

AN ABSTRACT OF THE THESIS OF  
Vera Delle Horner for the M. S. in Education  
(Name) (Degree) (Major)  
Date Thesis presented May, 1936

Title A TEST-SURVEY OF DELINQUENCY IN A HIGH SCHOOL  
OF MEDIUM SIZE

Abstract Approved: \_\_\_\_\_  
(Major Professor)

This study was designed to survey the delinquency and potential delinquency in a high school of medium size by means of test procedure. The value of such a study lies in the early discovery of undue interest in minor acts and lines of thought that often lead to overt acts that bring the child before the school disciplinary officials or into the juvenile court and cause him or her to be classified rather definitely as a delinquent or as an incorrigible in the thoughts of the people who know him or her. If these potential delinquencies can be discovered early, the possibilities of their reformation by individual study and attention should at least seem to be greatly increased.

The study is organized as follows:

Under Chapter I, entitled "A Partial Analysis of the Delinquent", are treated the subtopics; Personality Traits of the Delinquent, The Relationship of Intelligence and Delinquency, the Relationship of Environmental Factors and Delinquency, Trends and Fads in Delinquency. This chapter is a survey of the literature which was selective as to quality of books and articles and was carried to the point beyond which the reading of additional material meant repetition of statements and ideas already

included.

Under Chapter II, entitled "The Measurement and the Treatment of Delinquency", are treated the subtopics; The Correction of Delinquency, and Devices that Seek to Measure Delinquency Objectively.

Under Chapter III is reported the study of delinquency in a medium-size high school.

For this experimental part of the thesis, the Laslett Test for Potential Delinquency and the Murray Personality Inventory were administered to 493 pupils of the Corvallis High School in the years 1933 and 1934. The scores on the Laslett Test and on the Murray Inventory, the IQ's from the Otis Self Administering Test, and the chronological ages in years and months for all of the boys and girls who were tested are given. The means and standard deviations for the different sets of data are given. Correlations between the different measures in the experiment and the probable errors of these correlations are also given. Several case histories of pupils who had the largest scores indicating delinquent tendencies and of pupils who had the largest non-delinquent scores are given.

A condensed summary of the thesis offers these points of view for the reader's consideration:

1. The problem of delinquency is attracting more and more attention.

2. Serious crimes among adults have decreased over the last two years (1933-35). There is no way of knowing whether delinquency is increasing or decreasing.
3. Writers on the subject of delinquency are not agreed on anything about it --- the causes, the treatments or cures, or the courses over which it develops.
4. Not all children and young people with delinquent tendencies actually become confirmed delinquents.
5. In this study, not all of the pupils with low scores on the delinquency test were or are delinquents. Luck has played a part in the change of some of them for the better and some for the worse, but the importance of this part should be made as small as possible.
6. In this study the delinquency scores and the chronological ages of the pupils studied showed a high correlation, but the range in chronological age was small and there were many individual exceptions. All of the other correlations were low.

A TEST-SURVEY OF DELINQUENCY  
IN A  
HIGH SCHOOL OF MEDIUM SIZE

by

VERA HORNER

A THESIS

submitted to the

OREGON STATE AGRICULTURAL COLLEGE

in partial fulfillment of  
the requirements for the  
degree of

MASTER OF SCIENCE

April 1936

APPROVED:

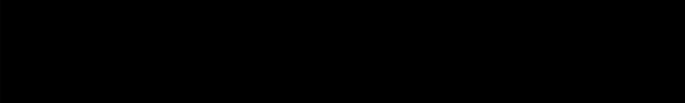
  
\_\_\_\_\_

Professor of Education

In Charge of Major

  
\_\_\_\_\_

Head of Department of Education

  
\_\_\_\_\_

Chairman of School Graduate Committee

  
\_\_\_\_\_

Chairman of College Graduate Council.

C O N T E N T S

	Page
Introduction.....	1
Chapter I --- A Partial Analysis of the Delinquent..	4
Chapter II --- The Measurement of the Treatment of Delinquency.....	48
Chapter III --- The Study of the Delinquency in a Medium-Size High School.....	100
Conclusions.....	131
Bibliography.....	134

T A B L E S

	Page
Table I --- Scores of Boys Tested in 1933.....	102
Table II --- Scores of Girls Tested in 1933.....	105
Table III --- Scores of Boys Tested in 1934.....	109
Table IV --- Scores of Girls Tested in 1934.....	113
Table V --- Means and S. D.'s of Entire Group on the Several Measures.....	116
Table VI --- Correlations among the Several Measures	117

## ACKNOWLEDGMENT

The writer wishes to express grateful acknowledgment and sincere appreciation to Dr. H. R. Laslett for his helpful suggestions and criticism in the preparation and completion of this thesis; for the time and effort he gave in reading and correcting the manuscript; and for permission to make use of certain portions of his collection of notes pertaining to this study.

Acknowledgment is also made to Mrs. Juanita Manning for assistance given in the administering of the tests and for helpful suggestions; to Mr. H. W. Adams, Superintendent of Schools, Corvallis, and to Mr. H. S. Parker, Principal of the Corvallis High School, for permitting the tests for this study to be made in the High School and for many other courtesies extended during the preparation of this manuscript.

A TEST-SURVEY OF DELINQUENCY  
IN A  
HIGH SCHOOL OF MEDIUM SIZE

INTRODUCTION

This study was designed to survey the delinquency and the potential delinquency in a high school of medium size by means of test procedures. The value of such a study, especially the study of the potential delinquency, lies in the early discovery of undue interest in and glorification of the minor acts and the lines of thought that often --- although not always, by any means --- lead to the overt acts that bring the child before the school disciplinary officials or into the juvenile court and cause him or her to be classified rather definitely as a delinquent or as an incorrigible in the thoughts of the people who know him or her. If these potential delinquents can be discovered before they feel that they have been disgraced by actual commitment to a reform school, or by an actual hearing before a juvenile court, or even before they have been detected in some act that brings them definitely before the disciplinary authorities of their own schools, the possibilities of their reformation by individual study and attention would at least seem to be increased greatly.

Some children and youths seem to require a rather severe shock to force them to see themselves as they are and as they appear to others, and to bring them face to face with reality in general. Others, and possibly these are in the numerical majority, believe that once they have been detected in some crime or misdemeanor, they have been assigned rather definite roles in the drama of life. Often they believe that there is no deviation permitted by society from these roles. Some of this group become defiant, resentful, and aggressively anti-social. Other individuals in the group lose their spirit of ambition and joie de vivre and become the sneaks and the drudges of the half-world and the underworld. A few of them reform or modify their ways by their own efforts. A few change their ways through force or accident of circumstances. Marriage to a forceful and interesting person of more socially acceptable habits of thought and action is probably the most common form of this cause of change.

Furthermore, a large number of children who are delinquent do not realize that they are delinquent. This is most notable in what may, with considerable reason, be called slum districts. These may be in either the cities, the towns, or in rural areas. They are not always composed of areas having populations of the lowest economic status, although they usually are. The discovery by the

children of these slum areas that the world which they have not met first hand --- a much larger world than the entire world they have hitherto known --- does not accept the social standards which they have learned to accept as the normal behavior of normal people comes as a shock to them. The shock is greater if they find out --- with a conviction of its sincerity --- that their previous standards and their childish heroes are held in contempt by a very large part of mankind. The effect of such a discovery is often that of driving these youngsters clearly into, or clearly out of, their former associations.

There was a time when the term "delinquency" was practically synonymous with what would be termed "crime" if committed by an adult (44). Since prevention rather than punishment is the aim of the state in dealing with young offenders, the state should try to reach them as soon as possible. The term "delinquent" is applied in different states to children who have violated any state law or ordinance; to those who are incorrigible; those who are truants; who associate with immoral persons; who use vile or obscene language; or who jump on moving trains. The idea of such elastic definitions is that of giving the state power to try to prevent more serious offenses later on (44). Colorado was the first state to make use of this wide application of the term, delinquency.

## CHAPTER I

## A PARTIAL ANALYSIS OF THE DELINQUENT

## Personality Traits of the Delinquent.

Teachers' ratings and studies of the numbers of fairly serious cases of misbehavior of pupils in school seem to show that about ten per cent of all the children in the elementary schools offer evidence of requiring some remedial study and treatment (63, 146). Many of the youngsters are disciplinary problems, or are delinquent, because they are resentful of the authority of the school and are impatient of the restrictions which the school as an institution imposes (1, 107). The chief sources of complaint from these children were the handicaps and restrictions on their attempts at freedom or their attempts to establish their own individualities, namely complaints against their own fathers and mothers. Most of these disciplinary cases and delinquents are of dull mentality and do not appear to advantage in any of the academic, manual, or extra-curricular activities of the school (30, 43, 59, 60, 61, 74, 117, 135). As a result of their poor positions in the school environment and their desire to escape this situation, they often run away, steal, or indulge in sex misdemeanors as a means of release or at least a diversion from the strains of their customary situations.

Sometimes self-assertiveness, desire to see the world, and spirited independence play a part in cases of running away from home, either spiritually or physically; but more often they play no part at all (8). Escape is the primary and compelling motive for delinquency (8). This would seem to indicate that many of these youngsters are aggressive in their behavior and rather unadapted to the social guiles. Sometimes these youngsters run away, which is a delinquency in children between seven and sixteen years of age; or they are trouble-makers because they are educationally retarded and are over-age chronologically for their grade (69, 107). This is, of course, related to the resentment of the restrictions of the school and their dissatisfaction with their own handicaps and limitations. Oftentimes they are of a restless nature (124) even though they are able to do the work of the school and are capable of meeting the demands of the social community in which they live. Other children are restless and of inferior intelligence (124). These last become the ordinary tramps and hoboes.

As a group, the delinquents and the pupils who misbehave are not interested in most, or even any, of the aspects of school (107). Most of them have in reality low vocational aims or have none at all (107), although in their imaginations and phantasies they may see themselves

as not only different from the average, but as distinctly superior to it (84, 115). Many of these youngsters are distinctly lazy (84, 107). Most of them are overemotional, with instincts of domination, vanity, and a poor form of expression of the romantic that are out of proportion to both their actual accomplishments and their ability to accomplish (59, 60, 61, 69, 84, 104, 118, 123, 135, 145). Many of them see themselves as different from the average and nearer to a state of perfection than other children (84, 118). Some are quite definitely swaggerers who avoid facing reality as far as possible (84, 118). When they have to face reality, especially in connection with themselves, they may become markedly over-active in a series of aggressively anti-social acts such as fighting, threatening, teasing, bullying, window smashing or other vandalisms; or they may turn to self-pity and resort to begging, promotion of class prejudices, or pathological lying. Very often they resort to the less extreme forms of rationalization or self-deception unless other forms are rather habitual to them or more vicious older people set their standards of behavior for them.

It is axiomatic in the field of delinquency that few inmates of the reform schools and penitentiaries admit that they are there through their own faults and as a result of their own stupidity. They claim either that they are there

unjustly or that they would not have been caught in their own crimes except for the element of luck which favored the law enforcement officials. As a matter of fact, the whole system of law enforcement and of the granting of paroles and pardons is commonly acknowledged to be regrettably lax, and favorable to the escape of the offender from sentence, in the first place, and from serving his sentence in the second.

Many delinquents are classified as infantile in their emotional development, that is, they go to the extremes of emotion from causes that are not worth such extreme reactions and are of the type which arouse similar kinds and degrees of response in infants and very young children. Many delinquents swing from one emotional extreme to the opposite without what appears to normal people to be an adequate cause. The manners that they adopt of obtaining their ends, or of revenge, or of getting even or paying back, are of the general status of similar acts by very young children except that they are made more dangerous through the greater training, cunning, and physical strength of these older people (22, 59, 118, 135).

Many delinquents and potential delinquents are hyper-suggestible (59, 60, 61, 69). Others are hyposuggestible. The first group is often over-active and restless, either by itself or from being stirred to restless activity by

suggestion from others. This suggestion may be brought about by exhortation in words or in action. This is especially applicable to the group of delinquents or potential delinquents who are neurotic. Among these neurotics the schizophrenics, or people with divided personalities, are the most susceptible to suggestion that results in action, either along the lines of decision or of actual perpetration of unsocial or anti-social deeds. These people, especially if they are of low intelligence, are the ones who are "used" by the more intelligent delinquents to carry out the delinquent acts and to run the risk of capture and confinement. The belief, however, that the penal institutions contain only, or even a distinctly larger percentage of, this group of lower intelligence, is not longer accepted as correct to the extent it was formerly.

In the first place, the group which used the other group of lower intelligence is not generally of a high order of intelligence itself. In the second place, this group is numerically small and is pitted against society as a whole. Society as a whole is a much larger and wealthier group, which has over the centuries built up a structure of policemen, judges, and penal institutions to protect itself as a group; whereas delinquents and criminals must be individualists by the very nature of their psychological attitudes and the economics of their activ-

ities.

The hyposuggestible delinquents, or those who resist suggestion to an abnormal degree, are those who are stubborn, brutal, drudging, and are unwilling to learn from any sort of lesson or any kind of teacher (59, 60, 61, 69). The recidivists, or repeaters, contain many of this group, which will not adapt itself to ways of thinking and acting which are new to it.

The question of the predominance of neurosis among delinquents and criminals is in dispute at the present time. Probably the lack of clear definitions of the different neuroses and of the facilities for measurement of the degree of deviation from the normal account for the conflict of opinion among the investigators. Most investigators state an obvious fact when they say delinquents are maladjusted to society. Some of them express the opinion that neuroses of the different kinds are noticeably more common among the delinquent and criminal group than among the population at large (59, 60, 61, 69, 139). This question will probably remain unanswered until the identifications and the measurement of the neuroses are carried much further than they are today.

In a similar way investigators do not agree that delinquents and criminals fall more often into the extrovert group or more often into the introvert group. As long as

the actual existence of more than a few individuals who can be classified definitely as extroverts or as introverts is questioned, perhaps the tendencies of delinquents along these lines are not important. If real differences in extroversion and introversion do exist, it is probable that some delinquents of the more dominant and active types are extroverts, whereas others of the more subtle and secretive types are introverts. The common tendency to group all delinquents and all criminals into one large homogeneous group is a fallacious tendency. They are as varied in their characteristics and personalities as the population in general, or probably more varied, because they represent the extremes of many or all types of traits of personality.

The schools should, as far as the training of the teachers permits and as far as funds for the employment of suitable numbers of classroom and special teachers, nurses, and advisers are available, attempt to discover and to correct delinquent tendencies in their pupils who are worth working with. The penurious attitudes of many districts, school boards, and even school administrators, frequently prevent the schools from having suitable numbers of special teachers. The large numbers of classes which the classroom teachers often have to meet prevent their learning even the names of the pupils before the

school term is well under way. Under such conditions the teachers can know very little of the natures or of the home environments of the pupils. On the other hand, not all teachers in the classroom or in special lines of work are adapted by nature or by training to work with children of either the normal, the delinquent, or the near-delinquent groups. In the past and probably in the present, teachers have rated as the most serious offenders under their direction the pupils who have offended against the dignity of the teacher herself, who have interrupted the work of the classroom, or those few who are known as flagrant cases of sex immorality (63, 146, 149). Many teachers were not aware of the fact that sex offenses or money crimes existed among the pupils, either outside or inside the school in many cases (63, 146). Of the pupils detected, by far the largest number in any one grade was located in the fifth grade and was between the ages of twelve and fifteen chronologically (63, 149).

#### The Relationships of Intelligence and Delinquency.

There have been many controversies regarding the intelligence of delinquents. Some investigators contend that sixty per cent of the delinquents are feebleminded (59, 60, 61, 69); others, that at least eighty per cent are dull and feebleminded (30, 59, 60, 61, 69); while

still others maintain that the intelligence of both the younger and older delinquents is the same or almost the same as that of the population at large (51, 117). The importance of this question has two aspects --- the correlation of delinquency and of poor intellectual endowment and the causes behind this correlation if it is at all large, on the one hand; and the intellectual sampling of the delinquents who are actually apprehended, on the other. Some writers contend that of all of the delinquents only a few of the bright ones are actually caught while many of the dull ones are taken into custody. The correctness or incorrectness of this position cannot be demonstrated clearly because there is no proof or disproof of a negative statement except the proof of a positive and counter statement. However, over the centuries society has developed an elaborate and fairly successful co-operative system of crime detection while the delinquent is generally individualistic, both through his own nature and the nature of his activities.

The result of numerous studies indicate that the intellectual status of delinquents as a class is below that of non-delinquents (30, 43, 52, 92, 117). In a comparison of delinquent children committed to the Wisconsin Industrial School, made with the Terman Group Test, and of 905 unselected children, sixty-five per cent of 408 delinquent

boys and seventy-eight per cent of 252 delinquent girls were found to have intelligence quotients below eighty-five as compared with eleven per cent of the unselected group (30).

In claimed contrast with this study, a frequency distribution of the intelligence ratings of 3,584 juvenile delinquents showed that the intelligence quotients of the group distributed themselves in accordance with the normal frequency curve, but the mean was 82.2 instead of the usual 100 (117).

Brill (21) concluded from an exhaustive study of forty habit-clinic children that 'more motives were necessary to cause the bright children to deviate in their behavior from that which is socially acceptable' and that more conduct disorders occurred among the duller twenty of this group than among the brighter twenty.

While a low intellectual standard does not in itself mean assurance of delinquency, one investigator (43) found that a capacity for abstraction which had been checked or halted at the age of seven or eight years was one of the necessary prerequisites in eighty per cent of normal crimes, acts of violence, and theft investigated. There seems to be some relation between the intelligence of the individual and the type of crime committed (51). In a study from the New Jersey Reformatory for Young

Males, out of 401 cases with an average age of nineteen years, it was found that:

- a. The population of delinquent institutions is not predominantly mentally deficient.
- b. To some extent, the capabilities and limitations of an individual bear some relation to the type of crime committed. Forgery and embezzlement occur most frequently among the superior group; and assault, rape and other sex crimes occur most frequently among the mentally deficient.
- c. There is a direct relationship between mental level and recidivism.
- d. There is some relationship between the mentally deficient delinquent and disorganized family and home conditions (51).

In a quantitative study of the relationship between intelligence and economic status as factors in the etiology of children's behavior problems, material from 700 case histories was investigated (86). The age range of the children studied was three to eighteen years. All cases with intelligence quotients below eighty were eliminated. There was found to be a definite relationship between intelligence and the type of behavior problem presented. The more intelligent children more frequently presented personality and emotional problems; the less in-

telligent more frequently anti-social conduct problems. In general, the children from higher economic levels present personality problems and the children of lower economic levels social problems, but the intelligence is a stronger factor than the economic situation. The brighter child seemingly struggles with his own personality rather than with the external environment as is the case with the duller child (21).

When different forms of stealing are arranged according to the aggressiveness involved in their execution, the median chronological age is seen to be higher for each successive group from stealing in the home up to forgery (116). The various forms of stealing, when arranged according to the degree of mental maturity, follow a serial order according to the amount of planning and forethought required to carry each form of theft into effect. When several forms of theft are arranged according to the degree of the intelligence quotients of the perpetrators, a well-defined grouping is brought out, as well. Children who steal from the home and from stores, who take bicycles and automobiles on the streets, who commit burglaries or highway robbery, range from about 72 to 79 I.Q., while children who use forgery as their means of theft are, as a group, of normal intelligence.

