

PERSONALITY CHARACTERISTICS OF NONVIOLENT
AND VIOLENT JUVENILE OFFENDERS:
THE UTILITY OF THE MMPI AND JESNESS INVENTORY
IN A FORENSIC SETTING

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Personality Characteristics of Nonviolent and
Violent Juvenile Offenders: The Utility of the
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Abstract

Two hundred adolescent males who were charged with a criminal offense under the Young Offenders Act, were determined to be either nonviolent or violent offenders. Their MMPI and Jesness Inventory scores were investigated in relation to this designation. Violent offenders were hypothesized to score higher than nonviolent offenders on the following scales; F, 4, 8, and 9, of the MMPI, and Manifest Aggression, Social Maladjustment, Autism, Alienation, and the Asocial Index of the Jesness Inventory. A MANOVA indicated that violent and nonviolent offenders did differ significantly on these scales, but in the univariate analyses, no differences could be found on any of the scales when the alpha level was corrected. Similarly, no particular two point code type of the MMPI was more prevalent in either group. A discriminant function analysis correctly classified 59% of the offenders using the above nine scales, which was a statistically significant, but clinically not significant result. Results are discussed with respect to the utility of using these measures in a forensic setting.

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Introduction

Why Study Violent Juveniles?

There are several reasons for studying violent juvenile offenders. The first reason is that violent juveniles have become a widespread social problem in North America. In the United States, violent crimes increased 39% between 1970 and 1975, and 50% of the violent offenders were under 18 years of age. During this period the number of persons under 18 arrested for murder increased by 28%, and for aggravated assault the number increased by 57% (Martin, 1983). This pattern is continuing, with juveniles being arrested for offenses at a rate much greater than their percentage increase in the population. A similar pattern is occurring in Canada. According to Statistics Canada (1978, 1982), the number of adjudicated juvenile offenders sentenced to a period of containment rose from 4424 in 1978 to 9407 in 1982 - an increase of 113%. During the span of only one year (1982-1983) the charge rate for 17 year olds in Canada increased by 17%.

A second reason for learning more about violent juvenile offenders is that the mental health and criminal justice systems often are put in a position of having to make decisions which can have a significant effect on the juvenile's life (e.g., whether a juvenile should be incarcerated). Unfortunately some of these decisions are based on such things as predictions of future violence, or dangerousness, an issue which is by no means resolved

in the literature. However, decisions such as these continue to be made in the legal system. For example, Canada includes a prediction of dangerousness as part of its civil commitment criteria, and with the introduction of Bill C-67 in June of 1986, has also legislated that a prediction of dangerousness be taken into consideration in the determination of release of inmates under mandatory supervision. Wright and Friesen (1985) noted that many adjudicated juvenile offenders are sent for psychological evaluation, and part of this evaluation often requires that the psychologist predict institutional adjustment and potential for violence.

With respect to disposition, the judicial choice of probation or prison can be heavily swayed by formal or informal assessments of dangerousness, as can decisions about suitability for community rehabilitation programmes or fitness for granting bail. Past violent behavior, together with a prediction of further violence can also play a crucial role in 'raise' hearings: the decision of transferring a case from juvenile to adult court (Martin, 1983). One important implication that follows from a juvenile being raised to adult court can be a longer incarceration period.

Another reason for studying violent juvenile offenders is that relatively little work has been done in this area to date. The existing research has primarily been designed to separate

"delinquency" into its component personality subtypes, but little effort has been made to differentiate delinquents in terms of the existence of specific, circumscribed behavior patterns such as aggressiveness.

Finally, understanding more about the violent juvenile may lead to placement and treatment decisions that will maximize the individual's opportunity to rehabilitate, for example, decisions involving type of facility a youth is placed in (i.e., locked versus unlocked). Another more immediate application would be to facilitate the management of youths in different types of facilities, both short and long term. In addition, differential treatment could be administered on the basis of the youth's potential for assaultive behavior. Therapeutic intervention can be focused on the issue of violence in a way which is most congruent with the individual's personality.

Three Perspectives On the Study of Violent Behavior

Researchers interested in understanding violent behavior have generally adopted one of three broad perspectives, which overlap and interact with each other. These three perspectives will be referred to as situational, social learning, and individual differences. Although research tends to fall into one of these approaches, it is important to keep in mind that a number of causes are responsible for violent behavior, and that no one

cause can adequately explain it (Kozol, 1975). All of the perspectives outlined below make their contribution in understanding why at a given moment, a particular individual engages in a violent act.

Situational Approach

In the situational perspective, theorists emphasize the role of specific stressors that result in, or facilitate violent behavior (Martin, 1983). Several of these factors have been identified which range from those that appear to directly cause violent behavior, to those that are only correlated with violent behavior. Stimulation of the amygdala, low blood sugar, and an injection of testosterone can produce violent behavior (Myers, 1983). Alcohol consumption has long been recognized as an important variable associated with violent behavior (Cappell, LeBlanc, & Rosenberg, 1985). Drugs such as phencyclidine (PCP), barbiturates, amphetamines, and some neuroleptics have also been linked to aggressive behavior (Menuck, 1985). Other factors such as bodily arousal (sexual or otherwise), or frustration can also produce aggressive behavior (Myers, 1983). Transient emotional states, such as producing or enhancing feelings of inadequacy, coupled with stress, has been shown to precipitate aggressive behavior in adolescents (Burks & Harrison, 1962). Similarly, Clarke (1961) found that a highly stressful event, such as a

parent's death, preceded delinquent acts in a large sample of boys.

The situational perspective has made a substantial contribution in the understanding of violent behavior, primarily by identifying significant variables associated with the commission of violent acts. More recent research in this area (e.g. Menuck, 1985) is becoming more complex, and analyzing the interaction between the factor and the predisposition of the individual, which leads us to the social learning and individual differences approaches.

Social Learning

The social learning approach hypothesizes that environmental factors, both in the home and in society at large, are responsible for violent behavior. Broken or rejecting homes and inconsistent parenting have frequently been implicated (Climent, Rollins, Ervin, & Plutchik, 1973; Lefkowitz, Eron, Walder, & Huesmann, 1977), as have parents who are poor role models (Green, Gaines, & Sandgrund, 1974). Bandura has emphasized the importance of social role modelling for the acquisition of violent behavior, and the relevance of social inducement and condonement as influences that maintain and regulate aggressive behavior (Menuck, 1985). Exposure to violent material such as pornography, and television has been consistently related to increased violent behavior (Myers, 1983). Social disorganization and impoverishment have also

been cited as producing violent adolescents and adults (Zimring, 1979). Even a move from inner city to outside the city contributes to a decrease in delinquency (West, 1982).

Similar to the situational perspective, the social learning literature has made a substantial contribution in the understanding of violent behavior, again primarily by identifying significant variables associated with the commission of violent acts. The social learning perspective can be seen as a link between the situational perspective and the study of personality differences, since the social learning literature includes both theories of how an individual becomes violent (e.g., early life experiences) and some of the more immediate temporal factors which are associated with violent behavior (e.g., exposure to violence).

Individual Differences

Theorists who focus on the study of individual differences in understanding violent behavior roughly fall into two camps: physiology and personality. A famous example of a physiological explanation for a violent act was the case of Charles Whitman, who in 1966 killed his wife and mother, and then went to the top of the University of Texas Tower and shot to death fourteen people. He left a letter in which he recalled his "overwhelming violent impulses" and "tremendous headaches". Whitman's autopsy revealed a malignant brain tumor the size of a walnut (Myers, 1983). Spellacy (1978) hypothesized that organic impairments are the

principal component of delinquent and violent behavior, given the neuropsychological differences he found between delinquents and nondelinquents, and between violent and nonviolent men. Lewis, Shanok, Pincus, and Glaser (1979) also found that violent juvenile delinquents were more likely to have neurological abnormalities, and Lewis, Shanok, Grant, and Ritvo (1983) found that homicidally aggressive juveniles were significantly more likely to have had a seizure than nonhomicidal juveniles.

Although the 'explanations' of physiological psychologists and personality theorists sound quite different, physiology and personality cannot really be divided. An individual's personality is made up of their physiology, which in turn is a product of their learning history, which determines their personality. One's physiology therefore impacts on, and creates one's personality, and vice versa.

An example of a personality theory of violent behavior is one provided by Menuck (1985), which focuses on the impaired capacity for healthy object relations. He states that ego defects resulting from emotional deprivation in infancy may include a disturbed sense of self with blurring of boundaries between fantasy and reality, frustration intolerance, and poor impulse control. Such ego weaknesses may allow periodic breakthrough of intense aggressive impulses. Because early dependency needs were unmet, these individuals experience persistent feelings of

powerlessness and passivity, and they rely on defensive toughness and fantasies of omnipotence to combat those feelings. Dependency anxiety in males may be felt as a threat to masculinity, triggering a violent reponse. Malmquist (1975) similarly hypothesized that object losses, threats to manhood, and homosexual threats are likely to produce homicidal behavior in adolescents. Kendall, Deardoff, and Finch (1977) and Ganzer and Sarason (1973) postulated that youths with a psychopathic personality are the most likely to repeatedly commit delinquent acts. Blackburn (1972) postulated two basic personality dimensions along which aggressive offenders fall: readiness to respond to stimuli aggressively, and the tendency to view oneself and others negatively.

