading, and Spelling. Is easily distracted."

Fifth Grade: "Wayne has had a lot of difficulties this year. He forgets number processes from one day to the next. His reading, social studies, and written language is poor. Wayne is immature and is not accepted by his classmates. He has a short attention span, is restless and constantly annoys his neighbors. He refuses to accept failure, and thinks he is doing good work."

Tests Administered:

Wechsler Intelligence Scale for Children
Rorschach
Projective Drawing
Sentence Completions
TAT stories

WISC

Verbal Scale I.Q. 94
Performance Scale I.Q. 111
Full Scale I.Q. 102

Sub-tests, Scaled Scores

Information	8	Picture Completion	17
Comprehension	10	Picture Arrangement	9
Arithmetic	9	Block Design	11
Similarities	8	Object Assembly	8
Vocabulary	10	Coding	13

Wayne's Full I.Q. falls in the Average range with a considerably higher Performance than Verbal Scale I.Q. His Comprehension and Vocabulary scores indicate average intelligence, but his Information and ability for abstract thinking is slightly lower. Wayne was most cooperative and eager to do well. He showed some slightly compulsive traits by wanting to put the puzzle pieces in the box in a very symmetrical way, and he mentioned twice, "I can't think," when he had to define words on the Vocabulary test.

Wayne's Rorschach is very telling. It reveals a boy who is tense and anxious, but not aware at all of his feelings and hostile impulses. He cannot express his feelings, and his initiative is crippled through a sense of powerlessness and an inability to compete. He has great apprehension about behaving in a destructive way. He is so inhibited and cautious that he is even afraid to "attack" his school work.

He avoids all emotionally releasing situations (3 FC, no other color responses and shock on Card II). His stuttering is a psychosomatic defense which he has now transformed partly into an inability to do his school work. His manifest anxiety shows in his need to cut-off many whole responses (4W). It indicates feelings of tension, self-doubt, and uncertainty. The tension is probably a consequence of the conflict about self-expression which he desires but can't bring out because of inhibition. There is tremendous fear of loss of control, that is, a fear of expressing anti-social impulses. Some of this is part of the pre-puberty development, but Wayne's inhibition is too strong for a boy of eleven.

Wayne shows a pervasive immaturity and a desire for infantile satisfaction, and wastes a great deal of productive potential (FM:M=4:1). He prefaced many of his responses with, "It might be, I doubt it, though." He is also not sure in his sexual identification. He sees a man and a woman on Card III, and many flowers, expressing strong dependency needs.

His drawing is small, the figures about 2 inches each. The boy figure, which he drew first, is completely shaded in black and looks extremely helpless without hands. The mouth is rather large with an attempt at big aggressive teeth; but since the whole figure gives such a meek impression, the teeth don't stay out. The girl figure is not shaded at all and is drawn sideways. He said that he hates girls, but that is a typical answer for boys in this age group. His self-figure, he said was, "one year old. No, I mean seven years old," which indicates a desire to be younger with less responsibility.

One of his free associations to the Sentence Completions is quite telling in regard to the pressure towards good behavior.

I try hard to behave because ... "my mother and father can't stand it."

When he was a baby, ... "he used to do bad things."

He thinks of himself as ... "a bad boy at times."

The main thing in my life is ... "going to school."

The most important thing to me is to be ... "a good boy."

Charlie felt that his teachers ... "were mean, no, try to help him."

This is a significant slip of the tongue, and he was quite horrified when it had slipped out. One can see how he tried to give a polite and conventional answer.

His immaturity and his desire to dominate are well expressed in:

When I grow up I want to be ... "a general."

Wayne has frightening dreams, which his mother also reported later.

I remember a dream about ... "monsters."

About mother, he says:

I wish my mother ... "would go to the store for something so I can go and play with the kids."

The intensity of mother's pressure goes through nearly all TAT stories.

Story 1: "He does not like to play the violin. He does not like it, but his mother wants him to play the violin. (How does it go on?) He has to keep on practicing for two hours and play. He wants to go out and play, but he does not have much chance."

Also in the next story, where he identifies with the girl, he does not have a chance to do what he wants.

Story 2: "The girl wants to go up in the woods and read a book, but she has to work on the farm. (Is she unhappy?) She looks as if she were unhappy. Her mother wants her to work but she does not have much of a chance to read books."

Story 3: "She is crying. She wants to go out and play, and her mother does not want her to. (Do?) She was punished. She did not want to help in the house, she is too lazy. (Story end?) After a while she says she is sorry, then she can go outside."

In another story, the woman figure makes the young man — usually perceived as her son — wait and shows no interest in him.

Story 6BM: "She was talking to him and she heard that noise outside. She went to the window, and there was a bird with a broken wing on the edge of the window, outside. She saw if she

could help the bird. The man was waiting till she helped the bird. (Why is he there?) He wants to talk to her about her tax bill."

A relationship can hardly be perceived as more aloof.

Interview with Mother:

Wayne comes from a good middle class family, and his mother is extremely concerned about him. She told examiner that she was 36 years of age when Wayne was born and that his only sister is just 10 months apart in age. Mother was a nurse and had high standards for the babies. Wayne was weaned from the bottle before the age of six months ("a must with Dr. Taft"); toilet training was not too good, "He was not all the time clean, though he was trained during the day very early. Night wetting till 4 or 5 years."