An ungifted plodder will often succeed much better in

the world than a gifted idler. An excellent case study of a family of criminals shows that those who moved, while still dependent on the surrounding world, into good environment often made good, while those who grew up in the unsuitable environment turned out badly (40).

A comparison of the mental traits and attitudes of delinquent boys and girls shows considerable agreement between boys and girls in the following respects (132):

- a. The average intelligence level of each group studied, that is, boys and girls, is much below that of the average of the population. Each group studied has an average intelligence quotient of approximately seventy-one.
- b. In both groups the average educational age or location in an educational institution is thirteen months in excess of the mental age.
- c. Both groups show slightly greater emotional instability than average, when measured with the Woodworth-Mathews Personal Data Sheet.
- d. With both groups there is a tendency toward reduction in the number of unfavorable responses to this questionnaire with an increase in chronological age; and a similar but more marked tendency with an increase in mental age. The number of fears decreases with increasing chronological age

and especially with increasing mental age; while the number of unsocial attitudes tends to remain constant or to increase with both mental and chronological age.

- e. Both boys and girls gave the influence of others as the strongest motive for their delinquency.
- f. Both groups have relatively low vocational aims. There is very little tendency to desire work much beyond their ability.

Additional conclusions from a comparison between the boys and the girls showed the following differences (132):

- a. The girls showed slightly greater emotional instability than the boys, as measured with the Woodworth-Mathews Personal Data Sheet.
- b. Responses to this questionnaire seemed to indicate that girls have a greater tendency to dream than the boys, and to feel that they are misunderstood and not loved. The boys complain more of their food and of physical ailments. More of the boys feel as though they have been very wicked. The girls show a greater fear of fire.
- c. In comparing the number of unfavorable responses given and their relation to chronological age, the girls show greater variability from their average than the boys do from theirs. With the boys, phys-

ical complaints seem to increase with age; with the girls, there tends to be a decrease.

- d. The type of offenses leading to commitment in the institution is different for the two groups. The majority of the boys had been committed for some sort of gainful offense against property. The majority of the girls had been committed because of sexual immorality.
- e. As to motives leading to delinquency, more boys than girls state that they have been influenced by others. More girls than boys blame maladjustment at home as the influencing factor.
- f. The majority of boys desire work of a semi-skilled nature in one of the so-called trades. The majority of the girls desire work of a domestic nature. The vocational ambitions of this group would substantiate an industrial program of training in domestic arts for girls of border-line or dull-normal mental intelligence (132).

A study was made of 882 juvenile delinquents to determine, if possible, the relative importance of their heredity and their environment as causes of delinquency (52). Their family histories were investigated for : criminal tendencies; parental disease at the time of conception, maternal disease during pregnancy, and abnormal mode of

living as of importance from the side of heredity; and home conditions and other environmental influences as of importance from the side of environment. The results of the study claimed to show that 240 delinquencies were due to heredity alone; 247 to heredity in a large measure plus environment; 326 due to heredity and environment in about equal proportions; 36 due to environment in a large measure plus heredity; and 33 due to environment alone. In general, heredity was claimed to be a greater cause of delinquency than environment (52).

Numerous writers contend that delinquency depends much more closely upon emotional conditions than upon intellectual. The direct heredity of delinquent tendencies is no longer claimed, but the direct heredity of unusually large amounts of some traits and unusually small amount of other traits, both of which conditions are favorable to the development of delinquency, is maintained by many writers. In a similar way the influence of home conditions is claimed by some writers to be an important factor in causing delinquency, but other and later studies show that the proportion of delinquents who come from broken homes is no larger than the proportion of broken homes among the population at large. It is probable that other factors were more prominent in the broken homes that produced delinquents than the mere fact of an incomplete

family unit. Nevertheless, home conditions have a positive correlation with delinquency. Eighty-seven per cent of the delinquent girls studied in one investigation came from broken homes (26).

That many dangerous criminals (33) are normal in intelligence but have become criminal due to environmental and emotional factors is claimed to be shown in a follow-up study of one hundred normal and one hundred delinquent boys. Not a few of them became maladjusted when quite young and persisted in their atypical behavior in spite of social regulations and incarcerations. Early recognition and proper treatment of those who become maladjusted is essential. It is also evident that the child who is normal in intelligence may become from the standpoint of social significance and treatment a more difficult behavior problem than the inferior child. From the data from this study it must, apparently, be concluded that the intelligence of children who are behavior problems will have to be considered carefully when a treatment is outlined and that normal intelligence does not necessarily mean good social adjustment (33).

Seventeen years after a first investigation of subnormal children was made, it was found that the subnormal group, instead of turning out to be failures in life, had developed into adults who possessed a marked degree of

stability. The unusually favorable and constructive environment in which these people lived during adolescence is held to be the chief factor in bringing about this degree of stability among these subnormal cases (48).

Mentalities which showed only seventy per cent of normal, in a study of the records of a certain juvenile court, became eighty-two per cent normal after the children had been placed in good environments, even though one or both of the parents of the children were mentally defective or otherwise abnormal; became eighty per cent where both parents were alcoholic; but remained seventy per cent where the parents were criminalistic. Since the development of ideation produces delinquency, the moral contagion of institutions and the contagion of those reduced to a low status from institutions should be avoided (68).

One study (96) of the mental differences with respect to nationality, social-economic status, educational level, and civil status of parents, shows that of the 476 cases, 157 or thirty-three and seven-tenths per cent fall below I.Q. 70; 180 or thirty-eight and six-tenths per cent are mentally retarded; 101 or twenty-one and five-tenths per cent are average; while only twenty-nine or six and two-tenths per cent attain a level above I. Q. 110. The foreign group is more retarded than the American group, and this inferiority seems to be due to native endowment rather

than inability to handle the language. Of the foreign group, the Italians constituted the largest per cent. In proportion to the number of Italians in the country, they exceeded their quota of the clinic group by about thirty per cent. In social and economic status, as indicated by the Taussig Classification into Non-competing Groups and the Joffa Budget Classification, the American and the foreign groups each showed a slight tendency toward positive correlation between status and intelligence. Educationally, the group was retarded with respect to chronological age and advanced with respect to mental age.

Delinquents come predominantly from the poorer classes (19). Of several hundred cases studied in Chicago, less than two per cent came from comfortable homes and none at all from homes of wealth. This does not necessarily mean that children from comfortable homes or from wealthy homes do not commit offenses but that, in general, their problems do not become public (44). Success is closely correlated with intelligence, whether it be financial or social success; and, in general, it is not the intelligent who commit crimes; or if they do, they are caught more rarely (44).

Decroly (42) believes that heredity plays a more important role than is assumed by the American investigators, Healy and Bronner. Eugenics is presented as one definite

solution in the reduction of delinquency since a certain amount of crime is due to mental defect or mental disorder and these tendencies seem to quite an extent to be hereditary (26).

Emotional conflict is sometimes stressed as the leading cause for boys deserting their homes, but wanderlust and desire to see the world played a part in only two and four-tenths per cent of the cases studied (8). Self-assertiveness and spirited independence played no part at all. Escape from unpleasant mental situations or from facing facts was the basic motive for nearly every runaway. In twelve per cent of the cases studied, the boys had been severely beaten. In another thirty-two per cent they feared punishment. Emotional conflict with family or school authorities or some excessive burden or responsibility accounted for a majority of the remainder wanting to leave home (8).

Social causes, such as lack of harmony in the family, or failure of the family's supervision over children explain only twenty per cent of the vagrancy cases found in one study (101). The other eighty per cent come from psychiatric causes, among which character disorders represent fifty and two-tenths per cent and feeble-mindedness accounts for nineteen and twenty-four hundredths per cent (101).

Tendency toward criminal behavior is sometimes acquired when conflict in the hunger and love drives are unresolved (3). All discontent in life increases the tendency to disregard the existing order. Adjustment to the demands of society requires an ever-increasing restriction and renunciation of the instincts. Adjustment is possible only if this renunciation is compensated for by increased satisfaction. The two great instincts for which most renunciation is required are hunger and love. Conflicts in these drives begin in early childhood. The tendency to criminal behavior is acquired when these conflicts are unresolved. Present criminal procedure is endeavoring to find the causes of crime in rational and utilitarian aims, whereas often they are in unconscious childhood repressions. Punishment does not bring about renunciation and, as a result, is effective only when the authority is present. Our present civilization needs vents for the dammed-up-libido that has been repressed from childhood (3).

In an Italian study of 220 delinquents, forty-four per cent were found to have pathology of nervous functions or of mental ability. Among eight per cent, there was a significant character aberration. Seventy per cent were illegitimate or came from broken homes. While social factors appeared to be the determining cause of crime among these delinquents, in about one-half of the cases studied

there was an additional biological causative factor (7).

One study of rebellion and its relation to delinquency and neurosis was made in which a group of thirty delinquent children were compared with thirty non-delinquent siblings (1). The groups were shown to be about the same in intelligence, physical condition, and bodily build. Greater tendency to extroversion, over-activity and restlessness, greater emotional unbalance, and poorer school work characterized the delinquent group. In a large number of cases, delinquency and rebellion seemed to indicate a healthy protest and an escape from introversion and schizophrenic tendencies (1).

Inadequate social drives condition personality and produce a higher degree of receptivity for over-suggestive influences (15). The over-suggestible boy and girl who come into conflict with the law are usually unstable. The presence of pathological disturbances, such as moral inbecility, intellectual deficiency of varying grades, epileptoid states, schizothymic character, and pathological constitution can almost always be demonstrated in child criminals, that is, those under twelve years of age (143). In very many cases the criminal acts of young persons can be traced back to the love of adventure which is characteristic of this period of life. Often we find underlying such a crime great mental power which under suit-

able direction could as well express itself in socially useful behavior (143).

Certain conduct problems can be explained in terms of mental conflict which the individual experiences as a result of certain changes in environment, especially those involving misunderstood and unexplained uncomfortable situations (12). The reaction of an only child to the arrival of a second child in the family is a good illustration of this. Disturbances of instinctive reaction and of the developed ego take place. Juvenile delinquency is often the overt expression of mental conflicts arising from broken homes with their disturbed emotional and instinctive attachments (12).

In a study in a Canadian training school (20) of boys two to four years retarded in school work, it was found that forty-two per cent were of normal intelligence and the remainder below 90. The test indicated qualitatively the existence of conflict, delusions, physical ailments, motor inco-ordinations, abnormal impulses, depression, and bullying tendencies. These boys as a group consider fewer things wrong but have more worries than normal boys. The Kohs' Ethical Discrimination (80) Test showed that they are less often "correct" in their moral judgments than normal children. The mental and physical characteristics of this group of delinquents do not correlate very

highly with each other although there is a general tendency for them to be similar (20).

A follow-up study of fifty intellectually average and fifty defective recidivists and of twenty-six average and twenty-six defective first offenders indicates that in both groups there is practically no difference in social adjustment between those of average and those of defective intelligence (128). The prognosis for the first offenders is twice as favorable as that for recidivists.

Delinquent girls, according to another study find fewer things wrong than non-delinquent girls, but have more worries and are interested in more things than non-delinquents (38). They are more strongly emotional, lack inhibitory forces, and possess a wide range of interests conducive to unrest and instability. The delinquent girls experience more conflicts with their environments, are less well acquainted socially, and suffer more under feelings of physical discomfort. Emotional differences between delinquent and non-delinquent girls were found to exist.

Six delinquent girls selected because they were leaders showed that they had excellent physiques, high levels of energy output in physical activity, interest in and enjoyment of social relationships, a general "turning out" of attention, and quickness of response with good initia-

tive and attack on tests (23). General intelligence did not appear to be a significant factor in their leadership. A comparison of the traits of these leaders with a group of followers would show that the leaders are building up emotional outlets lacking in the followers (23).

A study of character tests in 1926, by Tjaden (137), as a means of using emotional reactions in the detection of potential delinquency in groups having normal and superior intelligence, showed little differences in the groups. The Pressey X-O Tests (112) were used on delinquent boys, inmates of the Iowa State Training School. The results were compared with those obtained by Pressey on a group of college students comparable in intelligence. The emotional reactions of the two groups were strikingly similar. The tests are shown to have little or no value in detecting potential criminality, but certain differences in the reactions of the two groups reflect differences in emotional experiences in an interesting manner.

Maller (90) made a study of the measurements of conflict between honesty and group loyalty. A combination of a co-operative test and an honesty test was given and the work was done under both personal and social motivation. In general, the subjects worked more efficiently and employed more deceit when the scores were to count for personal gain than when they were to count as gain for the

group. Marked individual differences appeared. There was a positive correlation between co-operation and cheating in group work, a low negative correlation between co-operation and cheating in work for self, and a marked positive correlation between dishonesty in self-work and in group work.

#### The Relationships of Environmental Factors and Delinquency.

Many factors in the environment are causes contributing to delinquency. Among these are economic status; foreign parentage; broken homes; discordant negative and positive family influence; delinquency areas; dissatisfaction with school; lack of social adjustment; and lack of, or quality of, public recreation.

In a study made in Manitoba, it was found that foreign parentage, low standard of home living, lack of one or both parents, and mental retardation were factors contributing in a marked degree to the delinquency of the group under consideration (92). Age of parents at birth of their children, unbroken homes, lack of crowding in homes, general intelligence, supervision of play, correction of physical defects, suitable playmates and church affiliations were factors showing differences in favor of a control group, matched for age, grade, and nationality of fathers with a group convicted for theft (14). While

these factors are apparently factors of environment, in reality they hinge in general on intelligence. This can be said with complete safety of most, if not all, of the factors listed as influences of environment.

The effect of the parental attitude on the child is of greatest importance, and the influence of the social environment is felt through this channel rather than directly (51). Emotional peculiarities and exaggerations are handed on from generation to generation. These constitute a heritage to the child on which his social environment can have little effect (50). The family is still the greatest school of personality, giving to the child his social resources, attitudes and patterns of behavior (142). Hartshorne and May (66), after a study of twenty-eight factors in the experience of unusually honest and of unusually dishonest children, place considerable emphasis on such factors as national group, low intelligence, and poor home background. They place little emphasis on health factors, favoritism for other children in the family, and being spoiled. Private school children appear definitely more honest than public school children. Where progressive methods were in use, cheating was much less noticeable than in conventional schools (66).

Criminal personality is based on attitudes acquired in childhood. Glandular defects and other organic infer-

iorities are significant only for the individual who is inadequately trained socially (2). The criminal is always a coward, since courage is based on social relationships. He always opposes social bonds, and so he always sees himself gaining his ends by force rather than by co-operation or in fair exchange (2).

Suggestion and imitation have their part in the causation of crime, particularly as given in various forms of publicity, such as newspapers, books, periodicals, and moving pictures (26).

#### Trends and Fads in Delinquency.

Fashions in crime through the ages have been set up by the anti-social performances of persons possessing culture and refinement. The less ingenious criminal follows the popular trend until the sun of the new era has set and the dawn of a new age brings forth new possibilities and many modulations in style (151). This principle is illustrated in the famous criminal trends in history: the ancients who 'slew', the behavior of ancient and mediaeval prisoners, the pirates, the Mafia and Camorra, Jack the Ripper, and Apaches of Paris, the bushrangers, and the outlaw bands in America after the Civil War (151).

In a study of juvenile delinquency among Wisconsin institutionalized delinquent boys, it was found that de-

linquents were young at commitment (31). Their mean age at commitment was thirteen and four-tenths years. It was also found that, generally:

- a. They had offended most frequently by stealing.
- b. They had accomplices in their delinquent acts.
- c. They had previous institutional records.
- d. They performed below the average in intelligence tests more frequently than is to be expected from groups from the general populace.
- e. They were members of large families in crowded homes.
- f. They existed most often in counties without probation officers.
- g. They were usually employed.
- h. They professed a belief in the Catholic faith.
- i. They had parents who were unskilled laborers on low salaries.

Delinquent behavior involving property offenses, according to two studies was in all instances associated with incorrigible behavior of other sorts (27). The young thief was socially ill in a number of ways. Stealing was merely a symptom of graver and deeper social maladjustment.

Social trends in juvenile delinquency as listed by Caldwell (32) are:

- a. Stealing is the principle offense. Forty-two per

cent of the total delinquencies listed for the whole group are stealing. The principal delinquencies of the girls are sex offenses. Twenty-eight per cent of the offenses of the entire group lie in this field.

- b. Fifteen is the modal age.
- c. The proportion of native-born, foreign, and negro is parallel to that of the nation for this age group.
- d. Urban communities furnish more than their proportionate share. This is, possibly, due to the pathology of the social environment.
- e. Considerably less than one-third of the group come from broken homes and a preponderance of these were broken by death.
- f. The families are of normal size, apparently normal atmosphere, and show only a small number of socially defective tendencies.
- g. Only a small percentage of this group and their families show previous institutional records.
- h. The fault probably lies in pathological environment rather than in broken homes or poor home influence.

The effect of broken homes is an important causative factor in delinquency (29, 133). A study of 1,145 delin-

quents in Omaha indicated the importance of homes broken by death, divorce, and desertion among parents as causative factors of delinquency (133). The effect of broken homes was found to be more conspicuous among the girl delinquents than among the boy delinquents. Another study of delinquent boys shows that they come more largely from broken homes than an earlier study in the same institution for girls indicated (29). A high ratio of unfavorable social conditions in families in which these boys lived was found (29).

One finds statements that broken homes have no effect upon the child's achievement in school when achievement is regarded as accomplishment over a period of years (34). In a study of a large group of problem cases, some correlation was found between broken homes and conduct disorders (34). A study in a well ordered school seems to indicate that the child may be affected by the broken home situation while he is under stress (34). When the stress is removed, the child is no longer affected. A survey of girls coming from homes of divorcees where the separation has taken place long ago indicated that the average child is not affected by the broken home, either in conduct or school achievement after the period of stress is passed (34).

Considerably less than one-third (32) of the cases studied by one writer come from broken homes, and a majority of these were broken by death. The fault probably lies in the pathological environment rather than in broken homes or poor home influences. One study revealed no constant variation between the ratio of broken homes and the rates of delinquency (127). The need for study of the subtler aspects of family situations in relation to delinquency was indicated (127). A delinquent career, according to the results of this study, is the product of natural processes of development.

A study of delinquent boys, with special emphasis upon the group coming from broken homes, showed (39):

- a. Out of the boys from broken homes who were studied, seventy-one per cent come from homes where the father is absent.
- b. Of the boys twelve to sixteen years of age, a larger number come from complete than from broken homes.
- c. Boys from complete homes committed the following misdemeanors in greater percentage than boys from broken homes: crimes against property (larceny and burglary), disturbing the peace, and violating the state and city motor vehicle

acts.

- d. Boys from broken homes committed the following misdemeanors in greater percentage than boys from complete homes: incorrigibility, truancy, and sex offenses; and they showed greater danger of leading idle, dissolute, and immoral lives.
- e. There appeared to be little, if any, correlation between parental conditions and the amount of formal education the boys have received.

