CHAPTER VI

DISCUSSION
This study was designed in the hope that psychological variables such as Personality, tested by questionnaires, and Motives, assessed through projective techniques, would enable us to sort out internal differences between offenders committing different types of crime. It was also anticipated that there would be comparable changes in psychological functioning of prisoners due to long term of imprisonment. Some differences in the personality and motives of criminals confined in open jails as compared to those detained in closed jails were also predicted. These expectations were discussed at length in Chapter III. The discussion that follows would, therefore, highlight the observed differences between Property and Body offenders on the variables of Personality and Motives as well as analyse the effects of habitat, length of imprisonment and type of jail.

A. PERSONALITY AND CRIME

Personality was the first major variable on which a comparative analysis was made between Property/Body offenders, Rural/Urbam background, short/long term of
imprisonment, and Open/Closed jails. It was measured in terms of dimensions of E/I, which was further split into S and L, N and P (Eysenck, 1970). While reviewing the literature in relation to crime, it was suggested that attention is now required to be focussed on the isolation of specific personality factors which accompany specific type of crime. Eysenck (1964) had opined that criminals are not a homogenous group and “sorting out internal differences i.e. differences in personality between different types of prisoners must be one of the most important research areas for the future.” In a special study whereby five different groups of prisoners—confidence tricksters, property offenders, violent criminals, inadequate criminals and a residual group were examined, it was concluded that within a criminal group, personality is connected with the particular type of crime most frequently practised. An attempt had therefore been made in the present study to investigate these specific personality variables of E/I, N and P as related to Property and Body offenders. Each dimension would be discussed separately with reference to the scores obtained by the subjects.

1. Extroversion and Crime

Eysenck (1970) propounded that propensity to
crime is universal but it is held in check by a person's conscience. His theory might be paraphrased as follows:-

1. Socialisation is achieved through conditioning.
2. Extraverts tend to condition poorly.
3. Neuroticism acts as a drive, reinforcing extraverted or introverted tendencies favouring or disfavouring antisocial conduct.
4. Therefore anti-social conduct, particularly crime would be found more frequently in people whose personality placed them in the high $E$ and high $N$ quadrant.

According to this theory extraverts would be predisposed to crime. Studies by Gough (1948) and Cleckley (1964), Singh and Akter (1971), Akter and Singh (1972) supported Eysenck's contention. Several other studies by Little (1963), Berry (1966), Jaspal (1977), Mohan and Singh (1981) discredited his hypothesis relating crime with $E/I$. Later Eysenck modified his theory and suggested that it is the $I$ aspect of $E/I$ rather than the $E$ which is related to crime.

The mean $E/I$ scores of criminals obtained in the present study are presented below along with the scores of some other local studies:-
The comparative means show that the criminals in the present study are scoring higher on $z/I$ on PAN in comparison with the non-criminals and criminals in the study by Mohan and Singh (1980) and the criminals in the study by Jaspal (1977). The $z$ scores on $API$ in the present study are however lower than the scores obtained by Mohan and Singh (1980).

The reason of lower scores on $E/I$ by criminals may be explained (according to Schalling and Holmberg, 1970) "since the $I$ component of $z/I$ is higher for criminals and the $S$ component lower, the studies based on overall means of the higher order factor of $z/I$ may not be giving a true picture." Hence, in the present study the overall scores on $z/I$ on $API$ were split into its two components — $S$ and $I$ in order to obtain a clear

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Study</th>
<th>Mean $z/I$ Scores On PAN</th>
<th>Mean $z/I$ Scores On API</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Present study</td>
<td>10.75</td>
<td>-</td>
</tr>
</tbody>
</table>

The comparative means show that the criminals in the present study are scoring higher on $z/I$ on PAN in comparison with the non-criminals and criminals in the study by Mohan and Singh (1980) and the criminals in the study by Jaspal (1977). The $z$ scores on $API$ in the present study are however lower than the scores obtained by Mohan and Singh (1980).
idea of the relationship between S, I and crime. The mean I scores of criminals 4.68 (Table 1) in the present study, are higher than the mean I scores, 4.01, of normals obtained by Singh A. (1980). The mean S scores of criminals 5.86 (Table 1) obtained in the present study, are lower than the mean S scores of normal population 7.10 obtained by Singh A. (1980).

a) E/I and Type of Crime

K. Mani (1978) in a comparative study of murderers and violent criminals (convicted for rape and dacoity) had come to the conclusion that all criminals do not exhibit the same personality traits; that violent criminals show tendencies of high E/I, N and P and that murderers scored more in their joint status on E/I and N. However a contrary view was expressed by Sanocki (1967) who found that property offenders are more extraverted than murderers.

In the context of the above it had been hypothesized that criminals committing Body offences would score higher on I than criminals committing Property offences as offences relating to Body are primarily of impulsive type. The overall results obtained are in the predicted direction which is established by an significant F ratio
of 5.04 $P < .05$ (Table V) for the I scores. Mean I scores of Body and Property offenders are 4.86 and 4.44 respectively (Table 1). The present results while corroborating the earlier findings of Sanoeki (1969), Schalling (1970), Eysenck and Eysenck (1971), Singh A. (1980) confirming that the I component of E/I is higher in criminals as compared to normals further elaborate these findings by concluding that the I is higher in Body offenders than in Property offenders. Property offences are the result of scheming and planning while Body offences occur by and large on the spur of the moment. Hence it was expected that criminals committing Property offences would score higher on Sociability than those committing Body offences. The results obtained corroborate the above hypothesis. The respective means of Sociability scores for Property and Body offenders are 6.24 and 5.48 (Table 1). The F-ratio of 13.96 is highly significant $P < .01$ (Table V).

b) E/I and Habitat

In view of the special socio-geographic background the rural population of this region is comparatively backward less mobile and their contact with each other and the outside community is limited. They are likely to
be more impulsive due to the spontaneity of reaction to others and comparative rashness. In the light of this it was earlier hypothesized that the rural criminals would score lower on $E/I$ and $S$ but higher on impulsivity as compared to the urbans. Singh (1980) in a study of a sample of the local rural population, which included both the murderers and the non-criminals, found the rurals scoring higher on $E/I$, $S$ and $I$, as compared to a matched group of urbans. Singh's (1980) mean scores for $E/I$ on PAN were also higher for the rurals versus the urbans. The results obtained in the present study are in the predicted direction, as shown below:

<table>
<thead>
<tr>
<th></th>
<th>$E/I$</th>
<th>$PEN$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$E$</td>
</tr>
<tr>
<td>Rural</td>
<td>140</td>
<td>14.38</td>
</tr>
<tr>
<td>Urban</td>
<td>140</td>
<td>10.38</td>
</tr>
<tr>
<td></td>
<td>160</td>
<td>10.45</td>
</tr>
<tr>
<td>Urban</td>
<td>160</td>
<td>10.38</td>
</tr>
</tbody>
</table>

On $E/I$, the $F$-ratio for $S$ of 5.70 is significant ($P < .05$) but the $F$ ratio for $I$ of 3.46 just misses significance by a small margin (Table V). The difference
in the A/I scores is not significant. The mean A/I scores obtained on PAN also corroborate the above finding on A/I of rural criminals being lower on A/I as compared to the urban criminals but the difference is not material as depicted by an insignificant F-ratio.

c) A/I and Term of Imprisonment

According to Aysenck and Aysenck (1970) "it is evident that prisoners who live in an institution with few possibilities of seeing friends and going to parties, sociability items may have other implications than for individuals leading a normal life." Heskin et al. (1973) in a study on the long term effects of imprisonment found that A/I scores as measured by A/I declined with the increase of imprisonment period. The mean scores of A/I, 10.39 for 6 and 10.48 for 24+ (Table I) as measured through A/I, in the present study, confirm the above finding of Heskin et al. On PAN also there is a fall in the mean A/I scores from 10.94 for 6 to 10.57 for 24+ (Table I). However, the F-ratios for the above two sets of scores are insignificant. This is understandable as explained by Aysenck (1977), "effects for I are insignificant, as are those for sociability and Impulsiveness. This does not necessarily mean that the I effects are spurious; with a larger population
the p values could have reached the significance level.*

Benister et al. (1973) also found some increase in measures of self-directed hostility and N among the prisoners with length of imprisonment, a factor which would boost their impulsivity. Hence it was hypothesised in the present study that criminals who have already undergone a long term of imprisonment would score higher on I—but lower on S and vice-versa. The results obtained are contrary to the prediction. The S scores show an increase over the years from a mean of 5.61 for -6 to 6.11 for 24+ (Table I) and have a significant F-ratio of 6.00 (p < .05) (Table V). The scores obtained for I portray a highly significant difference with a F-ratio of 8.34 (p < .01) (Table V); the mean scores show a fall from 4.94 for -6 to 4.38 for 24+ (Table I). Thus it is concluded that, though there is not much change in the overall S/I of the prisoners undergoing a long term of imprisonment as compared to those who have been confined for a short period; there is a decisive increase in the S and decrease in the I of the prisoners as the term lengthens. This finding may be attributed to two factors namely the special socio-economic background of the criminals and the stabilizing reformatory trends introduced in the prisons of the State. The subject
criminals, all, hailed from a low income group hence at the time of conviction and upto a few months after imprisonment i.e., the -6 category - they were obviously extremely worried over the sustenance of their families; they might have been the only bread-winners (No wages for work are paid to prisoners for the first three months of the term of imprisonment). After the passage of three months of their term in jail they were offered wages for work done, incentives of remission and a prospect of early release for good conduct in jail. (Reorganisation of Jail Industries and Introduction of wage earning scheme, 1964 in Punjab Jails). They could send financial help to their families out of their wages. They were passed out for work in the fields and factories of the prisons which served as occupational therapy for them. They were better adjusted to the prison routine and participated in its community activities of games and recreation organised by self-elected bodies - the Panchayats. All this led to improved socialization and a fall in their original impulsivity. Banister et al. (1973) have interpreted their results on similar reasoning i.e., "imprisonment makes its effects felt early in the total period of exposure to prison with rather little later change; long term of imprisonment does not have damaging psychological effect."
Cohen and Taylor (1972) in a qualitative study of prisoners serving up to twenty years in the 'H wing' of Durban prison concluded that "isolation of prisoners in the wing from the general run of prisoners and from staff and their mutual proximity to each other assisted high internal solidarity in their own eyes, they were more intelligent, urbane and sophisticated than the officers."

