Current researches in the area of criminality all seem to stress personality factors. The vacuum left by physiologists, sociologists, etc. in advancing a meaningful theory of crime may be filled in by these personality factors. Eysenck (1970) had put forward a theory of crime wherein he had suggested that criminal groups would come from the high P, high N, and high E/I quadrants. Numerous studies have been done in this area and though supportive evidence has accrued over the years regarding crime and P and N, the studies somehow could not obtain an absolutely distinct relationship of E/I with crime.

Taking the lead from Eysenck's research investigations into the dynamics of crime, some studies were also done to relate Cattell's primary factors of personality to crime. The work done in this field is very little and much more work needs to be done to arrive at definite conclusions.

The evidence which accumulated on the basis of research done in the area of crime and personality, suggests that prisoners as a whole differ in their personality make-up from control groups. It would however be likely that even more differentiating results could be obtained if typology of crime could be taken into account. For example, Eysenck and Eysenck (1970) suggest that gang crimes are likely to involve high extraverted personalities, aggressive crimes and crimes involving excessive cruelty seem to carry implications of high P. According to Eysenck and Eysenck (1970),
it would seem to follow that by paying attention to the differences within the criminal group with respect to personality, i.e., by constructing a typology of people, much greater differences between controls and homogenous groups of criminals would be obtained than from a total group of criminals.

Sowald and Singh (1975) had suggested that to obtain proper results, one must make classifications of prisoners. He divided them into two groups of property and person offenders and obtained significant results as regards personality. Britt and Tittle (1975) also made a typology of criminals according to the seriousness of the crime into minor and major offenses. Besides typology, the age factor has also been neglected by various studies. The age of criminality varies with the type of crime, for example the age at which one commits murder is usually the early year (Nettler 1974). Sinclair and Chapman (1973) had found significant differences in the personality of criminals in relation to the type of crime they commit and the age level in which the crime has been committed.

The present work is an attempt to study the personality differences in criminals by comparing broad categories of criminals at three age levels. The criminals thus selected will be tested on intelligence, anxiety, Psychoticism, Extraversion, Neuroticism, femininity - masculinity (factor I), desurgency-surgency (factor F), submissiveness-dominance (factor E), Anxiety (factors O, Q, and C) and the overall neurotic trend. A review at some length in these areas has already been attempted.
in Chapter II. The ensuing portion of this chapter will be devoted to deriving some framework of hypothesis in the light of earlier studies. Broadly speaking the areas covered will be intelligence and crime, personality and crime.

A. INTELLIGENCE AND CRIME

At one time in the history of criminology, the thesis that criminality is the product of low mentality was exceedingly popular. This argument regarding criminality and social deviation grew out of a series of studies of families such as the Jukes, Kalikaks and Hams (Dugdale 1877, Goddard 1912, Estabrook and Davenport 1912) that came to light in the late 1800 and 1900s.

Even later studies using intelligence tests reported that a large number of criminals were feeble-minded. Goddard (1921) concluded from his data that "the greatest single cause of delinquency and crime is low-grade mentality." Other studies by Murchison (1926) and Tuzhin (1939) showed negligible differences in intelligence between prisoners and normal groups.

Though today criminality is no longer attributed to low intelligence alone, yet many studies on intelligence have opened up an interesting relationship of intelligence with learning and conditioning which may possibly lead to deductions regarding crime and intelligence.

Many studies (Krasnogorski 1913, Wilson 1928, Girardieu 1959, and Ellis et al 1960) all obtained results supporting the
contention that dull subjects perform poorer on learning tasks than bright ones. A similar relationship was thereby suggested with conditioning, the more intelligent conditioning better than the dull subjects.

From these studies, one may conclude that since the people with low intelligence do not condition well they would also be less socialized and unable to internalize the mores of society well. Faulty socialization would be reason whereby individuals of lower intelligence would commit crimes.

In the light of the above reviewed studies, it may be hypothesized for the present work that the criminals would have lower intelligence scores than normal subjects.

B. CRIME AND PERSONALITY

The bulk of the literature in this area has been reviewed earlier and most of the studies in this field indicated some relationship of personality with crime. For the present study, three major personality concepts have been studied, i.e., those of Taylor's, Eysenck's and Cattell's. Taylor's concept of Manifest Anxiety, Eysenck's dimensions of Psychoticism, Extraversion and Neuroticism and Cattell's primary personality factors (i.e., those described by the NSQ scale) are now given briefly in order to deduce a hypothesis linking each with crime.

