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This is to certify that the dissertation prepared by Robert A. Rymer entitled "An Examination of Intellectual Functioning, School Achievement, and Personality Characteristics of Male Juvenile Delinquents" has been approved by his committee as satisfactory completion of the dissertation requirement for the Doctor of Philosophy degree in Clinical Psychology.

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An Examination of Intellectual Functioning,
School Achievement, and Personality
Characteristics of Male
Juvenile Delinquents

A dissertation submitted in partial fulfillment
of the requirements for the degree of Doctor of
Philosophy at Virginia Commonwealth University

by

Robert A. Rymer

Director: Marilyn T. Erickson, Ph.D.
Professor of Psychology

Virginia Commonwealth University

October, 1979

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Abstract

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Research in the area of juvenile delinquency has reported personality and background differences between delinquents who have committed certain types of offenses (Randolph, 1961; Mizushima and DeVos, 1967). The major purpose of this study was to examine the academic characteristics of certain classifications of delinquent offenders. Specifically, the incidences of three school-related problems and absence of any of these problems were compared for certain classifications of offenders. The comparisons that were made were group versus individual offenses, person versus property offenses, and actual aggressors versus threatened aggressors. A second aspect of the study involved a comparative investigation of the personality characteristics of juvenile offenders.

Ninety-nine 13 - 15 year old male offenders, committed to the state's institutional correctional system for the first time, were enlisted as subjects. While awaiting disposition at a reception and diagnostic center, subjects were administered the Slosson Intelligence Test (SIT) as an individual intelligence measure and the High School Personality Questionnaire (HSPQ) as a personality measure. An assessment of academic achievement level was made on the basis of the Wide Range Achievement Test (WRAT), which was routinely administered by educational evaluators to all children passing through the reception and diagnostic center.

Subjects scoring 69 or less on the SIT were classified as psychometrically mentally retarded. A discrepancy model formula (Bond and Tinker, 1973) was employed to identify underachievers and specific academic deficiencies. Delinquents scoring two or more years below expected achievement levels on all three subtests of the WRAT were

classified as underachievers, while delinquents scoring below in only one or two subtests were classified as having specific academic deficiencies. The classification of a subject as to type of offender was made on the basis of his committing offense and reported history of offenses.

Nearly 90% of the subjects were classified as having school-related problems. An examination of the results indicated that the only significant relationship between the school-related groups and the offense classifications was that underachievers were more likely to be group offenders than individual offenders. A trend was found indicating that delinquents with specific academic deficiencies were more likely to be individual offenders than group offenders. The results of the HSPQ revealed few differences among the four groups. Psychometrically mentally retarded delinquents indicated that they felt more socially isolated than delinquents from the other groups. Personality comparisons for offense groups revealed several findings: (1) group offenders appeared to be more self-assured and secure than individual offenders, (2) group offenders were more socially conforming and moralistic than individual offenders, (3) individual offenders appeared to be more intelligent than group offenders, (4) individual offenders were less serious than group offenders, (5) property offenders were found to be more emotionally stable and less easily upset than person offenders, and (6) person offenders were found to be more intelligent than property offenders.

INTRODUCTION

Juvenile delinquency is undoubtedly one of society's most serious and complex problems. The costs of delinquent behavior in terms of wasted human potential and money are staggering. Each year hundreds of thousands of adolescents engage in behaviors that are destructive not only to others but to themselves. Youngsters who develop delinquent patterns during adolescence have reduced chances for establishing normal adult lifestyles and for making positive contributions to society (Noblit, 1973). Moreover, attempts to prevent and control juvenile delinquency render a substantial burden to society. The United States government expended over 22 billion dollars in delinquency-related programs in fiscal year 1976 (Law Enforcement Assistance Administration, 1977). This amount is above and beyond the tremendous number of personal injuries and property losses that result from delinquent acts.

The severity of the problem becomes evident when one examines the statistics related to delinquent behavior. Federal Bureau of Investigation data reveal that of all age groups, arrests rates are highest for persons between the ages of 15 and 17 (Giallombardo, 1972). The same source indicates that in recent years a majority of arrests for major crimes against property have been of people under 21, as have been a large minority of arrests for crimes against persons. Regarding the latter type offense, it is significant to note that from 1960 to 1970 the rate of increase of violent crime committed by individuals under 18 was nearly three times the adult rate (Federal Bureau of Investigation, 1973). In general, arrests of delinquents have increased almost twice as fast as the population growth (Eldefonso, 1976).

Attempts to treat juvenile delinquents who have been committed to correctional institutions have largely resulted in failure. Giallombardo (1972) notes that recidivism rates for young offenders are higher than those of any other age group. It has been found that 75 percent of the juveniles released from correctional institutions throughout the United States are rearrested within five years (The President's Commission on Law Enforcement and Administration of Justice, 1967).

One readily gets the impression that a significant need exists for developing a greater understanding of juvenile delinquency. One area which appears to be especially noteworthy of investigation is the relationship between juvenile delinquency and academic functioning. Outside of the family, school is probably the most significant socializing factor in an individual's development. Society requires that a youngster be highly involved in academic activities. How a youngster performs in this setting will undoubtedly have a great influence on how he learns to seek reinforcement. A youngster who has difficulty in deriving reinforcers from the school environment is likely to turn elsewhere to attain reinforcement.

The present study was an investigation of the relationships between juvenile delinquency and three school-related problems: mental retardation, underachievement, and specific academic deficiencies. Inherent in each of these problems is the difficulty of deriving reinforcement through a natural and acceptable manner. It is felt that the frustration experienced by a youngster with one of these problems increases the probability of that individual becoming involved in delinquent behavior. The primary intent of this study was to determine whether delinquents classified as having one of the above-mentioned learning problems and

delinquents classified as not having one of these problems commit certain types of offenses. Further, a comparison of the personality characteristics of these four groups were made.

One should be aware that the legal definition of delinquency in Virginia has been modified since the publication of the studies presently reviewed. More specifically, prior to mid-1977, children and adolescents who were committed to rehabilitative institutions in Virginia included individuals guilty of status offenses. A status offense is defined as an act which if committed by an adult is not considered a criminal offense (for example, beyond parental control). Since that time, because of a change in law, only individuals guilty of criminal offenses have been committed. As such, the present investigation differs from previous studies in the respect that only criminal offenders were involved.

Mental Retardation in Juvenile Delinquency

In surveying the literature relating mental retardation and juvenile delinquency, it becomes evident that there has been a downward trend in the reported incidence of delinquents with subnormal intelligence. Beier (1964) notes that estimates of the percentage of the delinquent population that is mentally retarded have ranged from 0.5 to 55 percent, with studies undertaken in the first part of the century reporting the higher percentages. In a study examining a compilation of data of over 150,000 criminal and delinquent offenders, a decrease in diagnoses of "feeble-minded" offenders, from an average of 50 percent in the period 1910-1914 to an average of 20 percent in the period 1925-1928, was found (Shulman, 1961). In a review of reports published between 1931 to 1950, Woodward (1955) noted that the incidence of I.Q. scores below 70 did not exceed 13 percent.

Brown and Courtless (1971) have described three periods in the development of theories concerning the relationship between mental retardation and criminal behavior, that appear to reflect the reported diminishing incidence. The first period, which occurred between 1890-1920, was characterized by the notion that mental retardation predisposes an individual to criminal acts. In the second period, 1921-1960, termed the period of "denial and neglect," theorists appeared to move away from the earlier constitutionally-oriented explanation toward the view that environmental factors were primary in the development of criminal patterns. More recently, the position has been assumed that though mental retardation is not a direct cause of delinquency, it may be a complicating factor.

Though the currently reported levels of mental retardation among juvenile delinquents are less than they have been in the past, considerable variation in the reported incidence still exists. Browning (1976) reports estimates ranging from five percent in Texas to thirteen percent in Tennessee to forty percent in Georgia. Browning proposed that such variation is a result of differences in psychometric measures and criteria of mental retardation.

In a study conducted by Levy (1967) the proportion of mentally retarded juveniles was found to be considerably less than the percentages mentioned by Browning. Subjects were 2,000 adjudicated delinquents who had been committed to the Illinois juvenile correctional system. Measures used to assess retardation were the WISC or the WAIS depending upon age level. The results indicated that less than four percent of the subjects had I.Q.'s of less than 70.

Probably the most extensive investigation of retarded juvenile

delinquents was reported by Dennis (1976). This study was an attempt to compare retarded offenders with non-retarded offenders on a number of characteristics. Of 1,054 juvenile offenders who had been committed to Tennessee correctional institutions, 34 percent were found to have I.Q.'s of less than 70, as measured by a "group administered" intelligence test. Because the group test was a written test and because all of the subjects were found to be from two to five years behind in academic achievement, it was considered likely that an overestimation of retardation had initially been computed. As a result, it was decided that a sample of the offenders would be administered individual, nonwritten tests.