Ever since the appearance of Shaw's (126) important book, entitled "Delinquency Areas", there have appeared increasing numbers of writers who have contended that delinquency areas present an outstanding cause of delinquency although the idea is not new and was mentioned but not studied to any great extent before Shaw took up this study (127, 134). On the other hand, the case for delinquency areas is not clear-cut since many nondelinquents come from these areas and many delinquents come from other areas of low delinquency incidence.

In Chicago, rates of delinquency tend to vary inversely with distance from the center of the city (127). The location of delinquency areas is closely

related to the processes of city growth. In areas of high rates of delinquency, a higher percentage of delinquent boys become recidivists. In Danville, Illinois, over two-fifths of the adult felons resident in that city who were committed to prison or to the reformatory during three years had a criminal record before coming to the city (134). Probably over half of them cannot be called Danville products or products of delinquency areas. A possible conclusion is that areas of delinquency not only produce delinquency, but act as selective forces attracting delinquents and pre-delinquents.

Urban communities apparently furnish more than their proportionate share of delinquents (32). As the older immigrants move out of areas of high rates of delinquency, the rates of delinquency among the children of these groups decrease and the children tend to disappear from the juvenile court (127). Of two areas studied in Iowa City, one in a wealthy suburb, and one in a downtown artisan district, the difference on a socio-economic level of the two areas was marked, but there was no statistical difference in the personality adjustment of children from the two areas (50). The average I.Q. of the wealthier group was 112, and of the poorer group 100 (50).

Nevertheless, studies of the surroundings of boys in congested and delinquency areas of cities has caused the inference to be drawn that poverty and vice account for the actual or inferred number of criminals produced in such quarters (18). The fact that many boys in these localities do not become criminals suggests that there are deterrent forces. The purpose of the study was to take a step in estimating these (18). One hundred and three members in boys' clubs in a slum district of Chicago were considered in staff discussion and rated according to the acquaintance made with them. Of this number, twenty-six were regarded as of high character; and forty-six as somewhat neutral but, on the whole, promising. The twenty-seven in the next class were rated as problems because of their environmental maladjustments or personal handicaps. The final class of four was distinctly criminal (18).

In a survey of 13,632 pupils from eleven different schools, made in 1934 in Jersey City, 829 or six and nine-tenths per cent were reported by their teachers as problem cases (131). The highest percentages were found in schools whose pupils were predominantly colored or of foreign extraction. Boys made up eighty-three per cent of the total number of problem children reported. As compared with their non-problem classmates,

some of these problem children were found to be poorer in school deportment, less stable emotionally, less intelligent, more over-age for their school grades, and to have home backgrounds which were less conducive to personality adjustment. No difference was found between the two groups in socio-economic status (131).

Since the schools, including both public and private schools, are one of the great enterprises of the nation and since the fate of the nation lies to a very great extent in the success of the schools in producing or assisting in the production of desirable citizens, it is obvious that any extensive study of delinquency must consider the relationship of the schools to delinquency and the actual influences of the schools on pupils in turning them toward or away from offenses against the moral and criminal codes.

The school is held accountable for the causation of some delinquency (6,47). One of the chief difficulties here seems to be due to the improper placement of children from where they belong, but so much protest comes from the parents that the teachers think it easier to leave them where they are. These children, who differ from others and especially those who have small gift for academic education, become more and more unhappy at

home and at school and soon become real problems. Pupils referred to one clinic for study of their delinquent misbehavior were found to be mentally retarded as a group and, in many cases, improperly placed in school in comparison with their mental abilities (47).

It is found that teachers consider two sorts of behavior to constitute a serious behavior problem (a) behavior which violates moral standards and (b) behavior which violates regulations of the school or disturbs the classroom. A group of problem children who were carefully studied were found to be dull-normal in intelligence, greatly retarded educationally, to come from somewhat less desirable homes, to find school unsatisfying, to be involved in conflicts with the school and with authorities generally, and to react to these conflicts with a resistant and aggressive behavior of an anti-social type (154). It would seem evident that teachers identify as problems those children whose behavior is aggressive and disturbing, and fail to recognize as problems those children whose behavior is of a withdrawing or evasive sort. The high proportion of these problem children who are retarded would seem to indicate that the school is making problems of those children who learn with difficulty (154).

There are numerous factors in school adjustment that influence personal adjustment and lead to conflict with society and social organizations (95). Among these (95) are: retardation for chronological age, truancy, graded too high for mental age, behavior problems related to unsatisfactory school work, behavior problems that do not prevent satisfactory school work, unsatisfactory adjustment, and unrecognized superiority. In an elementary school, it was found that sixty-one per cent of those with behavior problems were retarded as against ten per cent of the whole school. There was no correlation between grades and intelligence for the retarded children as a whole; but, if all the behavior problem children were eliminated, there was a high positive correlation. Among the behavior problem children the more the native ability, the lower the scholarship marks. The absence of an understanding co-operation between the school and the homes of the most able of these children appeared to be an outstanding factor in the maladjustment discovered (77).

The accomplishment in schools made by a group of delinquent boys shows that the achievements of the delinquent boys in reading were relatively high in relation to their successes in other studies, but were just barely above average when compared with the best norms (37).

The least efficient learning was in arithmetic fundamentals, with arithmetic reasoning only slightly higher (37). Physiology, spelling, language usage, history, and civics were comparatively low (37).

There is no more agreement among the writers on delinquency about the influence of economic status as a contributing cause of delinquency than there is about the importance of other factors as contributing causes. It seems quite probable that the whole problem is not the simple problem with a few direct cause-and-effect factors that some writers would have seemed to pronounce it.

The influence of poverty as a factor in the causation of delinquency is probably relative to the possessions of others in the environment and to one's past situation. Rapid economic change in either direction can shake the moral equilibrium of the individual and of society. Economic conditions are rarely the direct and immediate cause of delinquency, though they play a predominant part in creating the other circumstances favorable to its development (113). In convicted cases of theft in Detroit (14), the factors showing no significant differences between delinquent and non-delinquent children are: economic status, father's occupation, size of family, position of the

boy among his siblings, roomers or boarders in the home, church attendance, health or injury, time in school, change in school, school marks, work, and earning power of the boys.

That the effect of carrying papers is not as disastrous as pictured by some writers is shown in a study of newsboys as compared with an unselected group in Philadelphia (108). Compared with an unselected group, newsboys made the honor roll only slightly less frequently, failed in considerably fewer courses, were much more regular and prompt in attendance, and probably had better health than the other pupils (108). It is believed that more often than not the work of carrying newspapers builds character and is wholesome rather than harmful in its total effect (108).

Whether or not the mother works outside of the home is apparently an insignificant factor in the delinquency of the children (73). In a survey made in Chicago of the influence on delinquent girls of broken homes and working mothers, it was found that, when the factor of broken homes was held constant statistically, the differences between children from the homes in which the mother was gainfully employed and those from homes in which the mother was not gainfully employed largely disappeared (73). It seemed that the broken home was more

directly related to delinquency than the fact that the mother worked.

In one group of eighty children in twenty-three financially marginal families who were receiving aid, the percentage of behavior problem children was found to be small (16). The children showed normal emotional reactions and family relationships. On the whole, they seemed likely to develop into well adjusted and socially desirable adults (16).

It has been found for the comparison of delinquents with non-delinquents by a socio-economic rating that the difference between the ratings of the native-born and of the foreign-born children is not as great as that between delinquents and non-delinquents; and that the superiority of the non-delinquent group over the delinquent group is greater in grade school than in high school (136).

The many claims that public playgrounds reduce delinquency in the areas adjacent to them and that larger proportions of delinquents per thousand of population are found in the congested areas where the only playgrounds at all are the already congested streets are based upon generalizations that have not yet been demonstrated scientifically. More study is needed before the effects of playgrounds can be determined accurately and fully.

A recent study of restricted areas seems to indicate that there has been less delinquency as a result of playgrounds but not in the degree supposed by many (64).

Boys' organizations have been studied with the purpose of finding their relation to delinquent tendencies (45, 66). One study was made of the conduct habits of Boy Scouts as compared with boys who were not Scouts. The comparisons in this study favor the Scouts (45); but it must be remembered that Boy Scouts are very likely to come from families of relatively high qualities of character. Undoubtedly their home life has influence. The other study was not unfavorable but neither was it favorable to the effects of Boy Scout training (66).

How much effect movies have on delinquent tendencies is still a matter of question. Numerous studies that have found the movies to have favorable influence and others that seem to show unfavorable influences are extant; but they are principally opinion on the part of the investigators or of the children themselves and, hence, are not of great value.

The personal interview method, along with an autobiographical record, was used for the purpose of revealing the effects that movies have on delinquents and on non-delinquents (17). The results showed that

movies were an important factor in the delinquency careers of ten per cent of the boys and twenty-five per cent of the girls. The complexity of the problem of movie influence in relation to personal and social factors is stressed by the authors of this study. Peters (109) found that the typical movie patterns tended to fall below the mores of the population in a group of girls who were tested with respect to the aggressiveness of girls in love-making and the matter of kissing. In the matter of democratic practices as well as in the treatment of children by parents, the conduct type most frequently presented in the movies tended to be above the normal level of the standards which appear to receive the sanction of a considerable number of the groups studied (109). Bad conduct is often associated in the movies with unattractive roles, but not consistently so. A negative correlation has been revealed between the success of films and their degree of offense against morality (109). On the other hand, attendance at movies showed no significance in a study of convicted cases of theft in Detroit (14).

In New York in the last decade there has been a striking decrease in the number of boys, and a striking increase in the number of girls, relative to total population, alleged by the court to be delinquent.

One author believes the drop in the delinquency rates among the boys to be real and not a function of altered procedures on the part of the court (91). The increased number of girls classified as delinquents by the court is in part a result of a change in definition (91). The greater susceptibility of girls to the effects of broken homes --- the number of which has been steadily increasing --- and the greater similarity at the present time in the environmental conditions to which boys and girls are exposed are suggested as other factors of significance in the interpretation of the altered delinquency rate among the girls (91).

Potential delinquents may be of any age, but are more likely to be found among children between the ages of nine and fourteen years (84).

## CHAPTER II

## THE MEASUREMENT AND THE TREATMENT OF DELINQUENCY

## The Correction of Delinquency

Much of the emphasis of the present is concerned, not so much with the discovery of delinquency as, with the methods of its prevention and cure. Instead of fixing the blame for the offense, more people are concerned with locating the cause of the offense (98).

Juvenile delinquency is a state or an attitude of mind that develops gradually and presents a series of early symptoms that are observable. These symptoms may point the way, more often than we are aware, to corrective treatment (59, 60, 61, 69, 140). Every delinquent act is a protest against an existing social order (150). In many instances, delinquent behavior satisfies a very real need of the individual (5). It is a destructive form of satisfaction but, nevertheless, it is real. Dependence upon correctional and punitive measures for its elimination has accomplished very little because the real sources of the difficulty have remained (5). The measures that are necessary in each case can be determined only after an understanding of the dynamic factors has been reached and a plan evolved that will strike at the

roots of the problem. The crimes committed by mental deviates can, by proper prophylactic measures, be avoided in many cases (105). Boston, for example, has carried on an extensive mental hygiene program which has been very effective in reducing the amount of crime in that city (105).

Without doubt schools have a large part in the cause of delinquency disorders as well as a part in their cure (2, 6, 10, 24, 26, 62, 75, 82, 98).

The improper placement of children in school constitutes one great difficulty (6). Parents are loath to admit that their children are different from other children and are horrified that others should think such a thing. They protest violently against any situation which would make such a difference noticeable. The school authorities follow the line of least resistance and let the children remain where they are although the children are learning little or nothing. Maladjustment of children in school, resulting in behavior disorders in school and anti-social behavior in later life will continue until proper school placement is provided and until those with proper authority, whether parents or teachers, accept this placement and encourage children to do the best they can do and not merely to try to do what other children can do best (6).

Education is not so much what one puts into a child's mind as the way he reacts to what one puts in (75). Learning can be made to function with living, and many a boy and girl can be trained to put up a winning fight by making good use of poor brain power. When retarded children are taught as retarded children, and not as normal children, the present high educational cost of teaching these children may not be materially reduced, but their ultimate cost to the community will, in many cases, become negligible (75).

It is very necessary that the teacher who attempts to reduce the number of behavior and maladjusted cases in the school should be trained properly for such work (6). It is a long step in the right direction when teachers realize that the handling of behavior difficulties is a teaching process (6). It is with the actions and reactions of the child that the teacher must begin her teaching. She must plan her lessons carefully, grading them according to the child's capacity, not expecting too much at a given time, but always expecting all that can be achieved at any given stage of development. The teacher should always remember that to replace a group of undesirable habits with another group of more desirable habits is a slow and tedious process and that it often takes years to achieve success (6).

Teachers themselves are to blame for many mental abnormalities (98). Teachers should be trained to teach pupils and to have insight into their personal habits and lives. This insight must first be acquired by the teacher before she can impart it (98). When a teacher uses a child's heredity as an excuse for her own laziness, she is making an inexcusable error (98).

The most important single factor to be considered in studying the delinquent is his first information about delinquent behavior. Bad home conditions appear most frequently as inciting causes; mental abnormalities rank next in order; and bad companions, third. There is little connection between the form of delinquency and its causes (148). Some believe that the basic corrective work could be initiated more easily through the training of school teachers than through parental education (2). The criminal within and without prison walls has never felt secure in society and nothing is done to teach him to develop this sense of security (2). The educational treatment of psychopaths in general should be entrusted exclusively to mentally high grade persons with thorough training for the work and an aptitude for teaching (62). Such treatment should follow recognized educational lines.

A concrete method for procedure in the school has been suggested (24). A social rating sheet containing twenty-five desirable attitudes and traits has been developed. These attitudes are believed to be necessary for success in school and in later industry. In its use, the sheet is discussed with the individual child and an effort is then made by both the teacher and the child to improve the weak points. Frequent checks are made. The teachers, as a group, discuss individual problem cases and attempt to find out the reason for the child's behavior. The home is visited. The child's emotional needs are satisfied in socially desirable ways. The great role which imitation of adults and love of teachers play in the work is recognized (24).

After he had made a study to find practical suggestions for the public school in preventing the development of tendencies which lead to juvenile delinquency, one writer (82) reached the conclusion that the usual program and curriculum in the public school are quite unsuited to the abilities and needs of the delinquent boys studied. Providing persons with as much of both vocational training and cultural background as they can assimilate so that their spare time will be occupied and they will be kept out of mischief has been emphasized (26, 82). Adapting education (26) to the individual

and giving him some guidance along educational and vocational lines will make its contribution to the reduction of delinquency. Training along mechanical lines would probably fit boys from certain homes of reform for life outside the institution more adequately than training in school subjects (10). It is well, however, to point out here that the values of vocational training are not limited to dull or to delinquent pupils even though it does have more appeal to them than the more academic subjects do.

That education may be a cause, a cure, or neither, is shown by a recent study of 1500 inmates of the Illinois Reformatory (72). About half of these inmates had not gone beyond the seventh grade in schools, and seventy-nine per cent had not gone beyond the eighth. Thirteen per cent had gone beyond the ninth grade or the average of education in the United States. Less than one per cent of these boys were enrolled in schools when the offenses were committed. Fifteen years and four months was the median school-leaving age for the group. One boy left as early as eight years of age, and one as late as twenty-three. Ten had never attended school. Fifty-four per cent left before the legal school-leaving age of sixteen. Ten per cent had left school before

the age of fourteen, or work-permit age (72).

People with limited intellects may be socially and economically productive if properly handled (81). Reform of delinquents can be effective only to the extent that it recognizes the fundamental human drives. The treatment of delinquents must be individual and in terms of causes of the anti-social trends. A mere knowledge of right and wrong does not insure moral behavior (81).

All programs for the prevention or cure of behavior difficulties that are based on the idea of simple causation are futile and misleading (147). An evaluation of the child in his social setting and a recognition of the fact that society itself is largely to blame for the child's difficulties is the intelligent approach to the problem of lessening juvenile delinquency (147). There is needed an analysis from the point of view of behavior patterns and of the interactions of individuals with their social milieu, and then an adjustment of social forces consistent with these findings (76). The concept of social control and of social responsibility go hand in hand (76). The importance of preventing delinquency through such agencies as proper education, well-trained teachers, efficient probation officers, co-ordination of social agencies, training for family

life and parenthood, and research in child behavior should be stressed more than they have been (122).

Recognizing that environment is a most powerful causative factor in delinquency, it is suggested that children should be removed from among destructive influences and be re-educated (42). It is the duty of both parents and teachers to encourage the successfully adjusted child and to correct the faults of those on the road to failure (98).

There is general agreement that the treatment of delinquents should be individual. In a detailed study which was part of a six-year mental health program, satisfactory adjustment was seen to be dependent upon adequate home supervision, adequate working facilities, parental understanding of the child's limitations, and special school facilities for training the mentally defective delinquent who is educable (119). The type of delinquency and the aggressiveness on the part of the child were found to have no direct bearing on adjustment.

Whether treatment be given at school or in the home, these suggestions seem to be valuable (98):

- a. See that the child makes adjustment to each struggle as it occurs.
- b. Do not stress for adult pleasure traits unpleasant for the adult who grows out of the child.

- c. Make sure of the nature of the urge of the undesirable act, and then furnish the child with a more desirable outlet.
- d. The object is not to find out a guilty secret, but to get the subject in the open so that a frank viewpoint and attempt at mastery can be had.
- e. Do not criticise. Keep your emotions out of it; the child wants guidance, not sentimentality.

The solution of the problem of delinquency lies in a careful analysis of the beginning and the development of the anti-social conduct, the obviating of the more flagrant causative factors, and the presentation to the delinquent in convincing fashion of a better solution to his problem (150). The poor, the malformed, and the unloved are particularly liable to resort to conduct not acceptable to society (150).

In an effort to gauge the effectiveness of a juvenile court with a clinical adjunct, one writer (58) concludes that the clinic and court cannot operate in vacuo. In all efforts to cope with delinquency, they must be a part of a well-integrated community program for crime prevention.

Many writers contend that reformatories do not

reform. A follow-up study was made of one thousand delinquent boys who appeared before the Boston Juvenile Court between the years 1917 and 1922 (56, 57, 58). The boys were sent by the court to the Judge Baker Foundation for examination and recommendation as to treatment --- the treatment usually being probation, placing out, or a reform school. Five years after the treatment was supposed to be finished, 923 of the 1,000 boys were located. It was found that eighty-eight and two-tenths per cent of them had continued their delinquency during the five-year period; that seventy per cent of them had been arrested on an average of three and six-tenths times each; and that two-thirds of them had been sentenced for serious crimes, largely felonies. In other words, after treatment they were as bad as before, or worse (58). According to this study, present methods of treating delinquency need reforming. The authors suggest that delinquency can be curbed only through freer and happier environment, a more equal chance in the struggle for existence, and through earlier diagnosis and treatment for the preventable causes of delinquency, if or when these can be attained and even then there will be a considerable amount of delinquency among the unstable and psychopathic, the willful, and the physically abnormal.

Proper use of leisure time should form a valuable part of the rehabilitation program for our prisons, but play and playgrounds should not claim too much credit for reduction of delinquency (64). Recent studies in restricted areas tend to support the general belief that playgrounds do lead to less delinquency, but not in the degree that has in some cases been supposed. Other factors may have been operative.