d) $E/I$ and Type of Jail

These prisoners who have displayed a good conduct during their stay in the jail are screened and passed out for work and lodging in the open-air jails. In view of this, it was hypothesized that open-jail prisoners would be more introverted thus would have low scores on $E/I$. The results obtained are in the predicted direction of 9.98 and 9.90 $F$-ratios for the $E/I$ scores (Table II) on $E/P$ and $P/A$ respectively are highly significant ($p < .01$). Mean $E/I$ scores for open and closed jails on $E/P$ are 10.03 and 11.00 and 10.18 and 11.33 on $P/A$ respectively (Table I). The results obtained in the present study therefore corroborate the hypothesis that open jail prisoners are less extraverted than those in closed jails. The above finding is attributable to the special conditions
existing in the open jails which are as near those in
the outside society in which the prisoners are to move
later on after release as possible. They work in a
free atmosphere, are not locked up even at night, work
in the fields as they would in their own home places
with freedom to meet and communicate with their relatives
and others. All this has a stabilising effect on their
psychological functioning and scores on E/I go down.
The possibility of the above results being influenced by
a 'selection bias' in favour of open jail prisoners
cannot be ruled out as it is only the no 'escape-risks'
who are passed out for work and lodging at the open
jails by a screening committee of officers.

The difference between the S scores of open and
closed jail prisoners was highly significant displaying
an F-ratio of 16.34 (p < .01) (Table II); the mean S
scores of the two being 5.45 and 6.27 respectively
(Table I). The open jail prisoners were found to be
less sociable.

However, the scores obtained for I did not show
much difference - the F-ratio being insignificant
(Table V), the mean I scores for Open and Closed jails
were 4.59 and 4.73 respectively (Table I).
Eysenck and Eysenck (1963) and Sparrow and Ross (1964) had come to the conclusion that in the normal population, sets of S and I items show a correlation of about .47. Schalling (1973) found that the correlation between S and I decreased considerably in a criminal group. Singh (1980) found a correlation of .286 between S and I for local murderers. In the present study, S and I show a positive correlation of .26 for Body offenders, .05 for Property offenders, .21 for Rural, -.03 for Urban, .20 for short term, -.09 for long term, of only .02 for open and .07 for closed jails. The results obtained thus corroborate the correlational findings between S and I of criminals by Schalling and Singh.

Interactions for S and various aspects of Crime

Multiple range analysis for S (EPI) presented in Table III shows that the group PM=60 is giving the highest and the group BN=60 is giving the lowest mean score. The studentized range is significant at .01 level. Thus Rural based Property offenders who have undergone less than six months of imprisonment and who are lodged in open jails have the highest mean S/I scores. The Rural based Body offenders having undergone similar term
of imprisonment and lodged in the same type of jail have the lowest mean A/I scores. These results have been reflected in the analysis of variance (Table II). The F-ratios for open/closed jails of 9.98 (on TPI) is significant at .01 level (Table II). The interactions of Term x O/C and of Ty x B/U x Term x O/C are significant on TPI at .01 and .03 level respectively. The graph showing the two way significant interaction is given as Fig. 1.1.

The multiple comparison of sixteen means for E (PEN) presented in Table IV shows that the group BU-6C has the highest mean scores while the group PrU 24+O has the lowest mean scores. The studentized range is significant at .01 level. Thus Urban based Body offenders who have undergone less than six months of imprisonment and are lodged in closed jails are highest on E/I (PEN). The Urban based Property offenders having undergone long term of imprisonment and lodged in open jails have the lowest E/I scores. These results are amply reflected in the analysis of variance (Table II) which shows an significant F-ratio of 9.90 for Open/Closed Jails for E (PEN). The interactions of R/U x Term and of Ty x R/U x Term x O/C are significant at .05 level. The graphs depicting the two factors significant interaction is shown as Fig.1.2.
Fig. 1.1. Performed on E (EP). Term X type of jail. Long.
Fig. 2.1. Performed on S (EP). Type X term. Property Body.

Interactions of Analysis of Variance.
Fig. 3.1
Interaction of analysis of variance performed on I(EPI).
Type X term

- Property
- Body

Mean Scores

3  4  5  6
Short  Long

Fig. 3.2 Rural-Urban X type of Jail
- Rural
- Urban

Mean Scores

3  4  5  6
Open  Closed
**Relationship of $a/l$ and other Variables**

A scrutiny of Tables XXI to XXV reveals that $a/l$ scores of different groups of criminals correlate significantly with some of the other variables studied in the present research. In some cases the correlation is positive and in some negative. The net result of the significant correlations is presented below.

**Summary of the trend of correlation of $a$ Scores with other variables studied**

<table>
<thead>
<tr>
<th>Group</th>
<th>Positive correlation</th>
<th>Negative correlation</th>
<th>Positive correlation</th>
<th>Negative correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property</td>
<td>$S, I, E (PEN)^P$</td>
<td>$E (EPI), S, I$</td>
<td>$E (EPI), S, I$</td>
<td>$N (PEN)$</td>
</tr>
<tr>
<td>Body</td>
<td>$S, I, N (PEN)$</td>
<td>$E (EPI), S, I$</td>
<td>$E (EPI), S, I$</td>
<td>$N (PEN)$</td>
</tr>
<tr>
<td>Rural</td>
<td>$S, I, N (EPI)$</td>
<td>$L (PEN)$</td>
<td>$E (EPI), S, I$</td>
<td>$N (PEN)$</td>
</tr>
<tr>
<td>Urban</td>
<td>$S, E (PEN)$</td>
<td>$I$</td>
<td>$E (EPI), S, I,$</td>
<td>$N (PEN)$</td>
</tr>
<tr>
<td>$-6$</td>
<td>$S, I, E (PEN)$</td>
<td>$E (EPI), S, I$</td>
<td>$E (EPI), S, I$</td>
<td>$N (PEN)$</td>
</tr>
<tr>
<td>$24^+$</td>
<td>$I, L (EPI)$</td>
<td>$S, E (PEN)$</td>
<td>$S, E$</td>
<td>$E (EPI), N (PEN)$</td>
</tr>
<tr>
<td>Open</td>
<td>$S, I, E (PEN)$</td>
<td>$E (EPI), S, I$</td>
<td>$E (EPI), S, I$</td>
<td>$N (PEN)$</td>
</tr>
<tr>
<td>Closed</td>
<td>$S, I, E (PEN)$</td>
<td>$E (EPI), S, I$</td>
<td>$E (EPI), S, I$</td>
<td>$N (PEN)$</td>
</tr>
</tbody>
</table>

The above chart shows that $a$ both on $EPI$ and $PEN$ is consistently correlating with $S$ and $I$. It is
correlating negatively with N(PaN) in Property, Rural, 26, 24+ and Closed Jail groups. A negative relationship of E/I with N has emerged in Urban and 24+ groups. In the Urban and Closed Jail group the E/I correlates positively with nSec.

The results of Factor Analysis further substantiate these findings. These would be discussed later on along with the analysis of other variables studied.

2. Neuroticism and Crime

N is the second dimension of Eysenck's personality model. Although Eysenck (1970) did not place N at the top of the determinants of crime, Burgess (1972) rated the N-dimension as a very important component of criminal personality. In most of the studies cited by Eysenck (1970) the samples of prisoners were found to score higher on N than the controls. Eysenck (1964) had postulated that psychopaths have high scores on N, hence high autonomic lability. This assumption has been confirmed by subsequent empirical studies. Psychopaths suffer from a learning deficit which is inferred from their marked disregard for future consequences of their acts. This implies the failure of cues associated with punishment to arouse sufficient anxiety to motivate avoidance behaviour. Eysenck (1970)
consequently asserts that a high labile autonomic system interferes with efficient learning of avoidance cues. On these grounds it was hypothesised, in the present study, that criminals would score higher on N as compared to non-criminals. The result obtained confirm this hypothesis. The mean N scores of criminals obtained on PEN and EPI, in the present study, are presented along with the N scores obtained for the normal population in some other studies.