"He used to be such a friendly and lovable child, now he doesn't have many friends. People pick on him and come with all these tales. He is different now." It became evident that Wayne led an extremely protected childhood, never played with other children until he went to school. ("There were none around"—excuse). "I always played and stayed with my two children." His sister, Susan also stayed back once, but has adjusted better than Wayne, according to the principal.

When I began to point out that Mother may have had too high standards and expected too much good behavior when he was little, she began to realize this after one hour's conference. She accepted examiner's suggestion for psychotherapy for Wayne and herself. She wants to convince Father and believes he will go along if she wants it. I asked her to think about it carefully and discuss it at leisure with her husband. She seemed most appreciative.

Summary and Recommendation:

Wayne is a boy with average intelligence, but he is extremely inhibited and fearful to express his feelings. He is a very charming and well behaved boy to talk to, but he is so fearful of doing the wrong thing or expressing an unacceptable idea, that the energy needed to repress these feelings are wasted in an unproductive way. If he were not so anxious, he would do much better in school. His stuttering would also decrease if he could release some of his negative feelings. The parental pressures

have been tremendous and go back to the earliest childhood training period. I sincerely hope that the parents will agree to psychotherapy.

June 27, 1958

Hella Moller
Psychological Counselor

PSYCHOLOGICAL REPORT OF A PREDELINQUENT

John Age 10-11Confidential

Grade 5

Reason for Referral:

Fifth Grade Teacher: "John has difficulty in adjusting to a normal Grade 5 school situation. I feel that he could benefit from special attention of the Pupil Personnel Services.

John is dishonest, disobedient, inattentive, indolent in classroom. Disturbs class, makes noises, talks unnecessarily, clowns to get attention, seems to enjoy being 'smart aleck'.

Is disrespectful to patrol leaders and disregards school safety rules.

Is cause of frequent complaints from parents on abuse of smaller children going to or from school.

Blames others whenever he is accused of a misdemeanor.

Sulks if corrected. Tends to be spiteful.

Makes countless promises without any intention of following through.

Is rather unpopular with his classmates. (Poor cooperation from home. Mother feels her son is picked on by other children.)"

Fourth Grade Teacher:

"John is an average student. He entered Crosby School in September from Somerville where he spent twenty-two months in school. He is a good reader, but his arithmetic is poor, so is his spelling. He is left-handed and his coordination is poor. He is well informed and is much interested in science and social studies.

He is not a good mixer because he annoys other children and teases them. He often blames other boys rather than take the blame. He is selfish and aggressive. Always wants to be first in anything. He can be courteous when he wants to. He is extremely nervous and it is difficult for him to concentrate.

John is in the Boys' Club and takes music lessons. Mother has joined PTA and is cooperative. In conference Mother said that she and Father are nervous and both children inherited this trait. He has been a disturbing influence in the class, annoying other children. Mother has taken John to the doctor who has given him tranquilizers."

Principal added that "John came from Chesterfield, Mass., a small town. John has been cruel to other children, spits, has put a rope around another child's neck, lies, blames his sister who is six years old, and does not stand up for anything he does."

Tests administered:

Wecheler Intelligence Test for Children
 Rorschach
 TAT, 6 stories
 Projective Drawing
 Sentence Completions

WISC

Verbal Scale I.Q.	100
Performance Scale I.Q.	114
Full Scale I.Q.	107

Sub-tests, Scaled Scores

Information	11	Picture Completion	13
Comprehension	10	Picture Arrangement	14
Arithmetic	10	Block Design	13
Similarities	7	Object Assembly	12
Vocabulary	12	Coding	8

John's I.Q. falls in the average range. He is a tall thin boy who wears glasses and is extremely restless. He wriggles around in his chair and needs to get up at times indicating his serious anxiety. He shows many obsessive features, for instance, he observed everything I wrote and crossed my t's. To the Comprehension question, What is the thing to do when a boy much smaller than yourself starts to fight with you, he answered, "Just let him hit me, I punch him in the nose," indicating his fear of attack. He has a good Vocabulary and has better ability than he can use. His Performance items were quite good, except for Coding, where his ego strength did not suffice for concentration.

Rorschach

John shows intense manifest anxiety and also depression ($F+\% = 92$). He is very insecure in his social relationships and feels greatly threatened by environmental forces; he fears he is being overpowered and destroyed (sees tigers on Card VI).

He first blocked in Card VII, indicating a close and conflict-ridden relationship with his mother, though he recovered after twenty seconds. Mother is seen as demanding as well as ungiving, though she acts as the overprotective mother. She is also perceived as weak, and the father figure as confused (seen as standing on his head). John has great difficulties in control of emotions, and he fears that impulsive expression, usually aggressive, will occur without self-control. He has periods of explosiveness and periods of apathy. John is very unrealistic and ambitious in his plans as he lacks empathetic relationships to authority figures. He is an emotionally disturbed boy, who acts out, but the Rorschach does not indicate any mental pathology.

Some of his TAT stories are quite telling, though on a very unconscious level.

TAT 1: "Can't figure out what this is. I see a boy looking at, what is this? (A violin). He was supposed to practice but he said he would not because the string he needed most was snapped. So he did not play. (What did his father and mother say?) Well, we have to get him a new string."

It seems that unconsciously Jackie feels that there is something wrong with him, something broken, and his parents have to help him to fix it. In another story, it seems that he fears punishment for his own aggression.