Why the The Minnesota Multiphasic Personality Inventory (MMPI)?

The MMPI was chosen for this current research investigation based upon its clinical reputation as a "matchless objective instrument for the assessment of psychopathology" (Martin, 1983, p.28). Although a great deal of the research literature on the MMPI is easily criticized, it remains an objective test with an extremely diverse and sound research background. Ten years ago, the MMPI's track record was already over 6,000 citations (Buros, 1978) concerning personality composition and psychopathology in a variety of settings. It is used widely throughout the American

criminal justice system and is most often incorporated as part of a standard assessment test battery for newly convicted felons (Elion & Megargee, 1975; Gearing, 1979). In forensic assessments, the MMPI heads the list as one of the most widely used and useful instruments (Lees-Haley, 1984). It is also widely used as a tool for screening and program placement (Martin, 1983).

As a self-report measure the MMPI has the advantage of well-established reliability and validity, and relatively simple administration and scoring (Fruchtman, 1982). It was designed to evaluate and graphically display an individual's level of psychopathology in various areas of the personality (Gearing, 1979). Bromberg (1965) has indicated that individuals who commit various types of criminal offenses manifest dissimilar personality dynamics, which are measurable with the MMPI. Muirhead (1977), also using the MMPI, stated that various combinations of psychopathology are highly correlated with specific types of anti-social behavior. Furthermore, there is reason to expect from the literature (reviewed below) that the MMPI would prove useful for distinguishing violent from nonviolent juvenile offenders.

Why the Jesness Inventory (JI)?

As mentioned above, many of the youths adjudicated in Canada are required to have a psychological evaluation. However, there has been no comprehensive battery of tests available for such a

purpose. The assessment of adolescents in general has largely relied upon tests designed for adults (LeUnes, Evans, Karnei, & Lowry, 1980). This is especially true for young offenders, who have typically been tested on instruments developed for adult nonoffenders, such as the MMPI (Gendreau, 1975). The Jesness Inventory (Jesness, 1983), a multiscale personality test developed specifically for use with delinquent adolescents, is a notable exception. The inventory measures several constructs which are important in understanding delinquent behavior, and is regarded as "a useful addition to measurement in the study and treatment of young offenders" (Buros, 1978, p. 1138). Administration and scoring of the test is relatively simple, the author explains and references all of the statistical techniques used in the development of the measure, and norms are provided for different age groups. Reliability and validity are also within commonly accepted standards for personality inventories (Jesness, 1977; Simonds & Kashani, 1979)

Support for the investigation of a personality measure such as the Jesness is found in the work of Haynes and Peltier (1983). In their investigation in Canada and the United States, they found that only one of the eight most widely used tests in juvenile forensic settings has been constructed during the past 30 years. They noted a lack of diversity and infrequent use of instruments developed particularly for use with a delinquent population, and

found that the JI was used in less than 10% of juvenile forensic psychological clinics. In addition they criticized an over-reliance on projective measures of controversial reliability and validity. They conclude that techniques of greater psychometric purity and focused on particular population groups need to be developed and used.

Some early work with the Jesness indicates that it may be useful in this regard. For example, Cowden, Peterson, and Pacht (1969) compared the JI to the Minnesota Counseling Inventory (MCI) and found that the JI scales consistently discriminated among the subgroups of delinquents more significantly than the MCI scales, and was therefore viewed as a more satisfactory screening and classification device. The JI has also been used in England (Fisher, 1967; Mott, 1973) and Scotland (Vallance & Forrest, 1971) and has been found have good reliability and validity, and to be a consistent discriminator between delinquent and nondelinquent subjects.

Past Research - The MMPI

Predicting Violence in Adults with the MMPI

Many researchers have cited the usefulness of high scores on MMPI Scales F, 4, 8, and 9, as predictive of violence. A high score on Scale F can be indicative of rather unusual thought processes in a sullen, rebellious individual. Scale 4, the

"psychopathy" scale, is most likely to be elevated in a hostile, nonconforming, antisocial individual. These people exhibit minimal impulse control and low frustration tolerance, as well as poor family relationships. Those individuals who are not schizophrenic, yet score high on Scale 8, are usually socially and emotionally alienated from others. They are also likely to have difficulty with impulse control. Finally, high scorers on Scale 9 tend to be active, easily excited, and more or less amoral. Therefore, it is not surprising that high scores on these MMPI scales, in various combinations, have been viewed as predictive of violence.

Carroll and Fuller (1971) found that the only significant difference between their violent and nonviolent prisoners on the MMPI, was on the F Scale, which was higher for the violent group. Usually however, an elevation on the F Scale is accompanied by elevations on other scales in violent populations. For example, Anderson, Kuncze, and Rich (1979), who analyzed MMPI profiles of 92 sex offenders found the most severe psychopathology and violence in those categorized by peaks on MMPI Scales F, and 8. These men were most likely to use weapons, degrade, and murder their victims.

Spellacy (1978) also found an elevation on the F Scale, this time accompanied by an elevation on Scale 6, when he compared 40 violent and 40 nonviolent male prisoners. In addition he found

that violent subjects have significantly lower scores on K and 5, and had a mean profile with peaks above a T score 70 on Scales 9, 8, and 4, while the nonviolent criminals had a peak above 70 only on Scale 4.

Similar to the F Scale, Scale 4 has sometimes not been found to be a single discriminator between violent and nonviolent subjects, but occurs along with other elevations. In addition to Spellacy's (1978) finding where nonviolent criminals had an elevation on Scale 4 alone, Sutker and Allain (1979) found that elevations on Scale 4 were prominent among groups of men convicted both for criminal homicide and nonviolent offenses. They found however that whereas the nonviolent offenders had only Scale 4 elevated, the violent inmates had elevations on both Scales 4 and 8. Climent, Rollins, Ervin, and Plutchik (1973) also found that high score on Scale 4 to be predictive of violence in female prisoners, however this time in conjunction with Scale 9.

A very common method of interpretation of MMPI profiles is to look at the highest two scales. One of these which has been examined in the literature is the 4-8 two point code type.

McCreary (1976) compared individuals convicted of misdemeanor and assault with those convicted of nonassaultive offenses. He found assaultive males to have higher elevations only on Scale 9, but also found that the 4-8 profile contained the largest percentage of assaulters. In another study, Deiker (1974)

compared MMPI profiles across four groups. These groups consisted of inmates incarcerated for offenses involving threat, assault, homicide, and a control group. When comparing the resultant MMPI profiles of the threat, assault and homicide groups, it was noted that the threat group two point code was 4-2, whereas the assault and homicide group two point codes were 4-8.

A second popular two point code type which has been studied with respect to violent offenders is the 4-9 code type.

Rader (1977), in an attempt to isolate the profile variables of the assaultive personality, found a significantly higher incidence of the 4-9 code within a population of men who had been convicted of violent criminal behavior, e.g., assaulters as opposed to sexual exposers. This profile pattern, most often associated with "the psychopathic personality" is indicative of one who tends to be overactive, impulsive and irresponsible. They have also been found to have histories of acting out and aggressive behaviour (Dahlstrom, Welsh, & Dahlstrom, 1972).

However, the 4-9 code type has also failed to differentiate between violent and nonviolent offenders. Sutker and Allain (1979) found that the 4-9 pattern was very common in prisoner populations, and characterized both 33% of the nonviolent and 20% of the violent offenders. In fact, they found that the occurrence of 4-9 profiles among nonmurderers were significantly more prevalent than among murderers.

The MMPI 4-3 code type has also been considered predictive of violent criminal behavior in males. The rationale is that a high 4-3 code type taps overcontrolled individuals who episodically behave extremely assaultively and have a poor prognosis for change. Megargee has been the principal researcher of the relationship between overcontrol and violence, and a number of his studies have found the MMPI, particularly Scale 3 and the 4-3 code type, to be useful in distinguishing violent from nonviolent individuals (e.g., Megargee & Bohn, 1977).

In support of this typology, Davis and Sines (1971) evaluated MMPI profiles and found that those men who had engaged in violent behavior scored highest on the 4 and 3 scales. The 4-3 profile was accurately correlated with a behavioral pattern of hostile aggressive outbursts in usually quiet men. A similarity between the superficially quiet subject as described above and the overcontrolled undercontrolled typology described by Megargee (1977) was noted. Persons and Marks (1971) also conducted a comprehensive investigation of the 4-3 profile at an Ohio State Prison. They found that of the subjects tested with a 4-3 code, 85% had a past history of violence, and that of the four most common MMPI code types in a prison sample (4-2, 4-9, 4-8, and 4-3), prisoners with a 4-3 code were the only group to have committed significantly more violent crimes than the base-rate for prison inmates.