A sample of 269 boys was derived from the population of one specific learning center. Only those individuals who scored below 81 on the original test were considered for re-evaluation. Of the remaining sample of 167 boys, the re-evaluation indicated that 34 subjects had I.Q.'s of less than 70; 100 subjects had I.Q.'s between 70 and 84, and 33 subjects had I.Q.'s of 85 or greater. From these results, it was concluded that nine percent of the boys committed to Tennessee correctional institutions functioned in the retarded range, 27 percent in the borderline range, and 64 percent in the average or above range.

Based on the above sample, a comparison was made between the three groups on a number of different factors. In-depth structured interviews with the subjects' parents revealed that the retarded youngsters had fewer expectations placed upon them in terms of academic and professional achievement than did either of the other two groups. School records showed that the retarded group consistently received more unsatisfactory conduct ratings beginning at the first grade than did the other youngsters. Moreover, correctional facility records indicated that the

retarded delinquents were given more citations for disturbing behavior and were punished more than the nonretarded delinquents. Regarding personality factors, no differences were found. The only personality variables mentioned as having been examined were self-concept, locus of control, and motivation; the measures used to assess these factors were not specified. Finally, an examination of the types of offenses committed indicated that subjects in the borderline and retarded ranges had a lower proportion of offenses against persons than did subjects in the average and above range.

Other studies that have examined the types of offenses committed by adult mentally retarded criminals have reported results conflicting with those noted by Dennis. Milner (1949) as reported by Blackhurst (1968) found a greater number of crimes against persons among retarded offenders than among nonretarded offenders; a larger number of sexual offenses was also found among the former group. An investigation undertaken by Brown and Courtless (1971) revealed that 57 percent of a group of criminals with I.Q.'s below 55 had been incarcerated for "crimes against person"; only 27 percent of all criminals studied were found to have been imprisoned for the same type of offense. One should note that these two studies concerned characteristics of the adult criminal populations, which may be a major reason for the conflicting results. Still, in the only other study investigating type of offense among retarded juvenile delinquents, the results do not support Dennis' (1976) findings. McConochie (1970) found no significant relationship between type of offense committed and levels of intelligence.

Learning Disability in Juvenile Delinquency

A number of professionals in the area of juvenile delinquency have

discussed the significance of learning disabilities in the development of delinquent patterns (Porembra, 1975; Silberberg & Silberberg, 1971; Murray, 1976). However, few empirical studies relating these two areas have been undertaken. Further, the research relating these areas is laden with problems that prevent the formulation of meaningful conclusions. One of the primary problems is the general lack of agreement on the definition of learning disabilities. Most of the studies have taken a neurological approach; that is, have used neuropsychological assessment procedures and definitions. Among these studies, no consensus as to what a learning disability is has emerged. Only a small percentage of the investigations have taken an educational approach and have presented an operational definition of the problem.

In an early study, Fenrick and Bond (1936) investigated the reading levels of a group of juvenile delinquents. The subjects were 187 males who had been committed for delinquent behavior to a New York state reformatory. Subjects were between the ages of 16 and 19. It was noted that over 90% of the subjects had been school failures. Section C, Reading To Understand Precise Directions, of the Gates Silent Reading Test (Gates, 1930) was administered to assess reading level. An estimate of intellectual functioning as measured by the Intermediate Examination of the Otis Self-Administering Tests was obtained from the subjects' records. Binet test scores were also available for almost half of the subjects. The results indicated a mean disparity of five years, eight months between the reading and chronological ages of the total group studied. Further, it was found that subjects functioning in the 90 to 110 I.Q. range, reflected a mean disparity of five years between the two measures.

One aspect of an investigation conducted by Critchley (1968) was to assess the level of reading retardation among a population of delinquents. Subjects included 106 male delinquents who had been referred for psychological evaluation at a diagnostic center before sentencing was to be passed. A second aspect of the study was retrospective and included data on 371 juvenile males who had been committed by the courts for classification and allocation at an "Approved School." Subjects' ages ranged from 12 to 17 years. Assessment of reading disability was obtained using the Wechsler Scale Intelligence Series and a reading test (Schonell Graded Word Reading Test or, rarely, the Burt Reading Accuracy Test). The results indicated that 59.8% of the subjects were at least two years retarded with 50.7% being three or more years retarded.

The objective of a study conducted by Compton (1974) was to assess the incidence of different types of learning disabilities (as defined by the author) among adjudicated juvenile delinquents. A broad definition of learning disability was presented: "anything which prevents a child from achieving successfully in a normal educational setting." The operational definition of learning disability was vague and unclear. Five areas of dysfunction were mentioned including auditory, visual, language processing, sociological and psychological, each of which was rated for three levels of severity: mild, moderate, and severe. These three categories were described only in terms of the subjects' educational needs (e.g., severely learning disabled youth need "highly qualified specialist" for teachers). Subjects were 444 committed delinquents or "children in need of supervision (apparently, status offenders) who were all the delinquents passing through a diagnostic receiving center during a ten-month period. The assessment instruments and

procedures were not described. A three-by-five matrix (levels of severity by type of learning disability) indicated that 90.4% of the subjects fell into one or more of the cells of the matrix. That is, 90.4% of the delinquents had at least a mild form of one of the five dysfunctions.

Tarnopol (1970) undertook a study to determine whether a minority group, delinquent, school-dropout population contained a greater percentage of children with minimal brain dysfunction than did the total population. Learning disability was mentioned as being the educational correlate of minimal brain dysfunction. Subjects were 102 male youths, ages 16 to 23. This group was composed of 67% Blacks, 14% Orientals, 13% Latins, and 11% other nonwhites. The following tests were administered: WAIS, Gates Reading to Understand Directions (Gates, 1961), Bender Gestalt, and Oseretsky Test of Motor Proficiency (Doll, 1946). Descriptive statistics were presented, and it was noted that relative to the normal population, subjects showed a number of deficiencies. Results of the Gates Reading to Understand Directions Test indicated that 64 percent of the subjects were below the sixth grade level. Using the Pascal Suttell scoring method, only a third of the subjects were found to have normal Bender Gestalt protocols. Regarding the WAIS, 39% had significantly different verbal and performance I.Q.'s. The author related that the resulting deficiencies are part of the "minimal brain dysfunction syndrome."

Hurwitz, Bibace, Wolff, and Rowbotham (1972) presented a study comparing juvenile delinquents, learning disabled youth, and normals on tests of sensorimotor functioning. Each group included 15 boys, ages 14.5 to 15.5. The learning disabled sample was composed of individuals

of normal intelligence (mean I.Q. 112 on the Stanford-Binet) who were enrolled in a residential facility and special school because of demonstrated difficulties in academic learning. Only boys at least two years behind age mates in reading level as measured by standardized tests were included in the study. The juvenile delinquent sample was composed of individuals adjudicated by the courts as delinquent and detained at a reception unit of a learning center. Mean I.Q. of the group as measured by the WISC was 101. The normal sample was composed of individuals randomly selected from a normal ninth grade classroom. Average I.Q. as measured by the Kuhlman-Anderson Test was 116. Mean I.Q.'s for the three samples were not significantly different. Subjects were tested with the Lincoln-Oseretsky Test of Motor Development, and both clinical groups were found to perform significantly more poorly than the normal group.

Berman and Siegal (1976) conducted an investigation comparing juvenile delinquents and non-delinquents on a number of "adaptive abilities." Two groups of adolescents, ages 15 to 18 were used as subjects. The delinquent sample was composed of 45 adjudicated males, incarcerated for the first time at the Rhode Island Training School. In order to control for institutionalization, only individuals serving their first sentence were randomly selected from the weekly intake roster; further, subjects were examined within one week of their admission to the training school. A control group of 45 non-delinquents was selected from a Providence inner-city high school. These individuals were matched with their delinquent counterparts for age and race, and a rough control for socioeconomic level was effected on the basis that 80% of the delinquent population committed to the training school were from the catchment area of the same inner-city high school. All subjects were volunteers.

The testing procedure included several subtests of the Halstead-Reitan Neuropsychological Test Battery and the full WAIS. Analysis of the data involved comparing paired means of all subtests. Results indicated that the delinquent group performed significantly poorer on all of the WAIS subtests except for digit span and on all of the Halstead subtests with the exception of the Rhythm and Finger Oscillation tests.

In summary, it is evident that there are a number of shortcomings in the research relating learning disability and juvenile delinquency. Most of the studies which have been undertaken in the area have concentrated on the neuropsychological correlates of learning disabilities, and only rarely have operational definitions been presented. From the investigations which have been reviewed, it would appear that juvenile delinquents do have an abnormally high incidence of reading problems.

Underachievement in Juvenile Delinquency

Though one would assume that the incidence of underachievement is high among juvenile delinquents, little empirical research has been undertaken in this area. Only three studies relating underachievement and delinquency have been reported. Two of these investigations concerned personality characteristics of youngsters with these problems. The third study examined the relationship between school failure, rather than underachievement per se, and three types of maladaptive behaviors. One should note that these studies vary in their operational definitions of underachievement or lack one altogether.