Story 3 EM: "This here looks like a boy who is playing cowboy. He was shooting out the window, hit somebody, and the guy flung a rock at him and hit him in the head. Because here is the gun and a rock. It looks as though he had his best suit on. He is unconscious."

He feels that his own innocent play is punished and he is the helpless victim. In the following story he continues the previous theme.

Story 5: "This here looks like a woman to see what happened to the boy as he was very quiet. She put cold water over his face. When he came to, he said, where am I? His mother said, you are right here, something hit you, this stone. (Was she angry?) No. (The boy?) No, he said I am going to get even, if it is the last thing I do in my whole career. (Mother say?) Look Bobby, just because someone hit you, you don't have to make so much stink about it."

Mother represents reality here and is helping him to get well, but his aggression knows no limit, although she disapproves. In the following story, we might find out where his real aggression comes from, namely Father.

Story 6 BM: "I saw this on TV about an air force guy named Bill. He came to visit his parents at the airport. Hello, Bill is here; hello Mother. What Pop is dead, not my Pop. Yes, your Pop. I will be right over. So when he got home, he said where is he and he goes in the bedroom. (How does he feel?) Pop, really, and then he begins to cry."

There are some unconscious death wishes well hidden beneath a TV theme and behind some veiled and guilty emotions.

His Sentence Completions indicate that Jackie lives in a world of denial and wishful thinking, that he is unable to face reality.

The boys and girls in Bill's class ... "liked him." (He is very unpopular)

Jack really became angry when ... "he saw me hitting his sister which I don't do." (He is very jealous)

Paul's father is ... "an engineer." (a truck driver)

He thinks of himself as ... "a doctor."

John is very unhappy if he has to stay after school.

I try hard to behave because ... "I want to get out of school on time."

What they liked about him most ... "that he got home on time."

About his mother and father he tells us:

Dick felt that his mother ... "was cross at him."

The person his mother likes best is ... "Mrs. McCarthy."

I wish my mother ... "was prettier." (He is still in his oedipal stage.)

When I talked to my father he ... "would not listen, read the paper."

The person his father likes best is ... "Paul's mother and father."

My greatest fear is ... "bulls." (Father has a bad temper, Mother told me and I got a dose over the phone).

John's relationship to people is very poor and he wishes he were away from them as he does not know how to meet them.

Jack loves to be ... "an Indian, that's me."
 When I grow up I want to be .. "I know, a caveman."

John has serious nightmares and is also jealous of his 6-year old sister.

I remember a dream about ... "it is not pleasant. My sister fell in quicksand and a wild horse came along. She got a rope on her hand and the horse pulled her out. (Who was he?) I don't know. (Maybe you were the horse?) (He grinned and said), Yes, I was the horse."

His drawing shows a bigger boy with a very large head and a smaller girl which he put on a box. It looks as though she was on a pedestal. He wrote on the box "Do not drop." He said the two were dancing together and that he likes dancing lessons. He said the boy likes best "playing around with girls," and least, "he don't like beating up kids." First he said the boy had a lot of friends, but later he said, "all kids around beat me up, and this girl looks just like the one I had a fight with." He said he wanted friends but did not know how to make them.

Interview with Mother:

After a most stormy telephone conversation with Father who said that I should blame last year's teacher for John's difficulties and all the mean kids who pick on his poor little boy, I finally spoke to Mother who dissolved in tears so that I promised to see her at home. She was very courteous and apologized for her husband. "He has a temper but does not mean it really, his bark is worse than his bite." Then she began to blame herself, "It is all my fault," and started to weep bitterly. Soon, however, she told me her story which is one of great financial worries. Her husband got very ill, burst a vessel in his head, when John was only two years old and when they lived in the country. He was very ill for ten months, and she had to work to pay for the doctor bills. Already her pregnancy was complicated and expensive because she has RH negative blood. Then she began to work and had to place the child in many homes during the day until he was four years old, when the next child was born. By that time they were so much in debt that she tried to work on and off and always got "a raw deal" because people did not trust her since she had two children at home."

Then her husband finally moved to Boston when he lost his job as aircraft mechanic and he is now working as a truck driver for his brother-in-law, but does not make much money. They first lived in the Somerville slums where the

the children could not go out and play because the neighborhood was so tough. Finally they moved to Arlington into her parents' house, where they have the lower floor. Mother says she is not happy here, has no more friends from her childhood days, and the neighbors are not nice. She has many paranoid fears, and cries off and on. She does not belong to a church or any group because she has no money for collections or church bazaars, etc. She is miserable alone and confided that she gets so excited about everything that she cries most of the time. I suggested to her that she must do something for herself to help her children and that I would help her to make contacts with a Child Guidance Clinic. She seemed to realize all that, but it is hard to say how Father will react when he comes home.

Summary and Recommendation:

John is an acting-out emotionally disturbed boy whose Mother is suffering from a serious neurotic depression and whose Father is a person who has not been successful financially and blames the world for his failure. Both parents are so weak that it is hard to see who needs more support; maybe Mother who seems to be an intelligent person if she were not so distraught.

My first aim is to make the family aware of the fact that they must try to help themselves by asking responsible and professional people for help. Mother is so afraid of the cost involved that she does not do anything but cry and pity herself.

John needs some help and I shall try to see him occasionally in school until the Family will be ready to accept a Child Guidance Clinic.