However, more recent studies have failed to replicate such findings, and it has been hypothesized that the original studies simply are not generalizable to diverse samples of violent individuals (Gynther, Altman, & Warbin, 1973; McCreary, 1976). Lothstein and Jones (1978), using a younger sample than previous researchers, were unable to differentiate between assaultive and non-assaultive male prisoners utilizing the MMPI 4-3 code type. Buck and Graham (1978) had similar results, and attributed this to their less severely assaultive sample of medium-security prisoners. They concluded that the relationship between a 4-3 profile and violent behavior could be expected only in populations identical to those in which the relationship was initially found. Given the theoretical rationale for the original results, an 'identical' population would include many individuals convicted of an extremely violent crime who are normally overcontrolled and passive.

Predicting Violence in Adolescents with the MMPI

Early studies using MMPI profiles, focused on determining the differences between delinquents and nondelinquents. For example, Capwell (1945) and Monachesi (1948) found that the MMPI distinguished between female adjudicated delinquents and nondelinquents, but not between male delinquent and control groups. After the K scale was developed, several authors found significant differences for both male and female delinquents

versus nondelinquents. Hathaway and Monachesi (1963) administered the MMPI to 11,329 ninth graders and found that the delinquency group had high scores on Scales 4, 8, 9, and 6. Profiles with no scales above 70 or those with highest peaks on Scales 2, 3, 7, 5, and 0 were associated with no delinquency. Monachesi (1950) reported that male delinquents scored higher than nondelinquents on Scales 1 and 8, and much higher on Scale 4. However differences were not always consistent, and factors which were found to make a significant difference included whether the juvenile was institutionalized, and socioeconomic status. Since then several researchers have searched for 'typical' delinquent MMPI profiles. McKegney (1967) hypothesized that the 'characteristic' delinquency profile consisted of high scores on Scales 4, 8, 9, and F. Hathaway and Monachesi (1963) also came to view Scale 9 as a characteristic elevation in delinquent MMPI profiles, which was described as an exciter, that in combination with Scale 4 produces rebellious and excitable behavior in highly delinquent children. They reported that the Scales 4, 8, and 9 are elevated in boys with high delinquency rates and behaviors described as rebellious, unconventional, aggressive, negative, difficult, and expansive. They also found that boys who score high on F and/or L had the highest delinquency rate. With respect to code types, they found profile codes 4-6, 4-8, and 4-9 to be predictive of delinquency.

Later, research became more 'fine tuned', and utilized the MMPI to develop subtypes of delinquency, once it was shown that delinquents cannot appropriately be classified as belonging to one homogeneous group. A number of researchers have delineated several subtypes of juvenile delinquents (Genshaft, 1980; McKegney, 1967; Shinohara & Jenkins, 1967; and Tsubouchi & Jenkins, 1969). However, very little MMPI research has focused exclusively on violent adolescents.

Butcher (1965), conducted one of the earliest studies on aggressive behavior in children using the MMPI. He used teacher and peer ratings to classify subjects as low, medium and highly aggressive, and MMPIs with 234 grade eight boys. Highly aggressive boys scored highest, and higher than their less aggressive peers, on MMPI Scales 4, 8, and 9. They appeared similar to delinquents in personality, being rebellious, schizoid and excitable, however they appeared more concerned over the effects of their behavior. Low aggressive boys appeared to be more disturbed than middle aggressive boys and similar to high aggressive boys in being more schizoid, however, they appeared more neurotic, withdrawn, and emotionally inhibited than other boys.

Huesmann, Lefkowitz, and Eron (1978) examined the relationship between the MMPI and aggression in a sample of nineteen year olds from the general population. Aggression was

measured through peer nominations when the subjects were in the third grade, and then 10 years later. They found that the sum of the T scores for Scales F, 4, and 9 was a valid measure of aggression, with higher reliability than when those scales were considered alone.

Drake and Oetting (1959) also found that Scales 4 and 9 coded the highest and appeared among the first three high points in an aggressive subgroup of 1,080 male college students given MMPIs. They also noted a low score of Scale 5 among the aggressive subgroup.

Spellacy (1977) found that the peak MMPI scales for both violent and nonviolent adolescents were 8, 4, and 9. However, the T scores for the violent group were significantly higher than for the nonviolent group.

McGrath (1968) compared adolescent drug users, thieves, and assaulters and found that while all three groups were similar on Scales 4 and 9, the assaulters had significantly higher scores on Scale 8 than the other two groups.

In conclusion, although results are sometimes conflicting, there appears to be a regularly occurring set of MMPI Scales, F, 4, 8, and 9, which have been linked to aggressive behavior. These scales emerge in both adult and adolescent studies, in various combinations, and are generally considered to tap the characteristics of the prototypical violent offender.

Past Research - The Jesness Inventory (JI)

The JI has been used for quite variable tasks, such as predicting recidivism of soldiers incarcerated for AWOL offenses (Fraas & Price, 1972), investigating the differences between heroin users and a control group of incarcerated delinquents (Stayton & Diener, 1979), measuring changes in delinquents after participation in an Outward Bound programme (Kelly & Baer, 1969), measuring changes in delinquent boys after a series of group therapy sessions (Brandt, 1973), investigating the personality characteristics of incarcerated juveniles with respect to institutional adjustment (Cowden, Peterson, & Pacht, 1969), testing the applicability of a token system in a state hospital adolescent ward (Elder, Plants, Welch, & Feindler, 1983), and investigating the personality differences between status offenders and juvenile delinquents (Stott & Olczak, 1978).

The JI has also been used in a couple of studies not in its entirety. For example, Dembo, Dertke, Borders, Washburn, and Schneider (1988) selected from the JI specific items in order to devise a questionnaire to be used with juveniles who are drug users. Similarly, Woodbury and Shurling (1975) also did not use Jesness scales, but instead used the instrument as a basis to identify factors which are descriptive of black delinquents.

Most of the research using the JI, however, has focused on differentiating delinquents from nondelinquents. Mott (1969) investigated the validity of the JI to discriminate between delinquent and nondelinquent boys, by comparing her sample of delinquent boys with boys in comprehensive schools with Fisher's (1967) sample of borstal (jailed) boys. She found that the Social Maladjustment, Alienation and Manifest Aggression Scales satisfactorily differentiated between the comparatively 'nondelinquent' (boys in comprehensive schools) and their convicted and institutionalized peers. Vallance and Forrest (1971) evaluated the application of the JI to Scottish children, and found that the JI discriminated significantly between delinquent and nondelinquent boys. They found the Social Maladjustment, Value Orientation, Alienation and Asocial Index Scales to be of the most use, followed by the Autism, Manifest Aggression, Immaturity and Social Anxiety Scales. Saunders and Davies (1976) investigated the validity of the JI with respect to both its ability to discriminate between delinquent and nondelinquent boys, and to its ability to predict recidivism. They found the Social Maladjustment, Value Orientation, Alienation and Manifest Aggression Scales to be the most important, and consistent in distinguishing between boys on probation and institutionalized delinquents, and between those who recidivated and those who did not. Saunders and Davies (1976) see the Social

Maladjustment Scale as associated with social aggression and poor relationship with peers, and that the picture of the continuing delinquent as being unsocialized, aggressive, anti-authority and unempathic.

As was the case with MMPI research, some of the more recent studies using the JI have become more fine tuned, in that they are differentiating between different types of delinquents, instead of viewing delinquency as a homogeneous category. For example, in Martin's (1981) study, two levels of institutionalized delinquents, those formally adjudicated by the courts for two or more charges, and those not formally charged, were compared with a socially acting-out group, and a matched control group. Martin (1981) found the Asocial Index to be significant across all groups, with a progressive increase in scores directly related to delinquent involvement. Significant differences were also found on the Social Maladjustment, Value Orientation, Autism, and Manifest Aggression Scales in the predicted direction. Graham (1981) examined only the Asocial Index of four groups of juveniles: a control group, a first time offender group, a probation group, and a multioffender group. She found that the Asocial Index distinguished serious juvenile delinquents from nondelinquents, and from those with less serious records. Finally, Kunce and Hemphill (1983) used the JI to investigate both frequency of prior arrests, and number of previous

institutionalizations in a group of institutionalized male delinquents. Social Maladjustment, Value Orientation, Autism, and Manifest Aggression, all correlated positively with both frequency of prior arrests and number of previous insitutionalizations.

Predicting Violence with the JI

Jesness (1983) has described four scales which may be hypothesized to be associated with aggressive behavior. The first is the Manifest Aggression Scale. This scale contains items suggesting the presence of feelings of anger and aggression, and discomfort concerning their presence and control. The second scale, Autism, taps other aspects of personality such as a tendency for the individual's thinking to be regulated unduly by personal needs, however, it was found in the Fricot Ranch Study that youths scoring high also tended to display hostile-aggressive behavior. The third scale is the Social Maladjustment scale, which measures the extent to which the individual shares attitudes expressed by persons who do not meet the demands of living in socially approved ways. Jesness (1983) noted that an individual who is a high scorer on this scale is often aware of, and bothered by, feelings of hostility, which he has trouble controlling. A fourth scale which may be hypothesized to be associated with aggressive behavior is the Alienation Scale, which measures the presence of distrust and estrangement in relationships with

others. Jesness (1983) noted that a hostile attitude toward others underlies many of the responses in this scale.