Rhodes and Reiss (1969) examined the relationship between "school failure" and the variables of delinquency, apathy, and truancy. These investigators utilized data from a large, cross-sectional study of youngsters enrolled in grades seven through twelve of all public and

selected private junior and senior high schools in Davidson County, Tennessee. School failure was based solely upon the students' most recent term grade in English. Classification of delinquency was based upon juvenile court records; any subject who had been adjudged delinquent by either court referees or the presiding judge was considered a delinquent for the study unless the court record had been for a traffic offense. Students considered truant by the attendance division of the school system were classified as truant for the study's analyses. Ratings of apathy were obtained from students' homeroom teachers. The results indicated that the three dependent variables were related to subjects' English grades. That is, the lower the grade, the higher the incidence of delinquency, truancy, and apathy. These relationships were found to be relatively independent of several controls including age, sex, reading skill, intelligence test score, occupational level of family, socioeconomic composition of school, and mother's educational aspiration for the subject.

Using various psychological tests and scales, Morgan (1974) examined differences between two groups of institutionalized male underachievers, one composed of adjudicated delinquents and the other composed of non-delinquents. No reason as to why the nondelinquents had been committed was given; it was stated only that they were residents of the North Carolina Advancement School. No operational definition of underachievement was presented nor were subject characteristics such as age and intelligence. The names of the tests utilized were not given. The author related that compared with the delinquent group and the normal population, the nondelinquent group: (1) were rated less anxious, (2) denied less, (3) perceived themselves as socially adept, (4) required

constant prodding, (5) were more manifestly aggressive, and (6) were more withdrawing. The delinquent group compared with the nondelinquent group and the normal population: (1) perceived themselves as morally bad, (2) perceived themselves as physically ugly, (3) were rated more anxious, (4) were rated more active, (5) scored higher on delinquency proneness and (6) denied more.

Werner (1966) administered the Children's Personality Questionnaire (CPQ) to a group of "underachieving" boys and compared the resulting composite profile with the profiles of a normative sample, a group of delinquent boys and a group of boys with conduct problems. Subjects were 27 males, ages 8-12, participating in the summer session of a remedial program. Inclusion in this program required individuals to be functioning at least one grade level below their grade placement and chronological age, and to have one or more skill problems in language, arithmetic, and/or reading; final selection was made by the school principal on the basis of homeroom teachers' ratings. The results indicated that the underachievers differed from the normative sample of the fourteen CPQ dimensions: Schizothymia, Dominance, Happy-go-lucky-attitude, Lack of Identification with Group Goals, Adventurousomeness, Toughmindedness, and Shrewdness. Werner noted that the composite profile of the boys in the remedial class resembled the CPQ profiles of boys with conduct problems (Karson, 1965) and the profiles of delinquent and adult psychopathic populations using the High School Personality Questionnaire and 16 Personality Factors tests (Pierson, 1964).

Personality and Behavior Characteristics of Juvenile Delinquents

Research in the area of juvenile delinquency has revealed that this group is composed of individuals who have a wide range of

behavioral and personality characteristics. On the basis of these characteristics, a number of investigators have attempted to classify delinquents into subgroups. Other researchers have taken such subgroups and compared them on a number of variables, with the objectives of finding differential antecedent and/or correlates of specific types of delinquency. Through such research it is hoped that a better understanding of the etiology of delinquency can be found, and that eventually more appropriate and effective treatment programs can be developed.

Using objective personality tests, Peterson, Quay, and Tiffany (1961) undertook a study in an attempt to develop a set of independent personality constructs related to delinquent behavior. Four hundred and six male subjects (ages 10 to 18 years), half of whom were incarcerated delinquents and the other half who were nondelinquents though with similar social and cultural backgrounds, were administered a battery of four questionnaires, all previously shown to differentiate delinquents from normals. The data from the questionnaires was factor analyzed and the emerging factors were subjected to further factor analysis. Three second-order factors emerged and were labeled neurotic delinquency, delinquent background, and psychopathic delinquency.

From information derived from delinquents' history materials, Quay (1964) also used factor analysis in classifying different delinquent types. Subjects were 115 adjudicated juvenile delinquents (average age 16.6, SD = .98, average I.Q. as measured by the Otis 89.7, SD = 15.3) who had been incarcerated at a federal training school. Because subjects were to be used for other purposes, it was necessary that selected individuals must have reached at least a fifth grade reading level and must have resided in the institution for at least three months. It was noted

that this selection procedure yielded a sample of boys who differed from the institution population in terms of having higher I.Q.'s and better academic skills.

The procedure involved parole officers rating each boy on a 36-item checklist on the basis of the boy's history material. Seven of the items were checked in less than 10% of the cases and were eliminated from further analysis. Intercorrelation and factor analysis of the remaining items resulted in four factors which were labeled (1) socialized - sub-cultural, (2) unsocialized - psychopathic, (3) disturbed - neurotic, and (4) inadequate - immature.

Using a multiple discriminant analysis of 20 variables, Meyer (1974) contrasted youthful offenders who had been grouped according to similarities on their MMPI profiles. The results indicated that the MMPI groups differed significantly from one another and formed five distinct behavioral personality patterns. The groups were labeled (1) sub-cultural offender, (2) anti-social offender, (3) neurotic offender, (4) psychopathic manipulative, and (5) addictive offender.

Shinohara and Jenkins (1967) investigated three different types of delinquency, socialized, unsocialized aggressive, and runaway, with the MMPI. Subjects were 96 boys from the Iowa State Training School. A restriction was that a boy must have achieved a sixth grade reading level in order to be included. Subjects were classified as either socialized, unsocialized aggressive, or runaway on the basis of their court and probation records, and secondarily, on observations of their behavior while in the training school. Boys with a history of cooperative stealing and association and/or leadership and gang activity were classified as socialized. Starting fights, bullying, defiance of adults

in authority, quarrelsomeness, destructiveness, and sexual aggressiveness were behaviors which led to an unsocialized aggressive classification.

Repeated running away from the home was necessary for a classification of runaway. Stealing in the home, staying out late at night, furtive stealing, and passive homosexuality were also characteristic of this group.

Selection resulted in 37 socialized, 32 unsocialized aggressive, and 27 runaway delinquents, comparable in age and I.Q. The MMPI was administered to groups of five to seven subjects at a time. The boys were seated around a table and items of the test were replayed on a tape recorder at five second intervals.

The results indicated that the socialized group was less deviant than either of the other two groups on all ten scales. They were significantly lower than the unsocialized aggressive group on the frequency, hypochondriasis, depression, psychopathic, paranoid, and schizophrenia scales and lower than the runaway group on the frequency, hypochondriasis, masculine-feminine, and schizophrenia scales.

In a study conducted by Randolph (1961), a comparison was made between "social" delinquents (individuals committing their crime in the company of others) and "solitary" delinquents (individuals committing their crime alone). Subjects were 62 boys, ages 14 to 18, who had been adjudicated by the courts as juvenile delinquents. Fifty-two of the subjects were at a ranch for delinquent boys, while the other ten were in custody awaiting placement at this ranch. Each subject was administered a WAIS and an MMPI, and the Warner Index was used to determine socioeconomic class (the MMPI was read aloud while the subjects read the test booklet in order to minimize difficulties in comprehension).

Mean profiles of the groups were similar, though the solitary group

appeared to be somewhat more disturbed, having significantly higher T scores on all scales. The solitary delinquents also had significantly higher I.Q.'s and came from higher socioeconomic levels.

In another study comparing these two groups, Brigham, Ricketts, and Johnson, (1967) investigated parent-child relationships in delinquents. Subjects were male youths, ages 15 to 20, randomly selected from the population of a federal correctional institution. One restriction regarding selection was that individuals must have been judged by institution officials to be sufficiently literate to complete a questionnaire. Subjects were classified as either solitary or social on the basis of their answers to three scaled items related to this dimension. Twelve subjects were eliminated from the study either because they were unable to complete the testing procedure or because the experimenters were unable to classify them as social or solitary.

Testing procedures involved the administration of the Parent-Child Questionnaire (Roe & Siegelman, 1963). Results indicated that solitary delinquents have more disturbed mother-son relationships than do social delinquents (four of the ten PCR scales were significant). With regard to father-son relationships, the two groups were similar (only one of the ten scales reached significance).

A study conducted by Mizushima and De Vos (1967) had the objective of investigating the relationship between scores on the California Psychological Inventory (CPI) and delinquency in the Japanese culture. Subjects included a group of 36 young delinquents (ages 18 to 20) who had been committed to a reformatory. Analysis of the data included comparisons between lone offenders and group offenders, and also between theft offenders and offenders committing more violent crimes. Results

indicated that the group offenders scored significantly higher on the sociability, social presence, and self-acceptance scales than the lone offenders. Theft offenders had lower scores on the social presence and self-acceptance scales and higher scores on the feminine scales than the more violent offenders.