In the meantime, the teacher (and the family feels very positive towards this year's teacher), the principal, and I must work out some procedures to make John feel that he is not continuously picked upon. He is an intelligent child and when he begins to feel that we trust him, he may calm down somewhat. Maybe we could give him a chance to go in the regular Patrol line after Thanksgiving. If at all possible, it might be good not to have him stay after, because he hates it so, and to give him some breaks once in a while. There must be a team approach, and it will take a long time to reach this boy who comes from a very disturbed family.

November 12, 1958

Hella Moller
Psychological Counselor

PSYCHOLOGICAL REPORT OF A STUTTERER

Donald Age 10-0Confidential

Grade 4

Reason for Referral:

"Donald is a good student and becomes upset when he gets a 90 rather than a 100. His stuttering has increased to very serious proportions in the Third and Fourth Grades, and it seems that he is emotionally disturbed. Mother has always been overeager and overconcerned with his speech problem and has pressed the speech therapist for help." He has been working with Donald off and on but he has referred the case now for psychological study, as he feels he can be of no more help.

Assessment Techniques Used:

Wechsler Intelligence Scale for Children
 Rorschach Test
 Projective Drawing
 Moller Sentence Completions
 6 TAT stories

WISC

Full Scale I.Q. 111
 Verbal Scale I.Q. 106
 Performance Scale I.Q. 114

Sub-Tests, Scaled Scores

Information	12	Picture Completion	14
Comprehension	9	Picture Arrangement	8
Arithmetic	12	Block Design	14
Similarities	13	Object Assembly	13
Vocabulary	9	Coding	11

Donald is a very quiet, repressed boy who answered all the questions obediently, but at first without enthusiasm, and he stuttered severely. He often did not hear examiner, and asked, what did you say? indicating his anxiety which prevented him from listening. At the second meeting he became more relaxed. His intelligence falls in the good average category and it is surprising that he is doing so well in school, he seems to be an "over-achiever".

Rorschach

Donald started his description of the inkblots with "does not look like anything", and repeated this introduction to several cards. This indicates attitudes of resignation, frustration, and inadequacy. He is suspicious about the motives of others and suffers from early oral dependency needs and suppressed aggression. Donald is a submissive and passive child. For instance he held the cards in his hand until examiner removed them, although he had been told to put them down when he had finished with them.

Donald suffers also from serious anxieties about interpersonal relationships. Although Mother and Teacher report that he plays well with other children, his Rorschach indicates that he is insecure and fearful of people. He does not see any persons in the Rorschach, but only "monsters", "creatures", "giants", and "statues". He is restricted in his emotions and cannot express any mature feelings. I assume that he has temper tantrums at home. He is not a mature child (0 FC, OCF, 2 C). For Donald, life is a battle and he is using all his energies in "trying to get to the top." He is a most anxious child. He is acting out his problem in a psychosomatic way, i.e., stuttering, and like most neurotic individuals, he shows restriction in his interaction with others and egocentric preoccupation.

On the positive side, Donald has good ego strength, and good average intelligence. He is just on the borderline of above average intelligence. The mother figure is perceived as someone who is hard to reach; and the father figure as a "giant", i.e. reachable but frightening.

One of his TAT stories is quite revealing in regard to his relationship to his mother.

6 BM "This has two people in it. These two people were in the same family. Mother and son. And so the son was talking to his mother, and he asked her whether he could borrow \$5.00. She said, No. Then he asked her for \$1.00 and she said, Yes, and he said, Thank you mother. (What did he want to do with the money?) He wanted to go to Boston and do something." (Feel?) O.K.

This story shows the mother's sternness, his rigid and formal language, and superficial politeness. Real feelings are not revealed, and when pressed any further, he avoids an answer.

In card 2, we have a similar theme:

"This boy was playing with his dart game and he hit somebody and he was punished for it. And so he said, he was sorry. He found out the boy was feeling better, and so did not have to stay up in his room."

Story 1 is a long and involved story full of symbolism most likely in the area of castration anxiety.

Card 1: "I don't know what this is. A train? (mh). A boy is watching a train go. On the train he has some little men crushed up and a little man fell off onto the floor. And the boy (here he started to stutter pityfully all through the rest of the story) had to pick it up, to put the train on the track. He picked up all the men but one, and he kept on looking for it and finally he found it on the table. So he put that one in the booth so it would not fall out again."

Drawing:

His drawing shows a distorted body image (Donald is left-handed), and very insecure footing (No feet). There was much erasure, indicating anxiety, and his people have no hands and no hair. The boy figure who is drawn even more immature than the girl has the body of a baby, waves a hat, showing his need to underscore his masculinity. He mentioned that he does not like to draw because he can't do it well; that he does not know how to make arms; and that the boy does not like to play with girls. The latter remark is significant as we know that he suffered greatly when mother took a girl into her house.

Sentence Completions:

As expected, Donald could not express himself much in free associations. Some of them, however, are quite telling:

I would like to buy a present for ... "myself, no, father."
(not mother.)

Sometimes I wish my father ... "could stay home."

When I am angry ... "you mean with whom I am angry? Myself."
(He introjects his anger)

My mother sometimes ... "she gets mad, not very often."

When I grow up, I would like to be ... "a millionaire; I can buy anything."

I worry most about ... "I can't think of anything."