Mean N Scores of Male Prisoners and Normal Population

Data from Independent Investigations

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Study</th>
<th>Prisoners</th>
<th>Normal S. Study</th>
<th>Prisoners</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S.B.G. Eysenck</td>
<td>9.56</td>
<td>7.53 (White)</td>
<td>6.38 (Coloured)</td>
</tr>
<tr>
<td></td>
<td>H.J. Eysenck</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1971)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Verma and Kig (1922)</td>
<td>10.81</td>
<td>7.68</td>
<td>9.54</td>
</tr>
<tr>
<td></td>
<td>(Psychiatrists)</td>
<td></td>
<td></td>
<td>students</td>
</tr>
<tr>
<td>3</td>
<td>A. Singh (1979a)</td>
<td>10.33</td>
<td>9.04</td>
<td>8.93</td>
</tr>
<tr>
<td></td>
<td>(Major criminals)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A. Singh (1979b)</td>
<td>10.01</td>
<td></td>
<td>9.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mohan and Singh (1980)</td>
<td>9.11</td>
<td>7.61</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Mohan and Singh (1980)</td>
<td>8.9</td>
<td>7.92</td>
<td>(students)</td>
</tr>
<tr>
<td>7</td>
<td>Present study</td>
<td>8.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The comparative figures given above clearly bring out that the criminals have higher scores on \( N \) than the non-criminals. This finding on criminals substantiates the earlier evidence in favour of criminals having higher \( N \) scores. Bartholomew (1957, 1959), Field (1960), Fitch (1962), Berry (1966), Millman (1966), Price (1968), Schalling and Holmberg (1970), Eysenck and Eysenck (1971), Burgess (1972), Singh (1973), Shanmugam (1973), Singh (1980), Mohan and Singh (1980) support Eysenck's theory regarding \( N \) and criminality. Jaspal (1977) however reported criminals having lower scores on \( N \) than non-criminals.

a) **Neuroticism and Type of Crime**

Eysenck, Rust and Eysenck (1977) selected a group of adult prisoners representing four areas of criminal activity (violence, theft, fraud, inadequacy) and one of multiple criminal activity (residual). These groups were tested by means of questionnaire (EPQ). The results obtained show that the common have very low \( N \) scores, violence and property offenders have low \( N \) scores, and the inadequates and residuals have high \( N \) scores. For \( N \), significant differentiation involved common as compared with property offenders, inadequates and Residual (Eysenck, Rust, Eysenck (1977). In view of the above,
it was hypothesized that property and body offenders would not show any marked difference on N. The results obtained are in the predicted direction. The F-ratios of N scores on EPI and PEN of property and body offenders are insignificant (Table VIII). The mean N Scores of Property and Body offenders in the present study, on EPI are 10.37 and 10.74 respectively (Table I) which show a slight trend towards higher N in Body offenders; but insignificant. This assumption has been magnified in earlier studies by Sethi et al. (1976), Yadav (1976), Nirmal (1977), Singh A. (1979a and 1979b) who found N to be significantly related to aggressive crimes like murder. Jaspal (1977) also reported major criminals having higher N Scores than minor criminals. Most of the major crimes in this area have aggression as their main component. Thus in spite of the fact that the mean scores on N of Body and Property do not differ significantly the weight of evidence on local criminals leans towards a higher N Score for Body offenders.

b) Neuroticism and Habitat

Verma (1975) in a study on occupation and N reported that farmers amongst male and housewives amongst female population obtained a higher N Scores.
In a subsequent study Venn* (1976) reported significant differences between rural and urban people on N with rural people obtaining higher score on N. Sharma (1981) found rural scoring significantly higher than Urbans. Singh A (1980) found rural subjects having significantly higher N scores as compared to urban subjects both on PEN and EPI. His study was made on a composite population of murderers and non-criminals and gave an interesting finding regarding rural-urban differences and N. These differences were found to be significant only in the non-criminal population, the t-ratios being 3.41 and 3.11 on PEN and EPI respectively. The comparative t-ratios for murderers were 0.96 and 0.15 on PEN and EPI respectively. Singh A. (1980) explains these differences by saying that criminals on the whole score much higher on N. So they do not show any rural urban differences.

The present study reiterates the above finding of Singh A. The mean N scores obtained for rural and urban criminals are 11.03 and 10.06 on EPI and 8.91 and 8.38 on PEN respectively (Table I). The trend is towards higher N in rural criminals. The t-ratios of 3.21 for the N scores of rural and urban criminals on EPI just misses significance (Table VIII).

c) Neuroticism and Term of Imprisonment

Schultz (1965) found that studies of sensory
deprivation report an increase in anxiety during short periods of confinement. Anxiety and N are positively and significantly related as hypothesised by Eysenck (1955) and Bendig (1957). Eysenck's concept of N in terms of a drive state has been spoken of as anxiety by various psychologists. Eysenck (1970) while propounding his theory of criminality held that Neurotics are high on anxiety or emotionality and that anxiety acts as a drive which multiplies with habit. Jaspal (1977) had opined, "In discussing N, therefore, it is evident that any hypothesis relating anxiety to crime would apply equally to N and vice-versa since they are highly intercorrelated concepts." Goffman (1961) had reported that studies of effect of institutionalisation show an increase in apathy and a reduction of drive over the years. In view of the foregoing evidence it was hypothesised that the prisoners who have undergone short term of imprisonment would have high N scores which would go down as the term of imprisonment increases. The results obtained are in the predicted direction, the N scores on PNS for -6 and 24+ are 9.16 and 8.13 respectively (Table 1). The N Scores obtained show a significant difference between the two groups having an f-ratio of 6.30 P < .05 (Table VIII) thereby confirming the findings of Schults (1965) that short term prisoners i.e. -6 have high N Scores and of
Goffman (1961) that the N Scores go down over the years i.e. for 24+. However, the difference between the mean N Scores on EPI of 10.86 and 10.25 for -6 and 24+ respectively, in the present study (Table I) fails to reach any level of significance having an insignificant F-ratio (Table VIII). Thus on EPI -6 and 24+ do not differentiate on N. This result corroborates the finding of Banister et al. (1973) who reported no significant difference between prisoners with short-term and long-term of imprisonment in N as measured by EPI N-Scale, nor any consistent trends.

d) Neuroticism and Type of Jail

In the present study the mean N Scores on EPI of prisoners in Open and Closed jails are 10.34 and 10.97 respectively (Table I) which are almost same. The mean N Scores on PEN for Open and Closed jails (Table I) are 9.10 and 8.19 respectively, which show a significant difference with an F-ratio of 4.92 P < .05 (Table VIII). This difference in the N Scores of the prisoners in the two types of jail is understandable and substantiates the hypothesis framed. Only such prisoners are allowed to be taken out for work and lodging in the open jail who are considered to have displayed/conduct in the closed jail. Good conduct in
the jail implies strict conformity to prison code. The prisoners attracted by the incentives of premature release, freedom of movement, unrestricted interviews and more congenial atmosphere in the open jails strive their utmost to keep their record of conduct in the jail flawless. This leads to a certain amount of strain on them which generates anxiety. It is this category of prisoners who are ultimately selected and lodged in the open jail. Hence they are found to be high on N. Another explanation for the open jail prisoners being high on N can be given in terms of the relationship of Drive to learning. Iowa studies have established that high drive is favourable to conditioning. Mohan (1976) Mohan and Kumar (1979) had suggested that neurotics perform better on simpler tasks while stable perform better on complex tasks. Thus in situations which involve simpler tasks, such as socialisation, Neurotics would perform better. As explained by Eysenck (1970) socialisation is primarily a resultant of classical conditioning hence neurotics would socialise better. It is the better socialised prisoners who have a good conduct record and who are considered fit for the Open jail. Such prisoners are evidently high on N. As already discussed the open jail prisoners are less extraverted as compared to those
in the closed jails. While E and N are independent of each other, at higher levels of N, the regression lines bend and negative correlations appear i.e. neurotics tend to be more introverted (Eysenck, 1970; Mohan and Kumar, 1976). This also explains the high neuroticism of open jail prisoners.

**Interactions for N and various aspects of Crime**

Multiple range analysis for N (EPI) presented in Table IX shows that BR 24*0 group is giving the highest and Prs 24*0 group the lowest mean score. The studentized range is significant at .01 level. Thus Rural based Property offenders who have completed two years of their sentence and are lodged in open jail have the highest mean N Scores. The Urban based Property offenders of the same term and in the same type of jail have the lowest mean N Score. These results have been amply reflected in the analysis of variance (Table VIII). The independent R-ratios for the four main effects are all insignificant but there are four significant interactions. The interaction of Ty x Ter and the three level interaction of R/U x Ter x O/C are significant at .01 level. The interaction of Ty x O/C and of U/R x Ter are significant at .05 level (Table VIII). The analysis of variance results indicate that an interactive effect of variables,
influences N. The graphs showing two factor significant interactions are given as Fig. 4.1, 4.2 and 4.3.

The multiple comparison of sixteen means presented in Table X indicates that PrU-60 group has the highest while the PrR 24*C group has the lowest mean N Scores on PEN. The studentized range is significant at .01 level. This has already been borne out in the analysis of variance (Table VIII). The F-ratios for the main effects of Term and Q/C are significant at .05 level. There is a highly significant interaction for R/U x Term x Q/C with an F-ratio of 7.81 (P < .01). The interactive effect of Ty x Term is significant at .05 level. Duncan's analysis on N PEN shows that the Rural based Property offenders who have completed two years in the closed jail are the least neurotic group while the Urban based Property offenders who have completed only six months of their sentence and are in the Open jail are the highest neurotic group. The graph depicting the two factor significant interactions is as Fig. 6.

A comparative study of the N Scores obtained on EPI and PEN indicates that on both the inventories the interactive effect of R/U x Term x Q/C influences neuroticism in criminals. The F-ratios for this interaction are 7.13 and 7.81 on EPI and PEN respectively.
Interactions of Analysis of Variance.
Performed on N (EPI).

Fig. 4.1 Type X term
- Property
- Body

Fig. 4.2 Type X type of Jail
- Property
- Body

Fig. 4.3 Rural-Urban X term
- Rural
- Urban
Interactions of Analysis of Variance

Fig. 5 Performed on L (EPI)
Rural-Urban X term
- - - Rural
- - - Urban

Fig. 6 Performed on N (PEN)
Type X term
- - - Property
- - - Body

Fig. 7 Performed on P (PEN)
Type X term
- - - Property
- - - Body
both significant at .01 level (Table VIII).