No research has been found that deals specifically with differences in JI scores between violent and nonviolent juvenile offenders. The closest study that could be found is one by Simonds and Kashani (1979) who investigated drug abuse and criminal behavior in delinquent boys using only the Asocial Index from the JI. They found that the mean Asocial Index for juveniles who had committed an offense against a person (e.g. murder, assault, rape, or robbery) was significantly higher than that of juveniles who had committed property only offenses.

The Present Study

Much of the literature regarding personality and the prediction of dangerous behavior focuses on the reliability and validity of different personality assessment devices. Although many of these instruments discriminate between criminal and noncriminal groups, few if any have been shown to differentiate adequately between violent and nonviolent individuals within criminal groups. However, these are precisely the differentiations that practitioners who work in a correctional or mental health setting are usually called upon to make (Megargee, 1976).

One issue which arises when conducting research with instruments such as the MMPI and the JI, is that since these inventories are comprised of several scales, and that many of these scales are expected to differ between groups, a high number of comparisons are made which increases the family wise error rate. Although correcting for this is a very simple procedure, and recognized as important to control for results which may be misleading, it is a procedure that is virtually ignored in the literature reviewed (of all of the studies cited, only a very few made an alpha level correction). Therefore, although hypotheses for the present study have been based on the literature reviewed, it may be that the studies comprising this literature have exaggerated differences between violent and nonviolent offenders, by reporting results which appear to be more significant than they really are. For example, for every 20 comparisons made, one would expect at least one of them to reach significance simply by chance (with the alpha level set at .05).

With this caveat in mind, the purpose of the present study is to investigate the relationship of two non-projective personality tests, the MMPI, and the Jesness Inventory, to whether a juvenile offender is classified as either violent or nonviolent. The hypotheses are:

1. Violent juveniles will score higher than the nonviolent juveniles on Scales, F, 4, 8, and 9 of the MMPI. In addition,

violent juveniles are likely to exhibit profiles in which code types 4-9, 4-8, 4-6, and 4-3 occur with greater frequency than the nonviolent juveniles.

2. Violent juveniles will score higher than the nonviolent juveniles on the Manifest Aggression, Social Maladjustment, Autism, Alienation, and Asocial Index Scales of the Jesness Inventory.

Method

Subjects

The subjects were 200 Caucasian males between the ages of 15 and 17 years. These subjects were not interviewed for the purposes of the study, rather, the data obtained were taken from their files. Each file was given a code number so that the subjects' anonymity was protected.

Setting of Research

Files were obtained through Juvenile Services to the Courts in Burnaby, British Columbia. Subjects were juveniles who had been directed to undergo an assessment under Section 13(1) of the Young Offenders Act. Assessments were conducted either through the Inpatient Assessment Unit, or through the Outpatient Clinic. The Inpatient Assessment Unit is a designated mental health facility under the Mental Health Act. Access to this facility is by Court remand only, naming this unit as the place of custody, and requesting a psychiatric or psychological assessment. The Outpatient Clinic provides the same assessment service as the Inpatient Unit, except that the juvenile is not remanded in custody during the assessment period.

Measures

The two personality test scores that were collected were the Minnesota Multiphasic Personality Inventory (MMPI), and the Jesness Inventory.

Minnesota Multiphasic Personality Inventory

Background Information. The MMPI used at Juvenile Services is the Form R booklet. This version contains 566 items which are answered true or false. As a self-report measure the MMPI has the advantage of well-established reliability and validity, and relatively simple administration and scoring (Fruchtman, 1982). It was designed to evaluate an individual's level of psychopathology in various areas of the personality (Gearing, 1979). The clinical scales of this instrument have been carefully constructed and cross-validated to provide a method for measuring personality. These scales are not expected to measure exact personality traits or etiological foundations, but instead are designed to represent significant trends of psychopathology within an individual's personality (Pass, 1982). Furthermore, there is reason to expect from the literature that the MMPI may prove useful in distinguishing violent from nonviolent juvenile offenders. Bromberg (1965) has indicated that individuals who commit various types of criminal offenses manifest dissimilar personality dynamics, which are measurable with the MMPI. Muirhead (1977), using the MMPI also states that various combinations of psychopathology are highly correlated with specific types of anti-social behavior.

Description of Scales. The MMPI consists of 13 scales; 3 validity scales, and 10 personality, or clinical scales.

Descriptions of the scales are as follows:

Lie (L) - the degree to which the subject may be attempting to falsify his scores by presenting himself in the best possible light (Hathaway & McKinley, 1951). It is also sensitive to the overusage of repression, denial, and lack of insight (Lachar, 1977).

Validity (F) - a check on the validity of the whole record, also can be indicative of test taking attitude, e.g. carelessness (Hathaway & McKinley, 1951). Elevated F scores are often indicative of one who seeks attention and assistance, and has also been correlated with aggressive acting out (Lachar, 1977).

Correction (K) - also a measure of test taking attitude, indicating levels of subject being either defensive or candid (Hathaway & McKinley, 1951). Also assesses effort to maintain an appearance of adequacy, self-control and effectiveness. It may also be a measure of a subject's rigidity and defensiveness (Lachar, 1977).

1) Hypochondriasis (Hs) - a measure of amount of abnormal concern about bodily functions (Hathaway & McKinley, 1951). Individuals may also tend to be egocentric, immature, and lack insight into the emotional basis for their preoccupations (Dahlstrom, Welsh, & Dahlstrom, 1973).

2) Depression (D) - a measure of the depth of the clinically recognized symptom or symptom complex of depression (Hathaway & McKinley, 1951).

3) Hysteria (Hy) - the degree to which the subject is like patients who have developed conversion-type hysteria symptoms (Hathaway & McKinley, 1951). These individuals use physical symptoms as a means of solving conflicts or avoiding responsibilities. This may occur only during stress related experiences (Dahlstrom, Welsh, & Dahlstrom, 1973).

4) Psychopathic Deviate (Pd) - the similarity of the subject group of persons whose main difficulty lies in the absence of deep emotional response, their inability to profit from experience, and their disregard of social mores (Hathaway & McKinley, 1951). Such an individual may tend to engage in repeated and flagrant disregard for social customs and demonstrate an emotional shallowness with others, particularly in sexual and affectional displays (Dahlstrom, Welsh, & Dahlstrom, 1973).

5) Masculinity-Femininity interest (Mf) - the tendency toward masculinity or femininity interest patterns (Hathaway & McKinley, 1951). For males, the feminism of the male appears in his values, attitudes, interests, and styles of expression, as well as in sexual relationships (Dahlstrom, Welsh, & Dahlstrom, 1973).

6) Paranoia (Pa) - a measure of suspiciousness, oversensitivity and delusions of persecution, with or without expansive egotism (Hathaway & McKinley, 1951). This may also be evident in interpersonal sensitivity and rigidity (Dahlstrom, Welsh, & Dahlstrom, 1973).

7) Psychasthenia (Pt) - measures the similarity of the subject to psychiatric patients who are troubled by phobias or compulsive behavior (Hathaway & McKinley, 1951). Various forms of abnormal fears, worrying, poor concentration, guilt feelings, and excessive vacillation in decisions are also assessed (Dahlstrom, Welsh, & Dahlstrom, 1973).

8) Schizophrenia (Sc) - a measurement of bizarre and unusual thoughts or behavior (Hathaway & McKinley, 1951). This scale also taps those individuals who are characterized as constrained, cold and apathetic. Inactivity or repeated behaviors often accompanies the withdrawal of interest from other people or relationships (Dahlstrom, Welsh, & Dahlstrom, 1973).

9) Hypomania (Ma) - measures the personality factor characteristic of persons with marked overproductivity in thought and action, a lesser state of mania (Hathaway & McKinley, 1951). Such an individual is also prone to mood swings, from euphoria to extreme irritability, with no noticeable changes in the environment. Temper outbursts are also frequent (Dahlstrom, Welsh, & Dahlstrom, 1973).

0) Social Introversion (Si) - measures the tendency to withdraw from social contact with others (Hathaway & McKinley, 1951). Little interest in people is noted (Dahlstrom, Welsh, & Dahlstrom, 1973).

Scoring of the MMPI. The most common means of investigating the MMPI, both clinically and in research, is with the application of adult K-corrected norms. These norms take into account the potential defensiveness of respondents. A respondent's score on a scale designed to detect degree of defensiveness is used to modify the scores of certain other scales which are likely to be affected by his/her desire to 'look good'.