Summary and Recommendation:

Donald is a very repressed child who keeps his feelings and emotions inside. His stuttering results from the anxiety connected with this repression. He is outwardly the ideally well-behaved child. His First Grade teacher writes: "Bright, very good work, never makes any trouble, gets along well with others, well liked, excellent work habits, neat and careful, penmanship excellent. Mother is an excellent room mother." The same admiration is given to him by the Second Grade teacher: "Meticulous worker, cooperative, wholesome attitude towards classroom and work. A very happy home life." This praise is continued in the following grades except that the speech defect which is considered light in the First Grade becomes a bad speech defect already in the Second Grade and a serious one in the Third and Fourth Grade.

This very good behavior is bought at a most expensive price. In order to win approval from a "strict and meticulous mother" (teacher's statement), he is repressing all his feelings and the resulting rage. He has a great deal of aggression which he dares not to express, and for this reason and from fear of expressing hostility, he stutters. Sibling rivalry, probably masturbation, and jealousy of the little girl, a house guest, are vital factors increasing his stuttering.

Donald was able to establish a relationship with examiner the second time, and played quite freely with the puppets. He seemed to be interested in coming to see examiner in her office, but as soon as she mentioned that she wanted to help him with his speech, he became completely blocked and said he did not want to come.

1. Donald should be helped to relax and confide in people. Psychotherapy is the best means to do this. If this examiner will make some special effort he may probably relate, although he is badly frightened when reminded of his stuttering.
2. Mother is also in great need of a better understanding of the relationship between her own repression and strictness and Donald's stuttering. It is possible that the case could be carried together by the school social worker and psychologist if Mother can see her way without being too threatened.

January 23, 1958

Hella Moller
Psychological Counselor

PSYCHOLOGICAL REPORT OF A PREDELINQUENT

David Age 10-0Confidential

Grade 4

Reason for Referral:

Mother has asked for help from the Guidance Department. Principal's statement: "David is a fairly bright youngster and a member of a large family. He has developed kleptomaniac tendencies from everything to everywhere. He is one of the boys who broke into the school. They were seen by a police officer, and he was corrected for this by his parents. The day he got out of their custody, he broke into the Irvington Apartments and destroyed all the name plates on the mailboxes. Since then he has proceeded to steal money from his parents and articles from the school. Mother says he told her priest that his mother makes him mind, but all he has to say to his father is "I am sorry" and that gets him off the hook."

Assessment Techniques Used:

Wechsler Intelligence Scale for Children
 Rorschach Test
 2 TAT stories
 Projective Drawing
 Moller Sentence Completions

WISC

Verbal Scale I.Q. 96
 Performance Scale I.Q. 101
 Full Scale I.Q. 99

Sub-tests, Scaled Scores:

Information	10	Picture Completion	11
Comprehension	9	Picture Arrangement	11
Arithmetic	9	Block Design	9
Similarities	10	Object Assembly	9
Vocabulary	9	Coding	11

David's I.Q. falls in the average range, and there is no significant scatter. He makes the impression of a repressed and serious boy who is not much used to verbalization. On the Vocabulary subtest, he practically did not know what a

definition of a word meant and had to be given an example, so that he would say more than just one word. But he was able to catch on quickly. He enjoyed the Performance tests, especially Block Design, and on each subtest he was eager to do items beyond his ability level, indicating a desire to learn.

David's Rorschach indicates that he is a most anxious boy with restriction of social activity which stems from a disruption of a critical interpersonal relationship. He has a difficult and conflict-ridden relationship to his mother who is seen as ungiving and demanding. His frustrated dependency needs cause his temporary destructive outbursts of behavior. He represses his feelings and emotions. He suffers from a feeling of weakness and lack of striving because of fear of aggressive outbreaks. David fears authority figures but screens this fear behind airs of contempt and indifference. There is much underlying resentment and hostility.

David is eager to do the right thing and is aware what is socially expected. There is a better relationship to male than female figures in the Rorschach; but he is such a restricted boy that even in this area there is not enough identification with male figures. David has enough ego strength to show adoptive behavior, but his frustrated dependency needs get in the way and make him act out. He suffers from serious anxiety over the possible consequences of his destructive fantasies.

David told two relatively long and fantasy-laden stories which he brought out in a slow and somewhat labored fashion.

Story 3 BM: "That looks like the man is dead. There is a jack knife. That is a couch and the man fell down, that is the position he is lying in. (How did he die?) I think he was in a fight. (How come?) I think he was mad and he got into a fight. (What made him mad?) It was during an argument with a friend. (About?) They had an argument if he should get the same job or should not. Then the other person took his jack knife out and jabbed him. (How did it end?) His wife called the police and they caught the man at the corner of Jason and Gray Street and he got a life sentence."

The two street names give away David's identification with the killer. Most people do not perceive the boy on the

couch as dead; this projection reveals tremendous guilt feelings for some real or imagined deeds.

His other story is also long and David becomes personally involved.

Story 1: "This boy does not want to play the violin. (What does he do?) He is sitting there just looking. He does not like music. (What happens?) His mother makes him play the violin but he does not want to. (How does the story go on?) He has a dream and the boy in the dream says, I am an angel, I am a musical man, and he says, you think instruments can talk? The boy says, no. The angel touched the trumpet and the trumpet said "hello". Then he sees the violin, then the piano which wanted to play a special song. The boy fell asleep with all this music. Then in his dream, the princess came and the music played while he slept. In the middle of the song, the music gets louder, he wakes up, and the princess is gone. Then he takes his violin and starts to play."