**Relationship of N and other Variables**

A scrutiny of Tables XXII to XXXV reveals that Neuroticism scores of different groups of criminals correlate significantly with some of the other variables studied in the present research. In some cases the correlation is positive and in some negative. The net result of the significant correlations is presented below.

**Summary of the trend of Correlations of N with other Variables Studied**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Group</th>
<th>EPI Positive</th>
<th>Negative</th>
<th>PEN Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Property</td>
<td>$I, N(PEN), P, n_{sec}$</td>
<td>$I, N(EPI), P, S, L(EPI), n_{pow}, n_{agg}$</td>
<td>$E(EPI)$</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Body</td>
<td>$I, N(PEN), P$</td>
<td>$S, L(EPI), L(PEN)$</td>
<td>$N(EPI), P$</td>
<td>$S, L(PEN), n_{sec}(EPI)$</td>
</tr>
<tr>
<td>3.</td>
<td>Rural</td>
<td>$E, I, N(PEN), P, n_{pow}$</td>
<td>$L(EPI), L(PEN)$</td>
<td>$I, N(EPI), P$, $n_{pow}$</td>
<td>$L(EPI), L(PEN), E(PEN)$</td>
</tr>
<tr>
<td>4.</td>
<td>Urban</td>
<td>$N, P$</td>
<td>$L(EPI), S$</td>
<td>$N(EPI), P, n_{pow}, n_{agg}$</td>
<td>$S, L(EPI), L(PEN)$</td>
</tr>
<tr>
<td>5.</td>
<td>-6</td>
<td>$I, N(PEN), P, n_{pow}$</td>
<td>$S, L(EPI), L(PEN)$</td>
<td>$n_{sec}, n_{pow}$</td>
<td>$S, L(PEN), E(PEN), L(EPI)$</td>
</tr>
<tr>
<td>6.</td>
<td>24*</td>
<td>$I, N(PEN), n_{pow}$</td>
<td>$N(EPI) P$</td>
<td>$E(PEN)$</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Open</td>
<td>$I, N(PEN), n_{pow}, n_{agg}, n_{ach}$</td>
<td>$L(EPI), L(PEN)$</td>
<td>$I, N(EPI), n_{pow}, n_{agg}, L(PEN)$</td>
<td>$L(EPI)$</td>
</tr>
<tr>
<td>8.</td>
<td>Closed</td>
<td>$N, P$</td>
<td>$L(EPI), L(PEN), n_{sec}$</td>
<td>$N(EPI) P$</td>
<td>$S, L(EPI), E(PEN), L(PEN), n_{sec}$</td>
</tr>
</tbody>
</table>
The above chart shows that N is consistently and significantly correlating positively with P in all the eight groups both on EPI and PEN. There is highly significant positive correlation with nPw as shown by five groups on each inventory. A positive correlation is shown with nAgg. on EPI by the Open jail group and on PEN by Open/jail, Urban and Property groups. I correlates positively with N for five of the groups; on EPI and on three groups on PEN. Highly significant negative correlation is shown between N and Lie scores by seven groups on PEN and six groups on EPI. This result corroborates the earlier finding of Mohan and Kumar (1975) on a correlational analysis of personality dimensions with intelligence and mechanical reasoning. They have explained the above correlation by saying, "perhaps the stables responded affirmatively to the Lie items not because of a tendency to lie or fake, but more because they wanted to visualise their ideal self in conformity with the socially desirable values. The items of Lie scale are such that they do highlight somewhat these ideal qualities of behaviour". S is showing a negative correlation with N on five groups on PEN and on two on EPI. The positive correlation with I and negative with S is in line with the dualistic nature of E propounded by Eysenck whereby the I component of E/I has been held to
have a positive relationship with crime. nSec in the
groups Property Body and Closed jail is negatively
correlating with N. N is showing a consistent and
significant correlation with P on both EPI and PEN in
all the eight groups in the present study, which is
reflected in the factor analysis.

The results of factor analysis would be discussed
later on together with all other variables studied.

3. Psychoticism and Crime

The earlier description of personality given by
Eysenck was a simple two dimensional model of E/I and N.
In the 1970's, Eysenck added a third dimension called
Psychoticism, to their model of personality. It was then
suggested that in addition to E/I and N, P too would be
implicated in the causation of crime. In the present
study it has been hypothesized that the criminals would
be higher on P as compared to the non-criminals. The
results obtained are in line with the prediction. The
mean scores on P of the criminals in all the eight
groups (Table I) are significantly higher than the
mean P scores obtained for normals in various studies
as shown below:
P scores of groups of male prisoners and of Normal Population: Data from Independent Investigations

<table>
<thead>
<tr>
<th>Study</th>
<th>Criminals</th>
<th>Normals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
<td>Coloured</td>
</tr>
<tr>
<td>1. Eysenck and Eysenck (1971)</td>
<td>4.81</td>
<td>3.14</td>
</tr>
<tr>
<td>2. Jaspal (1977)</td>
<td>7.98</td>
<td></td>
</tr>
<tr>
<td>3. Verma and Vig (1972) (Psychiatrics)</td>
<td>7.37</td>
<td></td>
</tr>
<tr>
<td>4. Mohan and Singh (1980)</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>5. Singh, A. (1980)</td>
<td>7.65</td>
<td></td>
</tr>
<tr>
<td>6. Present study</td>
<td>6.55</td>
<td></td>
</tr>
</tbody>
</table>

psychoticism than normals. "Most of the items on P are saturated with processes closely interlinked with socialisation of an individual. A criminal is lacking the necessary socialisation and formation of conscience (Eysenck, 1970) . . . hence it is quite natural that he should be scoring high on P." (Mohan and Singh, 1980). Eysenck (1971) had also suggested that criminals score high on P because they have elevated lie scores. The mean lie scores in the present study, are quite high 5.50 on EPI and 10.31 on PEN (Table I). Some of the P items are not endorsed by prisoners in the right direction because of their similarity to the L items.

a) P and Type of Crime

Jaspal (1977) in her study on personality of major, minor criminals and normals had concluded that there were no differences between different types of criminals on psychoticism. In view of the above it was hypothesised that the property and body offenders would not differentiate on P. The results obtained are in the predicted direction. The mean P scores for Property and Body offenders (Table I) are 6.50 and 6.60 respectively. The difference between the means fails to reach any level of significance (Table XI). This finding corroborates the results obtained by Eysenck, Rust and
Eysenck (1977) in a special study on five groups of prisoners, which included violence and Property offender groups, the mean P scores for violence and Property offenders are 6.41 and 6.42 on EPC respectively; which do not differentiate significantly.

b) P and Habitat

Singh A. (1980) has reported rural murderers scoring significantly higher on P as compared to urban murderers. Earlier studies (Singh A., 1976; Nirmal, 1977) reported similar findings with criminals and juvenile delinquents respectively. The mean P scores obtained in the present study for Rural and Urban criminals are 6.75 and 6.34 respectively (Table I). The difference though insignificant shows a trend of Rural criminals scoring slightly higher than Urban criminals on P.

c) P and Term of Imprisonment

The mean P scores for -6 and 24+ obtained in the present study are 6.97 and 6.12 respectively (Table I). The difference between the two is significant (p < 0.01) with a F-ratio of 6.89 (Table XI). These results establish that prisoners who have undergone a short term of imprisonment have higher score on P and as the length of imprisonment increases the scores on P are
The above results can be explained in two ways: first the better socialization and second the decreased N of the long term prisoners as compared to the short term ones. As already discussed there is a decisive increase in the S and decrease in the I as the term lengthens. In PEN most of the items on P are saturated with processes closely inter-linked with socialization. A person scoring high on P is characterized by the following traits: (1) solitary, not caring for others, (2) troublesome, not fitting in, (3) cruel - inhumane, (4) lack of feeling, insensitive, (5) lacking in empathy, (6) sensation-seeking, avid for strong sensory stimuli, (7) hostile to others - aggressive, (8) liking for odd unusual things, (9) disregard for dangers - foolhardy, (10) likes to make fool of other people and to upset them. Evidently as socialization improves the typical traits of P recede thereby showing a fall in the scores on P. This is what happens as a prisoner goes from -6 to 24+. Another reason for the lower P scores for 24+ may be the effect on prisoners of "having to be with the group." They learn to adjust with each other through a social code of 'give and take' in order to pass the time in jail in comparatively easy way. Obvious corollary of this adjustment is lowered P.
As already discussed, the N scores of prisoners go down as the term of imprisonment increases. The P scores obtained in the present study show a very significant positive correlation with N (Tables XXII to XXV). Evidently the P scores would also go down where the N scores fall, that is the 24+ would be less psychotic than the 6-.

d) P and Type of Jail

The mean P scores for open and closed jail in the present study are 6.38 and 6.71 respectively (Table I). Although the difference between the means fails to reach any level of significance as the F-ratio is insignificant (Table XI), there is a trend towards lower P scores in open jail prisoners, which satisfies the expectation of lower P in open jail prisoners. The reason for the means not being significantly different is understandable as both the groups are already scoring high on P.

Interactions for P and various aspects of Crime

The multiple comparison of 16 means presented in Table XII for P indicates that the PsU-60 has the highest while the PsU 24+ has the lowest mean score. This is understandable through the results of analysis.
of variance (Table XI) where the only significant
F-ratio is for the term in the main effects and for
Type x Term for the interaction. Thus the combinative
effect of Ty x Term effects P.