Adolescent norms for the MMPI were constructed because it was felt that the behavioral correlates associated with a given adult-normed profile might often suggest more severe pathology than is actually present in an adolescent. The adolescent norms produce lower scores on those scales which would often be elevated due to normal adolescent concerns and problems. These norms thus avoid an overinterpretation of pathology. Such scales include in particular, F, 4, 7, 8, and 9. On the other hand, on those scales which investigate problems rarely encountered by adolescents, such as the physical complaints emphasized in Scale 1, a high score might be even more predictive for an adolescent than for an adult, and the norms reflect this. The major difficulty with the adolescent norms is that they do not take defensiveness, as

measured by the K Scale, into account in the determination of profiles. Also, there is a dearth of research utilizing the adolescent norms of the MMPI.

In the current study, both adolescent norms (from Dahlstrom, Welsh, & Dahlstrom, 1972) and adult K-corrected norms (from Hathaway & McKinley, 1951) were used in the initial determination of MMPI scores. For subsequent analyses, adult K-corrected T scores were utilized, for several reasons. First, they were found to be better at distinguishing between the two groups during the univariate analyses. Second, clinical applications of the MMPI generally use these norms, and it seems practical to investigate those norms which are most likely to be used in actual practice. These norms are also by far the ones most commonly found in the literature. They are therefore the most useful in terms of comparison with previous studies of this population. Finally, this study is not being used to interpret severity of pathology on an absolute level. Rather, the MMPI is being used here to distinguish between nonviolent and violent adolescents. Thus the adult-normed MMPI's tendency to overinterpret pathology in adolescents is irrelevant for the purposes of this research.

The Validity Scales. A commonly accepted clinical practice is to discard those MMPI profiles that do not meet a certain set of validity standards that have been previously accepted as within a 'valid' range. These standards indicate a profile to be invalid

with T scores exceeding 70 for the L Scale, 80 for the F Scale, and 70 for the K Scale (Gearing, 1979). A review of the literature suggests that a rigid application of these standards may prove to be unnecessary and in fact, counterproductive to research efforts.

Comrey (1958) investigated the application of these validity standards, specifically concerning the F Scale, and found that an elevated F Scale score may often be a valid indicator of pathology and not of profile invalidity. In support of this, Morrice (1957) contended that elevated F Scales of incarcerated inmates were more indicative of personality disorder than of purposeful deception or profile invalidity. These findings appear to suggest that those individuals who are most often diagnosed as having characterological disorder may often produce elevated F scores and simultaneously valid profiles. Dahlstrom, Welsh, and Dahlstrom, (1972) in their analysis of the clinical implications of the F scale concluded that;

Elevated F scores are part of the behavioral disorder generating the clinical scale configuration, documenting its range and severity but not reflecting adversely upon the dependability of the MMPI protocol itself. (p. 241)

Various researchers have explored possible clinical interpretations of the elevated F Scale. Gynther's (1961) research suggested that indeed F scores could differentiate between widely different diagnostic categories of behavior as measured via the MMPI. In his study of aggressive and passive criminals, he found that the aggressive group tended to get F scores with T values exceeding 80 significantly more often than the passive group of criminal offenders. In further research, Gynther and Shimkunas (1965) found that the F Scale differences between hospital as opposed to criminal groups were indicative of distinct personality features of those who had broken the law and of those who had not. Their contention was that the F Scale measures hostility and aggression, which is more commonly abundant within the criminal population than perhaps in most other sample sources. Rice (1968) also discovered a significant relationship between F Scales with T scores that exceeded 80 and overtly aggressive and hostile behavior.

Therefore, based on past research it appears that a rigid adherence to the standard validity rules to accept or reject criminal MMPI profiles cannot be safely used. This specifically refers to using the conventional F Scale cutoff with T scores exceeding 80. With criminal groups an elevated F Scale appears to be more the norm than the exception. This elevation appears to be

related to a generally nonconforming, hostile and aggressive perceptual frame of reference (Pass, 1982).

The Jesness Inventory

Background Information. The Jesness Inventory, a measure which was designed for use in the classification of disturbed adolescents, consists of 155 true-false items providing scores on 10 personality characteristics. Three scales were derived empirically, seven by cluster analysis, and an eleventh (the Asocial Index) combines data from all scales. The Jesness is a self-report measure, which is simple to administer and score. Although published research on the Jesness is relatively sparse, research findings support its validity (Kunce & Hemphill, 1983). The scale has evolved into an objective personality instrument for identifying levels of delinquency and as a basis for a personality typology meaningful for use with delinquents (Martin, 1981). Therefore, there is reason to expect from the literature reviewed previously that the Jesness may be useful in differentiating violent from nonviolent juvenile offenders.

Description of Scales. The Jesness consists of 10 clinical scales, measuring personality attributes, and an eleventh scale, the Asocial Index, which was constructed using 9 of the clinical scales, to predict delinquency. Descriptions of the clinical scales, taken from Jesness (1983) are as follows:

1) Social Maladjustment (SM) - reflects attitudes of persons who do not meet environmental demands in socially approved ways.

2) Value Orientation (VO) - measures the tendency to share attitudes and opinions characteristic of persons in the lower socioeconomic classes.

3) Immaturity (Imm) - taps the attitudes and perceptions of self and others that are usual for persons of a younger age than the subject.

4) Autism (Au) - indicates the subject's distortion of reality according to his personal desires or needs.

5) Alienation (Al) - measures the presence of distrust and estrangement in a person's attitudes toward others, especially those representing authority.

6) Manifest Aggression (MA) - uncovers the awareness of unpleasant feelings, especially of anger and frustration; a tendency to react readily with these emotions, and an obvious discomfort concerning the presence and control of these feelings.

7) Withdrawal-depression (Wd) - reflects dissatisfaction with self and others, a tendency toward isolation from others.

8) Social Anxiety (SA) - measures conscious emotional discomfort in interpersonal relations.

9) Repression (Rep) - reflects the degree to which the subject excludes from conscious awareness feelings and emotions

that the individual normally would be expected to experience; or it reflects his failure to label these emotions.

10) Denial (Den) - measures a reluctance to acknowledge unpleasant events or conditions encountered in daily living.

11) Asocial Index (AI) - this scale was derived through a discriminant function analysis, and was designed to be most predictive of delinquent behavior. It refers to a generalized tendency to behave in ways that transgress established social rules.

Procedure

Approximately 1800 young offenders have been assessed at Juvenile Services to the Courts, either at the Burnaby location or through the Travelling Clinic. The most recent 1,134 files were used in the present study. Criteria for inclusion were: 1) the subject had to be male, 2) the subject had to be between 15 and 17 years of age at the time of the assessment, 3) the subject had to be Caucasian, and 4) the file had to be complete (i.e., it contained both the MMPI and the Jesness). This left a total of 354 files which were finally rated. Of these, 100 were rated as nonviolent offenders, 148 as potentially violent offenders, and 106 as violent offenders. The 100 nonviolent, and the first 100 of the 106 violent offenders served as subjects in the study.

Assessment of Violence

The author rated each file on a scale of violence from 1 (nonviolent) to 3 (most violent) based on an entire reading of the file. This included charges, psychiatric interview, psychological interview, social worker's report, the final report sent to court, and if available, police reports, and nursing notes (if the juvenile resided at the Inpatient Assessment Unit). Test data were collected after the assessment of violence had been determined.

The work of Dorothy Otnow Lewis has been used as a framework for the assessment of violence. She has been involved in several archival studies examining violence in juvenile offenders and has developed a rating scale which she has reported as having good inter-rater reliability (1979, 1982, 1983, 1984). The following criteria, adapted from Lewis (1979) were used for group placement.

The subject was rated a '1' if there were no evidence of his having committed any offense against a person or having committed arson. Fist fights with peers were not considered violent, unless a peer had been seriously injured and required hospital care, or if a weapon had been used.

The subject was rated a '2' if there was some indication in the file of a potential for violence (e.g., isolated episodes of firesetting, isolated episodes of threatening with unloaded weapons, isolated episodes of threatening violence, etc.).

The subject was rated a '3' if he had actually committed a serious offense against a person (e.g., assault, murder, rape, multiple episodes of arson, armed robbery).

For the purposes of the present study, subjects who scored a '1' (nonviolent) were compared to subjects who scored a '3' (violent). Therefore the '2's' (potentially violent) group were not included in this study. This was done in order to have as much homogeneity as possible for the nonviolent and violent offender groups.

Finally, since only the author rated the files, it was important to obtain some measure of reliability. In order to estimate reliability, a random selection of 25 files was also rated according to the same criteria by another graduate student in psychology. The selection of the files to be rated was obtained by pulling out every 14th file of the 354 that were rated until there were 25 files. This was done in order to control for a change in rating over time.

Results

Reliability of Violence Rating

As mentioned above, 25 files were randomly selected and rated by a second rater, according to the criteria set by Lewis (1979). Agreement was obtained on 21 of the 25 files using the 3 point assessment of violence rating. Kappa, a statistic designed to test the reliability for square two-way tables (which has a range from -1 to 1), was calculated at 0.733. This indicates a strong measure of association (reliability) in the coding of violence between the two raters. The reliability may be even higher than the Kappa would suggest, since Kappa does not distinguish between a 'near miss' versus a 'far miss'. In the rating of the files, all 'misses' were by only one step (i.e., neither rater rated a file as violent when the other rater rated the same file as nonviolent, and vice versa, all discrepancies involved the middle range, or 'potentially violent' domain).