(1) TAYLOR'S MANIFEST ANXIETY AND CRIME

A few studies have been done to study the relationship of anxiety with crime. Lykken (1957) found that the 'neurotic'
sociopath scored significantly higher on the Taylor's Manifest Anxiety Scale. Bendig (1957), and later Eysenck (1968) found that anxiety is related to Neuroticism positively \((r = .75 \text{ to } .77)\). Mohan and Jaspal (in Press) too found that Anxiety and Neuroticism are positively related. Both Taylor and Eysenck spoke of Anxiety and Neuroticism in terms of Hullian drive. Spence and his colleagues, working within the Hullian framework assumed that response strength is in part a function of the level of internal anxiety or emotionality of a subject. Subjects with a greater degree of Anxiety would possess more Drive and therefore condition better than their counterparts who have a lower degree of Anxiety.

Apart from this, other studies also reported evidence in favour of the Spence-Taylor hypothesis, i.e., Anxiety is positively related to conditionability (Taylor 1951, Ritterman and Holtzman 1952, Spence and Taylor 1953 etc.). Now since high anxious individuals condition better, they would be better socialized and therefore less likely to commit antisocial acts.

Apart from this conclusion regarding low anxiety in criminals due to poor conditionability and thereby poor socialization, Schalling (1970) suggested a similar view but explicable from a different angle. He suggested that there is a marked disregard for future consequences of acts among psychopaths (this term is used by him to have a similar meaning of criminals) which is conceptualized as a learning deficit, implying the failure
of cues associated with punishments, to arouse sufficient anxiety to motivate avoidance behaviour. Experimental evidence for deficit avoidance learning in psychopaths has been presented by Lykken (1957), Schachter and Latane (1964), Schoenherr (1964) and Schmauk (1968). Schalling (1970) in a study obtained supportive evidence that delinquents with a low anxiety-proneness are less responsive to impending pain, have a higher tolerance level (TL) for pain stimuli, (predicted from the recent theories of a low cortical arousal in relationship to attenuation of sensory input) and higher pain Thresholds (PT).

From these relationships one may deduce that for individuals with low anxiety-proneness, future aversive events will have to no emotional significance. In consequence, psychopaths would have low scores on anxiety. High anxious individuals would therefore socialize better (better conditioning) than the low anxious individuals.

One may therefore hypothesize that criminals would have lower scores on Taylor's Manifest Anxiety than non-criminals.

(2) Eysenck's Personality and Crime

(1) Extraversion/Introversion and Crime

Eysenck and Eysenck (1970) have put forward the view that antisocial conduct is evidence of lack of socialization, that socialization itself is due to the formation in childhood and youth of appropriate conditioned responses. Introverts are
characterized by strong excitatory and weak inhibitory potentials, whereas Extraverts are characterized by weak excitatory and strong inhibitory potentials (Eysenck 1957). Thus it may be predicted that Introverts should form conditioned responses better than Extraverts. It was predicted therefore that extraverts are more susceptible to commit antisocial and criminal acts than introverts (Eysenck 1970).

Eysenck and Eysenck (1963) put forward a theory about the Dual nature of Extraversion wherein they said that sociability and impulsiveness are primary traits contributing to the higher order Extraversion-Introversion factor. The failure of many studies to find any relationship between Extraversion and crime (Bartholomew 1957, Fitch 1962, Little 1963, Burgess 1972, Cochrane 1974, Singh 1976) was attributed to the fact that it is the impulsivity items that clearly differentiate between criminals and controls unlike the sociability items (Schalling 1970). Eysenck and Eysenck (1971) suggested that correlations between conditioning and Extraversion are mediated by the impulsivity items in the scale rather than the sociability ones.

The studies discrediting Eysenck's original theory therefore could be explained in terms of the fact that they were heavily dependant on the relative preponderance of sociability and impulsivity items and gave only a global picture where the two factors could be serving to cancel each other out. Studies by
Sanocki (1969), Schalling and Holmberg (1970) and Burgess (1972) have borne out these expectations.