The graphic illustration for the significant
interaction is shown as Fig. 7.

Relationship of $P$ and other variables

A scrutiny of the Tables XXII to XXV reveals
that the $P$ scores of different groups of criminals
correlate significantly with some of the other variables
studied. The net result is presented on the next page.
Summary of the trend of correlation of Psychoticism with other Variables Studied

<table>
<thead>
<tr>
<th>Group</th>
<th>P &amp; N correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td>Property</td>
<td>E(EPI), I, N(EPI), N(PEN), nPow, nAgg</td>
</tr>
<tr>
<td>Body</td>
<td>N(EPI), nPow</td>
</tr>
<tr>
<td>Rural</td>
<td>N(EPI), N(PEN), nPow</td>
</tr>
<tr>
<td>Urban</td>
<td>I, N(EPI), N(PEN), nPow, nAgg</td>
</tr>
<tr>
<td>-6</td>
<td>I, N(EPI), N(PEN)</td>
</tr>
<tr>
<td>24+</td>
<td>I, N(EPI), N(PEN), nPow</td>
</tr>
<tr>
<td>Open</td>
<td>I, N(EPI), N(PEN), nPow</td>
</tr>
<tr>
<td>Closed</td>
<td>I, N(EPI), N(PEN)</td>
</tr>
</tbody>
</table>

In the present study P is correlating positively with N and negatively with L. There is positive correlation with nPow and I in some groups. This finding is further strengthened by heavy factor loadings for P and N in all the eight groups reflected as Factor I in the Factor Analysis which would be discussed later.

4. Lie Scores of Criminals

Eysenck and Eysenck (1971) found prisoners scoring
high on Lie as compared to Normals. Jaspal (1977) and Singh A. (1980), Mohan and Jaspal (1982) obtained similar results on an Indian sample of criminals. In view of these findings it was expected that the criminals in the present study would score higher on Lie scale as compared to normals. The results obtained are in the expected direction as is clear from the following comparison of the mean Lie scores of criminals obtained in various other studies on normal population.

Comparative Lie Scores in Some Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>EIN</th>
<th>EPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eysenck and Eysenck (1971)</td>
<td>5.48</td>
<td>5.44</td>
</tr>
<tr>
<td>2. Mohan and Jaspal (1982)</td>
<td>6.3</td>
<td>5.5</td>
</tr>
<tr>
<td>3. Mohan and Singh (1980)</td>
<td>7.8</td>
<td>5.56</td>
</tr>
<tr>
<td>4. Mohan and Kumar (1975)</td>
<td></td>
<td>2.93 (Boys)</td>
</tr>
<tr>
<td>5. Vemma and Wig (1972)</td>
<td>8.30</td>
<td>6.10</td>
</tr>
<tr>
<td>(Psychiatrics)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Present study</td>
<td>10.51</td>
<td>-</td>
</tr>
</tbody>
</table>
The Lie scores obtained in the present study are significantly higher than the Lie scores obtained for normals in earlier studies on local population. The tendency to Lie, on the part of the prisoners may be due to two reasons: firstly their desire to give socially favourable responses and secondly due to a compulsive tendency to tell lies even if prevarication is not called for. In the first case they may be extra cautious to fake good in order to present a better picture to a society which has condemned them behind bars. In the second case it is a manifestation of their inherent psychotic tendencies.

a) **Lie Scores and Type of Crime**

The mean Lie scores obtained for Property and Body offenders in the present study on EPI are 5.45 and 5.55 and on PEN 10.30 and 10.72 respectively (Table 1). The difference between the scores of the Property and Body offenders on both the inventories fails to reach any level of significance as is apparent from the insignificant F-ratios (Table XIII). This is understandable as already both groups are scoring very high on Lie. There is, however, a trend for Body offenders towards higher Lie scores.
Type of crime gives a significant interactive effect with habitat and type of jail. Table XIII shows significant interactions Ty x R/U x O/C on both EPI and PEN with F ratios of 10.13 and 6.99 respectively.

b) Lie Scores and Habitat

The mean Lie scores for Rural and Urban criminals, in the present study, on EPI are 5.68 and 5.31 and on PEN 10.45 and 10.58 respectively (Table I). Table XIII reveals that the F-ratios for these scores on both the inventories are insignificant suggesting that there are no rural urban differences in telling lies among the criminals. However, analysis of variance conducted on the Lie scores in the present study shows three significant interactions on EPI: R/U x Term (F-ratio 4.18), Ty x R/U x O/C (F-ratio 10.13), R/U x Term x O/C (F-ratio 6.30) (Table XIII). On PEN the significant interactions are Ty x R/U x O/C (F ratio 6.99) and R/U x Term x O/C (F ratio 3.95). This would suggest that though there is no difference between the rural and urban criminals in telling lies as such, yet in interaction with other group variables the differences become significant. The graphic representation of the two way significant interaction is as Fig. 5.
The fact that no significant difference in the pattern of lying has emerged between the rural and urban criminals is easily understandable. In this country the degree of socialisation, the education and status of the lower and lower middle income groups, from which our subjects came, is not much different in the rural and urban setting.

c) **Lie scores and Term of Imprisonment**

The mean lie scores obtained in the present study, for -6 and 24 on API are 5.33 and 5.66 respectively and on PAN 10.53 and 10.49 respectively (Table I). The differences between the two scores on both the inventories fail to reach any level of significance as is apparent from the two insignificant F ratios (Table XIII). However, term of imprisonment in interaction with R/U x U/C shows significant effect with a F-ratio of 6.90 on API and a F-ratio of 3.95 on PAN.

d) **Lie score and Type of Jail**

The mean lie score of prisoners confined in open and closed jails obtained in the present study are 5.35 and 5.63 respectively on API and 10.32 and 10.70 respectively on PAN (Table I). Both the sets of scores do not show any significant difference as the F-ratios are insignificant (Table XIII).
However, the Open/Closed jails yield a significant F-ratio of 6.30 in the triple interaction of H/U x Term x O/C on EPI and a significant F ratio of 3.95 in the triple interaction of H/U x Term x O/C on P&N. Thus the L scores for Open/Closed jails yield significant differences in interaction with term and habitat.

**Correlations of Lie Scores**

Lie scores of different groups of criminals obtained in the present study correlate significantly with some other variables studied (Tables XXII to XXV).

The net result is summated on the next page.
# Summary of the Trend of Correlation of Lie Scores with Other Variables Studied

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Group</th>
<th>EPI Correlation</th>
<th>PEN Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>1.</td>
<td>Property</td>
<td>S,L(PEN)</td>
<td>I, N(PEN), P, Narr</td>
</tr>
<tr>
<td>2.</td>
<td>Body</td>
<td>L(PEN), Nash</td>
<td>N(EPI), N(PEN), P</td>
</tr>
<tr>
<td>3.</td>
<td>Rural</td>
<td>L(PEN), Nash</td>
<td>I,N(EPI), N(PEN), P</td>
</tr>
<tr>
<td>4.</td>
<td>Urban</td>
<td>S,Nash, Npow, L(PEN), nSec</td>
<td>N(EPI), N(PEN), P, Narr</td>
</tr>
<tr>
<td>5.</td>
<td>24+</td>
<td>L(PEN)</td>
<td>I,N(EPI), N(PEN), P</td>
</tr>
<tr>
<td>6.</td>
<td>24+</td>
<td>S,L(PEN)</td>
<td>Nash</td>
</tr>
<tr>
<td>7.</td>
<td>Open</td>
<td>L(PEN), nSec</td>
<td>N(EPI), N(PEN), P</td>
</tr>
<tr>
<td>8.</td>
<td>Closed</td>
<td>S, Nash</td>
<td>L(EPI)</td>
</tr>
</tbody>
</table>
The Table on the previous page shows that 
lie is consistently correlating significantly but 
negatively with N both on EPI and PEN. As discussed 
earlier, this result supports the finding of Mohan 
and Kumar (1975) who have advanced a plausible 
explanation for these results. S is positively 
correlated with the lie scores. I displays 
a negative correlation. Mach and MPow have a positive 
correlation, while Naff has negative correlation.

The above summation of the correlation trend 
displayed is further strengthened by the results of 
factor analysis. Lie scale has emerged as one single 
unitary factor for all the eight groups of criminals 
in the present study (Table XLII).

B. MOTIVES AND CRIME

Motives were the second major variable on 
which a comparative analysis was made between Property/
Body offenders, Rural/urban background, short/long 
term of imprisonment and Open/Closed jails. As 
already discussed, hardly any studies are available
showing the relationship of crime to motives. The present work made an effort in this direction. The five important needs, i.e., \( nash \), \( naff \), \( npow \), \( nagg \) and \( nseo \) which were studied, would be discussed seriatim in their relationship to crime.

1. Need for Achievement and Crime

Cattell (1957) found McDougall’s conception of the “self-assertive” drive to be borne out in his own factor analytically derived “self-assertion” erg. He considered both \( nash \) and \( npow \) as hypothetical, unintended split ups of the self-assertive erg. In view of this theoretical background it was hypothesised, in the present study, that criminals would score higher on \( nash \) as compared to non-criminals.