With such intense fantasy living, where mother is seen first as demanding, and later as a gentle figure who "filled the world with music" it is most likely that David is a neurotic delinquent who commits asocial acts in order to get attention for his neglected dependency needs.

Some of his Sentence Completions are telling:

My mother sometimes is ... "angry."
 I worry most about ... "my mother and father."
 I remember best ... "my uncle." (not my father and mother)
 Sometimes I wish my father ... "would take us on the trips he goes."
 If I do something bad ... "I get punished."
 Most people don't know that I ... "am bad."
 I wish I would not be afraid of ... "my enemies."
 I don't like people who are ... "my enemies."

David's enemies are mostly in his mind; they are there because he has not sufficient opportunity to "talk himself out" with adults or children.

His projective drawing shows two very small people with a tremendously large head, especially that of the boy figure. Such drawings are usually drawn by children who overemphasize intellectual achievement but fail in their school work. The

trousers of the boy as well as the skirt of the girl are drawn over the legs, so that the legs are visible. Such treatment usually suggests unsatisfied sexual curiosity in children.

Interview with Mother revealed a very troubled person. She has four boys ranging from thirteen to five. Mother is pregnant again and not happy about this fact. About David, she complained, that he does not accept any rules, that he lies, steals, and is disobedient, that he has been a nervous child from his earliest years because he is only eleven months younger than his older brother, that he wets the bed and is very stubborn. Mother complained bitterly about her husband because there is "division of authority at home", and that she has no cooperation from her husband. "He is too easy going and does not see the problems." She sounded defeated and unhappy. Her husband has had psychiatric treatment and, she feels, he cannot be relied upon for help. Her pregnancy adds to her depression which the children must necessarily feel. Mother is a quiet, reserved and very attractive young woman who was eager to talk to examiner. She phoned after a few days whether examiner had already made some arrangements for her and for David.

Summary and Recommendations:

David can be categorized as a neurotic delinquent. He is a depressed and anxious boy, and he steals and misbehaves because he is seriously frustrated in his emotional dependency needs from his earliest childhood days. Mother herself told examiner that "I just as much have them solve their own problems, I can't watch them every single minute," revealing her complete lack of emotional warmth towards her children.

It would be desirable for Mother to receive casework help at the Family Society and to give her some support for the time of her depression and pregnancy. I will see David on an Activity Therapy basis for three months. If David's behavior has not improved after this time and after mother's pregnancy, he may be considered as a suitable member for our Boy's Therapy Group.

December 5, 1958.

Hella Moller,
Psychological Counselor

PSYCHOLOGICAL REPORT OF A STUTTERER

Roger Age 10-7

Confidential

Grade 5

Reason for Referral:

"Mother requested help. Roger has trouble with his speech and stutters seriously when he talks. Roger also spends a great deal of time daydreaming, therefore does not complete his work. He also makes strange noises in the classroom when he sits at his desk, and the other children can't understand this. When they ask him he gets embarrassed." The speech therapist has seen Roger and thinks that "he stutters mostly during oral reading and more severely when children start to laugh. He is not popular with the children and when he speaks he slurs his words and is often hard to understand. He is an only child, and mother seems to be overprotective. She is very knowing about Mental Health and realizes she punished the child too much when he was small. Feels she can relax now."

Cumulative Record:

- Kindergarten: "Roger works well and often contributes to group discussion. He is a smart child, excellent worker and very quick to understand."
- Grade I: "Very good student. Oral reading needs fluency. Rather nervous since hurricane and grandmother's death. Does not know how to play with others. Makes complicated drawings but does not bother to color them. Mother is oversolicitous, and it seems boy should be more independent."
- Grade II: "Has extensive vocabulary. Talks and acts more mature than most children his age. Does not seem to desire the company of other children. However, his classmates like him very much. He is very quiet and self-occupied. Unusual interest in airplanes. Mother reports he gets tense when he is upset and works best in a calm atmosphere."
- Grade III: "Reading capacity far above his grade level. He enjoys reading science books. He is very reserved in class. Has excellent powers of

concentration and is not annoyed at noises around. Roger aims to please at all times and his mother finds that he is very methodical and factual sometimes, to the point of being slow."

Grade IV: "Slow moving, but accurate. Excellent student, serious minded. Mother realizes that Roger is very intelligent. She seems over-protective. Now Roger wants to be quite independent of his mother."

Assessment Techniques Used:

Wechsler Intelligence Scale for Children
Rorschach
TAT stories
Sentence Completions
Projective Drawing

WISC

Verbal Scale I.Q.	134
Performance Scale I.Q.	121
Full Scale I.Q.	131

Sub-tests, Scaled Scores:

Information	17	Picture Completion	13
Comprehension	13	Picture Arrangement	15
Arithmetic	15	Block Design	14
Similarities	15	Object Assembly	12
Vocabulary	17	Coding	11

Roger's Verbal and Total I.Q. falls in the Very Superior range, though his Performance items are considerably lower than all his Verbal sub-tests, indicating, in Roger's case, a rather typical obsessive-compulsive picture. His vocabulary definitions are so perfect they could have come right out of the dictionary. What is a belfry? "It is a top of a steeple which houses a bell, usually open on four sides." Or, What is nitroglycerine? "A very high explosive, a clear colored liquid used in dynamite." Nearly all his definitions are perfect and so is practically everything else he does. Roger is, however, a very serious-looking boy who acts aloof and detached. He never smiled and only after several hours of contact with Roger did he thaw out a little bit. One had the feeling that he was always uncomfortable whether he did well or not, even after he learned why examiner came to see him.