Validity of Dependent Measures

Although traditional validity indicators for the MMPI were not used to eliminate certain profiles, but rather used as part of the clinical information, some comments need to be made concerning the validity of the responses to the dependent measures. Firstly, neither the MMPI nor the Jesness was used if it contained missed items. This practice has been recommended as one safeguard against profile invalidity (Gynther, Altman, & Warbin, 1973).

Secondly, as can be seen from Table 1, the means and standard errors of the mean of the L, F, and K scales for both the nonviolent and violent offender groups, lie well within parameters that have been set as reflecting valid profiles. Therefore, it can be assumed that the profiles produced by both of the groups are valid.

Overall Comparison Between Nonviolent and Violent Offenders

In order to test for an overall difference between the nonviolent and violent offenders on the nine scales that were expected to be different between these two groups (MMPI scales F, 4, 8, and 9, and JI scales SM, MA, Al, Au, and AI), a multivariate analysis of variance (MANOVA) was calculated. This resulted in an $F(1, 190)$ of 18.77 which is significant at the $p < .01$ level. Therefore, overall, there is a significant difference between the nonviolent and violent juvenile offenders on these scales.

Univariate Subscale Analyses

Following the MANOVA, individual univariate analyses of variance (ANOVAs) were carried out to test for significant differences between the nonviolent and violent offenders on the nine hypothesized scales of the MMPI and the Jesness Inventory. Table 1 presents the means, standard deviations, F values, and associated p values for all of the scales of on the MMPI scored both with adolescent, and adult K-corrected norms. An important issue to raise at this point is the alpha level correction. As

Table 1

MMPI T Scores for Nonviolent and Violent Subjects

MMPI Scales	Nonviolent Group n = 100		Violent Group n = 100		F	p
	Mean	SD	Mean	SD		
Adolescent						
T Scores	Mean	SD	Mean	SD	F	p
L	50.83	10.53	52.12	10.39	0.76	0.38
F	58.81	15.05	62.64	16.36	2.97	0.09
K	50.77	11.15	48.25	11.90	2.39	0.12
1(Hs)	54.72	12.13	56.25	14.58	0.65	0.42
2(Dp)	59.45	11.87	61.59	12.60	1.53	0.22
3(Hy)	57.97	11.21	58.23	10.92	0.03	0.87
4(Pd)	64.97	10.91	65.38	12.04	0.06	0.80
5(MF)	54.73	10.01	55.75	10.76	0.48	0.49
6(Pa)	57.52	10.12	59.51	11.80	1.64	0.20
7(Pt)	53.00	12.90	56.63	14.76	3.43	0.06
8(Sc)	54.29	12.66	58.45	15.46	4.33	0.04*
9(Ma)	57.91	10.16	57.83	10.59	0.00	0.96
0(SI)	47.57	12.52	49.24	13.22	0.84	0.36
Adult						
T Scores	Mean	SD	Mean	SD	F	p
L	51.43	8.00	52.51	8.03	0.91	0.34
F	72.27	15.28	76.77	16.34	4.05	0.04*
K	52.72	9.42	50.72	9.92	2.13	0.14
1(Hs)	59.21	11.87	59.05	11.86	0.01	0.92
2(Dp)	65.25	13.46	67.99	14.07	1.98	0.16
3(Hy)	60.57	9.39	61.09	9.58	0.15	0.70
4(Pd)	77.49	10.68	77.92	11.63	0.07	0.78
5(MF)	55.68	9.16	56.36	9.51	0.27	0.61
6(Pa)	67.58	12.93	70.95	14.40	3.03	0.08
7(Pt)	66.00	12.79	68.03	14.31	1.12	0.29
8(Sc)	74.59	16.14	79.99	16.39	5.51	0.02*
9(Ma)	70.15	11.52	69.25	11.42	0.31	0.58
0(SI)	53.46	10.03	54.50	9.94	0.54	0.46

* p < .05

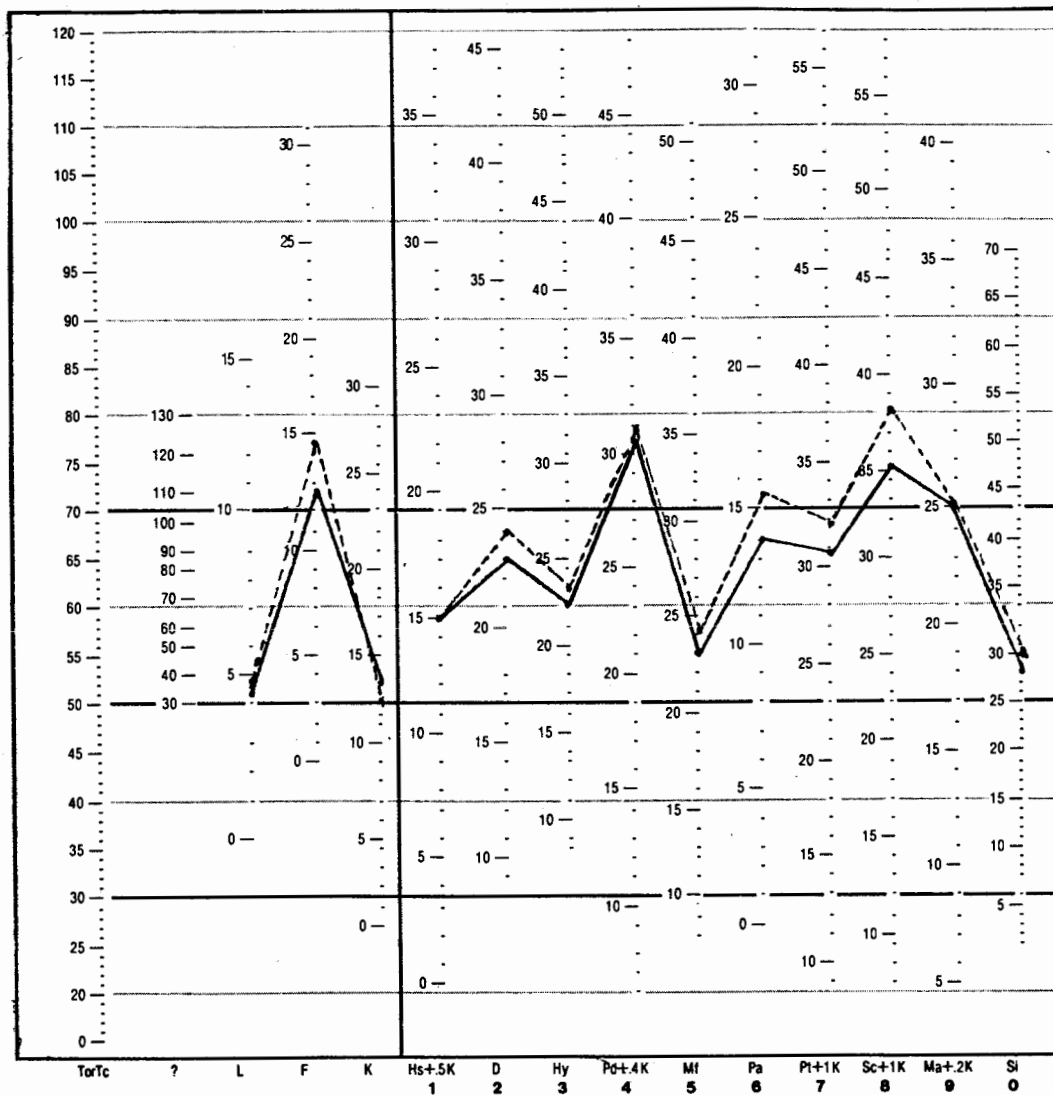
described by Myers (1979), the alpha level correction protects against Type 1 errors which can arise simply by virtue of making multiple comparisons. Since there were four hypotheses for the MMPI, the alpha level was divided by four in order to control for the family wise error rate. This meant that the probability had to be less than 0.0125 for the result to be considered significant. None of the analyses of variance of the MMPI scales which were expected to be different between the nonviolent and violent offenders attained significance. As can be seen from Figure 1, the mean profiles of the nonviolent and violent offenders are really very similar.

A similar result was obtained with the JI. Table 2 presents the means, standard deviations, F values, and associated p values for all of the scales of the Jesness. Five scales were expected to differ between the nonviolent and violent offenders (therefore the alpha level was set at 0.01) but none of them obtained significance once the alpha level correction was done. Therefore, support was not obtained for any of the nine hypotheses regarding the MMPI (either with adolescent or adult K-corrected norms) or the Jesness.

Although there may appear to be differences between the two groups on some of the scales mentioned below, it must be kept in mind that these effects could be due to chance, and may not really reflect any difference between the groups.