The results obtained confirm the above hypothesis. The means for \( nash \) based on the summated scores on ten pictures of AAPAS test are much higher than the mean scores of non-criminals obtained in
some other local studies, using the same projective test, as shown below:

Mean NACH Scores of Prisoners and Normals

<table>
<thead>
<tr>
<th>Name of study</th>
<th>N</th>
<th>Prisoners</th>
<th>Normals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kureshi (1971)</td>
<td>119</td>
<td>1.98</td>
<td></td>
</tr>
<tr>
<td>Mohan V (1982)</td>
<td>47</td>
<td>2.20</td>
<td></td>
</tr>
<tr>
<td>Present study</td>
<td>320</td>
<td>17.09</td>
<td></td>
</tr>
</tbody>
</table>

The comparative figures given above clearly bring out that the criminals fall among the category of high scorers on NACH. In the review of literature it has been indicated that no earlier studies relating NACH to crime are available. However, deductions regarding this relationship can be made from allied studies. Cattell (1965) had hypothesised that NACH has positive relationship with Assertiveness Exp.

Studies by Southwood (1969) (cited in McClelland, 1975b) Felson and Sleet (1973) establish a positive correlation between NACH and Pugnacity by showing
that high n<sub>c</sub>h coupled with lack of opportunities leads to violence. Tutt (1973) found that high n<sub>c</sub>h delinquent boys tend to be aggressive towards society. Extrinsie-n<sub>c</sub>h, has been found to correlate positively with Pugnacity E<sub>r</sub>g (r = +.23 P < .001) and nPoW (r = +.14, P < .05), by J.M. Jerath (1979). These correlations suggest that a high n<sub>c</sub>h person is more likely to be hostile and destructive. These empirical studies thus substantiate the present finding of criminals being high on n<sub>c</sub>h.

a) n<sub>c</sub>h and type of crime

McClelland (1961) has postulated that n<sub>c</sub>h is associated with economic growth, i.e., a high level of n<sub>c</sub>h predisposes any society to vigorous economic activity through its entrepreneurs. The important characteristics of an entrepreneur are:

a) Moderate risk-taking as a function of skill not change; decisiveness.
b) Energetic and/or novel instrumental activity.
c) Individual responsibility.
d) Knowledge of results of decisions.
e) Money as a measure of results


From the above theoretical background it was deduced that prisoners committing offences against Property would be higher on nach than those committing offences against Body; the former involve comparatively lesser risks. The results obtained are in the predicted direction. The mean n*ch scores of Property and Body Offenders are 20.23 and 13.95 respectively (Table I). The F-ratio for the main effect of Type of crime is highly significant being 82.79, $P < 0.01$ (Table XVI).

Muthayya (1965) found predominantly extrapunitive reactions to frustration for high n*ch groups who were also characterised by 'obstacle dominance.' Property offences are a reaction to frustration caused by economic want; the offenders against property are dynamic and obstacle dominant out to punish the "haves", that is the rich for their own frustrations. They would thus be high on n*ch.

b) n*ch and Habitat

McClelland (1961) had found that persons residing in areas of higher economic growth had higher n*ch. In
view of this it was hypothesised that the Urban criminals would score higher on nAch as compared to the Hurais. The results obtained confirm the hypothesis. The mean nAch scores of Urban criminals are 19.99 and those of the Hurais 15.19 (Table 1). The difference between the two classes is highly significant with an F-ratio of 31.70 ($P < .01$) (Table XVI). This result corroborates the findings of Veeraraghavan (1966) who found nAch greater in workers who have exclusively lived in Urban areas, and Sharma (1981) who found urban youth higher on nAch as compared to tribal and rural. Gokulnathan and Mehta (1972) found that tribal boys who had migrated from a village to some urban area and were studying in some urban based school showed significantly greater nAch than their non-tribal counterparts. The results suggest that urban based groups tend to show a greater urge to improve resulting in their greater nAch. This may be on account of the greater opportunities of small entrepreneurship available in the urban areas coupled with the expectation of their successful implementation as compared to the rural areas. Efforts to emulate the successful small entrepreneur models, which may number quite a few, in urban areas may also lead to the development of higher nAch in urban populace.
c) **nAch and Term of Imprisonment**

Brown (1992) demonstrated that college students high on nAch were low on authoritarianism. Adorno et al. (1950) and Asch (1952) conducted a series of experiments to show that subjects high on nAch displayed courageous independence when under social pressure to conform (McClelland et al., 1976, pp. 206, 207). In view of the above studies it was hypothesised that the prisoners having undergone long term of imprisonment would be higher on nAch than those with short term, as the demands of authoritarianism and conformity would keep increasing with the passage of time in jail. The results obtained show a trend in the predicted direction. The mean scores for nAch for 24* are 17.61 while those for 76 are 16.57 (Table I). However, the difference between the scores is not significant as shown by the insignificant F-ratio of 2.36 (Table XVI). This is understandable as both the groups are informally subjected to discipline and authority right from the term they are imprisoned.

d) **nAch and Type of Jail**

Siddiqui and Akhtar (1969) found that disciplined students scored high on nAch than the indisciplined
Prisoners in open jails are comparatively better disciplined. In view of this theoretical basis it was hypothesised that open jail prisoners would be higher on nAch than the closed jail ones. The results obtained are in the predicted direction; the open jail mean nAch scores are 18.67 while the closed jail mean scores are 15.31 (Table I). The difference between the two means is highly significant yielding on F-ratio of 21.958 (Table XVI). The higher nAch in the open jail prisoners is obviously due to greater entrepreneurial opportunity available to them. They work freely at farms and in allied agro industries using tractors and other mechanised implements, are encouraged and rewarded for putting in competitive work and excelling in it. There is no coercion for daily targets of work which tends to be more of a voluntary nature. These conditions in open jails increase the motivation for work, as is shown by the study on the effect of expectancies on intrinsic motivation by J. Curtis Russel et al. (1981). This study demonstrated that expectancies for rewards inherent in a task increase intrinsic motivation for the task. Besides the set up in the open jail is more akin to a democratic than an autocratic organisation which is conducive to high nAch in its occupants as substantiated by Muthayya (1968).
**Interactions for push and various aspects of crime**

Multiple range analysis for nAch (Table XVII) shows that the group PrU 24^U is giving the highest while the group PrR 24^C is giving the lowest mean nAch score. The studentized range is significant at .01 level. Thus urban based Property offenders who have completed two years of their sentence and who are lodged in open jails have the highest mean nAch score. The Rural based Property offenders of the same term lodged in closed jail have the lowest mean nAch score. There is a preponderance of Property and Urban groups, in the groups with higher mean difference in Table XVII. These results are amply reflected in the analysis of variance (Table XVI). The F-ratios of three of the main effects i.e. Type, R/U and O/C are highly significant (p < .01) being 82.796, 31.703 and 21.958 respectively. F-ratios for the interactions Ty x R/U, Ty x O/C and Term x O/C are significant at .01 level while the F ratio for the interaction of Ty x Term is significant at .05 level. The three level interactions of Ty x Term x O/C is significant at .01 level while that of R/U x Term x O/C is significant at .05 level. The graphic depiction of the two factor significant interactions shows these interactions vividly as in Fig. 8.1, 8.2, 8.3 and 8.4.
Interactions of Analysis of Variance.  
Performed on n Ach.

Fig. 8.1 Type X Rural-Urban
- Property
- Body

Fig. 8.2 Type X term
- Property
- Body

Fig. 8.3 Type X type of jail
- Property
- Body

Fig. 8.4 Term X type of jail
- Short
- Long
Relationship of nAch and other Variables

Inter-correlation matrices for different sub-groups of criminals are shown in Tables XXII to XXV. A scrutiny of these tables reveals that nAch correlates significantly with some of the other variables studied in the present work. The net result is as under:

Summary of the Trend of Correlations of nAch with other Variables Studied

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Group</th>
<th>Positive r</th>
<th>Negative r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Property</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Body</td>
<td>L(PEN), L(EPI)</td>
<td>nAff</td>
</tr>
<tr>
<td>3.</td>
<td>Rural</td>
<td>L(EPI)</td>
<td>nAff</td>
</tr>
<tr>
<td>4.</td>
<td>Urban</td>
<td>-</td>
<td>nAff, nAgg, nSee, L(PEN)</td>
</tr>
<tr>
<td>5.</td>
<td>-6</td>
<td>nPow</td>
<td>nAff</td>
</tr>
<tr>
<td>6.</td>
<td>24*</td>
<td>S</td>
<td>nPow, nAgg, P, L(PEN), I</td>
</tr>
<tr>
<td>7.</td>
<td>Open</td>
<td>S</td>
<td>N(EPI)</td>
</tr>
<tr>
<td>8.</td>
<td>Closed</td>
<td>nPow, L(EPI)</td>
<td>nAff, nSee</td>
</tr>
</tbody>
</table>

The above chart shows that nAch is correlating negatively with nAff in five of the eight groups. In Body offenders, Rural and the Closed jail groups nAch shows a positive correlation to the Lie scores. In 24* and Open group nAch is positively related to S. The
correlation with \( nPow \) is opposite to each other in -6 and 24+ groups, positive in the former and negative in the latter, \( nAgg \) and \( nSec \) show a negative correlation with \( nAch \) in some of the groups. This result corroborates the earlier findings of Jerath (1979) and Bhanot (1980) regarding a negative correlation between \( nAch \) and \( nAff \).

The results of factor analysis for different groups (Tables XXXIV to XLI) show that for Property offenders \( nAch \) emerges as an independent sixth factor while for Body it clusters with \( nAff (-) \) as the third factor.