From the above discussion, one may conclude that it is the impulsivity items which differentiate criminals from non-criminals. If this is the case, then the reverse would also be true, i.e., in a scale like the PEN, which consists mainly of sociability items, the criminals would show a lower score on Extraversion as measured by the PEN than normals.

(11) Neuroticism and Crime

Eysenck and Eysenck (1971) while stating their theory of crime had said that "high degrees of anxiety or Neuroticism tended to act as a drive strongly reinforcing the extraverted or introverted tendencies favouring or disfavouring antisocial conduct. "From this it was deduced that criminals would have Neuroticism scores. Eysenck (1965) had earlier argued that under certain conditions, neurotics will condition better than non-neurotics. Where anxiety is a relative drive it should multiply with habit to produce better conditioning". Neuroticism, by which Eysenck implies various drive levels has been found by Bendig (1957), Mohan and Jaspal (in Press) to be highly correlated with Taylor's concept of Anxiety. Studies reporting better conditionability of high anxious individuals have already been elaborated (e.g., those of Spence, 1957, Baron and Connor 1960 etc.). By virtue of its relationship with anxiety, individuals high on Neuroticism would also be expected to condition better.
Olderman et al (1967) had used the Yerkes-Dodson law as an explanation for suggesting a U-shaped relationship between Neuroticism and learning of performance. Mohan (1976) too pointed out that task difficulty has to be kept in mind and in learning situations of some complexity, the Yerkes-Dodson optimum would be very low.

These results indicate that though neurotics would condition better than non-neurotics, various factors have to be kept in mind, primarily the level of task difficulty. Since socialization is a process of learning of social norms which is conditioning type (which could not really be considered a task of great difficulty), it could be supposed then that neurotics would socialize better since antisocial behaviour is a consequence of poor conditioning. Individuals high on Neuroticism would not commit these criminal acts.

Though there were several studies which reported no significant differences between the Neuroticism scores of criminals and normals, like those of Bartholomew 1963, Little 1963, Hoghughi and Forrest 1965, Cochrane 1974 etc., yet other studies reported higher N scores for criminals. But these studies did not explain the dynamics why criminals should score higher on N. For the present work the author has tried to reason out on the basis of some logical deductions based on the processes of learning as related to socialization and consequently with crime that criminals would score lower on N.
Though Eysenck obtained high N scores for criminals, the understanding of the dynamics of N in relation to socialization which is an important variable in crime, suggests that criminals should be low on N. If the latter part of this argument holds true, then for the present work, it may be predicted that criminals would have lower scores on N.

(iii) Psychoticism and Crime

In their Three Factor Theory of Crime, Eysenck and Eysenck (1970) had suggested that besides the factors of Extraversion and Neuroticism, another affective dimension of personality, i.e., of Psychoticism, may also be implicated in the causation of criminality. They had suggested that there may be two reasons for believing this: (1) the traits describing a psychotic resemble those exhibited by criminals and secondly (2) that psychosis and criminality have a particularly close connection (Odegard 1963, Heston 1966).

All the studies done so far have suggested that Psychoticism would be higher in criminals than among normals. No negative or insignificant results have been obtained so far on this factor. Studies by Sgravveas (1969), Eysenck and Eysenck (1971), Wilson and Maclean (1974) and Mohan and Singh (1976), all obtained evidence showing that criminals have significantly higher scores on Psychoticism as compared with normal subjects.

It may be hypothesized in the light of this positive evidence that criminals would have higher Psychoticism scores than normals.
Cattell after a number of factor analytical studies emerged with a list of primary personality factors. These were at the trait level and it was later discovered that they were intercorrelated so that in essence, what existed were 5-6 basic types. What appeared at first glance to be a contradiction to Eysenck's personality theory, was actually a related concept of personality where Cattell's primary factors were related to Eysenck's personality types of E/I and N. Studies by Cattell and Warburton (1961), Eysenck (1970b) verified this and they concluded that E/I is defined in terms of the following factors as given by Cattell: F(surgency), M(audia), E(dominance), A(cyclothymia) and H(armia). Neuroticism is defined by factors C(ego-strength), L(protension), E(dominance) and H(armia). It is quite obvious from these findings that some of the said factors of Cattell's Personality system (E, H), are overlapping for both dimensions of Eysenck's Personality system.