Suggestion and imitation have their part in the causation of crime, particularly as given in various forms of publicity --- newspapers, books, periodicals, moving pictures. A decrease in this type of criminal advertising might be one factor of crime prevention (26). On the other hand, it seems fairly evident that generalized discussion of fair play and integrity are not entirely adequate for the teaching of the working practice of these traits (155). Furthermore, an evaluation of certain aspects of a program of character education among one hundred boys in an organization which aims to instil "functioning Christian character" showed that the training, according to the data obtained from several tests, does not give better knowledge of the fundamentals of good citizenship, better school and social behavior, freedom from personality problems, a more favorable attitude toward war, or a better

knowledge of health habits (49).

#### Devices that Seek to Measure Delinquency Objectively.

Since delinquency is age-old and the attempts of non-delinquent individuals to protect their persons and their property are equally old, the attempts of the latter group to discover the delinquencies of the other as easily and as early as possible in order that it might protect or recover the property displaced by the other or to revenge personal injuries is equally old. Prior to very recent times, however, the means of detection of delinquency have been entirely subjective and the studies of this social disease have been sporadic and have been motivated by emotional outbursts rather than by intellectual consideration. Very often this detection has been placed on a primitive or a revengeful basis rather than on a basis of protection to society. The delinquent, too, deserves protection from himself and from others of a worse kind or degree than himself. Ideally, the study of delinquency should be on a basis of correction and prevention rather than of punishment after a delinquency has been committed, but this is not yet feasible.

Historically, the work of Lombroso (1836-1909) in

his attempt to discover criminal types by cranial measurements was the first great objective study in the field. The failure of Lombroso to discover, even after a lifetime of somewhat incidental work, satisfactory anthropometric signs or measurements discouraged others from attacking this field seriously for many years although many people have toyed more or less with the idea over both the earlier and the later centuries. Even Binet (1857-1911), cautious as he was, spent some time on the study of cranial measurements and of interpretation of personality from or through hand writing. On the other hand, there is a difference of opinion in regard to the efficacy of standardized tests of every kind developed at present as means of discovery of the symptoms of delinquency.

In a study of personality differences between delinquent and non-delinquent negro boys, the results indicated that delinquents differ from non-delinquents in degree rather than in kind in what they do and the way they feel (41). The value of standardized tests in the discovery of personality symptoms of delinquent tendencies is great according to Daniell (41), but Decroly (42) states that, in dealing with "different" children, tests are not of much value although he

believes it necessary to examine the children's characters by a special questionnaire. He is not satisfied with the application of regular psychanalysis for the examination of the children's affectivity.

One of the earliest of very modern attempts, and a rather elaborate attempt, to measure traits of personality or of character was that of Voelker (144) in 1921. He used several troops of Boy Scouts of different lengths of membership in this organization and from different parts of New York City as his subjects. The tests were large situational, for example, a boy was sent from the Boy Scout headquarters for some small supply of a medical material. He was given a quarter with which to make the purchase. By pre-arrangement with the druggist, the boy received too much change in connection with his purchase. His subsequent actions were scored on the basis of (1) his noting this fact and returning the money to the druggist, (2) noting this fact and telling the Scout official when he gave him the change on his return, or (3) saying nothing about the incident and retaining the money. While the results of Voelker's tests were interesting, they were not sharply conclusive. They required elaborate preparation and stage setting as well as quite a number of assistants. They were expensive in

both time and money. It is doubtful that they would work successfully with heterogeneous groups of youngsters who were unfamiliar with any of the administrators of the tests. Voelker concluded his article with the statement, 'Training in moral attitudes (Boy Scout training) does make a difference. The greater the amount of training, the greater is the difference.' A study of his problem, his subjects and his data makes this a subjective conclusion rather than one that is demonstrated thoroughly on an objective basis.

Pressey (112) worked out a group scale for investigating the emotions in 1919. For several reasons, it was not altogether satisfactory. One of the chief objections to it was that it contained a number of words and ideas that should not be put before children of average or above average culture. The test was revised in 1921 and was used widely for a time. In the latter revision (36), standardization of norms was undertaken on a wider scale than on any of the older forms. 'It is beginning to appear that intellectual traits may be distinctly less important than has been supposed in conditioning delinquency (112).' The test was of the familiar X-O or cross-out form. It consisted principally of series of five-word items, in which the subjects were asked to cross out all words whose meanings were unpleasant to them. The

selection of words crossed out gave some clues to attitudes and habits of thought.

Kohs (80), in 1921, worked out a test which he called an "ethical discrimination" test. It consisted largely of multiple choice items, ranking of items, and of interpretation of proverbs. The multiple choice items were in the field of social relations principally, for example:

If a playmate should hit you without meaning to do so, you should

hit him back

make him say he is sorry

excuse him

In this form of item, the subjects were directed to put a cross before the phrase that completed the sentence in the best manner.

The items to be ranked according to degree of culpability were adapted from Pressey's X-O Test. These involved moral judgments, for example:

Gambling, lying, drunkenness, murder, smoking.

In these items, the subjects were directed to underscore the most serious offense of the series.

In the part involving the interpretation of proverbs, the subject was directed to place a cross in front of the best meaning of the proverbs listed in a

multiple choice form, for example:

"Don't count your chickens before they are hatched" means

don't be greedy and think about

yourself too much

don't count on a second thing until

the first is done

don't brag.

This test was never widely standardized because in practice it turned out to be too dependent upon the factor of intelligence rather than serving as a measure of ethical discrimination.

Burt (25) mentions a test of delinquent tendencies which he used in England in 1923, but he does not describe the test in his published article. He does, however, point out that delinquency depends much more closely upon emotional conditions than upon intellectual status. Difficulties in the way of a test of delinquent tendencies are: the disparity between knowledge and action, the subject's attitude toward the test (the examiner should be a stranger), the test should be a group test to embolden the subjects, and there should be no discussion of the response meanings with the subjects afterwards.

Cady (28), 1923, worked out a test of delinquent tendencies as his doctor's dissertation. It is a combination of test and rating scale and is subject to the criticism that a bright pupil, and especially a test-wise pupil, would surmise the purpose and the plan of procedure of some of the subtests and thus be able to defeat their effectiveness as measuring instruments. This is particularly true of the type of procedure in which a pupil takes a test by marking on a pad which contains a sheet of carbon or of waxed paper. When this pad is taken from the room, the impression sheet removed, and the pupil is then asked to score his own paper, he must indeed be a stupid pupil who does not have his suspicions aroused. On the other hand, the subtests involving overstatement hold promise of utility in this field of the detection of delinquent tendencies through their tapping of the vanity so common among actual or potential delinquents. As far as the writer knows, Cady's test has not been used in the field to any extent. Its dependence upon the rating scale device is decidedly open to criticism.

Laslett (84), in 1925, published a tentative scale for the measurement of potential delinquency through stimulus words of double or triple meaning and the free association technique. Large numbers of response words

were obtained from inmates of several reform schools and from public school pupils from several schools in high grade communities. By means of a somewhat elaborate statistical procedure, devised by Wyman (153), the frequency of each response word as it appeared in the papers of the two different groups was converted into a delinquency or non-delinquency score. The purpose of the test was the detection of the potential delinquent in order that he or she might be given corrective treatment rather than the apprehension of the actual delinquent. This test is one of those used in the experimental part of this thesis. It has received complimentary notice by Casselberry (35) and somewhat severe criticism by Gilliland and Eberhart (55). Without question, the test should be revised to bring some of the stimulus words up-to-date and should be standardized upon groups from different parts of the nation where the patois of double meaning and of delinquent suggestion varies to a considerable extent.

In 1925, Lentz (85) published an account of "an experimental method for the discovery and development of tests of character". Although the title was a little more ambitious than the material, Lentz did use forty different types of tests of character on two groups of

boys --- one probationary and the other unselected. Out of the test forms which he used, Lentz selected seven as the most promising. These were:

1. a questionnaire of twelve items
2. Pressey test, Part I
3. Koh's Test, Exercises 2, 3, and 6
- 4a. daily contribution test
- 4b. a paragraph test
- 4c. a picture description test
5. a picture response test.

These tests, with the exception of Test 5, were used in additional trials in Kansas City and in Brooklyn, but only two of them showed any significant results. These were the questionnaire and the daily contribution tests. The results from the latter were significant only when those pupils who contributed no items at all were excluded from the scoring. This included the majority of the pupils involved.

Raubenheimer (114) published, in 1925, an account of his rather elaborate study of tests of delinquency. He states his "immediate aim to be the development of experimental methods of differentiation between

- a. groups known to be stable, healthy-minded, reliable, and truthful according to present

- standards of school and society
- b. groups that are less stable, healthy-minded, reliable, and truthful
  - c. groups that have become already special charges to society because of social maladjustments."

While Raubenheimer used a wide variety of tests, he was more interested in seeking the reliability, validity, and suitability of different forms than in devising a test that could be used widely outside of the field of research.

Slawson (130), in 1925, published the results of a study in which he used the Mathews adaptation of the Woodworth Psychoneurotic Inventory as a means of determining whether or not there is an intimate association between defective mental and emotional make-up, as shown by the responses made to questions in this inventory, and juvenile delinquency among boys. According to his report of the findings resulting from the analysis of the responses made, the psychoneurotic symptoms should be of assistance in the formulation of therapeutic measures and procedures for research work on the emotional aspect of juvenile delinquency. Slawson thinks that the use of this

questionnaire in an improved form in public schools would aid in the detection of emotional and temperamental aberrations in their beginnings. Thus, he thinks, it might be possible to check delinquent tendencies before they become fastened upon the individual.

May and Hartshorne (93) used a series of tests in 1926 to measure pupils' attitudes toward cheating. These tests involved cheating under various degrees of difficulty with varying degrees of reward to be obtained from the cheating. The tests, arranged in the order of their "pro-ness" toward permitting or bringing about cheating, as determined by the author were:

- a. An information test consisting of twenty-eight items graded steeply in difficulty
- b. An original disarranged sentence test
- c. The Thorndike - McCall Reading Scale
- d. A sentence-completion test
- e. A spelling test made up of ninety words, some of which were misspelled. The task in this test was the checking of the misspelled words.
- f. A word-knowledge test, given with slight motivation
- g. An arithmetic test.

No definite, usable norms or scores were given. The value of this work is questioned by some psychologists who believe that the tests and the test procedure are based on several wrong principles.

Woodrow (152) in the same year, 1926, worked out a picture preference character test. This test consists of eleven pages of pictures, arranged in series, four to a page. The act portrayed in one picture may indicate disorderliness, or orderliness; a good or bad way for children to fight; or an unco-operative or a co-operative attitude toward one's mother. The test proved fairly reliable,  $r = .79$ ,  $n = 95$ . The author expected to work further on the test in an effort to improve it, but there is no published record that he has done this.

Allen (4), in 1927, in a doctor's dissertation approved by the University of London, described five measures of various traits of character and temperament. Sixty-four subjects were used. The tests which he employed were a word-reaction test similar to that of H. T. Moore (97), the Pressey X-O Test (112), a long questionnaire, and rankings on a prepared form of the subjects by two friends. Each of these five measures was ranked, and rank correlations for each individual found. The same formula was used in the individual

cases in making the table of reliability. Among the conclusions were:

- a. The reliability of the tests was not high.
- b. The tests confirmed Moore's (97) hypothesis that quickened reaction time reveals traits of strongest conative tendency and the points of strongest conscious interest.
- c. The tests did not differentiate individuals and cannot be recommended as objective tests for the strength of instinctive traits.
- d. Analysis showed a predominance in males of interest in sex and in positive self-feeling; in females, of tenderness and disgust.
- e. In the judgment of friends, positive self-feeling seemed to be the easiest to judge.
- f. The evidence pointed to a common emotional factor, confirming Burt's (25) hypothesis of a general emotivity.

Hartshorne and May (66) in their "Studies in Deceit", 1928, made a report of studies carried on during several years by the Character Education Inquiry. Eight types of tests of deceptive behaviour were given to some 11,000 people. Many of the tests were repeated in order that their reliability might be studied. The deception

techniques used have a reliability ranging from .24 to .87, with an average above .70, according to these authors. Sex differences were reported to be small in most cases, although in all but one of the tests the indications are that a greater proportion of girls than of boys are dishonest. Correlations of age and deception averaged 0.03; correlation of intelligence and one form of cheating was  $-.49$ , while, with home background held constant, this became  $-.40$ . Physical condition seemed unrelated to deception, yielding a correlation of  $.20$  in one school, and  $-.19$  in another. Cheaters made a larger maladjustment score on the Woodworth Questionnaire. Home background and cultural factors yielded correlations with deception as high as  $0.61$ . The variety of correlations between the same tests among different groups leaves the whole value of their study open to serious question.

Kelchner and Lau (79), in 1928, published the results of a study of the knowledge about and interest in the literature of crime among 1,000 boys and girls who were pupils in the vocational schools of Berlin. The study was based on essays written by these young people. The instructions given to them in writing their essays were: "Relate the most exciting story of crime that you know. Also list the titles of all such stories and movies that

you remember." The time allowed for writing the essays was an hour and a half. The stories, or their authors, could be divided into four main types: (1) the dynamic; (2) the static; (3) the fantastic; and (4) the dispassionate. The dynamic and fantastic types appeared to Kelchner and Lau to be especially susceptible to the dangers of crime literature. The sources of the stories were analyzed. The frequencies with which various kinds of crime were mentioned were tabulated. The authors believe that their method of comparative study of essays can be of considerable value in attacking various problems of social psychology.

Slaght (129), in a study of delinquent tendencies issued in 1928, made an attempt to determine the traits associated with truthfulness and untruthfulness in children. Two groups of seventy children each --- one group of whom was consistently truthful and the other group consistently untruthful --- were given a battery of tests. This battery included tests of intelligence, memory for abstract and for concrete words, memory based on visual perception, suggestibility, imagination, over-statement, range of information, sensori-motor responses, judgment of perceptual relations, persistence, moral judgments, and association. This series was supplemented by a self-rating scale of likes and dislikes, parental reports, and

introspective reports of the children. The names of the tests are not listed in the article. According to the results of the study, truthful children showed greater moral comprehension and wider ranges of information although they were not more intelligent. The untruthful children were inclined to overstate, were more suggestible, and were quicker in reaction time. The truthful children gave evidence of more stable and more centrally co-ordinated personalities. There was a close relationship between unfavorable home surroundings and untruthfulness.

Poull and Montgomery (111) used the Porteus Maze Test (110) in 1929 as a discriminative measure in delinquency. This test was given to thirty-two girls and forty-two boys who showed conduct disorders, and to thirty-four girls and forty-seven boys who were socially well adjusted. The socially adjusted children usually made slightly higher scores on the Porteus Maze Test than on the Stanford Binet. The maladjusted children made lower scores on the Porteus Mazes than they made on the Stanford Binet. The same groups show no significant differences in relative scores on the Stanford Binet and the Healy II Pictorial Completion Test (70). "If we may assume that the Pictorial Completion Test tests apperception in the social field, we may conclude that the social difficulty of these children is not caused by inability to comprehend or in-

terpret the world about them but is due, at least in part, to the inability to meet the exigencies of new situations (111)."

Karpeles (78), in 1932, published the results of a further investigation of the Porteus Maze Test as a discriminative measure in the field of delinquency. This was an outgrowth of the Poull and Montgomery study. Karpeles used groups from the normal and upper levels. The control group of 185 socially adjusted children tended to make a significantly higher average on the mazes than on the Stanford Binet, while the socially maladjusted group showed no significant differences in performance in these two tests. The average on the Porteous Maze Tests made by the socially adjusted subjects was significantly higher than that made by the delinquent group. This difference was completely reliable, according to the writer. The difference in favor of the socially adjusted children was even more marked and more reliable with the subjects on the higher levels of intelligence, that is, with IQ's of 80 or more (78).

Asher and Haven (11), in 1930, published the results of tests given to determine reactions to questions of an emotion-arousing nature. The authors used seventy questions from an emotional-social adjustment inventory devel-

oped by Mathews, and twenty-three questions supplied by themselves. These tests were given to 594 public school boys and 249 boys of similar age, twelve to eighteen, from the Kentucky Homes of Reform. There appeared to be no significant differences between the two groups of boys. There was a significant difference in the replies of the two groups to only six questions. These are:

- a. Did you ever have a strong desire to steal things?
- b. Did you ever want to run away from home?
- c. Did you ever run away from home?
- d. Do you have a light in your room at night?
- e. Did you ever run away from school?
- f. Are you afraid of thunderstorms?

Luria (88) in 1930 gave a description of a method of recording muscular movement in crime detection. This diagnostic method combined verbal association responses and the motor reactions of the subject. At the moment when the subject responded with a reaction word to a stimulus word, he was to press his right hand upon a control key whose movements were registered in the form of a graph by means of appropriate apparatus. After the subject had become accustomed to pressing down his right hand with each verbal response, any emotional disturbance created by a stimulus word became clearly registered. A systematic emotional disturbance produced by stimulus words

belonging to the same general type of words thus became significant. By the use of this method it became possible: to distinguish between "critical" and "indifferent" reaction words; to obtain information, even though the subject remained silent (for there was still a perceptible pressure, exerted by his right hand); and to ascertain the approximate number of reaction words suppressed by the subject before he uttered one. The method was applied to a group of students who were to conceal certain elements of a crime story which was told to them in the absence of the tester. The control group was not acquainted with the story. The two groups reacted differently, the former showing a higher percentage of greater reaction times co-inciding with the "critical words". Experiments with actual criminals showed similar results. According to the author, the method cannot be applied to recidivists, either because of the great complexity and interference of associations related to several crimes or because the emotional susceptibility of hardened criminals is greatly reduced. It was found not to be applicable to insane criminals, also, at least as developed at present.

Additional devices that operate more largely from physiological activities than from psychological are hypnotism, scopolamine, and the mechanical lie detector (83). The use of these is limited to the detection of \_\_\_\_\_

past crimes rather than to the detection of attitudes or the prevention of criminal acts. A reasonable objection to the first two is that the person under their influence is too widely open to the influence of suggestion and may confess to crimes which he did not commit as the result of unintended and fragmentary suggestions. The practical use of the lie detector is still in the experimental stage, but it does hold out the greatest promise of any measure within its field.

May and Hartshorne (94) published in 1930 a description of four devices for improved procedure in character rating. These were:

- a. A rating scale by which a teacher places a child according to descriptive phrase or sentence, as "works with others if asked to do so".
- b. A similar rating by use of adjectives. Two sheets containing separate pairs of antonyms such as "brutal - humane" were to be checked at a week's interval for each pupil.
- c. Character sketches which were marked by the teacher with the names of any pupils whom they seem to describe.
- d. Pupils' ratings of each other by "guess who" test, as "This is a jolly good fellow --- friends with every one, no matter who they are".

Correlation of the three teacher-ratings show that they had a repeat reliability of .92. The correlation between teachers' opinions and pupils' "guess who" ratings was 0.477. The correlation (.94) between reputation, as measured by ratings, and true conduct, as measured by objective tests, was found to vary from 0.10 to 0.30. Further experiments show that in a definite area of behavior where prejudice is eliminated, objective tests and ratings give a correlation near unity, according to these writers, but they do not substantiate their statement in any satisfactory manner. While the repeat reliabilities of their ratings may be high, the writers offer no evidences of validity. Their statement that the "correlation between reputation, as measured by ratings, and true conduct, as measured by objective tests, has been found to vary from .10 to .30" shows very little relationship between two very doubtful sets of criteria.