Rorschach

The Rorschach indicates that Roger is a most cautious and passive boy who suffers from an intent manifest anxiety and depression ($F+\% = 100$). He is extremely restricted in his social behavior and uses all his ego strength for repression and denial of conflict.

Roger uses such an exaggerated control over his feelings and thoughts that he has thwarted his personality and his emotional freedom, and his human relationships suffer severely from it. He has achieved a most unsatisfactory balance between inner drives and outer pressures from the environment. In fact, he is constantly threatened by anxiety because he cannot establish an equilibrium between inner impulses and outer demands. The presence of anxiety is so strong that he cannot ever afford emotional release in fantasy. There is sometimes a sporadic loss of control and an explosive emotional outburst, but usually he is much too mature and adult for his age. One can assume that Roger never had a chance to act in a childlike manner, but was always expected to act like a grown-up. However, Roger has the capacity for emotional warmth (2 M), but he fears that aggressive outbursts might occur without self-control. Instead of showing ever any aggression or negative feelings, he exhibits passive and conforming behavior, in fact he avoids all assertive and aggressive impulses.

In his Sentence Completions he tried to reveal as little as possible but we still learn how he feels about school and himself.

John was happiest when ... "he was in school."
 Nothing disappoints me more than ... "to see him get a bad mark."
 I work hard because ... "I have to."
 Whenever there was hard work to be done, John felt ... "uneasy."
 Charlie felt that his teachers were ... "interesting."
 I try hard to behave because ... "I want to please my parents."

Roger's good behavior and good performance are a reward for his parents. He does not like schoolwork per se, he does it because he has to, but not from an inner desire.

Roger is concerned and worried about himself.

Charlie worries most about ... "himself."
 I remember a dream about ... "myself."
 The worst thing that ever happened was ... "when he got very angry."

It made me mad to be ... "Laughed at."
 He does not know what to do when ... "he gets excited."

Roger has great fears to reveal any of his feelings, especially angry ones. He feels ambivalent about his parents:

When Bill is alone he thinks about ... "his mother."
 Jack loves ... "his parents."
 Dick felt that his mother ... "did not like him."
 I wish my mother ... "would not work at politics so much."
 When I talk to my father he ... "says, he had to think about it."

When I grow up I want to be ... "an electrical engineer."
 (Father is a chemical engineer; he wants to be in general like father but he has some reservations.)

He blocked on, Most people don't know that I

Roger's stories have an overtone of protest and are short. He did not enjoy telling them but complied:

Card 1: "There is a boy who does not want to play the violin, he is kind of disgusted. (What does he do?) He sits and stares. (What does his father and mother say?) His mother tells him he has to. (Does he?) He protests and nothing else."

Story 2 has a similar feeling.

Card 2: "The girl is going off to school while her father is working and the mother is watching over the father and makes sure he does the work. (How does the girl feel?) Some resentment the way the mother is acting. That's all."

The feeling that his identification figure is in the wrong permeates the next two stories.

6 BM: "I guess the son has done something wrong and I guess he has gambled and the mother is quite surprised and ashamed of him. That's all I can think of."

Roger is annoyed at being asked questions, and even when examiner does not ask them he expects them. In the last story we can see how standards of cleanliness must have been enforced in this child at a very early age.

Story 13b: "This boy did something bad, he must have played in the mud and is sitting on the front steps sulking."

Playing in the mud is something "very bad" in Roger's feelings, and he must have been taught that way as a small child. This examiner would assume that Roger never had a chance to play and get dirty like a normal child.

His drawing are stick figures. He objected at first at drawing people, saying he likes landscapes best. Such an attitude indicates an evasion of coming to terms with oneself. He said of his self-figure, "He is not the active type, he is in between; he is fairly active in baseball and football and collects certain things like stamps and nature things. He is a fairly bright boy, he has a bright mind." When asked whether this boy had many friends, he answered, "average, no, not many." He does not like school particularly and is "fairly happy." Roger answered most of these questions in a rather bored fashion. When I asked him later whether he minded my asking him these things, he answered in his sophisticated fashion that he did not mind at all, he thought it was "very interesting."

Interview with Mother:

Mother is also a very intelligent and intellectualizing person. She was eager to talk about her own problems and the child's. "When Roger was born, he came into a very unhappy home. He must have sensed the tension and he did not have enough love and attention, and I did not realize what this did to the child. My husband's mother lived with us and, although we had planned to live alone, she went completely to pieces when my husband told her to leave, so that he could not go through with it. His mother had been a nurses' supervisor and a very domineering woman, and she treated my husband and myself like a bunch of children. She resented my presence and was very hostile towards me. I went a number of times to see a psychiatrist and I learned slowly to appreciate my mother-in-law who was then arthritic and could not leave the house. I was very lonely, too, because my husband went out too much for community activities and left me alone. He went out as often as four to five nights a week. He likes men better than women. I had given up a good job, I was a teacher at a Museum staff in Ohio and later at the Fogg Museum, and suddenly I was left alone. When the child was born, my mother-in-law had a new line of attack. I never could say

"my baby," I had to say "our baby," and she used to say to Roger: "Mommy does not do this right, let me do it," etc. Although we made peace in later years, I was very much relieved when she died when Roger was six years of age. Things became easier. I am trying to be more affectionate with Roger, and his father is spending more time with him, too."