In general, delinquents committing different types of offenses have been found to differ on personality as well as background characteristics. One area of characteristics which has not been examined in relation to types of offenders is the area of problems related to academic functioning. The present study attempted to advance the knowledge of juvenile delinquency by examining the relationship between specific types of offenses and mental retardation, specific academic deficiencies, and underachievement. More specifically, comparisons of the incidence of each of these school-related problems were made between group and individual offenders, between property and person offenders, and between physically aggressive and non-physically aggressive offenders. The same comparisons were made among delinquents classified as not having one of these problems. In further examining the area of school-related problems in delinquency, a comparison of personality characteristics was made between delinquents who were classified as mentally retarded, as having specific academic deficiencies, underachieving, and without one of these problems. Different types of juvenile delinquents have been found to vary with regard to personality characteristics (Shinohara & Jenkins, 1967; Randolph, 1961), and it was felt that delinquents who are different on the basis of school-related characteristics might also differ in their personality features.

Hypotheses

1. It was predicted that a higher percentage of psychometrically

mentally retarded individuals would be found among the group offenders than among the individual offenders. It was felt that because of their poorer intellectual abilities, retarded individuals would be more vulnerable to the influence of their peers than are more intelligent individuals. Blackhurst (1969) suggested that retarded individuals are frequently used as pawns by more intelligent gang leaders.

2. It was hypothesized that a higher incidence of specific academic deficiencies would be found among the group delinquents than among the individual delinquents. The rationale followed the notion that children with specific academic deficiencies are unable to perform adequately in academic endeavors, tasks which are imposed by adults and which typically give rise to reinforcement from the adult world (teachers, parents, etc.). A highly available source of acceptance for these children can be found in their peer group, in particular those peers who have little regard for academic achievement (other children with specific academic deficiencies). It was felt that such a situation provided an atmosphere conducive to involvement in group delinquent behavior.

3. For the same rationale as stated in hypothesis two, it was expected that a greater proportion of the group offenders than of the individual offenders would be underachievers.

4. It was hypothesized that a higher percentage of psychometrically mentally retarded individuals would be found among offenders against property than among offenders against persons. Dennis (1976) found that among juvenile delinquents, individuals in the retarded and borderline ranges had a lower proportion of offenses against persons than did subjects in the average and above ranges.

5. It was expected that a greater proportion of children with specific academic deficiencies would be found among property offenders

than among person offenders. Following the notion that youngsters with specific academic deficiencies are more likely to be group offenders than individual offenders (hypothesis 2) and the finding that group offenders are less disturbed than individual offenders (Shinohara & Jenkins, 1967; Mizushima & De Vos, 1967), the conclusion was made that children with specific academic deficiencies would be more likely to direct their frustrations toward property than to persons.

6. It was hypothesized that a higher proportion of underachieving individuals would be found with offenders committing crimes against person than among offenders committing crimes against property. It was felt that underachieving delinquents would be more disturbed than non-underachieving delinquents and would thus have a tendency to act-out with people.

7. It was expected that a higher proportion of psychometrically mentally retarded subjects would be diagnosed among the physically aggressive offenders than among the threatened aggressive offenders. A previous study (Milner, 1949) indicated that a higher incidence of at least one type of physical offense, sexual offense, was found among retarded criminals than among criminals as a whole.

8. It was hypothesized that a higher incidence of youngsters with specific academic deficiencies would be found among the threatened aggressive offenders than among the physically aggressive offenders. This prediction followed the notion that delinquents with specific academic deficiencies were expected to be less disturbed than delinquents without any learning problem (hypothesis 10) and would hence be less likely to be physically aggressive.

9. It was predicted that a higher percentage of underachieving individuals would be found among the physically aggressive offenders than

among the threatened aggressive offenders. It was felt that under-achieving delinquents were more disturbed than non-underachieving delinquents and would thus be more likely to be physically aggressive.

10. It was hypothesized that the subjects without one of the learning problems would manifest more personality disturbance on the HSPQ than the subjects classified as having one of the learning problems. It was felt that a child who did not experience academic difficulties and still had a delinquent problem was likely to be sociopathic. The rationale is based on the characterization of sociopaths as being charming individuals who appear to be clearly aware of the amenities and the moral code (Cleckley, 1970). It was expected that sociopathic delinquents were more likely than non-sociopathic delinquents to get along with teachers and would thus be more likely to be able to make an adequate adjustment in school.

METHOD

Subjects

Male juvenile delinquents incarcerated at Virginia's Reception and Diagnostic Center (RDC) served as subjects. RDC functions as the intake facility for adolescents who have been convicted of criminal activity and who have been committed to the state's rehabilitative institutional system. The average length of residence at RDC is between four and five weeks. During this period each individual is observed and assessed, and treatment recommendations are made. This process is the joint responsibility of a psychologist, a social caseworker, an educational evaluator, and a cottage worker.

With two qualifications, all males residing at RDC between May 22, 1978 and July 14, 1978 were asked to participate in the study. The first qualification restricted the age range to individuals between the ages of 13 and 15. The second qualification specified that subjects had to be committed to the state for the first time. Of the 107 potential subjects who were asked to take part, two chose not to participate. Three were transferred from RDC before the full testing procedure could be completed. One of the participants who completed testing was later found to be above the age limit and was hence dropped from the study, and two additional participants were dropped because a review of their records failed to reveal information necessary to make the academic classifications. Thus, the data analyzed in the present study were obtained from a total of ninety-nine subjects.

Measures

Three objective measures were utilized in this study. Two of these, the Wide Range Achievement Test (WRAT), and the Slosson Intelligence

Test (SIT) were used to diagnose mental retardation, specific academic deficiencies, and underachievement. Subjects scoring below 70 on the Slosson were classified as mentally retarded. As used in this study, the term was restricted to connote only psychometric mental retardation. Individuals identified as mentally retarded were excluded from eligibility for the specific academic deficiencies and underachievement classifications. Subjects performing two or more years below their expected achievement level, as defined by Bond and Tinker's (1973) discrepancy model formula (years in school x I.Q.)/100 + 1.00), in either one or two of the three WRAT subtest areas were classified as having a specific academic deficiency. Subjects performing two or more years below their expected achievement level in all three areas were classified as under-achievers.

The third measure was the High School Personality Questionnaire (HSPQ). This test requires a sixth grade reading level, and as it was expected that some of the subjects would not have acquired the necessary reading skills to yield a valid profile, an audio-taped version was utilized. The first three subjects were administered both Forms A and B of this test, but subjects' comments and behaviors indicated that such a procedure was too lengthy to maintain continued involvement and concentration. Hence, for the remainder of the data collection, only Form A was administered.

Procedure

After identifying an individual as meeting the screening criteria for the study, the experimenter went to the potential subject's cottage and asked him to participate. Upon introducing himself to the individual, the experimenter would read the following description:

I am a student at Virginia Commonwealth

University, and I am doing a study concerning how the guys at the Reception and Diagnostic Center perform on certain school-related tasks. I also want to find out how the guys here perform on a task which measures how a person thinks, feels, and acts.

What you will be doing sometime in the next few days, if you decide to participate, is taking two tasks. One of these tasks measures school-related abilities. The second task is designed to reflect characteristic ways that a person may think, feel, and act.

Because your participation is voluntary, you do not have to take part unless you want. Still, I would greatly appreciate your helping me in this study, for it is a project that I must complete before finishing school. If at any time you wish to quit, you may do so. Whether you participate or not in this study will in no way affect your status while at the Reception and Diagnostic Center. For helping me, I would like to show you my appreciation by offering you a soft drink.

I might add that the results of these tasks will be kept strictly confidential; no one except the people involved in doing the research will have access to them.

Now, do you have any questions?

At this point, individuals desiring to participate were asked to sign a consent form (see Appendix A) which was read aloud.

Regarding parental consent, the Division of Youth Services takes the position, in loco parentis. Consent was obtained from the Director of the Reception and Diagnostic Center (see "Authorization for Participation Form" in Appendix B).

Following the determination of the committing offense, the testing procedure was conducted in two sessions. During the first session, the experimenter administered the SIT individually in the educational offices in the cottages. At the end of this session, the experimenter asked each subject the following two questions:

- (1) When you were involved in the offense which led to your commitment, did you do it alone or did you do it with others?

- (2) When you've been in trouble with the law in the past, have you usually been alone or have you usually been with others?

Within a week of the first session, subjects were transported to an office in groups of two to four and were administered the HSPQ. Each subject was given a question booklet and an answer sheet. The seating arrangement was such that the individuals were facing away from each other. At the beginning of the session the instructions were read, and the subjects were told to listen to the tape recording of the HSPQ and/or read along in the booklet, whichever was easiest for them. They were further instructed that if the tape recording was going too fast or if there was something they didn't understand to raise their hands. During the session, an undergraduate psychology student assisted the experimenter in monitoring the test.