In 1930, Newcomb (102) published the results of tests designed to answer the question, "Does extroversion-introversion offer a clue for prognosis and treatment of problem boys?" The author used two methods for observing and recording behavior indicative of extroversion and introversion. The first was based on observing actual responses to typical situations. No consistency was found among the boys being tested in making extrovertive and

introvertive responses. The second method was a rating scale which gave much higher correlations. The first method seems to be more reliable. The author believes that if type distinctions do exist, they cannot be measured by the tests which he used; and that these tests are of little value for therapeutic purposes.

Schultz (120) in a study of delinquent tendencies reported in 1930 recommended the use of experiments in association as a measure of delinquent tendencies. He wrote: "Establish a set of words of a certain category by the use of stimulus words which do not concern the particular complex of the experiment. Then present a stimulus word which has a double meaning, one in the previously aroused category and the other referring to the complex. If the subject resists the previous set, thus using the second meaning of the word, it will indicate intensity of the complex."

Courthial (38), in 1931, published the results of a study of emotional differences in delinquent and non-delinquent girls of normal intelligence. The chronological ages of the groups ranged from fourteen years and three months to seventeen years and eleven months. The two groups were paired by chronological ages, intelligence, cultural environments, and occupational levels of fathers. For the study, he used a series of tests including two

tests of emotionality --- the Pressey X-0 test, Form B; and the Woodworth-Mathews Personal Data Sheet --- together with a test of moral knowledge, a test of deceptive behavior, a test for measuring resistance to suggestion, a persistence test, and a questionnaire referring to the recreational activities of the girls. Each test was submitted to quantitative analysis and the results were interpreted separately for each girl. The Woodworth-Mathews Inventory gave a mean score of 20.22 for delinquent girls and a mean score of 11.58 for non-delinquent. The delinquent girls experience more conflicts with their environment, are less well adjusted socially, and suffer more under feelings of physical discomfort. Emotional differences between delinquent and non-delinquent girls were found to exist in spite of matched chronological age, intelligence and environment (39).

Olson and Jones (103) reported a study in 1931 in which they attempted to find a measure of social attitude which would not be colored by the subject's ability in reporting his own emotional responses as well as by his degree of truthfulness. In this study verbal stimuli, bearing upon religious, racial, social-moral, and economic-political questions, along with controls, were employed in the form of single words for free association responses and questions to be answered by "yes" and "no". Each

subject was instructed to direct his responses into a voice key and at the same time to press down the fingers of both hands which rested on tambours. The kymograph recordings of the occurrence of the verbal stimuli and responses and of tremors and other variations of finger pressures were analyzed. In the pressures made simultaneously with the responses, no significant differences were obtained; but in the involuntary pressures made just after the stimuli were received and just before the verbal responses were made, quite significant differences were obtained between those made after the neutral verbal stimuli and those after the experimental verbal stimuli of all the four types. Pressey X-O Test scores showed little correlation with the emotionally toned attitudes measured here. Only small agreement was found between the experimental results and the ratings of each subject by fellow students; but there was fairly close agreement between the experimental results and self-ratings.

Fuster (53) in a study of delinquent tendencies submitted in 1931 used the Fernald-Jacobson Picture Test to measure comprehension of moral acts in one hundred delinquents. As a result of his work Fuster believes observation and study of type are of immense value in developing a psychology of the delinquent and in facilitating his readjustment in society. Fuster found a low correlation,

.36, between the Fernald-Jacobson tests and tests of general intelligence. The Fernald-Jacobson tests evaluate the capacity of moral comprehension, but they give no measure of moral conduct (53).

Garrison and Howell (54) made a study, in 1931, of the relationship between character trait ratings and certain mental abilities. Sixty-two eighth grade pupils were used as subjects. Ratings on nineteen character traits were made by three judges from the teaching staff who had had these pupils for at least half the school year. Other data available on each of the sixty-two subjects were:

- a. Results from the Terman Group Test of Intelligence, Form A
- b. Sentence vocabulary test scores from a test designed by Garrison after the Holley Sentence Vocabulary Test
- c. Scholarship determined by averaging the fall term grades
- d. Combined ratings of each pupil by all other pupils on the trait of honesty
- e. Objective test data on honesty after the technique of the Hartshorne and May spelling tests (65).

The ratings of the three judges were found to be somewhat consistent. Positive and reliable correlations were

found between various character traits and scholarship. The results from the single objective measure of honesty showed that it did not measure the same phase of the trait that the teachers and pupils did in their rating. Character ratings taken separately did not show much relationship with intelligence and vocabulary ability, but this correlation is considerably higher when the total ratings are considered.

Thomas (136) in a socio-economic study of delinquency and non-delinquency, published in 1931, administered the Sims Socio-Economic Rating scale to 580 boys and girls, 205 of whom were in a detention home and 375 others from the schools of two neighboring towns. The results of the study showed that:

- a. A markedly higher rating was made by the non-delinquent group.
- b. On six questions, the non-delinquent was as much as twenty per cent superior to the delinquent group.
- c. The difference between ratings of native-born and foreign-born children is not as great as that between delinquents and non-delinquents.
- d. The superiority of rating of the non-delinquent group over the delinquent group is greater in grade school than in high school.

This study seems to show the importance of home background as a cause of delinquency or non-delinquency.

Tomlin (138), in 1931, published a description of a "the best thing to do test". This is a test of knowledge of social standards. This test consists of forty-five moral situations which are described in a sentence or two. In each situation are four suggested lines of activity and the subject is required to mark the best and the worst of the four. Norms are given for grades four to eight. The test is available in two forms. The reliability of these forms as measured over a three-grade range is reported as .84, but no measure of validity is given.

Babcock (13), in 1932, made a comparison of 158 delinquent boys and 178 non-delinquent boys by the application of personality tests. Among the tests given were:

1. An attitude S-A test
2. The Sweet Test of Personal Attitudes in Young Boys
3. The Rogers Test of Personality Adjustment for Boys
4. Various of the perseveration tests of Stephenson.

The results indicate that the tests used are not satisfactory for differentiation of the two groups.

Casselberry (35), in 1932, published the results of an analytical study of tests of delinquency in boys between the ages of sixteen and twenty-one. In the following list of tests studied, the rank indicates the scale of

values which Casselberry attached to the test after an elaborate series of tests of the tests studied.

	Rank
Free Association (Laslett-Casselberry).....	42
Personal Blank.....	19
Terman Group Test.....	12
Humor (Landis: Almack: Casselberry).....	11
Home Blank.....	10
Haggerty - Olson - Wickman.....	10
Orientation (Lewerenz and Steinmetz).....	9
MacQuarrie Mech. Apt.....	7
Yepson Scale (Adapted).....	7
Tomlin Best Thing.....	7
Superiority (Adler: Adapted).....	7
Vision (McCallie Cards).....	6
Book Choice.....	3
Woodworth - Cady - Emotional Stability.....	3
Overstatement B (Check on abilities after statement).....	2
Trustworthiness.....	1
Masculinity.....	1
Social Attitudes (Similar To Koh's Ethical Discrimination).....	1
Overstatement A (False book titles).....	1

Extroversion.....	1
Offense Rating (Clark; Casselberry).....	1

The tests rejected because of too high intercorrelations or as insufficiently diagnostic were:

Stanford Achievement Test

Masculinity - Feminity (Terman)

Koh's Block Design Test

Fables Test (from Binet)

Bernreuter Personality Inventory

Kent - Rosanoff (Adaptation)

Neymann - Kohstedt Introversive-Extraversive

Stenquist Test of Mechanical Ability

Most of the Cady - Raubenheimer Battery

Character Choice (selection of companions from  
descriptions)

Hearing

Cady Circles and Squares

Handedness

It requires three hours to give the series of tests selected as best by Casselberry. The series is reasonably cheap and far more reliable, according to Casselberry, than anything that has been developed previously. The author said this series would be used for a six-months experimental period during 1932 in Los Angeles County, California, but no report on this experimental period of which the

writer is aware has been made.

Hawthorne (67), in 1932, published the results of a group test for the measurement of cruelty-compassion as a proposed means of recognizing criminality. He presented a battery of thirty-one units in each of which five alternate sports, books, implements, etc., were presented which were to be placed in rank order by the subject. Each list contained one item of a particularly bloody or violent character. The sum of the ranks given to the items gave a score which was taken to be indicative of a pre-disposition toward cruelty on the part of the individual. The author gave results from two groups of juvenile delinquents, one normal group, and one insane group. The results showed a tendency of the delinquents to have scores sufficiently different from those of the normal group to be useful as criteria of delinquency. The test has a reliability of 0.80, or of 0.86 when three of the units are removed. A zero correlation with age and intelligence within the test groups was found. An inspection of the histories of some thirty-five cases with particularly low scores shows either evidence of violence or a tendency toward sadism, and a bullying disposition.

Murray (99) published the results of a study in 1932 carried on for the purpose of investigating the possibilities and limitations of the questionnaire technique as a

means of detecting emotional maladjustment in adolescent boys. The subjects were three groups of boys ranging in age from eleven to sixteen years. Of these, fifty were emotionally maladjusted boys, two hundred and seventy-seven were non-delinquent control subjects, and sixty were delinquent control subjects. A questionnaire, constructed by using the most valid items from previous tests, improved by clarification of certain items and by the addition of new items, was administered. Forty-six items which showed high frequency ratios and high critical ratios between the experimental and the control groups were selected to form a revised questionnaire. The scoring obtained from rescoreing the blanks for the forty-six items of the revised test were correlated with age, grade, intelligence, and the Sims rating of socio-economic status. Reliability for the revised test was 0.83 for weighted and 0.84 for unweighted scoring. The questionnaire revealed the fact that "social maladjustments appear prominently in all cases, and an uncompanionable and seclusive attitude is common. The subjects admit lack of friends, preference for solitary play and reading and absence of liking for other boys. This unsocial attitude is accompanied by feelings of resentment against various factors in the environment. The boys claimed to be picked on, crabbed at, punished unjustly, disliked by others,

teased, misunderstood, laughed at, and criticized. Many of the items just mentioned seem indicative of inferiority feelings. Family maladjustments appear very frequently. Contrary to expectation, the maladjusted group admitted no more fears than the control group."

Schwartz (121), in 1932, published the results of a study of social-situation pictures used in the psychiatric interview. Certain common details of the interview were incorporated into eight social-situation pictures. There were used, with the direct question-and-answer method on forty delinquent boys, ten to twelve years of age. The pictures showed situations most commonly encountered in the history of delinquents: sleep-walking, being kept after school, staying out late at night, sex offenses, and stealing; and are intended to establish rapport. No attempt was made at formal standardization.

Durea (46), in 1933, reported a study of attitudes toward delinquency. Psychologists, sociologists, juvenile judges, and graduate students were asked to rate fourteen forms of juvenile behavior. The scale was developed, using Thurstone's technique of paired comparison, showing murder as the most serious offense and truancy as the least serious. This scale is regarded as having the advantage of measuring more inclusive behavior and practically avoids the limitations of judgments of seriousness

based on circumstances or motives for offense (46).

Loofbourow and Keys (87), in 1933, gave the results of ten group tests as measures of behavior tendencies. The subjects were reformatory inmates, groups of junior high school boys designated as disciplinary problems, and public school boys of like age and intelligence not known as problems. From the original ten tests he assembled a battery of four known as "A Personal Index" which can be given in forty-five minutes. The battery has a reliability higher than 0.90 and a validity of about 0.75. No index of validity is mentioned by the author. This index showed no correlation with the Terman Group Test of Intelligence.

Hill (71), in 1934, published the results of a test on cheating among delinquents. This test was planned after the technique of Hartshorne and May, that is, he used two forms of the same test. One was given and self-scored; the other given but not self-scored. Fluctuations of chance were calculated. Any minus deviation of more than three fluctuations was considered as cheating. The subjects were 261 boys at the Illinois State Reformatory, the age range being sixteen to twenty-six, with the median slightly over nineteen. Their scores were compared with those of two groups of junior high school boys. According to the returns, nearly two-thirds of the reformatory boys

did not cheat. The average amount of cheating by the delinquents as a group was much more than that of the average non-delinquents, but the difference was not great enough to be statistically inevitable. Negro delinquents cheated slightly more than whites, and sex offenders slightly more than acquisitive offenders. The more intelligent boys cheated the least. It is doubtful whether or not this test is a satisfactory means for distinguishing delinquents from non-delinquents. If used at all, it should be one of a battery.

MacClenathan (89), in 1934, published ratings obtained from groups of mothers and teachers in an attempt to make child behavior more understandable to mothers and teachers in general. These ratings were made on the most serious and most frequent modes of behavior and were made both by mothers who had had child study courses and by those who had not. The action listed as most serious by these groups was that which interfered "most with the smooth functioning of that group's affairs." This criterion and the motives behind it raise a number of serious social and psychological questions, especially one of selfishness in the groups making the ratings.

Selling (125) made a study, the results of which were published in 1934, in which he found that the argot of a delinquent boy is somewhat characteristic of his group

and serves to differentiate the group from the general population. The subjects were 100 boys at the St. Charles Corrective School and a high school group from an area of low delinquency. Selling felt that the delinquent boy, coming as he usually does from a home of poor cultural background, was handicapped when tested on the usual vocabulary or verbal response tests. Children who are potentially delinquent maintain (84), in spite of experience, some or all of the following characteristics:

- a. a childish and unreasoning resistance to discipline and the restrictions which society imposes on persons of their ages
- b. a childish frankness and naivete
- c. a lack of moderation
- d. a desire to have their wants filled without effort on their part and without consideration of others
- e. a vainglory in the physical on the part of the boys, e.g., "cowboy stuff", together with an unwillingness to compete in games of skill and strength on equal terms with their fellows
- f. a desire on the part of the girls to be overwhelmingly attractive to the opposite sex and to "rule" over a number of its members in a despotic fashion

- g. an undue suggestibility or non-suggestibility
- h. an undue attitude of self-reference
- i. outbreaks of emotionalism
- j. nomadic tendencies
- k. an excessive inner tension and excitability,  
probably due to sexual development
- l. excessive imagination
- m. sadistic tendencies.

#### Discussion

There is general agreement that there is need for more uniform interpretation of the term delinquency. Owens, A. A. (107) defines the behavior problem boy as one who has been transferred to the disciplinary school for any reason whatever. Definitions of the behavior problem boy are almost wholly lacking. Owen (106) suggests the use of the term, behavior problem, in referring to children who differ from others because of the manifestation of undesirable traits, habits, or behavior, whether in the home, school or community, without regard to the presence or absence of a court record.

Myerson (100) points out that the definition of crime is social and depends upon the moral attitude of the community, which may differ from time to time. Crime is by no means identical with social damage, and is quite often

led up to and brought into being by the law-abiding, normal citizen.

Daniell (41) says that results from certain tests which he administered indicated that delinquents differ from non-delinquents in degree rather than in kind in what they do and the way they feel. He (41) is hopeful of the use of standardized tests in the discovery of personality symptoms and delinquent tendencies, and also stresses the importance of such findings to the psychologist in the diagnosis and adjustment of the individual. One investigator, in considering methods for picking out the asocial and anti-social individual in time to prevent harm to society, would group asocial personalities, first, according to their bodily and mental type, and, second, from the point of view of society (9). He thinks the legal control of the criminal situation will be improved by means of this approach through the elasticity of the scheme. Unity of method must be emphasized if the safety of society is to be obtained (9).

Society is sometimes scored (81) for its failure to use the contributions of science in its handling of the delinquent and criminal. Among the scientific discoveries bearing upon the problem of the anti-social individual are the following: that criminality is not inherited, but learned; that man is not fundamentally sinful; that

enormous individual differences exist in human intellectual equipment; and that even limited intellect may be socially and economically productive if properly handled.

Each case (98) should be studied as an individual case. Many mental peculiarities that are classified as abnormalities are psychologically nothing but bad habits. Habits are learned in youth, often in school. Teachers are to blame for many mental abnormalities. One needs to know what mental processes preceded the conduct in question. In all deviations from the normal, there is a limit of toleration by society, and when an individual oversteps this boundary, he becomes an outcast (98). A person seldom becomes a recluse until he has failed in personal adjustments. The main object in education is the equipment of the individual to become successful in his personal relations with his fellows (98).

The first difficulty in the understanding of the personality deviations is the attitude we have trained ourselves to take toward the peculiarities of others (98). We may be extremely tolerant of peculiar deviations in others because we have had hard struggles with these traits ourselves and may have been filled with chagrin at our failures. Our feelings may be intensified if the other person performs the objectionable act with no feeling of remorse. Hence the teacher will want to punish doubly

for an offense of this kind (98). The second difficulty is the result of personal deviations overcome with more or less success and results in ignoring or forgetting similar difficulties in others. A teacher must cultivate the ability to recognize clearly all defects and peculiarities in conduct and character without any feeling of blame, resentment, or horror at the discoveries (98).

The one constant in the personality equation of criminals and other failures is lack of social adjustment (2). The criminal is almost always a coward, since courage is based on social relationships. He thinks in terms of marked antitheses. When facing problems, he fails to apprehend intermediate or combining alternatives. He always opposes social ends, hence he always sees himself gaining his ends by force rather than co-operation or in fair exchange. The treatment accorded him is regularly one that must challenge him to rebellion and revenge. He needs to be educated in ways that will develop in him a sense of security (2).

The function of a juvenile court (122) is the adjustment of individuals who are in conflict with the social order. Consequently, the total individual in his setting must be studied and recommendations made accordingly. Stress is placed by this writer upon the value of preventing delinquency through such agencies and means

as proper education, well-trained teachers, efficient probation officers, co-ordination of social agencies, training for family life, and research in child behavior.

It has come to be recognized (140) through bitter and costly experience, that certain traits, or combination of traits, are sufficiently anti-social in character as to render their possessor a doubtful risk in the community. There is such a condition as incipient criminalism (140) and the way of approach to its effective treatment does not necessarily lead to the juvenile court.

About 200,000 children a year pass before different juvenile courts (141). About one out of every one hundred children of juvenile court age come before the court every year. Many more, especially in rural areas, who should be brought before the courts are not. The schools are handling many cases (estimated at two out of three) apart from the juvenile courts that are within the province of the court. No one can state with certainty whether juvenile delinquency is increasing or decreasing because of the absence of reliable data over a sufficient period of years.

The most usual charges against boys are stealing and acts of carelessness and mischief; while with girls they are running away and incorrigibility, ungovernable acts, and sex offenses. Truancy and running away is most com-

mon with boys and girls between fourteen and sixteen. Stealing is about the same at all ages, but the types of things stolen vary with age (141).

Difficulties in the way of a test (25) of delinquent tendencies are: the disparity between knowledge and action, the subject's attitude toward the test, and his attitude toward the examiner. The test should be a group test to embolden the subject; and there should be no discussion of the response meanings with the subject afterwards.