Mother is willing to concede that she cannot give enough of herself. Mother herself had a very ambitious and restrained mother but a warmer father whom she liked. Yet her parents also fought a great deal because "Father was not interested in material things in this world as Mother was." She herself had many psychosomatic disorders before she was married and was treated for six weeks at the University of Michigan by some intensive psychiatric interviews which made her feel much better, and she felt she greatly benefited by them. She later saw a psychiatrist for one winter in Montclair, N.J., and she felt it helped her so much that she sent her sister to one also. Mother is now willing to have help for herself and Roger.

Summary and Recommendation:

Roger is a boy with superior intelligence, but he is depressed and suffers from serious anxieties. He has no friends and very poor interpersonal relationships with his peers. He is obsessive-compulsive, rigid, and does not trust the world. He keeps all his emotions and feelings locked up within himself with iron control. This control takes much of his energy and makes him tense and passive. He never had the chance to act like a normal little boy, have friends, and make himself dirty. Mother, who is aware of the fact that she has many difficulties herself, is quite anxious to have private treatment for Roger and herself. It seemed she had been waiting for someone to suggest this. One wonders how deeply she was involved in previous times.

The teacher might help Roger to do things in cooperation with other intelligent youngsters in his class, so that he does not always get into the "lone wolf" position. But his difficulty is very deeply seated and needs professional attention.

February 9, 1959.

Hella Moller,
Psychological Counselor

P.S. Roger and his mother have been referred for private psychiatric treatment.

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BOSTON UNIVERSITY
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Abstract of a Dissertation

STUTTERING, PREDELINQUENT, AND ADJUSTED BOYS:
A COMPARATIVE ANALYSIS OF PERSONALITY CHARACTERISTICS
AS MEASURED BY THE WISC AND THE RORSCHACH TEST

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In Partial Fulfillment of Requirements for
the Degree of Doctor of Education

1960

The purpose of this investigation was to make a comparative analysis of the personality characteristics of 20 stutterers with those of 20 predelinquents and 20 adjusted boys.

As stutterers and predelinquents represent overtly opposite types of behavior, it was hypothesized that stutterers show a high degree of emotional control and predelinquents a low one, whereas the adjusted boys were assumed to fall somewhere midway between the two emotionally disturbed groups. It was further hypothesized that stutterers and predelinquents show significant covert differences in various other aspects of their personality which can be detected by means of the Rorschach and WISC analysis.

The 60 boys selected for this study were ten through twelve years of age, had an I.Q. between 90 and 130, came from the same town, and all were living at home. The 20 stutterers' speech symptoms were diagnosed by the Public School speech clinician. The 20 predelinquents were referred by teachers to the school psychologist (this writer) for acting-out behavior and in addition showed four predelinquency characteristics from a listed set of criteria.

Eight Rorschach and eight WISC variables were selected for a quantitative comparison. Of the eight Rorschach variables, seven showed statistically significant differences among the three groups. The outstanding finding of this study revealed that stutterers had many more indicators of maladjustment than predelinquents. According to the Rorschach variables, the adjusted boys consistently showed the most favorable scores and

the stutterers consistently the least favorable. Stutterers had less self-awareness and ability to empathize with others than either the predelinquents or the adjusted boys (M score; $P=.05$). Stutterers had considerably poorer human relationships (H score; $P=.05$), and were less aware of what is socially expected of them (P score; $P=.01$). Stutterers had many more anxiety indicators ($P=.01$) and a smaller range of interests (Content categories; $P=.01$). The hypothesis that stutterers and predelinquents represent opposite poles on a behavior continuum of internalized control and impulsivity was disproved. The Rorschach color ratio indicated that stutterers had very little emotional energy at their disposal, and what is usually considered emotional control was, in fact, shallow affectivity (FC score; $P=.01$). Stutterers had as few internalized controls as predelinquents. The latter, as expected, had a lopsided balance between self-control and impulsivity (CF+C; $P=.01$), whereas the adjusted boys had an even distribution of self-control and impulsivity.

In the WISC, the differences between the groups were not clearly discernable, because their overall I.Q.'s, their Verbal and Performance I.Q.'s, as well as four subtests did not show significant differences. However, the difference between Verbal and Performance I.Q.'s differentiated among the three groups in a statistically significant degree ($P=.05$). Stutterers had a much larger gap between Verbal and Performance I.Q.'s than the two other groups, and such a scatter is considered an

indicator of maladjustment. The Stutterers also showed a greater drop of their Vocabulary level ($P=.05$), and they also had a greater drop of their Performance subtests below their Performance Mean ($P=.05$). The use of this so-called scatter analysis made it clear that maladjustment can be detected in the WISC by the Vocabulary Scatter and the Mean Performance Scatter.

As an implication of practical significance it follows from the findings of the Rorschach and the WISC in this study that predelinquents are much easier to reach therapeutically during the ages of ten through twelve than stutterers, because the latter have poorer human relationships, less empathy, and a shallow emotionality.