Figure 1

Mean MMPI Profiles of Nonviolent and Violent Subjects^a



————— = nonviolent subjects
 - - - - - = violent subjects
^aAdult K-corrected T scores

Table 2

Jesness T Scores for Nonviolent and Violent Subjects

Jesness Scales	Nonviolent Group n = 100		Violent Group n = 100		F	p
	Mean	SD	Mean	SD		
SM	61.56	12.51	63.85	12.94	1.62	0.20
VO	54.59	10.38	55.74	11.33	0.56	0.46
Imm	57.28	11.33	58.78	10.86	0.91	0.34
Au	58.97	9.24	60.39	10.88	0.99	0.32
Al	59.28	10.68	58.52	10.02	0.27	0.60
MA	51.01	11.38	55.18	12.98	5.83	0.02*
WD	51.55	12.45	54.64	11.17	3.42	0.07
SA	43.46	13.18	47.56	11.88	5.34	0.02*
Re	50.19	12.23	51.02	11.36	0.25	0.62
De	44.18	10.99	42.99	11.14	0.58	0.45
AI	61.64	14.89	62.08	13.55	0.05	0.83

* p < .05

MMPI Two-Point Code Types

Table 3 presents the most frequently occurring two-point code types of the nonviolent and violent offenders, using both adult K-corrected, and adolescent norms. Chi-squared statistics were computed in order to test for an overall code type frequency distribution difference. For both the adolescent and adult K-corrected norms, there was not found to be any significant difference between the two groups in code type frequency distribution. Subsequently, additional chi-squared statistics were computed to determine if there were any individual code types which occurred significantly more often in one group than the other, using both sets of scoring norms. Since four comparisons were made using the adult K-corrected scores, and three comparisons with the adolescent norms, the alpha level of .05 was divided by 4 and 3 respectively to test for the significance of the chi-squared statistics. With the alpha level corrections, none of the two point codes occurred any more frequently in one group over another.

Discriminant Function Analysis

A discriminant function analysis was performed using the nine scales from the MMPI and JI which were hypothesized to be different between the two groups. Table 4 presents the resultant classification matrix. Approximately 62% of the nonviolent and 56% of the violent offenders were correctly classified using these

Table 3

Most Commonly Found Code Types Among Nonviolent and
Violent Subjects^a

Code Type	Nonviolent Group	Violent Group
<u>Adult K-Corrected</u>		
T Scores	<u>n</u>	<u>n</u>
6-8/8-6	6	16*
4-9/9-4	21	13
4-8/8-4	17	17
2-4/4-2	8	12
<u>Adolescent</u>		
T Scores	<u>n</u>	<u>n</u>
4-9/9-4	15	14
2-4/4-2	17	11
3-4/4-3	12	5

^aCode types with frequencies of 5 or more were used.

* $p < .05$

nine scales. This result is statistically significant, $\chi^2 (1, N = 200) = 6.5, p < .01$), however it must be kept in mind that without any statistical procedure there already exists a fifty-fifty chance of correct classification.

A second discriminant function analysis was performed using all of the scales of the MMPI and the JI (for a total of 24 scales) to see if this would improve discriminability. This resulted in approximately 63% of the nonviolent and 64% of the violent offenders being correctly classified. Although this result was considerably more significant in a statistical sense $\chi^2 (1, N = 200) = 14.582, p < .001$), it only improves classification by four percent, which again is not a clinically significant result.

Overall therefore, the discriminant function analysis was not significant, especially when it is taken into consideration that a bias was in operation in favour of increasing discriminability, since the weights were derived from the same sample on which the discriminant function was performed.

Table 4

Prediction Results Using Discriminant Analysis

Actual Group Membership	% Correct	Predicted Group Membership	
		Nonviolent	Violent
<u>n</u>			
Nonviolent (100)	62	62	38
Violent (100)	56	44	56

Discussion

Violent crime is a widespread social problem in North America, and the proportion of these types of crimes committed by juveniles is steadily increasing. Whether a juvenile is viewed to be violent or not has an impact on disposition decisions which, particularly under the Young Offenders Act, attempt to strike a balance between protection of society and the needs of the child. However, just what are the needs of the violent juvenile offender? Are they any different than the nonviolent offender? The present study was conducted with the idea that, if personality differences could be identified that discriminate between violent and nonviolent juvenile offenders, then that may assist clinicians in determining specific areas of treatment that would be most effective in the rehabilitation of the violent juvenile offender.

In order to try to uncover what differences there may be, the present study investigated the relationship of nine scales from two non-projective personality tests, the Minnesota Multiphasic Personality Inventory (MMPI) and the Jesness Inventory (JI), to whether a juvenile was either a violent or nonviolent offender. Violent offenders were hypothesized to score higher than nonviolent offenders on the F, 4, 8, and 9 scales of the MMPI, and on the Manifest Aggression, Social Maladjustment, Autism, Alienation, and Asocial Index scales of the Jesness Inventory. The multivariate analysis of variance (MANOVA)

determined that these two groups of juveniles did respond significantly differently on these nine scales. This indicates that these scales may have the potential to be useful in the assessment of violent juveniles. Of interest to the clinician of course, is to find out how these two groups of individuals respond differently.

To determine this, an analysis of variance was performed on each of the scales of the MMPI and JI where differences were expected to occur. Since four comparisons were made with the MMPI, the alpha level was divided by four to control for the family wise error rate. With this alpha level correction, no support was found for any of the hypotheses involving the MMPI. The same situation occurred with the JI, where five comparisons were done, so the alpha level was divided by five. Here again, none of the univariate analyses were significant after the alpha level was corrected. This in itself is an extremely important finding, and highlights an issue which is sorely overlooked in almost all of the studies done in this area. Many of these types of studies are done, and it is exceptional to find an alpha level correction made, despite the fact that these studies involve multiple comparisons. Myers (1979) discusses the importance of this correction when making multiple comparisons.

Two possibilities arise from this way of doing research. One possibility is that spurious, unreliable results are termed

'significant', when there really is no relationship. This may account for the variability of results in some studies of this type. A second possibility is that some scale may tap a difference between violent and nonviolent offenders, but it is in actuality a very small, not clinically useful difference. This scale may appear again and again in this type of research as a 'significant' difference between groups, and gain momentum because of corroboration, but not necessarily reflect any clinically significant difference between groups.

The present study provides just such an example of this. If the results obtained in this study were to be considered without the alpha level correction, then scales F and 8 of the MMPI (using adult K-corrected norms) and the Manifest Aggression scale of the Jesness would be considered 'significantly' different between the two groups, with the violent offenders scoring in the more pathological direction on these scales.

The final analysis of the data was the discriminant function analysis. This yielded a statistically significant result, with 62% of the nonviolent and 56% of the violent offenders correctly classified. In order to discuss this result, a distinction must be drawn between statistical significance and clinical significance. Kazdin (1980) states that statistical significance refers to "the probability based criterion for judging whether an effect is reliable, whereas clinical significance refers to the

practical value of the effect" (p. 365). The discriminant function analysis was statistically significant, and is likely to be reliable. However, it is not a clinically significant result since the probability for assignment of each subject into either of the two groups is already fifty percent. The situation doesn't improve even when the additional 15 scales that were not part of the original hypotheses are considered. The addition of these scales only improves the previous discriminant function by four percent, and that is taking into consideration that the clinician would know the formula and apply it to the data. This finding is consistent with Martin's (1983) discriminant function analysis, where background information alone distinguished 88% of aggressive from nonaggressive delinquents, and the addition of the MMPI only increased this figure by three percent - an insignificant contribution, especially considering the cost (both time and money) involved in administering the MMPI.

Research Design Issues

Some aspects of the present study need to be addressed when considering these results. Generally these aspects fall under two major issues. The first issue is that the groups may not have been all that different with respect to 'violence' to begin with, and the second issue is that even if the groups were different, there may have been some systematic responding from the violent

offenders which may have obscured any differences on the dependent measures.

One reason why the two groups may not have been all that different to begin with, is linked to the fact that all of the files used in this study were of adolescents who had been charged with a criminal offense, which already makes them a select group. Elliott, Huizinga, and Morse (1986) have demonstrated that "prisoners incarcerated for serious violent offenses are not representative of those in the general population who are involved in serious violent offenses" (p. 472). Similarly, Hindelang, Hirschi, and Weis (1981) note that urban, lower-class males are over-represented in the legal system. Therefore, some of the more prototypical aspects of the violent offender that differ from the nonviolent offender may not have emerged in this sample of violent juveniles.

A second reason why the groups may not have been different on the dimension of violence is because there was some reliance on self report in order to make the determination of level of violence of the juvenile. The data from which information was drawn in order to make the level of violence assessment, was a combination of self report (i.e., interviews with psychiatrists and psychologists) and outside information (e.g., police reports, charges, nursing notes). Although this is a considerable improvement over using charges alone, there still exists the

possibility of bias in this source of data which may have resulted in some violent offenders being classified as nonviolent. For example, if a juvenile had committed a violent act, but his parents were unaware of it (so it would not likely appear in the social worker's report), he was never charged, he did not disclose this information during the psychiatrist's and psychologist's interviews, and he was not violent while staying at the Inpatient Assessment Unit, he would likely be classified as nonviolent. If enough cases such as this existed, the result would be that the nonviolent group would have so much variability that it may be indistinguishable from the violent offender group.