Subsequent to the testing sessions, each subject's record was examined, and certain information was obtained. First, the WRAT score was recorded. As part of the evaluation process at RDC, the WRAT is routinely administered to all youngsters by educational evaluators. Second, the subjects' current school grade level was recorded. Third, in an effort to obtain some reliability measure of subjects' self-report, evidence pertaining to whether the subject was involved alone or with others in the committing offense was recorded. Finally, each subject's record was examined to determine the specific offense which led to the individual's commitment. Generally, the offense listed on the commitment order was used. Whenever violation of probation was listed on the order, the youngster's most recent delinquent offense was used. In cases where more than one offense was listed on the commitment order, the most serious offense was recorded. In determining seriousness of offense, Hooke's rating scale (1970) was utilized.

Following this examination of the record, classifications as to type of offense were made. Group versus individual classifications were made on the bases of two different procedures, each involving one of the questions asked during the first testing session. Regarding the procedure involving the committing offense question, whenever there was a discrepancy between the child's self-report and the information from the court record, the latter source was used.

The second type of offense classification that was made was offender of property versus offender of person. This classification was based upon the committing offense. A delinquent act which involved both types of crimes (e.g., armed robbery) was classified as a crime against a person in that it was viewed as being the more serious of the two types of offenses.

Another classification that was made pertained only to offenders of persons. The two categories were threatened aggression versus actual aggression, that is, whether or not physical contact was involved in the offense.

Group Comparisons

After the subjects had been classified on the basis of their committing offense, reported offense history, and learning handicaps, the following comparisons were made:

1. The incidence of delinquents with specific academic deficiencies, of underachieving delinquents, of mentally retarded delinquents, and of delinquents without any of these problems among those subjects considered individual offenders (based upon committing offense) were compared to the incidence of the same classifications among subjects considered group offenders. Specifically, the proportion of individual offenders who were classified as having specific academic deficiencies were

compared to the proportion of group offenders with the same classification. Secondly, regarding underachievers, a comparison of proportions was made between the two types of offenders. Third, a comparison was made between the proportion of individual offenders who were classified mentally retarded and the proportion of group offenders with the same classification. Furthermore, the proportion of subjects without any of these problems among group offenders was compared to the proportion of the same type of subjects among individual offenders. In each of the four comparisons a Chi-square test was used to determine significant differences.

2. Using subjects' self-reported history of trouble with the law to determine group and individual offenders, the same four comparisons were made using the Chi-square test.

3. In similar fashion the incidence of delinquents with specific academic deficiencies, of underachieving delinquents, of mentally retarded delinquents, and of delinquents without any of these problems, among those subjects whose committing offenses were against person, were compared to the same classifications among subjects whose offenses were against property. Again, a Chi-square test was utilized in each of the four comparisons.

4. Regarding those subjects whose committing offense was against person, comparisons of the proportions of the above mentioned classifications were made between the physically aggressive subgroup and the threatened aggressive subgroup. The statistics involved the Fisher's exact test.

5. Personality characteristics as measured by the HSPQ were compared between the subjects with specific academic deficiencies, the underachieving subjects, the mentally retarded subjects, and the subjects

without any of these problems. That is, mean HSPQ profiles for the four groups were computed and were compared using multiple and univariate analyses of variance.

6. The HSPQ factors were also compared for each of the four offense classifications. That is, scale scores of the group offenders were compared with the individual offenders (based on committing offense), and similar comparisons were made for the individual-group offender classification (based on reported histories of offense), the property-person offender classification, and the physical aggression - threatened aggression offense classification. The statistics involved multiple and univariate analyses of variance.

RESULTS

Of the 99 subjects meeting the screening criteria, 44.4% were classified as having specific academic deficiencies, 32.2% were classified as underachieving, 12.2% were classified as mentally retarded, and 11.1% were classified as having none of the three problems. These four groups were examined for their relationships to four types of offense classifications.

Individual offender versus group offender comparisons (based on committing offense).

On the basis of committing offense, 40 subjects were classified as individual offenders and 59 subjects were classified as group offenders. Table.1 presents a comparison of the percentages of individual and group offenders categorized into each of the school-related categories. A 2 x 4 Chi-square analysis examining the overall relationship between this individual-group classification and the school-related categories did not reach statistical significance. In examining the relationships between each of the school-related categories and this individual-group classification, two procedures were used in constructing 2 x 2 Chi-square tables.

In the first procedure, the frequencies of individual and group offenders in a specific school-related category were compared with the frequencies of individual and group offenders in the remainder of the sample. The results indicated that only one of the four comparisons reached statistical significance. Underachieving offenders were more likely to be group offenders than individual offenders ($\chi^2 = 5.65$, $df = 1$, $p < .01$). Subjects with specific academic deficiencies showed a trend toward being individual offenders rather than group offenders ($\chi^2 = 2.35$, $df = 1$, $p < .10$).

Table 1

Percentages and frequencies of individual and group offenders, based upon committing offense, categorized into each of the four school-related groups.

	Individual	Group
Specific academic deficiency	55.0% (n=22)	37.3% (n=22)
Underachievement	17.5% (n= 7)	42.4% (n=25)
Mental Retardation	17.5% (n= 7)	8.5% (n= 5)
None	10.0% (n= 4)	11.9% (n= 7)
Total	100.0% (n=40)	100.1% (n=59)

In the second procedure, the frequencies of individual and group offenders with a specific school-related problem were compared with the frequencies of individual and group offenders categorized as having none of the three school-related problems. Using this procedure, the analyses failed to reach statistical significance in any of the three comparisons. For the comparison examining the mentally retarded subjects, a Fisher's exact test was used instead of a Chi-square analysis because of the small N.

Individual offender versus group offender comparisons (based on reported histories of offenses).

On the basis of reported histories of offenses, 27 subjects were classified as individual offenders, and 67 subjects were classified as group offenders. The total N for the individual-group classification based upon reported histories was 94 instead of 99 due to five subjects reporting no history of trouble with the law prior to their committing offense. A review of the records confirmed this report in four of the five cases.

In examining the classification based upon reported history of offense, Table 2 presents a comparison of the percentages of individual and group offenders categorized into each of the school-related categories. A 2 x 4 Chi-square analysis examining the overall relationship between this individual-group classification and the school-related categories did not reach statistical significance. In examining the relationships between each of the school-related categories and this individual-group offense classification, the procedures described previously were used in constructing two sets of 2 x 2 Chi-square tables.

Based upon the procedure of comparing the frequencies of individual and group offenders in a specific school-related category with the

frequencies of individual and group offenders in the remainder of the sample, only one of the four comparisons reached statistical significance. Underachieving subjects were more likely to be group offenders than individual offenders ($\chi^2 = 2.72$, $df = 1$, $p < .05$).

Based upon the second procedure, only one of the three comparisons reached statistical significance. Again, underachieving subjects were more likely to be group offenders than individual offenders.

Property offender versus person offender comparisons.

Regarding the property offender versus person offender classification, 75 subjects were classified the former and 24 subjects were classified the latter. Table 3 presents a comparison of the percentages of property and person offenders categorized into each of the school-related categories. A 2 x 4 Chi-square analysis examining the overall relationship between the property-person classification and the school-related categories did not reach statistical significance. Both statistical procedures revealed no significant differences.

Physically aggressive offenders versus threatened aggressive offenders comparisons.

Of the 24 subjects whose committing offenses were against persons, 16 were physically aggressive and 8 only threatened to aggress. Table 4 presents a comparison of the percentages of actual aggressors and threatened aggressors categorized into each of the school-related categories. The number of subjects in this classification was not sufficiently large to compute an overall 2 x 4 Chi-square. Using the procedures described previously, two sets of 2 x 2 tables were constructed to examine the relationships between each of the school-related categories and the physical aggression-threatened aggression classifications. Analyses using the Fisher's exact test indicated none of the seven comparisons to be significant.

Table 2

Percentages and frequencies of individual and group offenders,
based upon histories of offenses, categorized into each of
the four school-related groups.

	Individual	Group
Specific academic deficiency	44.4% (n=12)	44.8% (n=30)
Underachievement	18.5% (n= 5)	38.8% (n=26)
Mental Retardation	18.5% (n= 5)	9.0% (n= 6)
None	18.5% (n= 5)	7.5% (n= 5)
Total	99.9% (n=27)	100.1% (n=67)

Table 3

Percentages and frequencies of property and person offenders categorized into each of the four school-related groups.

	Property	Person
Specific academic deficiency	33.3% (n=25)	29.2% (n=7)
Underachievement	48.0% (n=36)	33.3% (n=8)
Mental Retardation	9.3% (n=7)	20.8% (n=5)
None	9.3% (n=7)	16.7% (n=4)
Total	99.9% (n=75)	100.0% (n=24)

Table 4

Percentages and frequencies of actual and threatened aggressors categorized into each of the four school-related groups.