## CHAPTER III

## THE STUDY OF THE DELINQUENCY IN A MEDIUM-SIZE HIGH SCHOOL

For the experimental part of this thesis, the Laslett (84) Free Association Test and the Murray (99) Inventory were administered to four hundred ninety-three pupils of the Corvallis High School. The subjects were two hundred and thirty-nine boys and two hundred and fifty-six girls of the 10th, 11th, and 12th grades who happened to be in certain classes or courses. The test and the inventory were given in the regular classroom groups of approximately thirty pupils each. Attention was given to the physical conditions of the room, such as its temperature and light, in order to encourage as much as possible a receptive mood in the pupils for the test.

The instructions for the Laslett test were given as follows: "This is a test to see how quickly you can respond to a list of words. As each word is pronounced, write down the first word that comes into your mind in connection with the word pronounced. Do not try to write definitions or opposites. Do not try to think of the best word. Write the first word you think of. Here is an example: If the word 'tall' is pronounced, you might think of 'short', 'high', 'long', 'man', 'tree', or 'building'. If the word 'house' is pronounced, you

might think of 'large', 'small', 'brick', 'stone', 'white', or 'roof'. Do not copy the words that are pronounced. Do not number your words. Write your responses in columns down the page. If you do not think of a word to write, draw a line to indicate that the word has been omitted."

The successful use of all tests depends upon rapport established. The Laslett Test depends upon this especially because taking the test requires effort and because the groups to whom it is given are sometimes suspicious, frequently unsocial, and very often not very bright. Since the type of test is new to many pupils, the tester should make as certain as possible that the pupils understand the directions.

When the pupils had finished the Laslett test they were given individual copies of the Murray Inventory. Instructions were given as follows: "Read the questions. Answer each one as you feel it applies to you, by placing a circle around the word 'yes' or around the word 'no' at the end of each question." From three to six minutes were used by pupils in answering the questionnaire.

In Table I are given: the scores from the Laslett Test of Potential Delinquency, the scores on the Murray Inventory, the I.Q.'s from the Otis S-A Test, and the chronological ages in years and months for all of the

boys who were tested in 1933. A minus score of more than thirty is significant of delinquency.

TABLE I

BOYS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
17	85.3	100	15	9
-41	115	98	16	4
-72	85.8	102	18	8
11	112	110	17	2
-32	111.3	99	16	6
-34	91	98	18	1
-124	114.6	118	15	11
57	115.2	108	16	0
-40	106	118	16	10
16	122.6	109	17	7
-90	97.4	125	17	8
12	80.1	119	16	11
-77	103.8	109	16	8
-4	85.3	87	18	3
-34	121.4	109	16	6
-54	98	118	17	5
-73	59.2	110	18	2
-31	118	92	17	6
-59	102.3	113	20	5
-163	119.7	123	18	2
-6	99.8	100	21	3
60	112.8	116	17	4
34	100.7	100	18	1
7	122.9	105	17	4
3	122	113	17	2
-59	101.6	113	19	11
-52	110.5	87	18	5
-24	102.7	109	17	4
-96	113.7	108	16	2
-16	99.5	100	17	4
90	116.4	115	18	9
-34	114.3	119	16	11
-74	116	104	18	5
-46	93.78	87	18	10

BOYS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age years	mo.
-35	123.6	120	17	2
-119	113	108	18	0
30	109.8	118	17	2
19	124.4	111	18	7
14	113.5	87	16	9
-36	90.6	105	22	6
51	72.7	79	17	5
2	103.6	111	16	6
-62	116.2	105	17	3
-81	116.1	94	16	7
34	88.4	96	15	0
-95	118	102	18	4
-109	86.2	110	17	7
-20	127.6	107	17	3
24	112	92	17	4
-109	97	110	18	0
-28	120.5	113	16	4
32	121.1	116	17	9
-43	104.4	100	18	6
-41	105.8	101	15	9
-45	116.2	115	16	6
5	107.3	123	18	3
17	79.2	117	19	3
-43	115.1	111	17	7
-46	119.7	112	17	0
-2	120.5	117	16	1
-51	100.2	99	17	10
-60	78.3	101	18	10
-22	81.2	102	18	10
-130	128.3	110	18	2
-133	94.4	77	20	8
-57	117.4	113	18	8
13	121.8	115	17	4
-23	98.6	115	16	5
-6	128.6	95	18	11
17	98	116	17	7
22	104.1	96	16	3
2	87.9	111	18	2
-103	94.9	119	17	7
-53	119.9	110	17	8
4	111.2	108	17	7

BOYS

Delinquent Test Scores	Murray Inventory Scores	I.Q.	Age years	mo.
-26	84.7	105	18	4
31	120.2	99	15	6
-62	111.4	99	21	9
-105	110.4	123	16	7
12	107.1	125	17	9
-29	106.4	132	16	3
-127	111.4	94	17	11
-44	68	111	18	1
24	97	120	18	5
-58	95.3	100	18	8
-59	119.4	125	16	2
20	88.1	96	19	3
-55	91.2	105	18	2
6	119.5	118	19	8
34	121.4	114	17	0
-61	114.5	111	18	0
-97	108.9	96	20	4
46	125.8	116	17	6
-99	122.2	120	16	0
-38	76.9	108	17	6
-47	112	99	17	2
-49	121	127	21	7
-4	114.2	137	14	5
-75	90.2	100	18	10
-55	118.2	94	19	11
-27	119.3	85	16	3
47	116.8	100	20	6
1	111	100	17	3
-45	94.7	110	21	11
-5	104.8	100	17	4
-48	89.2	108	17	7
13	120.5	100	17	1
-24	103.3	98	16	2
-101	117.2	102	17	4
-132	106.4	99	19	0
-143	128.9	102	17	0
-39	112.4	108	20	0
7	100.1	100	17	6
25	102.3	98	16	5
-19	96.6	114	15	7
-17	56.7	100	21	7
-60	119.2	114	16	5

N=117

Table II gives the following data for all of the girls included in the 1933 experiment: scores on the Laslett Delinquency Test and on the Murray Inventory; the I.Q.'s from the Otis Self-Administering Tests of Mental Ability; and the chronological ages of these girls in years and months.

TABLE II

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
109	93.2	105	21	2
73	72.9	98	15	11
-15	119.9	97	18	11
51	92.8	121	16	10
108	120.2	87	16	6
-9	105	100	15	8
17	99.6	113	18	1
-28	114.3	125	17	1
12	73.9	116	17	6
46	112.6	120	18	4
29	103.7	119	16	4
-28	118.7	102	16	11
-1	109.7	128	16	9
112	109.6	128	16	0
41	92.6	108	16	9
27	120.5	112	16	11
-30	83.6	100	17	9
-21	113.9	119	17	7
-30	73.2	125	16	10
3	112.3	91	17	0
14	74.2	136	15	3
-77	120.7	107	17	6
19	109	116	17	4
8	85.6	92	17	2
71	74.1	103	16	10

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
-10	89.3	116	16	8
-13	100.7	111	16	9
-114	42.8	105	17	5
-25	101.5	96	22	11
9	105.5	102	17	6
127	115.1	100	22	
-20	120	117	17	10
-27	106.7	110	17	0
61	125.9	119	17	9
-5	100.6	109	19	3
27	125.9	90	16	11
-9	91.8	109	20	3
-67	74.8	111	16	4
42	110.4	89	16	11
30	119.2	108	16	4
35	120.5	82	18	10
3	98.2	103	16	4
-3	110.7	116	17	5
96	105	112	17	2
69	71.6	102	16	8
-19	94.1	98	18	10
-26	78	100	16	7
-3	92	86	16	10
5	123.1	100	16	10
24	107.6	108	19	2
-55	100.4	119	18	9
68	105.9	106	17	7
-14	68.3	107	15	11
-43	117.9	103	17	3
13	104.5	90	18	1
19	114.6	128	15	5
96	125.8	93	18	3
-55	97.8	120	15	11
62	111.9	110	18	2
6	105.4	114	16	8
1	91.5	114	14	10
7	96.4	113	20	9
95	89.2	102	17	11
-32	127.6	118	15	2
-4	118.5	108	16	4
106	119.7	88	16	10
-48	85.7	108	19	2

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
-49	80.4	112	17	2
-13	107.7	113	15	9
-38	83.4	92	17	5
-4	75.7	87	18	1
16	111.9	101	17	5
20	85	112	18	3
3	70.3	110	17	9
10	85.2	100	16	11
-6	115.1	107	16	1
13	120.8	100	18	9
26	125.7	99	17	5
-86	96.8	99	18	1
-47	112.1	94	19	5
-16	103.8	116	18	5
-7	113.1	99	16	4
56	102.2	116	17	7
-43	118.9	115	15	11
-97	116.7	101	20	3
-37	93.5	113	16	11
69	110.3	100	15	1
51	90.1	77	17	2
69	64.1	102	16	0
47	122.1	100	17	1
-7	108.6	112	17	4
-23	100	119	16	11
-83	57.8	118	18	10
82	119.2	103	16	2
24	104.1	96	16	8
3	115.5	103	17	9
11	110.8	114	16	9
-25	76.3	104	16	1
5	101.4	91	17	5
7	94.2	111	18	3
-20	121.8	110	17	5
21	94.3	124	17	11
-38	112.5	109	17	2
-10	79.8	92	17	6
-7	92.3	110	19	0
11	99.4	116	16	8
57	121.5	106	16	9

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
19	96.2	106	15	0
-30	111.9	104	18	11
78	108.5	117	15	4
34	111.2	109	16	7
-36	92.96	124	15	8
15	91.9	102	16	2
-15	86.6	107	16	11
5	106.5	119	16	7
-15	1-3.8	100	17	0
-8	114.8	119	17	4
-35	109.4	91	18	4
7	113.2	113	15	3
-62	111.3	111	17	7
-22	112.3	100	18	3
117	94.1	103	16	3
-5	112.9	100	18	7
-84	110.4	115	15	3
-28	109.2	129	17	6
-7	90.5	127	15	11
-81	103.5	113	16	2
-57	125.2	127	17	4
-40	65.3	100	18	3
-76	54.5	124	15	10
-8	98	114	19	0
24	118	91	18	10
11	115.5	110	18	3
37	118.8	115	16	4

N=134

In Table III are given: the scores from the Laslett Test of Potential Delinquency; the scores on the Murray Inventory, the I.Q.'s from the Otis S-A Test, and the chronological ages in years and months for all of the boys who were tested in 1934. These scores involve an almost entirely different group of boys from those in Table I.

TABLE III

BOYS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
-46	111.8	100	15	11
59	120.7	115	14	8
-24	115.6	112	18	5
86	99.6	107	16	9
-41	123.7	116	17	1
30	98.2	117	13	6
35	102	105	17	7
-95	127.4	129	15	10
-69	127.4	104	16	0
2	125.1	104	17	8
-72	96	126	15	10
40	120.7	108	16	5
-78	118.6	112	16	7
-46	117.1	97	16	11
-40	110.4	104	15	3
-23	121.3	110	15	6
26	119.2	94	16	10
-102	121.4	106	16	11
17	127.4	109	16	4
-78	87	110	15	10
-47	124.6	103	16	7
37	118.2	99	18	11
37	98	116	15	5
100	118.8	87	17	5

BOYS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
28	114.7	114	15	0
42	122	96	15	9
45	100	101	18	8
9	102.9	94	16	11
-71	114.1	117	17	10
-44	114.1	117	17	6
-100	119.7	126	17	3
-80	122.1	110	15	10
-9	118	89	18	4
72	101.3	117	19	9
-2	83	103	18	10
34	121.4	107	15	8
-70	84.7	110	15	8
76	125.4	100	15	9
-66	125	121	16	7
-7	119.1	105	17	6
2	124.4	110	17	10
-39	100.2	107	18	2
-18	122	105	15	3
-31	114	126	15	4
-31	117	96	15	7
-49	56.4	95	16	10
29	99.7	120	16	10
-69	122.4	91	15	3
-52	125.7	124	15	4
-117	125.1	112	17	0
-117	111.7	109	18	4
-30	125.3	123	17	2
-54	96.2	82	18	11
-116	118.4	116	17	11
-1	110.9	105	15	9
-48	123	114	15	3
-35	111.6	118	15	5
-48	119.1	121	16	5
40	121.1	103	20	5
-113	111.1	111	18	8
-64	106.2	110	15	6
-36	119.6	114	16	2
-7	117.3	112	17	5
-88	116.5	107	18	5
-88	123.8	124	15	8
-0	105.9	91	16	5

BOYS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
-9	114	115	16	0
1	117.8	103	16	10
104	126.3	94	18	7
-38	124.4	92	17	1
-34	110	117	15	4
25	118.3	104	18	11
55	123.3	107	17	6
7	99.5	83	19	7
-8	115.5	122	17	6
11	106.1	116	15	6
-7	110.3	110	15	11
6	119.4	103	17	3
-28	118.8	111	16	9
62	122.1	107	16	8
72	98	108	16	4
19	114.8	104	17	0
66	122.9	104	19	2
-164	99.6	123	17	10
-79	116.8	85	17	11
-45	116	115	17	4
-45	102	105	18	2
-38	112.4	109	16	4
-10	97.5	106	17	0
-47	107.6	120	16	5
-46	104	102	17	9
-25	110	110	16	2
-27	120.3	129	16	5
-76	115.3	95	17	2
8	119	105	17	1
-30	120.3	114	15	6
26	125	119	17	0
-75	110.9	115	16	0
-89	119.5	114	17	1
85	98.8	114	16	9
-40	113	102	15	3
62	118.1	119	15	4
-81	126	96	18	11
-92	123	108	17	6
-38	122.1	103	17	8

BOYS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
57	118.4	111	15	11
-9	114.3	105	17	7
-14	99.4	111	16	0
-26	67.4	99	14	11
-95	123.1	129	15	10
-67	109.7	104	16	0
-28	97	125	17	11
-46	125.4	109	18	2
89	62	108	14	11
-57	124.4	92	15	5
67	124.4	97	18	2
-21	108.8	114	15	11
-12	98.4	114	15	11
-19	117.5	111	16	8
-19	118.9	103	15	5
-67	115.5	109	14	4
-126	105.6	117	18	9

N=122

Table IV gives the following data for the girls included in the 1934 experiment: their scores on the Laslett Delinquency Test and on the Murray Inventory; their I.Q.'s from the Otis Self-Administering Tests of Mental Ability; and their chronological ages in years and months. These scores involve an almost entirely different group of girls from those in Table II.

TABLE IV

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
79	127.4	112	15	7
34	121.5	103	15	11
9	120.1	109	17	11
11	100.7	106	15	6
76	113.2	109	15	6
16	107.6	118	15	1
13	116.5	92	15	1
-29	121.1	106	15	3
-23	127.4	102	15	6
44	107.4	128	15	8
-33	101.5	105	16	6
71	112.3	120	16	7
-54	97.4	129	15	6
15	107.9	99	16	10
3	94.9	106	15	11
45	127.4	118	16	3
36	102.3	134	15	3
-17	107.6	124	15	11
-31	90	111	16	3
81	111.5	102	17	6
-1	75.4	111	16	4
-1	96.3	98	16	3
73	123.7	99	18	9
-66	112.2	99	17	6
86	100.1	101	15	8
69	100.6	94	17	1
135	119.3	115	15	4
-15	118.9	97	17	0
22	123.4	121	16	10
33	127.4	122	15	9
16	108.3	100	17	3
60	97.1	105	14	11
11	106	111	17	4
-14	119.8	104	15	10
-29	115	114	14	2
47	121	121	15	10
8	123.2	128	15	8

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
-7	105.8	112	15	10
6	122.9	100	17	11
31	122	124	15	9
55	120.7	86	15	5
-62	105.6	116	18	0
49	83.8	93	17	9
32	109.2	112	15	8
53	105.5	103	16	8
-49	119.4	104	15	8
-77	125	111	15	9
2	121.6	110	17	5
39	118.1	129	16	6
57	83.2	113	16	11
61	121.4	99	15	8
-40	125.6	108	16	8
70	93.8	85	19	0
-42	117.9	109	18	0
-61	85.6	104	17	9
45	115.3	119	15	7
74	125.1	116	14	11
-59	117.4	99	15	7
- 2	127.4	106	17	2
55	83.7	101	17	7
-103	119.8	113	16	3
-36	82.1	125	15	6
-32	122.2	113	15	6
-36	118	101	17	7
57	81.1	92	17	9
-30	101.2	114	16	1
33	107.5	112	16	4
85	93.1	87	15	6
34	125.3	119	17	0
54	85	90	16	7
-3	86.6	122	16	9
-76	105.7	116	15	5
-18	118.1	120	14	8
-1	109.8	104	18	8
30	123.1	92	17	6
-73	114.6	123	15	7
-0	112.3	91	16	0

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age	
			years	mo.
38	102.3	103	16	1
12	105.9	97	16	7
55	114.9	107	15	9
35	122	96	16	0
6	107	92	15	3
25	123.5	90	18	1
20	117.9	120	15	6
-39	115	78	18	4
119	121.3	107	18	6
105	82.3	108	16	5
-53	107.9	102	16	9
6	119.3	128	15	4
37	97.9	132	15	2
-12	115.9	115	16	3
-19	110.1	113	15	9
46	127.4	112	15	8
10	118.3	92	16	8
102	117.6	116	15	2
-54	87.4	105	16	0
21	108.5	102	16	6
-72	91.8	135	17	2
106	107.1	126	14	11
-29	113.8	125	17	6
-37	101.5	102	17	7
46	113.8	94	17	8
-33	117.7	106	17	1
52	78.3	120	15	1
-61	117.6	121	17	5
-12	107.3	111	17	1
28	116.2	112	16	6
75	112.3	103	18	4
-32	109.9	115	15	10
-42	112.9	95	16	0
-68	97.1	107	17	3
88	97.1	101	15	7
57	117.8	112	16	6
-9	103	105	15	11
-44	83.9	87	15	11
-76	123.2	103	16	0
-92	102.4	112	17	6

GIRLS

Delinquency Test Scores	Murray Inventory Scores	I.Q.	Age years mo.	
29	127.4	115	16	0
-6	89.9	92	16	5
-5	123.2	114	15	0
-66	99.7	110	15	9
1	91.9	103	15	6

N=122

In Table V are given the means and the standard deviations for the entire group:

TABLE V

	<u>M</u>	<u>S.D.</u>
Laslett Delinquency Test scores	-9.265	53.50
Murray Inventory scores	108.073	15.90
intelligence quotients	107.756	12.48
chronological ages	16 - 11.98	1 - 6.70

In Table VI are given the correlations between the different measures in the experiment and the probable errors of these correlations:

TABLE VI

	<u>r</u>	<u>p.e.r.</u>
Delinquency test scores and c.a.	plus .75	.013
Delinquency test scores and Inventory	-.0043	.030
Delinquency test scores and I.Q.	-.139	.006
Inventory and c.a.	-.360	.026
Inventory and I.Q.	plus .038	.030

From a study of the records of the individual pupils, the writer believes that this high correlation is in part the result of fortuitous selection among the pupils who were in these classes and in this school at this time. A relatively few very large delinquency scores and older chronological age exerted considerable influence on the co-efficient of correlation although a few cases out of 493 would not change the figure very much.

Additional data, in the form of case studies, is given for the fourteen pupils who had the largest scores indicating delinquent tendencies and for the thirteen pupils having largest non-delinquent scores. These data have been gathered and checked by four people, working independently at first and together later.