2. Need for Affiliation and Crime

The obtained means of the present investigation for \( nAff \) based on the summated scores on ten pictures (AAPAS) show that the criminals score higher on \( nAff \) as compared to non-criminals on parallel set of pictures as given below:

Mean \( nAff \) scores of Male Prisoners and Normal Population on AAPAS Test

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Study</th>
<th>N</th>
<th>Prisoners</th>
<th>Normals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kureshi (1971)</td>
<td>119</td>
<td>-</td>
<td>4.70</td>
</tr>
<tr>
<td>2.</td>
<td>Mohan (1982)</td>
<td>47</td>
<td>-</td>
<td>5.72</td>
</tr>
<tr>
<td>3.</td>
<td>Present study</td>
<td>320</td>
<td>17.66</td>
<td></td>
</tr>
</tbody>
</table>
The above comparison substantiates the hypothesis that criminals are high on nAff. nAff is a drive to relate to people. Sociological explanation for etiology of crime highlights the role of starvation for love. Criminals evidently come from surroundings where deprivation of love has been their lot. This allows an inference that they have a strong concern towards interpersonal relationship which places them high on nAff.

**nAff and Type of Crime**

Majority of the offences against Body entail a greater incidence of violence and physical harm to the victims compared to offences against Property. This violence generally is the outcome of the disruption of some sort of affective relationship. The obtained means for nAff of 16.64 for Property and 16.68 for Body offenders (Table I) show that the Body offenders have higher nAff scores. The difference between the means is significant with an F ratio of 5.18 (Table XVI). An explanation of this result may be found through an examination of the data on crime. A survey of prisoners in the jails of Punjab (India) showed that 25 per cent committed the crime for economic, 63 per cent for social and 6 per cent for political reasons. "The prisoners
guilty of murder (attempt to murder, rape, kidnapping and abduction) committed the crimes mainly for social reasons while the prisoners guilty of dacoity and robbery, theft and burglary, pick-pocketing, cheating and impersonation, illicit distillation, smuggling etc. committed the crimes mainly for economic reasons."

(Socio-economic Background of Prisoners in Punjab Jails, 1978). The same report further states, "It was observed that while the proportion of those committing the crime of murder and attempted murder among the unmarried was only 59.3 per cent that among the married was 74.7 per cent and among widowed, divorced and separated 67.0 per cent. Perhaps the greater preponderance of this crime amongst the married can be explained by the fact that women occupy a pivotal position in our society and any interference in the established male-female relations recognised by the society is resented and leads to murders." Thus higher nAff in Body offenders is due to their frustration in love leading to a search for affiliation because of the painful stimulus value of rejection.

nAff and Habitat

The mean scores obtained for nAff for Urban criminals are 19.33; which are higher than the mean scores 15.99 for the Rural criminals (Table I). The difference between the
scores obtained is highly significant with an $F$-ratio of 13.86 (Table XVI). The reason may be that the Urban based criminals have been exposed to better facilities for developing a poised, sociable and inter-communicative nature. The urban areas in this state have better facilities for inter-communication, education and recreation. Besides, their work schedule has fixed hours and is physically less tiring as compared to that of the Ruralites. They are thus comparatively free to give vent to their urge to relate to people through association and recreation which is not always possible for the rural based.

**nAff and Term of Imprisonment**

Studies of the effect of institutionalisation (e.g. Goffman, 1961) report an increase in apathy over the years. It may thus be inferred that prisoners who have undergone a long term of imprisonment would show low nAff than those who have undergone a short term. The obtained mean scores on nAff of 17.18 for 24+ and 18.14 for -6 (Table I) substantiate the inference drawn. Though the difference between the two means is not significant as shown by an insignificant $F$ ratio (Table XVI), there is a decided trend towards lower affiliation with the length of imprisonment. The
insignificant change in nAff between the two groups can be explained by the fact that the prisoners in the jails, though allowed restricted interviews with their relatives, are allowed to intermingle freely with each other. Besides, "Panchayats," (self-elected bodies) of prisoners have been formed in jails which gives a sense of involvement to the inmates in jail affairs and a feeling of belongingness and cohesion with each other. Regular games, recreational activities, community prayers and sports meet etc. help to maintain their level of nAff. There are only a few condemned prisoners who are kept in solitary confinement in a jail. Even they are allowed to communicate verbally with the guards and other workers around their cells.

nAff and Type of Jail

On account of the free atmosphere and special incentives in open jails it is presumed that the prisoners lodged in open jails would be higher on nAff as compared to prisoners lodged in closed jails. The obtained mean scores on nAff 18.04 for open and 17.28 for closed jails (Table I) substantiate the presumption. The difference between the two means is however not significant having an insignificant F-ratio (Table XVI). An open jail is characterised by a system based on
self-discipline and the inmates sense of responsibility towards work. This places them higher on n\textsuperscript{ach} which bears a negative correlation to n\textsuperscript{Aff} as such open jail prisoners tend to be low on n\textsuperscript{Aff}.

**Interactions for n\textsuperscript{Aff} and Various Aspects of Crimes**

Multiple range analysis for n\textsuperscript{Aff} presented in Table XVIII shows that the group BR 2\t\textsuperscript{4}C has the highest while the group FrB-6C has the lowest mean score.

The studentized range is significant at .01 level. Thus Rural based Body offenders who have completed two years of their sentence and are lodged in closed jails have the highest mean n\textsuperscript{Aff} scores while the Rural based Property offenders who have undergone less than six months of imprisonment and are lodged in closed jails have the lowest mean n\textsuperscript{Aff} scores. These results have been clearly reflected in the analysis of variance (Table XVI). The F ratios for the main effects of Type and R/U are significant. The interactions for Ty x R/U, Ty x Term, R/U x Term, R/U x O/C and Term x O/C are significant at .05 level, and the interaction for Type x Term at .05 level. The three level interaction of Type x Term x O/C is significant at .01 level. The graphic representation
of the two level significant interactions is shown as Fig. 9.1, 9.2, 9.3 and 9.4

Relationship of nAff and other Variables

The intercorrelation matrices in Tables XXII to XXV show that nAff scores of different groups of criminals correlate significantly with some of the other variables studied in the present research. The net result of the significant correlations is presented below:

Summary of the trend of Correlations of nAff with other Variables Studied

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Group</th>
<th>Positive r</th>
<th>Negative r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Property</td>
<td></td>
<td>L(EPI), L(PEN)</td>
</tr>
<tr>
<td>2.</td>
<td>Body</td>
<td></td>
<td>nAch</td>
</tr>
<tr>
<td>3.</td>
<td>Rural</td>
<td></td>
<td>nAch, L(PEN)</td>
</tr>
<tr>
<td>4.</td>
<td>Urban</td>
<td></td>
<td>L(EPI), nAch, nPow</td>
</tr>
<tr>
<td>5.</td>
<td>(-6)</td>
<td>nSec</td>
<td>nAch</td>
</tr>
<tr>
<td>6.</td>
<td>O4+</td>
<td></td>
<td>L(EPI)</td>
</tr>
<tr>
<td>7.</td>
<td>O</td>
<td></td>
<td>L(PEN)</td>
</tr>
<tr>
<td>8.</td>
<td>C</td>
<td>nSec</td>
<td>L(EPI), nAch</td>
</tr>
</tbody>
</table>

The above chart shows that nAff is negatively and significantly related with nAch in five of the groups.
Interactions of Analysis of Variance 242
Performed on n Aff

Fig. 9.1 Type X Rural-Urban
- Property
- Body

Fig. 9.2 Type X term
- Property
- Body

Fig. 9.3 Rural-Urban X type of Jail
- Rural
- Urban

Fig. 9.4 Term X type of Jail
- Short
- Long
This result corroborates the earlier finding of Jerath (1979) and Bhanot (1981) who found nAch and nAff negatively correlating in studies on students and technical workers respectively. In short term prisoners and in those lodged in closed jail nAff shows a positive correlation with nSec. This is clear from the fact that these two groups can only aspire for and attain security if they cling together in word and deed i.e., have high nAff. In urban group there is negative relationship of nAff with nPow as observed earlier by Jerath (1979) and Bhanot (1981). An interesting finding of the present work is the consistent negative correlation of nAff with the Lie scores in six out of the eight groups.

3. nPow and Crime

"Skolnick (1966) examined data collected in the longitudinal Oakland Growth Study and found significant relationships between nPow and adult judges' ratings on drives for social ties and control, the manifest trait of aggression, . . . ." (Winter, 1973, p. 51). Terhune (1968a) found that men high on nPow were exploitative both initially and over the long term when playing a two-man mixed-motive "Prisoner's Dilemma" game. In an international relations simulation three-man teams that
were high in nPow tended toward conflicting rather than co-operative acts, great military effort, and deception (Terhune, 1968b).

In view of the above studies it would be logical to presume that criminals would be higher on nPow as compared to non-criminals. The mean scores for nPow obtained in the present study of 10.88 are higher than the nPow scores obtained for non-criminals on parallel set of pictures (summed scores on ten pictures AAPAS).

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Study</th>
<th>N</th>
<th>Prisoners</th>
<th>Normals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kureshi (1971)</td>
<td>119</td>
<td>-</td>
<td>1.20</td>
</tr>
<tr>
<td>3.</td>
<td>Present study</td>
<td>320</td>
<td>10.88</td>
<td>-</td>
</tr>
</tbody>
</table>

The above comparison substantiates the hypothesis that criminals are higher on nPow in comparison to normal population.

nPow and Type of Crime

The obtained means for nPow 11.05 for Body and 10.71 for Property (Table 1) indicate that there is a
trend for Body offenders to be higher on nPow than the
offenders against Property. The difference between the
two means, however, is not significant as is clear from
an insignificant F-ratio of .642 for nPow (Table XVI).
This is understandable as the mean score for nPow for
both type of offences is high. Obviously high nPow is
a pre-requisite for any type of offence as the very act
of committing the offence gives a sense of power. This
is borne out by the following studies. McClelland,
Levis, Kalin, and Wanner (1972) found a relationship
between nPow and liquor consumption. "Results from the
Wesleyan sample suggest that nPow is associated with the
Gambling is an activity that offers a chance for inner
feelings of power, both through the possibility of
creating a great effect on others (bluffing, making a
dramatic bet or a reckless gesture) and also through
the sense of doing battle against a strong opponent
("breaking the bank") (Winter, 1973, p. 137). Reports
of research (Winter, 1968, 1972) show a relationship
between nPow and reading "vicarious power magazines"
such as play boy and sports illustrated.