	Actual Aggression	Threatened Aggression
Specific academic deficiency	37.5% (n=6)	25% (n=2)
Underachievement	18.8% (n=3)	50% (n=4)
Mental Retardation	25.0% (n=4)	12.5% (n=1)
None	18.8% (n=3)	12.5% (n=1)
Total	100.1% (n=16)	100.0% (n=8)

Analyses of the HSPQ.

On the HSPQ, a split-half reliability procedure indicated that the protocols for 15 of the 99 subjects were invalid. This procedure involved taking each subject's standardized scores on the 14 factors on the first half of the test and estimating the scores on the second half by the formula $B = Ar + 5.5(1 - r)$, where B is the estimate, A is the given score on the first half, and r is the equivalence coefficient (determined to be .45 by the test authors). The differences between B and the observed standardized scores of the second half on each factor were calculated; these differences were squared and summed. According to the test authors, sums greater than 76 indicate invalid protocols.

Eighty-four protocols were judged to be valid and were included in the remaining analyses. Table 5 presents the means of each scale of the HSPQ for each of the school-related groups. A multiple analysis of variance was computed with the school-related groups as the independent variable and the 14 scales of the HSPQ as the dependent variables. Using the Hotelling Lawley Trace, the results failed to reach statistical significance (Approximate $F = 1.17$; $df = 42,197$; $p = .23$). Of the 14 dependent variables, only one, group dependency - self-sufficiency, was found to reach significance in the univariate analyses of variance ($F = 4.40$, $df = 3$, $p < .01$). Duncan's multiple range test indicated (alpha level of .05) that the retarded subjects had a tendency to feel more isolated from their peers than any of the other three groups.

Tables 6, 7, 8, and 9 present the 14 HSPQ scale means for each of the four offense classifications. Four multiple analyses of variance were computed to examine the relationships between each of the offense classifications and the HSPQ scales. In each analysis, the offense classification was considered the independent variable and the 14 factors

Table 5

Mean HSPQ scale scores for the School-related groups.

	Academic Deficiency	Under- achieving	Mentally Retarded	None
1. Sizothymia-Affectothymia	4.62	5.28	5.40	5.88
2. Low intelligence-High intelligence	4.22	4.28	3.40	3.75
3. Lower ego strength-Higher ego strength	5.78	5.79	6.90	6.00
4. Phlegmatic temperament- Excitability	6.30	5.76	6.30	5.88
5. Submissiveness- Dominance	4.97	5.24	3.90	5.50
6. Desurgency-Surgency	5.46	5.55	4.90	5.38
7. Weaker superego strength- Higher superego strength	5.14	5.00	5.70	4.88
8. Threctica-Parmia	5.54	5.31	4.80	6.00
9. Harria-Premisia	6.19	5.97	7.40	6.13
10. Zeppia-Coasthemia	5.73	5.76	5.90	5.50
11. Untroubled adequacy- Guilt proneness	5.08	5.52	5.50	4.88
12. Group dependency-Self sufficiency	5.92	5.24	7.20	5.88
13. Low self-sentiment inte- gration-High strength of self-sentiment	5.41	5.31	5.00	5.50
14. Low ergic tension-High ergic tension	5.27	5.69	4.90	6.25

Table 6

Mean HSPQ scale scores for the individual and group offense classification based on committing offense.

	Individual	Group
1. Sizothymia-Affecthymia	4.73	5.27
2. Low intelligence-High intelligence	4.24	4.00
3. Lower ego strength-Higher ego strength	5.76	6.06
4. Phlegmatic temperament-excitability	6.30	5.92
5. Submissiveness-Dominance	4.97	5.00
6. Desurgency-Surgency	5.55	5.33
7. Weaker superego strength-Higher superego strength	4.67	5.43
8. Threctia-Parmia	5.33	5.47
9. Harria-Premisia	6.55	6.06
10. Zeppia-Coasthemia	5.91	5.63
11. Untroubled adequacy-Guilt proneness	5.67	5.00
12. Group dependency-Self sufficiency	6.00	5.73
13. Low self-sentiment integration-high strength of self-sentiment	5.15	5.45
14. Low ergic tension-High ergic tension	5.55	5.41

Table 7

Mean HSPQ scale scores for the individual and group offense classification based on reported histories of offenses.

	Individual	Group
1. Sizothymia-Affectothymia	4.91	5.26
2. Low intelligence-High intelligence	4.48	3.86
3. Lower ego strength-Higher, ego strength	6.00	6.05
4. Phlegmatic temperament-Excitability	6.35	5.91
5. Submissiveness-Dominance	5.17	4.95
6. Desurgency-Surgency	6.09	5.18
7. Weaker superego strength-Higher superego strength	4.39	5.39
8. Threctia-Parmia	5.13	5.63
9. Harria-Premisia	6.13	6.16
10. Zeppia-Coasthemia	6.09	5.56
11. Untroubled adequacy-Guilt proneness	5.43	5.07
12. Group dependency-Self sufficiency	5.74	5.90
13. Low self-sentiment integration-High strength of self-sentiment	4.96	5.47
14. Low ergic tension-High ergic tension	5.35	5.42

Table 8

Mean HSPQ scale scores for the property and person offender classification.

	Individual	Group
1. Sizothymia-Affectothymia	5.08	5.00
2. Low intelligence-High intelligence	3.92	6.62
3. Lower ego strength-Higher ego strength	6.17	5.24
4. Phlegmatic temperament-Excitability	6.02	6.24
5. Submissiveness-Dominance	5.10	4.67
6. Desurgency-Surgency	5.41	5.43
7. Weaker superego strength-Higher superego strength	5.08	5.29
8. Threctia-Parmia	5.37	5.57
9. Harria-Premsia	6.13	6.62
10. Zeppia-Coasthemia	5.60	6.14
11. Untroubled adequacy-Guilt proneness	5.11	5.71
12. Group dependency-Self sufficiency	5.94	5.52
13. Low self-sentiment integration-High strength of self-sentiment	5.35	5.29
14. Low ergic tension-High ergic tension	5.35	5.81

Table 9

Mean HSPQ scale scores for the physical aggression and threatened aggression classification

	Individual	Group
1. Sizothymia-Affectothymia	5.14	4.71
2. Low intelligence-High intelligence	4.79	4.29
3. Lower ego strength-Higher ego strength	5.50	4.71
4. Phlegmatic temperament-Excitability	6.50	5.71
5. Submissiveness-Dominance	4.36	5.29
6. Desurgency-Surgency	5.36	5.57
7. Weaker superego strength-Higher superego strength	5.29	5.29
8. Threctia-Parmia	5.57	5.57
9. Harria-Premisia	6.64	6.57
10. Zeppia-Coasthemia	5.79	6.86
11. Untroubled adequacy-Guilt proneness	5.71	5.71
12. Group dependency-Self-sufficiency	5.14	6.29
13. Low self-sentiment integration-High strength of self-sentiment	4.86	6.14
14. Low ergic tension-High ergic tension	5.64	6.14

of the HSPQ the dependent variables. None of the four analyses reached statistical significance. However, several of the analyses of the individual scales either reached statistical significance or indicated trends.

Regarding the individual-group offense classification based on committing offense, trends were found on the untroubled adequacy-guilt proneness scale ($F = 2.98$, $df = 1$, $p < .10$) and the superego strength scale ($F = 3.53$, $df = 1$, $p < .10$). On the untroubled adequacy-guilt proneness scale, group offenders were found to be more self-assured and secure than individual offenders. On the superego strength scale, group offenders were found to be more socially conforming and moralistic than individual offenders.

In examining the individual-group classification based on reported histories of offense, statistical significance was found on the superego strength scale ($F = 4.81$, $df = 1$, $p < .05$) and the surgency scale ($F = 2.77$, $df = 1$, $p = .10$). The superego strength scale again indicated that the group offenders were more socially conforming and moralistic than the individual offenders. The surgency scale indicated that the individual offenders were more happy-go-lucky and less serious than the group offenders. The intelligence scale indicated that the individual offenders were more intelligent than the group offenders.

Regarding the property-person offender classification, statistical significance was reached on the ego strength scale ($F = 4.24$, $df = 1$, $p < .05$) and a trend was found on the intelligence scale ($F = 3.43$, $df = 1$, $p < .10$). On the ego strength scale, property offenders were found to be more emotionally stable and less easily upset than person offenders. On the intelligence scale, person offenders were found to be more intelligent than property offenders.

An examination of the results indicated that the personality

characteristics of person offenders and property offenders resembled those of the individual delinquent and group delinquent, respectively. Table 10 shows a comparison of the incidence of these two classifications. A Chi-square analysis indicated a significant relationship ($\chi^2 = 12.17$, $df = 1$, $p < .01$), with property offenders more likely being group than individual delinquents and with person offenders more likely being individual than group delinquents.