Sample cases studied of pupils having high delinquent scores, average, and high non-delinquent scores follow:

Case 1: boy; delinq. score -165, c.a. 25-3, IQ 108, grade 12. In school at an earlier period was very much of a pest; was bullying type; overbearing, insolent, boisterous; enlisted in coast guard service and spent considerable time in far north; after returning showed desire to achieve; was not a school problem; rarely defied teacher's authority; was co-operative, responsive, dependable; was always friendly; mingled with the rougher element in school; not accepted by classmates generally, probably because of age; failure to be accepted apparently made little difference; fairly studious; was much interested in social science; responded in discussions with a generous amount of interesting personal experience; enjoyed manual labor; rose early, worked late; will probably always find work when he wants it.

Case 2: boy; delinq. score -164, c.a. 17-10, IQ 123, grade 11. Mother widow, teaches school; pampers son beyond all reason. Boy, lazy, indolent, shiftless, selfish; oversleeps; habitually tardy in making appointments; rather overbearing in association with other pupils. Generally well supplied with good clothes; was leader of orchestra for a time but lacked respect and control of group. Careless as to financial dealings of group. Meals at home probably irregular and inadequate. Boy was not required to share responsibilities of the home. Boy attended

college for a short time.

Case 3: boy; delinq. score -163, c.a. 18-2, IQ 123, grade 12. Alert, quiet, shy, lacks self-confidence; cooperative; very dependable; good looking; good physique; likes boy companions rather than girl; studious; excellent scholastic record; enjoys reading. Lives in the country; mother is intellectual type and teaches school; mother is ambitious for her children; both parents are leaders in their community; boy takes part in the school activity program, active in dramatics; always present at rehearsals in spite of effort necessary to get back and forth; promises to be an asset to the community in which he lives. 1936: boy now works on his father's farm.

Case 4: boy; delinq. score -143; c.a. 17-0; IQ 102, grade 12. Alert, responsive, loquacious, boisterous; lacks refinement; likes attention; extrovert; has initiative; is good salesman; meets strangers well, but is likely to be tiresome; scholastic record is fair; participates in athletics, glee club, and other activities more for the reward than for what the game means. Father dead; mother worked and kept family together. Boy very thoughtful of and courteous to his mother, which is a family characteristic; is happy to be in the mother's presence. Is inclined to swagger over his membership in what he considers an exceptional family; is independent

and will always make his way in the world. 1936: boy now works in a bank in San Francisco, doing very well.

Case 5: boy; delinq. score -132; c.a. 18-11; IQ 99; grade 12. Responsive, alert, cheerful; likes to be the center of attention; not dependable; bluffer; rather unstable; reactions very difficult to predict; attitude creates disorder on the part of others when he is presiding at meetings; makes snap judgments; is quick minded; has saved situations many times in stage productions; father dead; mother cooks at fraternity house; boy is willing to work hard to make money; has a cheerful attitude when so doing; has worked as store clerk, seaman, mechanic, farmer, salesman in gas station and bell hop; is apparently trying to make the most of himself considering his handicaps. Likes journalism, dramatics, athletics, and aviation. 1936: attended college for a short time; now working in California.

Case 6: boy; delinq. score -130, c.a. 18-2, IQ 110, grade 12. Responsive; friendly; likes society; is always "one of the gang"; seemingly is more refined than the group with which he associates; not particularly ambitious; not regarded as a school problem; participates in school activities, but seems to have no outstanding ability. Home life apparently congenial; boy fits well in average community life. 1936: now taking engineering

course in college.

Case 7: boy; delinq. score -124; c.a. 15-10; IQ 118; grade 11. Quiet; courteous; considerate; affectionate with the family; kind to others less fortunate than himself; self-confident; self-controlled; lazy at times; happy disposition; can laugh at joke on himself; is observant; scholastic record is fair; likes indoor work; reads technical books and magazines; has mechanical turn of mind; likes stagecraft; works on things he likes with enthusiasm; is satisfied just to get by with others; likes printing, chemistry, and physics best of school subjects; co-operates with teacher in carrying on classroom procedure when mechanical devices are necessary; is willing to give up time from recreation to work for welfare of school if work is along his interest line; can be trusted to handle valuable laboratory apparatus; would like to be an electrical engineer or radio operator; has great amount of movie and radio equipment at home to which he devotes a great amount of time; would probably succeed in public address work, or in moving picture work such as film inspector or machine operator. 1936: now enrolled in civil engineering course in college. Made splendid record in freshman tests.

Case 8: boy; delinq. score -117, c.a. 16-11, IQ 112, grade 12. Noisy; boisterous; discourteous; secretive;

easily influenced; liked home economics best when he took it; later liked history and English; takes active part in basketball, football and track; shows the results of association with the rougher element in school. Has worked for local theater changing signs, etc. Prefers aviation or a mechanical career. 1936: works at a local theater, where he is giving satisfaction.

Case 9: boy; delinq. score -116; c.a. 17-10, IQ 116, grade 12. Alert; boisterous; not careful of appearance but is improving; rough-and-ready type; likes roughhousing; likes to be the center of attention; average in popularity with the group; seems to like boys and girls equally well; scholastic record very good; conduct source of irritation during play rehearsals and elsewhere; gets pleasure out of other person's discomfort; has a perverted sense of humor; leader in gang in protest against certain highly approved high school methods. Death of father did not cause boy to settle down; boy writes sport news well; plans to become pharmacist; obnoxious traits will probably be overcome with age and responsibility. 1936: now a sophomore in college; writes well for college publication; upper classmen "gave him special attention" for some months, but still somewhat self-centered and conceited.

Case 10: girl; delinq. score -103; c.a. 16-2; IQ 113;

grade 12. Alert, responsive; sympathetic; rather bold in appearance; giggly to the point of silliness; not easily embarrassed; enjoys shocking others; likely to be misjudged; has many good fundamental qualities that are submerged by a superficial attitude; once aroused, is interested in achievement; artistic and particularly good in all types of design; sings and plays; contributes generously of time and talent; reads mystery stories and movie magazines; affects Jean Harlow type; likes mental and physical activity; outside activities claim more of her attention than school work; a go-getter; girl is encouraged by mother to go to almost any extreme to get pleasure, probably because of mother's own restricted early life. 1936: enrolled in home economics in college; sings in the choir of a church; somewhat settled.

Case 11: boy; delinq. score -103, c.a. 17-6, IQ 119, grade 12. Clean, but does not make a good appearance; somewhat abrupt; not always courteous; appears to be very conceited; good athlete but a poor loser; likes attention centered on himself; father is dead, mother is very ambitious for her children; all the children work; family is respected for the effort made to educate all members; boy apparently would like to have the same standing in the community that his brothers have, notwithstanding handicaps; boy would like to be in group which is socially

popular; some undesirable traits may be due to failure to attain this. 1936: enrolled in college and is outstanding in athletics.

Case 12: boy; delinq. score -102, c.a. 16-11, IQ 106, grade 11. Responsive; courteous; neat in appearance; dresses well, but not always with good taste; highly nervous type; is deservedly popular with fellow students; participates actively in music, dramatics, athletics; executive of more than average ability; shows constructive leadership; served efficiently on numerous committees; tries to profit by suggestions given him; appears to be superior to his older brothers in personality traits and general achievements; belongs to boy scouts and de Molay; plays for dances and is partially self-supporting; will probably take up pharmacy. 1936: now enrolled in college, taking pharmacy; average in scholarship, plays in college band and in private orchestra.

Case 13: boy; delinq. score -80, c.a. 15-9, IQ 110, grade 11. Vivacious; loquacious; has keen mind; learns without much effort; always wants attention centered on himself; if he does not get the attention he craves, he refuses to play; is impatient with slower thinking group; is not consistently courteous; lacks sense of values between things he should do and things he wants to do; is only fairly dependable; enjoys participation in music,

dramatics, tennis and dancing; at times he makes a pest of himself, although at home he is most considerate and helpful; is affected by his mother's misinterpretation of psychology; always clean and neat, and takes pride in his personal appearance. 1936: taking secretarial science in college, excelling in shorthand; better emotional adjustment.

Case 14: boy; delinq. score -59, c.a. 20-5, IQ 113, grade 12. Noisy; boastful; rough; discourteous; crude at times; a swaggerer, hard to manage; has a habit of muttering just loud enough to disturb; has smart answer when corrected for anything; sloppy in work and in appearance; has had throughout high school a "smart alecky" attitude; says he likes school, but does not apply himself; goes with rougher element; skips classes; can do work, but will not exert himself; has ability, especially in some lines. 1936: attending normal school; is married and the father of a child.

Case 15: boy; delinq. score plus 86, c.a. 16-9, IQ 107, grade 12. Clean in appearance, personality not impressive; very little sparkle; serious-minded; sincere; takes suggestions well and follows them; seems to be a plodder; gets his lessons well but expends considerable effort to achieve that end; fairly popular with fellow pupils; volunteers often to perform distasteful tasks

such as setting up apparatus for entertainments; is musically inclined; plays in the high school band; likes physical and social sciences; will probably take up some phase of physical science as a life work. 1936: freshman in lower division in college.

Case 16: girl; delinq. score plus 88, c.a. 15-7, IQ 101, grade 10. Responsive; loquacious; no reserve; friendly; co-operative; has conspicuous mannerisms; does not wear clothes well; wants to be at the top socially; fails to realize that mannerisms are responsible for her poor standing socially. Seems to like school, but scholastic record only fair; not very ambitious; father dead, mother works; girl out of school frequently, sometimes to work at home. 1936: has finished high school and works at home; partial to striking clothes and to dancing.

Case 17: girl, delinq. score plus 95, c.a. 17-0, IQ 102, grade 11. Personally unattractive; on the defensive against the world in general, probably due to unfortunate home conditions; actually liked by very few people; chooses friends from among rather questionable people; quick to respond at either extreme, antagonistic or co-operative; very active physically; likes to do the things she can do with her hands; grades average or below; fondness for sister's baby brings out fine qualities otherwise not apparent. 1936: is married and still in-

terested in child welfare.

Case 18: girl; delinq. score plus 96, c.a. 18-3, IQ 93, grade 11. Quiet; slow in response; lacks initiative; does not mingle easily with classmates; appears to have few intimate friends; has negative personality; poor student; appears to work hard at times but with mediocre results; rarely responds even when questioned directly; seems to be more alert mentally and physically with the assumption of responsibility. 1936; freshman in secretarial science in college.

Case 19: girl; delinq. score plus 102, c.a. 15-2, IQ 116, grade 11. Responsive; lively; sociable; is fairly popular; a little shy at times; grades average; has supported numerous school activities; very pleasant, respectable person; plans to attend college and specialize in shorthand and typing.

Case 20: boy; delinq. score plus 104, c.a. 18-6, IQ 94, grade 12. Responsive; sociable; friendly, well groomed, neat in appearance, courteous; kindly; industrious; fair scholastic record; not easily influenced; has excellent voice and likes music; participated in state music contest; gained poise and developed personality by participation in dramatics; has ability and initiative which were hampered by lack of self-confidence; had unfortunate reaction to the outstanding success of brother

and sisters; rapidly overcoming inferiority feelings; eyesight was bad; after being fitted with glasses the boy made improvement in school work. 1936: sophomore in agriculture in college; member of a leading fraternity; takes active part in intramural sports.

Case 21: girl; delinq. score plus 105, c.a. 16-5, IQ 108, grade 11. Quiet; dependable; progressive; pleasing in appearance; active in Home Economics Club; appreciates benefits obtained from membership in Girls' League; performed efficiently duties of high school office girl; fine relationship seems to exist between girl and entire family; seems to be able to make the most of every opportunity offered, although lacking initiative to create opportunities herself. Girl's abilities will likely expand as occasion demands response. 1936: senior in high school; has shown little recent interest in activities; worked in a local store for a short time.

Case 22: girl; delinq. score plus 106, c.a. 14-11, IQ 126, grade 10. Plain, but neat in appearance; quiet; reserved; dependable; splendid scholastic record; has great amount of originality; family German; family very thrifty and congenial; family has excellent standing in business as well as in community circles; whole family has pride in achieving; home life seems ideal; girl reflects good family influence. 1936: senior in high school;

excels in grades; is given responsibilities and made a confidant in the office; active in Torch; active in father's business; retiring in contact with public; has initiative and is very artistic.

Case 23: girl; delinq. score plus 106, c.a. 16-10, IQ 88, grade 11. Quiet, reserved; clean in personal appearance; appreciative of what is done for her; proud of her Chinese ancestry; has difficulty in expressing herself, probably due to language confusions; is artistic; accepted on equal social basis by classmates; father dead; mother runs a restaurant; girl assists in making living for the family. Up to time of her father's death, Chinese traditions in dress and customs were maintained. Girl is working with the idea of taking her place among upper class in business and social circles in China.

1936: girl finished high school and works so her brother may go to college; much interested in church.

Case 24: girl; delinq. score plus 109, c.a. 21-2, IQ 105, grade 10. Alert; responsive; co-operative; very appreciative; exhibits affection toward teachers and pupils in public to a disagreeable extent; scholarship record fair; girl had been ill much of the time during earlier school years; excels in lettering and poster making; makes generous contributions of abilities to school; home life apparently very congenial; rare comrade-

ship exists between girl and only brother; both very musical, and play in public frequently. 1936: girl quit school; family orchestra still her chief concern.

Case 25: girl; delinq. score plus 112, c.a. 16-0, IQ 128, grade 11. Quiet; reserved; somewhat shy; not personally attractive; is popular with her own small group; is inclined to be envious of those in better economic circumstances; recently showed traces of leadership; very dependable; works hard; scholastic record good; plays piano; writes poetry, some of which has been recognized as promising; father feels his daughter is not always properly rewarded for her efforts. 1936: took active part in Torch last year; is now freshman in lower division in college.

Case 26: girl; delinq. score plus 119, c.a. 18-5, IQ 107, grade 12. Of Dutch parentage; physical characteristics of that race prominent in girl; pleasant; sincere; co-operative; somewhat hesitant; scholastic record excellent; has many friends of stable type; is fond of travel; visited relatives in Holland recently; contributed information of value to school classes, Travel Club, etc. Gives generously of time to worthwhile projects. 1936: attends college; sophomore in secretarial science.

Case 27: girl; delinq. score plus 135, c.a. 15-3, IQ 115, grade 10. Alert; attractive; lively; sociable;

likable; wholesome; fairly studious; grades average; dependable; responsible; shows initiative; attitude is satisfactory; generous in time and effort to others; Feminine in interests; supports and contributes to practically all school activities; works well on committees; general influence beneficial. 1936: senior in high school, has fair scholastic average; interested in dramatics; expects to attend college and will probably take secretarial science.

#### Summary of the Experiment

Not all of the pupils who made large delinquency scores are really delinquent. They may never be brought to public attention on account of their behavior. Luck plays a part in this. Timidity plays a part.

The high correlation of the delinquency test score and the chronological age is, in part, due to a narrow range of chronological age among the pupils tested and in lesser part to a factor of selection in the presence of a few much older boys who had been "out in the world".

The low correlation of the Laslett Test and the Murray Inventory may mean that one or the other is not an effective measuring device, that neither is an effective measuring device, or that they measure different things.

## Conclusions

1. The problem of delinquency is attracting more and more attention as a part of the awareness of larger groups within the population of the burden upon the public and upon the individuals involved of the costs of social inadequacy.
  2. Serious crimes among adults have decreased over the last two years (1933-1935). There is no way of knowing whether delinquency is increasing or decreasing because the number of cases appearing in the juvenile courts is only the crudest of measures of the actual delinquency that occurs.
  3. Writers on the subject of delinquency are not agreed on anything about it --- the causes, the treatments or cures, or the courses over which it develops. Too many writers on this subject have drawn sweeping conclusions from small numbers of cases studied in a fragmentary and superficial way. In this, they have been only somewhat less superficial than the public in general.
  4. Not all children and young people with delinquent tendencies actually become confirmed delinquents. Some of them who have come into conflict with the courts change their ways after one or more such conflicts.
-

5. In this study, not all of the pupils with low scores on the delinquency test were or are delinquents. Luck has played a part in the change of some of them for the better and some for the worse. Good homes or poor homes, good companions or poor companions, and the general reaction of the community to their separate individualities have played their parts. The element of luck will always play a part in the development of young people, but the importance of this part should be made as small as possible.
6. In the tables in this study, the delinquency scores and the chronological ages of the pupils studied showed a high correlation, but the range in chronological age was small and there were many individual exceptions. All of the other correlations were low.
7. As there are no other studies of this particular kind available, no comparison between schools of means and of standard deviations of delinquency scores has been possible.
8. As far as possible, these cases will be followed over as many years as possible.

## BIBLIOGRAPHY

1. Ackerly, S. Rebellion and its relation to delinquency and neurosis in sixty adolescents. *Amer. Jour. Orthopsychiat.*, 3:146-158, 1933.
2. Adler, A. Die Kriminelle Personlichkeit und ihre Heilung. (The criminal personality and its correction). *Int. Zsch. f. Indiv. psychol.*, 5:321-329, 1931.
3. Alexander, F. Mental hygiene and criminology. *Ment. Hygiene*, 14:853-882, 1930.
4. Allen, E. A. Temperament tests. *Brit. Jour. Med. Psychol.*, 7:392-446, 1927.
5. Allen, F. H. Psychic factors in juvenile delinquency. *Ment. Hygiene*, 11:764-774. 1927.
6. Anderson, Meta L. Maladjustment of children; the school's responsibility in its cause and cure. *Jour. Juv. Res.*, 13:49-57, 1929.
7. Antonini, G. and Corberi, G. Osservazioni su minori inquisiti o di condotta irregolare. (Observations on juvenile delinquents or children of irregular conduct). *Riv. di psicol.*, 28:85-102, 1932.
8. Armstrong, C. P. 660 runaway boys. Why boys desert their homes. Badger, Boston, 1932.
9. Aschoffenburg, G. Einheitlichkeit der Sicherungsmaßnahmen. (Unity of method for assuring the safety of society). *Monatssch. f. Krim. psychol., U. Strofrechtsref.*, 22:257-265, 1931.
10. Asher, E. J. Training needs of reform school boys experimentally determined. *Jour. Delinq.*, 11:151-158, 1927.
11. Asher, E. J. and Haven, S. E. The reactions of state correctional school and public school boys to questions of an emotional inventory. *Jour. Juv. Res.*, 14:96-106, 1930.