Another reason why the groups may not be all that different on the dimension of violence relates to the use of the assessment of violence rating itself. Although the rating scale adapted from Lewis (1979) was found to be reliable, the validity of some of the ratings may be questionable. For example, fist fights with peers were not considered violent (therefore a subject would be rated as nonviolent, barring any other information), unless a weapon was used, or the peer required hospital care. However, if an individual has an assault charge, he is automatically rated as a '3' (violent). An assault charge however, can be made in quite variable circumstances, and does not necessarily even reflect physical harm caused to the victim (assault causing bodily harm is the charge that is usually laid in this circumstance). Many fist

fights with peers would in other circumstances translate into assault charges, so there are other factors which enter into whether an individual is charged with assault, and what that assault charge really means, which confounds a rating made on this basis. Sometimes information in the file would suggest that an individual was 'violent', for example during a break and enter, a subject destroying the inside of someone's house with a knife by slashing furniture, walls etc., or frequent and severe torturing of animals. However, if the subject had not offended against a person, he would not meet Lewis' (1979) criteria to be classified as violent. Therefore, even though the middle group of 'potentially violent' offenders was not used in this study, in order to make the nonviolent and violent offender groups as homogeneous as possible, there is still likely some variability within the two groups used, with respect to the violence of the individual.

The second main issue is that possible systematic responding by the violent adolescents may have obscured any differences on the dependent measures between them and the nonviolent offenders. In other words, because the dependent variables (MMPI and JI scores) are of a self-report nature, this may have hampered the possibility of obtaining results. Although several researchers hold that information obtained from self-report is one of the "most promising measures of criminal behavior" (e.g., Huzinga &

Elliott, 1986), there is still reason to doubt with a sample such as was used in the present study. Several investigations of self-report reliability and validity are done with such 'deviant' behaviors as smoking, alcohol, and other drug use, using a 'bogus pipeline' manipulation (making some subjects believe that they will be tested biochemically for the presence of the substance they are reporting use of). Although several of these studies have concluded that adolescent self-reports of these delinquent acts is reliable and valid (e.g., Akers, Massey, & Clarke, 1983; Campanelli, Dielman, & Shope, 1987; Hansen, Malotte, & Fielding, 1985) the delinquent act of alcohol or drug abuse can hardly be compared with an adolescent charged with assault causing bodily harm, or murder. The juveniles assessed in the setting used in this research were aware that any information in their file was accessible by the court, and therefore may make a substantial difference in how their case may be viewed. The confounding variable here is that, since generally the violent adolescents were facing more severe consequences, they would be more highly motivated to under-report to any item that they might identify as 'pathological'. Malvin and Moskowitz (1983) in a study comparing the effect of identifiability versus anonymity on reported use of drugs, found that adolescents will try to suppress potentially incriminating information under conditions that are not completely anonymous. In a forensic setting, Abel, Becker, Mittelman, and

Cunningham-Rathner (1987) found that nonincarcerated paraphiliacs reported an average number of crimes and victims substantially higher than that represented in the current literature (which is obtained from incarcerated offenders). Therefore, since other research has indicated that individuals do tend to bias their responding in the direction of under-reporting deviant acts, it is possible that this response bias was in operation when the subjects were filling out the MMPI and JI. If the violent adolescents engaged in this response bias to a greater extent than the nonviolent offenders, which would make sense since they have more at risk, then this may have obscured differences between the two groups. The results indicate however, that if this bias did take place, it did not occur to the extent that it threatened the validity of the measures, for the mean validity indicators on the MMPI for the violent offenders were well within accepted parameters. Therefore, some suppression may have taken place, but not to the extent that the violent offenders characteristically adopted a 'fake good' response set.

There may also be a biased responding due to the nature of the questions being asked in these tests. Therefore, while nonviolent offenders may not endorse an item because it is in fact is not true for them, the violent offenders may not endorse the item because it may be related to an area that is uncomfortable for the adolescent to admit to, and in fact most adolescents would

not endorse similar items, whether it were true for them or not. For example, Rodgers, Billy, and Udry (1982) found adolescents to be quite inconsistent when using a self-report format in obtaining information about the adolescents' sexual activity. Ledingham, Younger, Schwartzman, and Bergeron (1982) had similar results in the self-reporting of aggressive behavior, when they found that interrater agreement between peer and teachers was consistently greater than between either of those groups and self-reporting. They also found that discrepancies between raters were greatest for children with more deviant scores. Self-ratings were lower on aggression and higher on likeability than teacher or peer ratings. Therefore, it is quite possible that the violent offenders may have under-reported across various dimensions, which obscured differences between them and the nonviolent offenders on the two tests.

Implications of Results

With respect to the present study the final question remains: are the MMPI and/or JI clinically useful tools in the assessment of violent versus nonviolent juvenile offenders? The answer is both 'yes' and 'no'. The MANOVA indicates that violent and nonviolent juveniles did respond to the nine hypothesized scales differently. Therefore with these tests, clinicians may have a starting point that has the potential to be valuable with this type of assessment. The discriminant function however, has

demonstrated that this difference between groups is far from clinically significant. As it stands now therefore, the MMPI and Jesness Inventory, either separately or together, cannot be said to be clinically useful in differentiating violent from nonviolent juvenile offenders.

Therefore this study did not uncover any discernable differences, as measured by these inventories, that would lead to different treatment approaches for the violent as opposed to nonviolent juvenile offenders. In addition, it highlights the importance that clinicians be warned against making simplistic interpretations based on scores from these two measures. This study would suggest that there really is no such thing as a 'violent profile', and that a more sophisticated understanding of the violent versus nonviolent offender is still required.

If one were to do a similar study, two areas would be useful to examine. First, a closer examination of the subjects would be helpful. The possibility exists that these measures may be very useful, but either the offender groups in this study were not different enough from each other to begin with, or there may have been some systematic reponding by the violent group, both of which would obscure meaningful results. It is now commonly accepted that juvenile offenders are not a homogeneous group (Jaffe, 1985), and this study indicates that neither can violent offenders be considered homogeneous for clinical purposes. Therefore, it may

be useful to examine a more homogeneous group of violent offenders than that which was used in the present study.

A second step would be to focus on the assessment materials. Several research scales have been developed from the MMPI, which may be useful, and other tests (e.g., the Basic Personality Inventory) which are being used in other juvenile settings should be examined.

Final Comments

Understanding violent behavior is a difficult endeavour. In order to make this task more manageable, researchers have generally focused on different perspectives. Three of these perspectives are the study of situational factors, social learning, and individual differences. Researchers taking the situational perspective have examined specific variables in the situation that result in, or facilitate violent behavior. Many of these variables therefore have a very close temporal link, for example alcohol consumption. The social learning perspective has a more broad temporal range, in that some researchers study early learning experiences that contribute to the commission of a violent act years later, while others look at more immediate effects of learning, such as Bandura's classic Bobo doll experiments with children. Finally, there is the perspective of investigating individual differences. The study of personality falls under this perspective, and it was this perspective that was

adopted in the present study. Relative to other approaches, this area has not yielded results which are as reliable or clear cut, and so it appears to have relatively poorer utility. However, the measurement of personality itself is difficult, certainly much more so than measuring number of ounces of alcohol consumed, or even assessing certain neuropsychological impairments. Therefore, research in this area has not yet been able to contribute as substantially in the understanding of violent behavior as other perspectives. This situation is constantly improving, largely due to more sophisticated statistical procedures which are improving the main tool used to measure personality, the self-report inventory. Therefore a lot of research is still needed in this area, to develop better measures, and to test out these measures.

The ultimate direction to take in the understanding and treatment of the violent offender is the integration of different perspectives. Monahan (1981) gives an excellent description of this when wrestling with the issue of the prediction of violent behavior. He describes how the 'situation-centered' approach, which asks which characteristics of situations in general relate to violent behavior, differs from the more definitive 'variable-centered' approach which addresses how a particular situation influences different types of people to act.

The present study was an attempt to contribute to this variable-centered approach by trying to uncover what personality

differences there may be between nonviolent and violent juvenile offenders. If reliable differences had been found between the nonviolent and violent offenders and in addition other research indicated that certain situational factors e.g., alcohol intoxication in a bar, significantly increased the probability of that type of individual to act out aggressively, then this could have important implications for treatment. By identifying the significant variables and understanding how they interact, very specific treatment goals would be able to be established, which would assist in the rehabilitation of the violent offender.

Conditions in the Young Offenders Act suggest that Canadian psychologists will find themselves in increasing demand for providing clinical assessments for young offenders (Jaffe, 1985). It is therefore important for psychologists to examine the merits of existing methods of psychological assessment available for the purpose of assisting in the understanding of young persons who are before the court. The present study has been such an undertaking, which has primarily highlighted the need for further study in this area.

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