In examining the physical aggression-threatened aggression classification, a trend was indicated on the group dependency-self-sufficiency scale ($F = 2.96$, $df = 1$, $p = .1017$). Actual aggressors were found to feel more socially isolated than threatened aggressors.

Table 10

Frequencies of person and property offenses among group and individual offenders.

	Individual	Group
Person	17	7
Property	23	52

DISCUSSION

An examination of the results reveals that the incidence of learning and academic problems among juvenile delinquents was extremely high. Nearly ninety percent of the subjects involved in this study were classified as psychometrically mentally retarded, underachievers, or as having specific academic deficiencies. These findings contrast sharply with findings for non-delinquent adolescent populations. Whereas 12.2 percent of the subjects in this study were classified as being psychometrically mentally retarded, only 3 percent of the population is classified as such. Though no normative data on the incidence of specific academic deficiencies or underachievement as currently defined were found in the literature, there is evidence that the incidence of these problems would be considerably lower than among juvenile delinquents. For example, Bond and Tinker (1973) reported two studies indicating that 16 to 22 percent of eighthgraders are behind in reading by more than two grades. The current study found that 40.4 percent of the male delinquents were at least two grades behind in reading. The general results of this study support the findings of previous research which have indicated that the incidence of difficulties in school is considerably higher among juvenile delinquents than among the normal population (e.g., Wolfgang, Figlion, & Sellin, 1972).

These results, indicating a strong relationship between juvenile delinquency and learning problems, warrant a closer examination and hypotheses with respect to the possible bases for this relationship. Two hypotheses are offered. The first hypothesis is that learning problems may be a causal factor in the development of delinquency.

Individuals who have learning problems may be less able than their normal counterparts to derive reinforcement in academic settings. Society dictates that children spend a major portion of their time in a school setting. Individuals who have less than average ability to derive reinforcement from such settings are likely to meet with a great deal of frustration and boredom. It is highly likely that these children will attempt to find reinforcement elsewhere. One possible source of reinforcement is through delinquent activity. Delinquent peer approval may provide these children with a sense of satisfaction as may the inherent qualities of stolen goods and property.

The second hypothesis posits the notion that delinquency in a child may result in the development of academic problems. That is, children who become involved in delinquent activity may spend so much time and energy in this activity that they perform poorly in school. Children who find reinforcement in delinquent behavior may have little motivation to engage in academic activities. Such children may spend increasingly greater amounts of time being absent from school and thereby fall progressively further behind in achievement.

Previous studies which have investigated differences between individual and group offenders (Randolph, 1961; Brigham, Ricketts, and Johnson, 1967), have used a variety of procedures for making the individual-group offender classification. Before discussing the present results, the differences between the two procedures used in the current study will be reviewed briefly. Whereas the procedure involving the committing offense question inherently refers to only one specific delinquent act, the procedure involving the reported histories of offenses results in a summary or general statement of the child's delinquent behavior. It is felt that the procedure based on history is likely to be more reflective

of a stable characteristic of the child than the procedure based on committing offense. As was discussed in the results, the procedure based on history of offenses was found to reflect significant differences between group and individual offenders on two of the HSPQ dimensions. The other procedure reflected no significant differences between group and individual offenders.

Though both procedures were primarily dependent upon the subject's self-report in making a classification, the committing offense procedure involved an attempt to validate the subject's statement through an examination of the court records. The finding that in only two of 37 cases did the subject's report differ from the information in the record is interpreted as an indication that the subjects were honest and straightforward in revealing information about themselves.

Both individual-group offense classification procedures resulted in greater percentages of group offenders than individual offenders. These results are consistent with the findings of previous studies (Randolph, 1961; Brigham, Ricketts, and Johnson, 1967; Mizushima and DeVos, 1967). The procedure based on committing offense resulted in 59.6% group offenders, whereas the procedure based on reported histories of offenses resulted in 71.3% group offenders and 28.7% individual offenders. Two reasons are hypothesized as to why the two approaches resulted in different percentages. First, it is possible that juvenile delinquents are more likely to be committed for individual offenses than for group offenses. That is, although a particular youngster may typically get in trouble with the law while he is with peers, he may be more likely to be committed to the state's care for an offense in which he acted alone. The second reason is that the procedure involving the reported histories of offenses may be more conducive to unintentional delinquent

bias than the other procedure. That is, whereas in the procedure involving the committing offense question, the subject was given a specific behavior regarding which he made a judgment, in the second procedure the subject was asked to respond to a more vague "history" of offenses.

Assuming that there is a greater likelihood for an error in subjects' judgment to be made in the latter procedure than in the former and assuming that it is more socially desirable for a youngster to view himself as a group delinquent than as an individual delinquent, one would expect the obtained results.

In interpreting the statistical analyses relating the offense classifications and the four school-related categories, caution must be taken in view of the fact that none of the overall analyses reached statistical significance. Regarding the individual-group classification, the only hypothesis supported by the data was that a greater proportion of group offenders than of individual offenders were underachievers. This finding lends support to the contention that underachieving delinquents experience very little positive reinforcement through academic involvement and are likely to turn to peers with similar problems and experiences in order to obtain social reinforcement.

Though it was predicted that youngsters with specific academic deficiencies would also turn to peers for reinforcement and would thus be more likely to engage in group than individual delinquent behaviors, the results of one statistical comparison indicated the opposite. That is, when subjects with specific learning difficulties were compared to the remainder of the sample, it was found that they were more likely to be individual offenders than group offenders. One possible explanation for this result is that youngsters with specific academic deficiencies have relatively little in common with other youngsters who experience a lack

of academic reinforcement. That is, the bases for this type of academic problem are viewed as being more diverse than other school-related problems. Whereas, underachievement has been considered primarily a generalized motivational problem, (Kessler, 1966, Chapter 9) specific academic deficiencies probably reflect a wider range of etiologies (Erickson, 1978, Chapter 10).

An examination of the data indicated that psychometrically mentally retarded delinquents were no more or less apt to be classified as group offenders than individual offenders. It had been predicted that retarded individuals would have a tendency to be group offenders. This prediction was based on the notion that retarded individuals would be more vulnerable to the influence of peers than more intelligent individuals. Blackhurst (1969) reported that delinquents of sub-average intelligence are likely used as pawns by more intelligent peers. One factor which may have contributed to the obtained results is in the current finding regarding personality factors. It was found that retarded delinquents appeared to feel more socially isolated than delinquents from the other school-related classifications. Though mentally retarded delinquents may be highly vulnerable to peer influence, it is felt that they may have a tendency to avoid the peer contact which leads to their being influenced.

Regarding the property offender-person offender comparisons, no significant relationship was found with any of the school-related problems. Though it had been predicted that a greater proportion of person offenders than of property offenders would be classified as being underachievers, the proportions were not significantly different. Property offenders were just as apt to be underachievers as were person offenders. In the rationale of the prediction, it had been reasoned that underachieving delinquents would likely be more disturbed than non-underachiev-

ing delinquents and would thus be more likely to commit crimes against person than property. One possible explanation for the obtained results is that underachieving delinquents in this study appeared to be no more disturbed than non-underachieving delinquents. An examination of the dimensions of the HSPQ revealed no significant differences between the underachieving subjects and the subjects in the other school-related problem groups.

It was predicted that children with specific academic deficiencies would have a greater tendency to be property offenders than person offenders. This was not found to be the case. There was no significant differences between the proportions of property and person offenders who had specific academic deficiencies. The rationale was based on the expectation that juvenile delinquents with specific academic deficiencies would be less disturbed than their counterparts without this problem and would have less of a tendency to commit an offense against person than an offense against property. An examination of the results of the HSPQ indicated that juvenile delinquents with specific academic deficiencies are no less disturbed than delinquents without this problem.

The third prediction that was made in regard to the person-property classification was the psychometrically mentally retarded subjects would have a greater tendency to commit offenses against property than offenses against person. This prediction was not supported by the data. No significant relationship was found between psychometric mental retardation and this offense classification. The prediction had been made on the basis of previous research which had indicated that among juvenile delinquents, individuals in the mentally retarded range had a lower proportion of offenses against persons than did subjects in the average and above ranges (Dennis, 1976). It is felt that the discrepancy in the

results of these two studies is based on the differing characteristics of the subjects.

An examination of the results indicated no significant relationships between the threatened aggression-actual aggression classification and the school-related problems. It was predicted that delinquents classified as having specific academic deficiencies would likely be less disturbed than delinquents without this difficulty and would hence be more apt to actually aggress in an offense. Further, it was predicted that delinquents classified as underachieving would be more disturbed than non-underachieving delinquents and would hence be more likely to actually aggress in an offense. As mentioned previously, delinquents with either of these school-related problems were found to be no more or less disturbed than delinquents without these problems on the HSPO.