12. Auden, G. A. The maladjusted child. *Brit. Jour. Educ. Psychol.*, 1:266-278, 1931.
13. Babcock, M. E. A comparison of delinquent and non-delinquent boys by objective measures of personality. Babcock, Honolulu, 1932.
14. Baker, H. J., Decker, F. J. and Hill, A. S. A study of juvenile theft. *Jour. Educ. Res.*, 20:81-87, 1929.
15. Beckman, A. S. Oversuggestibility in juvenile delinquency. *Jour. Abn. and Soc. Psychol.*, 28:172-178, 1933.
16. Blanchard, P. and Paynter, R. H. Socio-Psychological status of children from marginal families. *Family*, 13:3-10, 1927.
17. Blumer, H. and Hauser, P. M. *Movies, delinquency and crime.* Macmillan, New York, 1933.
18. Boorman, W. R. Delinquency areas: another viewpoint. *Rel. Educ.*, 26:858-863, 1931.
19. Breckinridge, S. and Abbott, G. *The delinquent child and the home.* Russell Sage Foundation, New York, 1917.
20. Bridges, J. W. and Bridges, K. M. B. A psychological study of juvenile delinquency by group methods. *Genetic Psychol. Monog.*, 1:411-506, 1926.
21. Brill, M. S. Motivation of conduct disorders in boys. *Jour. Delinq.*, 11:5-22, 1927.
22. Broadwin, I. T. A contribution to the study of truancy. *Amer. Jour. Orthopsychiat.*, 2:253-259, 1932.
23. Brown, S. C. Some case studies of delinquent girls described as leaders. *Brit. Jour. Educ. Psychol.*, 1:162-179, 1931.
24. Burrow, C. Behavior problems of a special school. *Proc. and Addr. Amer. Asso. Stud. Feeble-mind.*, 37:445-450, 1932.

25. Burt, C. The causal factors of juvenile delinquency. *Brit. Jour. Med. Psychol.*, 1:3, 1923.
26. Burt, H. E. *Legal psychology*. Prentice-Hall, New York, 1931.
27. Butcher, W. M., Hoey, J. M. and McGinnis, J. A. A study of problem boys and their brothers by the sub-commission on causes and effects of crime. Crime Commission of New York State, Albany, 1929.
28. Cady, V. M. The Estimation of juvenile incorrigibility. *Jour. Delinq. Mono.*, 2:23-65, 1923.
29. Caldwell, M. G. Home conditions of institutional delinquent boys in Wisconsin. *Social Forces*, 8:390-397, 1930.
30. Caldwell, M. G. Intelligence of delinquent boys committed to Wisconsin Industrial School. *Jour. Crim. Law and Crimin.*, 20:421-428, 1929.
31. Caldwell, M. G. Juvenile delinquency in Wisconsin. *Jour. Juv. Res.*, 14:87-95, 1930.
32. Caldwell, M. G. Recent trends in juvenile delinquency. *Jour. Juv. Research*, 17:179-190, 1933.
33. Calhoun, C. H. A follow-up study of 100 normal and 100 subnormal delinquent boys. *Jour. Juv. Res.*, 12:236-240, 1928.
34. Campbell, M. W. The effect of the broken home upon the child in school. *Jour. Educ. Sociol.*, 5:274-281, 1932.
35. Casselberry, W. S. Analysis and prediction of delinquency. *Jour. Juv. Res.*, 16:1-31, 1932.
36. Chambers, O. R. Character trait tests and prognosis of college achievement. *Jour. Abn. and Soc. Psychol.*, 20:303-311, 1925.
37. Chase, Vera A. Educational achievement of delinquent boys. *Jour. Juv. Res.*, 16:189-192, 1932.

38. Crosby, Sara L. A study of Alameda County delinquent boys, with special emphasis upon the group coming from broken homes. Jour. Juv. Res., 13:220-230, 1929.
39. Courthial, A. Emotional differences of delinquent and non-delinquent girls of normal intelligence. Arch. of Psychol., No. 133, 1931.
40. Dahlstrom, Sigurd. Is the young criminal a continuation of the neglected child? Jour. Delinq., 12:98-121, 1928.
41. Daniell, R. P. Personality differences between delinquent and non-delinquent negro boys. Jour. Negro Educ., 1:381-387, 1932.
42. Decroly, O. A propos de l'ouvrage "Les cliniques psychologiques pour l'enfance aux Etats Unis et l'oeuvre du Dr. Healy". (Concerning the article "Psychological clinics for children in the United States and Dr. Healy's work)". Jour. de neur et de psychiat., 30:169-176, 1930.
43. De Greeff, E. Le Niveau intellectuel et las criminalite. (The intellectual level and criminality). Jour. belge de neur ed de psychiat., 33:114-123, 1933.
44. Dexter, R. C. Social Adjustment. Alfred A. Knopf, New York, 1927.
45. Dimock, H. S. The conduct habits of boy scouts. Rel. Educ., 27:916-921, 1932.
46. Durea, M. A. An experimental study of attitudes toward juvenile delinquency. Jour. Appl. Psychol., 17:522-534, 1933.
47. Durling, D. and Powell, W. Improper school placement as a factor in juvenile delinquency. Jour. Appl. Psychol., 16:519-525, 1932.
48. Fairbank, R. The subnormal child; seventeen years after. Ment. Hygiene, 17:177-208, 1933.

49. Feder, D. D. and Miller, L. W. An evaluation of certain aspects of a program of character education. *Jour. Educ. Psychol.*, 24:385-391, 1933.
50. Francis, Kenneth V. A study of the means of influence of socio-economic factors upon the personality of children. *Jour. Juv. Res.*, 17:70-77, 1933.
51. Frank, Benjamin. Mental level as a factor in crimes. *Jour. Juv. Res.*, 15:192-197, 1931.
52. Fujimoto, K. Juvenile Delinquency and its Cause. (Kangoku Kyokai Zatshi). *Jour. of the Prison Assoc.*, 35:No. 7, 1927.
53. Fuster, J. Cementarios al empleo de la prueba de Fernald Jakobsohn en los delincuentes. *Arch. de neurobiol.*, 11:30-42, 1931.
54. Garrison, K. C. and Howell, S. C. The relationship between character trait ratings and certain mental abilities. *Jour. Appl. Psychol.*, 15:378-389, 1931.
55. Gilliland, A. R. and Eberhart, J. C. The association test as a measure of delinquency. *Jour. Crim. Law and Crimin.*, 24:736-747, 1933.
56. Glueck, S. S. and Glueck, E. T. 500 Criminal Cases. Knopf, New York, 1930.
57. Glueck, S. and Glueck, E. T. New Method Needed for Juvenile Reform. *The Literary Digest*, 117:117-119, 1934.
58. Glueck, S. and Glueck, E. T. One Thousand Juvenile Delinquents. Harvard Univ. Press, Cambridge, 1934.
59. Goddard, Henry H. The Criminal Imbecile. Macmillan, New York, 1915.
60. Goddard, Henry H. Feeble-mindedness; Its Causes and Consequences. Macmillan, New York, 1914.
61. Goddard, Henry H. Psychology of the Normal and Sub-normal. Dodd Mead, New York, 1919.

62. Gregor, A. Psychische Hygiene in der weiblichen Fursorgeerziehung. (Mental hygiene in the education of delinquent girls). Zsch. f. psych. Hygiene, 6:48-61, 1933.
63. Haggerty, M. E. The incidence of undesirable behavior in public school children. Jour. Educ. Res., 12:102-108, 1925.
64. Hammer, L. F. The relation of public recreations to delinquency. Amer. City, 40:119-120, 1929.
65. Hartshorne, H. and May, M. A. First steps toward a scale for measuring attitudes. Jour. Educ. Psy., 17:145-162, 1926.
66. Hartshorne, H. and May, M. A. Studies in Deceit. Macmillan, New York, 1928.
67. Hawthorne, J. W. A group test for the measurement of cruelty and compassion: a proposed means of recognizing potential criminality. Jour. Soc. Psychol., 3:189-211, 1932.
68. Healy, Wm. The devil's workshop where criminal ideas are hatched and young delinquents spawned. Century, 120:123-130, 1930.
69. Healy, Wm. The Individual Delinquent. Little, Brown and Co., Boston, 1918.
70. Healy, Wm. Picture completion test II. Jour. Appl. Psychol., 5:225-239, 1921.
71. Hill, George E. Cheating among delinquent boys. Jour. Juv. Res., 18:169-174, 1934.
72. Hill, G. E. Education and the delinquent boy. Phi Delta Kappan, 15:138-141, 1933.
73. Hodgkiss, M. The delinquent girl in Chicago. Smith Coll. Stud. Social Work, 3:259-274, 1933.
74. Hollingworth, Leta S. The Psychology of Subnormal Children. Macmillan, New York, 1921.

75. Inskip, Annie Dolman. Teaching Dull and Retarded Children. Macmillan, New York, 1926.
76. Jameson, S. H. Social responsibility and juvenile delinquency. Jour. Juv. Res., 15:7-17, 1931.
77. Johnson, E. H. School maladjustment and behavior. Ment. Hygiene, 11:558-569, 1927.
78. Karpeles, L. M. A further investigation of the Porteus Maze Test as a discriminative measure in delinquency. Jour. Appl. Psychol., 16:427-437, 1932.
79. Kelchner, M. and Lou E. Die Berliner Jugend und die Kriminalliteratur. Ein Untersuchung auf Grund von Aufsätzen Jugendlicher. (The Youth of Berlin and literature of Crime. A study based on essays written by young people). Beihefte Z. Zsch. f. angew. Psych. 42, 1928.
80. Kohs, S. C. An ethical discrimination test. Jour. Delinq., 7:1-15, 1922.
81. Kohs, S. C. What science has taught us regarding the criminal. Jour. Delinq., 11:170-180, 1927.
82. Lane, H. A. The education of the young delinquent. Educ. trends, 2:30-36, 1933.
83. Larsen, J. A. Lying and Its Detection. (in collaboration with George W. Haney and Leonarde Keeler) Univ. Chicago Press, Chicago, 1932.
84. Laslett, H. R. The Detection and Early Treatment of the Potential Delinquent. Jour. of Delinq., 9:222-230, 1925.
85. Lentz, Theodore F. An Experimental Method for the Discovery and Development of Tests of Character. Teachers College Contribution to Educ., No. 180, 1925.

86. Levy, J. A quantitative study of the relationship between intelligence and economic status as factors in the etiology of children's behavior problems. *Amer. Jour. Orthopsychiat.*, 1:152-162, 1931.
87. Loofbourow, G. C. and Keys, N. A group test of problem behavior tendencies in junior high school boys. *Jour. Educ. Psychol.*, 24:641-653, 1933.
88. Luria, A. R. The method of recording movement in crime detection. *Zsch. f. angew. Psychol.* 35:139-183, 1930.
89. MacClenathan, R. H. Teachers and parents study children's behaviors. *Jour. Educ. Sociol.*, 7:325-333, 1934.
90. Maller, J. B. The measurement of conflict between honesty and group loyalty. *Jour. Educ. Psychol.*, 23:187-191, 1932.
91. Maller, J. B. The trend of juvenile delinquency in New York City. *Jour. Juv. Res.*, 17:10-18, 1933.
92. Maris, C. L. A Psychological survey of the Manitoba delinquent. *Jour. Delinq.*, 10:415-427, 1926.
93. May, Mark A. and Hartshorne, Hugh. First Steps Toward a Scale for Measuring Attitudes. *Jour. Educ. Psy.*, 17:145-162, 1926.
94. May, Mark A. and Hartshorne, Hugh. Recent improvements in devices for rating character. *Jour. Soc. Psychol.*, 1:66-77, 1930.
95. Mercer, Mary L. School maladjustment as a factor in juvenile delinquency. *Jour. Juv. Res.*, 14:41-42, 1930.
96. Merrill, M. A. Mental differences in children referred to a psychological clinic. *Jour. Appl. Psy.*, 10:470-486, 1926.
97. Moore, H. T. Laboratory tests of anger, fear, and sex instincts. *Amer. Jour. Psychol.*, 28:390-395, 1917.

98. Morgan, J. B. Psychology of the Unadjusted School Child. Macmillan, New York, 1924.
99. Murray, Margaret E. Validation of items of the psychoneurotic inventory. Jour. Juv. Res., 16:213-230, 1932.
100. Myerson, A. Social-psychiatric aspect of the minor delinquent. Amer. Jour. Psychiat., 13:501-517, 1933.
101. Neron, G. Le Vagabondage infantile: Etude statistique de 250 cas. (A Statistical Study of 250 cases of Juvenile Vagrancy). Hyg. Men., 24:214-222, 1928.
102. Newcomb, T. M. Does extroversion-introversion offer a clue for the prognosis and treatment of problem boys? Ment. Hygiene, 14:919-925, 1930.
103. Olson, D. M. and Jones, V. An objective measure of emotionally toned attitudes. Jour. Genet. Psychol., 39:174-196, 1931.
104. Olson, W. C. The clinical use of behavior rating schedules. Jour. Juv. Res., 15:237-245, 1931.
105. Orbison, T. The prevention of crime in mental deviates. Jour. Delinq., 11:100-105, 1927.
106. Owens, A. A. The behavior-problem boy. Jour. Educ. Res., 20:166-180, 1929.
107. Owens, A. A. The behavior-problem boy. Univ. of Pennsylvania, Philadelphia, 1929.
108. Palmer, C. W. The school records of Philadelphia newsboys. School and Soc., 32:645-646, 1930.
109. Peters, C. C. The relation of moving pictures to standards of morality. School and Soc., 39:414-415, 1934.
110. Porteus, S. D. Guide to the maze performance test. Vineland Training Sch. Pub., No. 25,

Vineland, (N. J.), 1924.

111. Poull, L. E. and Montgomery, R. P. The Porteus Maze Test as a discriminative measure in delinquency. *Jour. Appl. Psychol.*, 13:145-151, 1929.
112. Pressey, S. L. A group scale for investigating the emotions. *Jour. Appl. Psy.*, 3:138-150, 1919.
113. Racine, A. Les conditions economiques de la famille comme facteur de la delinquance juvenile. (Economic conditions of the family as a factor of juvenile delinquency). *Rev. de l'inst. de sociol.*, 12:539-563, 1932.
114. Raubenheimer, A. S. An experimental study of some behavior traits of the potentially delinquent boy. *Psychol. Monog*, No. 159, 1925.
115. Reusser, J. L. Personal attitudes of delinquent boys. *Jour. Juv. Res.*, 17:19-34, 1933.
116. Riddle, E. M. Stealing as a form of aggressive behavior. *Jour. Abn. and Soc. Psychol.*, 22:157-169, 1927.
117. Rogers, K. H. and Austin, O. L. Intelligence quotient of juvenile delinquents. *Jour. Juv. Res.*, 18:103-106, 1934.
118. Schmidt, E. Neurose, Verbrechertum und Hochstap-  
lertum. (Neurosis, criminality, and  
swindling). *Int. Zsch. f. Indiv. psy-  
chol.*, 11:283-295, 1933.
119. Schroeder, P. L. The delinquent mental defective under court supervision. *Proc. and  
Addr. Amer. Asso. Stud. Feeblemind.*,  
36:70-89, 1931.
120. Schultz, J. H. Mehrsinnige Reizworte als Kunstgriff in Assoziationsversuch. (Ambiguous stimulus words as an artifice in association). *Zsch. f. angew. Psychol.*, 36:135-137, 1930.

121. Schwartz, L. A. Social-situation pictures in the psychiatric interview. *Amer. Jour. Orthopsychiat.*, 2:124-133, 1932.
122. Scott, R. H. Modern science and the juvenile court. *Jour. Juv. Res.*, 14:77-86, 1930.
123. Seelig, E. Ergebnisse und Problemstellungen. (Results and Problems). *Vjsch. f. Jugendk.*, 3:31-37, 1933.
124. Selling, L. S. Vocabulary and argot of delinquent boys. *Amer. Jour. Sociol.*, 39:674-677, 1934.
125. Selling, L. S. Restlessness in a delinquent group. *Psychol. Clin.*, 20:92-93, 1931.
126. Shaw, Clifford R. Delinquency Areas. (in collaboration with F. M. Zorbaugh, H. D. McKay, and L. S. Cottrell) Univ. of Chicago Press, Chicago, 1929.
127. Shaw, C. R. and McKay, H. D. Social factors in juvenile delinquency. Report on causes of Crime, Vol. II, No. 13, 1931.
128. Shimberg, M. E. and Israelite, J. A study of recidivists and first offenders of average and defective intelligence. *Amer. Jour. Orthopsychiat.*, 3:175-180, 1933.
129. Slaght, W. E. Untruthfulness in Children: Its Conditioning Factors and Its Setting in Child Nature. Univ. of Iowa Std: Stud. in Char., 1:No. 4, 1928.
130. Slawson, J. Psychoneurotic responses of delinquent boys. *Jour. Abn. and Soc. Psychol.* 20:261-281, 1925.
131. Snyder, L. M. The problem child in the Jersey City elementary schools. *Jour. Educ. Sociol.*, 7:343-352, 1934.
132. Snyder, Marguerite A. Mental traits and attitudes of delinquent boys and girls. *Jour. Juv. Res.*, 15:181-191, 1931.

133. Sullinger, T. E. Juvenile delinquency a product of the home. Jour. Crim. Law and Crimin., 24:1088-1992, 1934.
134. Taft, D. R. Testing the selective influences of areas of delinquency. Amer. Jour. Sociol., 38:699-712, 1933.
135. Terman, Lewis M. Expert testimony in the case of Alberts Flores. Jour. Delinq., 3:145-164, 1918.
136. Thomas, C. Results from the Sims Socio-Economic Rating Scale. Amer. Jour. Orthopsychiat., 1:527-539, 1931
137. Tjaden, J. C. Emotional reactions of delinquent boys of superior intelligence compared with those of college students. Jour. Abn. and Soc. Psychol., 21:192-202, 1926.
138. Tomlin, F. E. The best thing to do --- a test of knowledge of social standards. Stanford Univ. Press, Stanford University, 1931.
139. Tredgold, A. F. Mental Deficiency. Wm. Wood, New York, 1929.
140. Tyson, Dorothy K. A study of certain behavior traits of young delinquent boys. Jour. Juv. Res., 14:280-289, 1930.
141. ----- Facts about juvenile delinquency. U. S. Dept. of Labor, Children's Bureau, No. 215, 1932.
142. Van Waters, Miriam. Parents in a changing world. Survey, 57:135-140, 1926.
143. Vidoni, G. Tra: problemi della delinquenze minorile. (The problems of juvenile delinquency). Rinnovamento med., 9:3-11, 1930.
144. Voelker, Paul F. The functions of ideals and attitudes in social education. Teachers College contrib. to Educ., No. 112, 1921.

145. Wells, F. L. The doubtful value of personality tests. *Oregonian Interview*, 1932.
146. Wickman, E. K. *Children's Behavior and Teachers' Attitudes*. Commonwealth Fund. Pub., New York, 1928.
147. Wile, I. S. Behavior difficulties of children. *Ment. Hygiene*, 11:38-52, 1927.
148. Williams, H. D. A survey of pre-delinquent school children of ten midwestern states. *Jour. Educ. Sociol.*, 7:365-370, 1934.
149. Williams, H. D. Causes of social maladjustment in children. *Psychol. Monog.*, 43:No. 1, 276-300, 1932.
150. Wolfe, W. B. Psychopathology of juvenile delinquents. *J. Delinq.*, 11:159-169, 1927.
151. Woodbull, C. Fashions in crime. *Welfare Mag.*, 19:883-890, 1928.
152. Woodrow, H. A Picture-preference character test. *Jour. Educ. Psy.*, 17:519-531, 1926.
153. Wyman, Jennie B. Tests of intellectual, social and activity interests. *Genetic Study of Genius*, Stanford Univ. Press, 1925.
154. Yourman, J. Children identified by their teachers as problems. *Jour. Educ. Sociol.*, 5:334-343, 1932.
155. Zyve, C. Experiments in the teaching of integrity. *Teach. Coll. Rec.*, 32:359-374, 1931.