The NSQ scale was developed by Scheier and Cattell (1961) to measure six of Cattell's primary factors which combinatively are attributed to be a measure of an Overall Neurotic Trend. These factors are: (1) Factor I(Femininity), (2) Factor F (desurgency), (3) Factor E(submissiveness), (4) Factor O(worry and guilt proneness), (5) Factor Q4 (ergic tension) (6) Factor C (Ego weakness). The last three dimensions listed above are known to group together in a second-order factor of Anxiety (Cattell and Scheier 1957, 58). From earlier conclusions drawn, we can
suggest that those factors which are related to Eysenck's Extraversion and Neuroticism would also thereby be related to crime. Each factor of the NSQ is discussed separately to draw out individual conclusions regarding these factors.

(1) **Factor I (Femininity) and Crime**

According to Scheier and Cattell (1961), the person with a high score on this component is "tender-minded, sensitive and fastidious in the sense that women typically are, as contrasted with men". By contrast, the low score or I(-) person might be described as "unfeeling a 'Philistine', often brusque in manner. The low-score person is also described as hard and rugged, self-reliant, independent-minded."

Since those individuals described as scoring low on this component, have more similarity to a criminal personality than the high scorers,

It may be hypothesized that criminals would tend to score low on I(femininity) component as compared to non-criminals.

(ii) **Factor P (desirency and Crime**

"The person with a high score on this component shows a classical picture of depression." (Scheier and Cattell 1961). By contrast, the low-score pole person is "cheerful, happy-go-lucky 'the life of the party'. He is humorous and witty, cheerful to the point of manic elation, enthusiastic and likes excitement and social contact." He is also described as being sociable, adaptable and impulsive.
A parallel can be drawn between this factor of Cattell and Eysenck's Extraversion dimension. Nevertheless, the description seems to include a mixture of sociability and impulsivity so that the scores of criminals on this factor would be dependant upon the relative preponderance of impulsivity over sociability items. Banister, Smith, Beskin and Bolton (1973) had however suggested that factor F(surgency) is a measure of the impulsivity part of Extraversion and would therefore be higher in criminals.

In the light of the above analogy, one may deduce that criminals would have lower scores on F(desurgency) as compared to normals who would have higher scores.

(iii) Factor F(submissiveness) and Crime

The person with a higher score on this component is submissive as compared to those who score low on this pole who are dominant. The high scorer is "sensitive to social approval or disapproval" and therefore avoids clashes which would result from assertive hostile behaviour towards others. This seems to suggest immediately that criminals would score low on this component because of their obvious disregard for societal reactions. The low score does seem to describe criminal characteristics, i.e., "dominant, assertive, ascendant, aggressive and competitive, even pugnacious. He tends to be domineering, unstable, seeks attention, but is relatively insensitive to social approval or disapproval of his behaviour." (Scheler and Cattell 1961 indicating thereby poorer socialization.
Scheler and Cattell (1961) had also suggested that the dominant pole is "extrapunitive" (hostility against others) and consistent with this, they found the dominant, extrapunitive to be associated with psychopathy.

From this, we can build up the deduction that criminals would be dominant as compared to normals who would have higher scores on this component (submissive).

(iv) Factor An (Anxiety) and Crime

Adcock (1965) comparing Eysenck's personality system with that of Cattell, concluded on theoretical grounds that Eysenck's Neuroticism is substantially the same as Cattell's second order factor of Anxiety. Crookes and Pearson (1970) found the correlation to be as high as 0.70. Since Neuroticism and Anxiety are both related to conditionability (with neurotics and high anxious individuals conditioning better) and from hypotheses drawn earlier, one may predict as regards Cattell's Anxiety as well, that

Criminals would tend to score lower on Anxiety than non-criminals.

(v) Overall Neurotic Trend and Crime

A final picture as regards the NSQ scores of criminals would show them to have lower scores on all four components of femininity, desurgery, submissiveness and anxiety than non-criminals. Since the Overall Neurotic Trend is a subtotal of the scores of all these factors this final score of Neurotic
Trend would also therefore be lower in criminals than normals.

It may be hypothesized that criminals would have lower scores on this Overall Neurotic Trend as compared to normal subjects.

Though age and type of crime were kept as variables, this study was a relatively newer research taking these two variables into account. Therefore although no definite hypothesis could be framed, yet the results themselves would be indicative of any trends for further research.