The other prediction made with regard to the actual aggression - threatened aggression classification was that psychometrically mentally retarded subjects would have a tendency to be actual aggressors. No significant relationship between these two variables was found. A primary reason for the lack of significant findings in this relationship is felt to be based on the small number of subjects in this comparison. Though statistical significance was not reached, the obtained results are in the direction of the prediction. Eighty percent of the psychometrically mentally retarded delinquents whose offenses were against persons were found to be actual aggressors. This was in comparison to 63.1% of the non-retarded subjects. It is felt that a larger scale study would support the prediction that in offenses against persons, mentally retarded delinquents have a tendency to be physically aggressive.

An examination of the results of the High School Personality Questionnaire indicated that several of the univariate analyses of

variance reached significance. One must note, however, that none of the multiple analyses reached significance, indicating that some of the findings may be due to the possible correlation of the HSPQ scales. The obtained HSPQ results provided no support for the prediction that delinquents classified as not having one of the school-related problems would be more disturbed than delinquents classified as having one of these problems. Delinquents without school-related problems were no more or less disturbed than those with a school-related problem. The prediction was based on the characterization of sociopaths as being charming individuals, who are aware of the amenities and the moral code and who are thus more likely to be able to make an adequate school adjustment. One possible explanation of the obtained results is that other characteristics of sociopaths such as unreliability and failure to learn from experience (Cleckley, 1970) outweigh their ability to be charming, and result in their having just as many school problems as non-sociopathic delinquents.

In comparing the four school-related groups on the basis of the HSPQ, only one difference was found. Significance was reached on the group dependency self-sufficiency factor. An analysis of the items composing this variable indicated that psychometrically mentally retarded delinquents had a tendency to feel more isolated from their peers than delinquents from any of the other groups. The general lack of personality differences between retarded delinquents and non-retarded delinquents appears to be consistent with previous research. For example, in Dennis' (1976) study, no differences were found between retarded and non-retarded delinquents with the personality variables of self-concept, locus of control, and motivation. Except in the area of mental retardation in juvenile delinquency, no research investigating the personality

differences of delinquents in the school-related groups was found.

Comparisons of the four offense classifications for delinquents on the HSPQ revealed several differences. In the comparison of group and individual delinquents based on history of offense, individual offenders scored higher than group offenders on a scale that reflects a tendency toward being heedless, happy-go-lucky, and impulsive. In addition, individual offenders scored lower on a scale reflecting a tendency toward being socially conforming and moralistic. These findings suggest sociopathic characteristics for the individual delinquent and support the results of previous research (Randolph, 1961; Shinohara and Jenkins, 1967; Mizushima and DeVos, 1967). Further examination of the results indicated a statistical trend toward individual offenders being more intelligent than group offenders. This finding also supports the results of previous research (Randolph, 1961).

In the comparison of the group and individual offenders based on committing offense, two trends emerged. As with the group-individual classification based on history of offenses, group offenders scored higher on a scale reflecting a tendency toward being socially conforming and moralistic. Group offenders also scored higher on a scale indicative of a sense of security and self-assuredness. These findings support the results of previous research (Randolph, 1961; Shinohara and Jenkins, 1967) and characterize the group offender as being less disturbed and less sociopathic than the individual offender.

A comparison of property offenders and person offenders indicated person offenders to be more intelligent though less emotionally stable than property offenders. No previous research reporting personality differences based on this classification were found. The obtained personality profiles of person offenders and property offenders appear to

resemble the obtained profiles of the individual offender and group offender, respectively. Statistical analysis of the person-property classification and the individual-group classification based on committing offense showed a clear relationship between these two classifications. Property offenders were more likely to be group delinquents than individual delinquents, and person offenders were more likely to be individual delinquents than group delinquents.

In the threatened aggression-actual aggression comparison, the only difference found was that actual aggressors appeared to have a tendency to feel more isolated from their peers than threatened aggressors. No previous research comparing the personality characteristics of these groups was found. The current finding suggests several possible explanations. One is that delinquents who feel isolated from their peers may have interpersonal difficulties which give rise to aggressive outbursts. Another possibility is that delinquents who become involved in physical aggression are socially isolated by their peers.

In a comparison of the school-related problems, one notes both similarities and differences for the classifications of underachievement and of specific academic deficiencies. Though these classifications have been treated as two distinct variables in this study, it is evident that there is overlap between them. Inherent in the operational definitions of these classifications is the fact that they represent relative points on a continuum. However, one should remain aware of the likelihood of overlap between the two classifications. The underachieving group likely includes some children who would have been classified as having specific academic deficiencies when younger. Such children may have been deficient in only one or two of the WRAT areas in the earlier grades, but then fell behind in all three areas as a result of being behind in the one or two

initial problem areas. For example, a child who has only a specific reading difficulty in the first three or four grades is likely to develop problems in other academic areas as a result of this specific difficulty. Reading skills become increasingly important as a basis for learning in other academic areas as a child advances toward higher grade levels. Thus, though underachievement has generally been recognized as a motivational problem, it likely includes some individuals who may have had adequate motivation, but because of some specific deficit, they were unable to progress at expected achievement levels.

Underachieving delinquents and delinquents with specific academic deficiencies do, however, have distinctive qualities. The results of this study indicated that underachievers had a tendency to be group offenders whereas delinquents with specific academic deficiencies had a tendency to be individual offenders. In view of these findings, the discussion regarding the possible overlap between the two classifications gives rise to suggestions for possible research. A retrospective longitudinal study aimed at determining the early academic characteristics of delinquents classified as underachieving would appear to be meaningful. Distinguishing those underachieving delinquents who would have earlier been classified as having specific academic deficiencies from those who would have always been classified underachieving might reveal additional information about the differences between underachieving delinquents and delinquents with specific academic deficiencies.

The fact that the current definitions of specific academic deficiencies and underachievement represent points on a continuum gives rise to an additional research suggestion. The learning difficulty classification represents several points on this continuum as delinquents in this classification include children who are deficient in one academic area, as well as those

deficient in two academic areas. A larger scale study which broke learning difficulties into specific problem areas might reveal further differences. As mentioned previously, it appears that delinquents in the specific academic deficiency classification represent a more heterogeneous group than delinquents in the underachieving classification. Refinement and closer examination of the specific academic deficiency classification may add light to the nature of this heterogeneity.

Further review of the results supports the idea that a larger scale prospective study would also be in order. As reported previously, nearly 90% of the delinquents in the current study were found to have school-related problems, a percentage of problems which appears to be substantially higher than that of the non-delinquent population. This result supports the previously established relationship between academic problems and juvenile delinquency (Murray, 1976), and points to the need for an extensive investigation into the nature of this relationship. Murray (1976) has already indicated that there is a need for such research. A long-term prospective study, in which children with school-related problems were identified at an early age and then followed through adolescence, would allow an assessment of the possible role that school-related problems play in the development of juvenile delinquency. If the existence of a causative relationship was found, society could make progress in the prevention and treatment of juvenile delinquency by channeling resources into the development of treatment programs for school-related problems.

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APPENDIX A

Consent Form for Juvenile Delinquents

Consent Form

I, _____, agree to participate in this study. I understand that I will be taking two paper and pencil tasks which will have no physical or psychological risks for me. I understand that Bob Rymer, the guy giving me these tasks, knows that I have already taken or will be taking a similar task. Bob Rymer will be able to use information from my record in his study. I understand that I am volunteering for this study, and I may quit at any time. My participation or lack of participation will in no way affect my status at the Reception and Diagnostic Center.

I understand that the results of the tasks will be kept strictly confidential, and that no one except the people running the experiment will have access to them. No one at the Diagnostic Center except Bob Rymer will be able to find out how I did. My name will not be used in any report of this study.

Date

Signature

Date

Signature (Witness)

APPENDIX B

Authorization for Participation Form

AUTHORIZATION FOR PARTICIPATION FORM

Project Title: An Examination of Intellectual Functioning, School Achievement, and Personality Characteristics of Delinquent Adolescents.

Principal Investigators: Marilyn Erickson, Ph.D.
 Professor
 Department of Psychology
 Virginia Commonwealth University

Robert Rymer, M.S.
 Psychologist
 Mobile Psychiatric Clinic
 Division of Youth Services

The primary purpose of this study is to examine the relationship between juvenile delinquency and psychometric mental retardation, specific learning difficulties, and underachievement.

_____ (child's name) will be asked to participate in this study and if he chooses to participate and signs a consent form, he will be administered two tests: the Slosson Intelligence Scale, and the High School Personality Questionnaire. Individuals deciding to serve as subjects will be given refreshments. Information regarding the type of offense committed by the individual will be obtained from his record.

I understand there is no physical, psychological, social or other risk to _____ (child's name) as a result of his participation. Moreover, I understand that all scores will be kept confidential, his name will not be used in any report of this research, and that he may choose to stop participating at any time.

I, William G. Schoof, acting as legal guardian and serving in loco parentis (Statute 32-137, Code of Virginia) give permission for _____ (child's name) to participate in this research.

 Date

 Signature

 Date

 Signature (Witness)

VITA