**nPow and Habitat**

Voroff, Atkinson, Field and Gurin (1960) found
higher levels of nPow among men from large metropolitan areas. "It seems plausible that the power motive is both a product of urban living and a necessary aspect of survival in it" (Winter, 1973, p. 226). The obtained mean of 11.15 for Urban criminals is slightly higher than the mean of 10.61 for Rural criminals for nPow (Table XVI). The difference between the two means is, however, insignificant (F-ratio of 1.628, Table XVI). The insignificant difference between nPow in criminals from rural and urban background may be explained by the fact that majority of the criminals from both the backgrounds belong to the working class. Whyte (1943) held "that in the working class, nPow may be associated with impulsive forms of power - things that make a direct although temporary impact upon one or a few other people. These actions may not have much to do with formal social power in the middle class sense of the term, but they may be congruent with such working class norms and values about power as direct physical strength and aggressive confrontation" (Winter, 1973, pp. 135-36). Since the norms and values of the Rural and Urban working class are almost the same, the extent of nPow in both tends to be the same.

nPow and Term of Imprisonment

The obtained means for nPow is 13.53 for -6 and
of 8.23 for 24+ (Table I) show that as the term of imprisonment increases, nPow decreases. The difference between the two means is highly significant with an F-ratio of 158.3 (Table XVI). nPow is defined as the concern with the control of the means of influencing people, and especially with attempting to command others. The high nPow in -6 may be explained by arguing that a prisoner at the beginning of the term is especially concerned about attaining dominance over others; he thus tends to assume a position of leadership. As term of imprisonment increases, his concern for attaining dominance decreases as, by then, he has already made his mark and reached the position he could among his co-prisoners.

nPow and Type of Jail

The obtained means for nPow of 11.59 for Closed and of 10.16 for Open jail prisoners (Table I) show that the prisoners lodged in Closed jail have a higher nPow than those lodged in the open jail. The difference between the two means is highly significant with an F-ratio of 11.448 (p < .01) (Table XVI). These results are understandable in view of the different conditions prevailing in the two types of jails. A prisoner in the closed jail has to assert himself, has to be
recognised as a leader by his fellow prisoners for his stay in the jail to be comparatively comfortable. This argument is substantiated in a study on the responses of Wesleyan students to the College Student Questionnaire and their relationship to nPaw reported by Winter as "It appears as though they are willing to conform to the norms and expectations of at least their close associates, although this may be because they themselves have shaped these norms. Such sensitivity or conformity has the obvious function of maintaining their esteem and power in the eyes of the group, and is a skill essential to having power and leadership, as situational theorists of power point out (Winter, 1973, p. 115). The prisoners in the closed jails are subjected to stricter discipline by the authorities as compared to those in the open jail. This also accounts for higher nPaw in closed jail prisoners "as people with high nPaw direct their competitive drives outward from the close inner group of associates, and upwards at higher status "targets." Such externalization of hostility can further unify the alliance or power base, as Freud (1921) and Haley (1969) point out" (Winter, 1973, p. 116). This externalization of hostility towards staff is not required in the open jail as the staff there does not work in an authoritative style, the prisoners are allowed to work voluntarily and move about freely.
Multiple range analysis for nPow presented in Table XIX shows that the group BU-60 has the highest while the group PzR 24+0 has the lowest mean score on nPow. Thus urban based Body offenders who have completed less than six months of their term and are lodged in open jail are highest on nPow. The Rural based Property offenders who have undergone more than two years of imprisonment and are lodged in open jails are lowest on nPow. These results have been clearly reflected in the analysis of variance. F ratios for the main effects of Term and Q/C are highly significant (p < .01). The interactions of Ty x R/U, Ty x Term, R/U x Term, and Term x Q/C are highly significant (p < .01) while the interaction of R/U x Q/C is significant at .05 level.

The triple interactions of Ty x R/U x Term and Ty x Term x Q/C are significant at .01 level while that of R/U x Term x Q/C just misses significance at .05 level. The four level interaction of Ty x R/U x Term x Q/C is highly significant (p < .01). Graphic depiction of the two level significant interactions is shown as Figs. 10.1, 10.2, 10.3, 10.4 and 10.5.

Relationship of nPow and other Variables

The intercorrelation matrices in Tables XXII to
Interactions of Analysis of Variance.
Performed on n Pow.

Fig. 10.1 Type X Rural-Urban
- Property
- Body

Fig. 10.2 Type X term
- Property
- Body

Fig. 10.3 Rural-Urban X term
- Rural
- Urban

Fig. 10.4 Rural-Urban X type of Jail
- Rural
- Urban

Fig. 10.5 Term X type of Jail
- Short
- Long
XXV show that nPow scores of different groups of criminals correlate significantly with some of the other variables studied in the present research. The significant results of the correlations is presented below:

Summary of the trend of correlations of nPow with other Variables Studied

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Group</th>
<th>Positive v</th>
<th>Negative v</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Property</td>
<td>I, N(EPI), N(PEN), P</td>
<td>nSec, S</td>
</tr>
<tr>
<td>2</td>
<td>Body</td>
<td>nSec</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Rural</td>
<td>I, N(EPI), N(PEN), P</td>
<td>nSec</td>
</tr>
<tr>
<td>4</td>
<td>Urban</td>
<td>I, L(EPI), N(PEN), P</td>
<td>S, nAff</td>
</tr>
<tr>
<td>5</td>
<td>-6</td>
<td>N(EPI), N(PEN), nAch</td>
<td>nSec</td>
</tr>
<tr>
<td>6</td>
<td>24+</td>
<td>I, N(EPI), L(EPI), P</td>
<td>nAch</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>S, I, N(EPI), N(PEN), P</td>
<td>nSec</td>
</tr>
<tr>
<td>8</td>
<td>C</td>
<td>LEPI), nAch</td>
<td>nSec</td>
</tr>
</tbody>
</table>

The above chart shows that nPow is correlating significantly and positively with N and P together in five groups and with N and nAch in -6. In the C and -6 groups it correlates positively with nAch. The correlation with nSec is negative in P2R, -6, O and C groups. In the U group nPow correlates negatively
with nAff. In PzR, U, 24+ and 0 groups I shows a positive relationship to nPow.

4. nA gr and Crime

Miller (1941a) stated that “Frustration produces instigations to a number of different type of responses one of which is an instigation to some form of aggression” (Hall, 1961, p. 236). Scott (1948), working with pairs of hungry goats, found that only dominant animals became aggressive when their consummatory responses were blocked. Studies by Frederikson (1942), Sherman and Jost (1942), Seashore and Bevelas (1942) as well as others in which humans were used as subjects resulted in the general conclusion that aggression was not an invariant response to frustration (Hall, 1961, p. 237). It may thus be presumed that criminals would be higher on nAgr than the non-criminals. The results obtained in the present study substantiate the presumption. The means for nAgr based on the summated scores on ten pictures of AAPAS test are higher than the mean scores of non-criminals obtained in some other local studies, using the same projective test, as shown below:
Mean nAgg Scores of Prisoners and Normals

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of study</th>
<th>N</th>
<th>Mean nAgg scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Prisoners</td>
</tr>
<tr>
<td>1.</td>
<td>Kureshi (1971)</td>
<td>119</td>
<td>2.35</td>
</tr>
<tr>
<td>2.</td>
<td>Mohan (1982)</td>
<td>47</td>
<td>1.44</td>
</tr>
<tr>
<td>3.</td>
<td>Present study</td>
<td>320</td>
<td>4.85</td>
</tr>
</tbody>
</table>

These results substantiate the findings of Tutt (1973) that high nAgg delinquent boys tend to be aggressive towards society. As already discussed, criminals, in the present study, have been found to be high on nAgg.

**nAgg and Type of Crime**

The obtained mean nAgg scores of 5.70 for Body and 4.01 for Property offenders (Table I) show that Body offenders have higher nAgg than Property offenders. The difference between the means is highly significant with an F-ratio of 8.722 (p < .01) (Table XVI). This is understandable as offences against Body invariably entail a larger amount of violence and force, which an aggressive individual can perpetrate.

**nAgg and Habitat**

The obtained mean nAgg scores of 4.98 for Urban
and 4.72 for Rural criminals (Table I) show that there is hardly any difference between the nAgg of the criminals from these two backgrounds. The F-ratio of .211 is insignificant (Table XVI). This may be explained by arguing that majority of the criminals from both the Rural and Urban areas belong to low socio-economic level, mostly the working class which has been trained for aggression in childhood. It is probable that working class children, especially boys, are more openly aggressive than are middle-class children. The aggressive behaviour of the former may be more socially permissible, and may be stimulated by that of parents and neighbours. There may be less control of aggression by parents, and if they do punish it, they may use corporal punishment which is a further stimulus to aggression (Vernon, 1971, p. 65).

nAgg and Term of Imprisonment

The obtained means of nAgg scores 5.71 for -6 and 3.99 for 24+ (Table I) show that the scores on nAgg decrease with the length of imprisonment. The difference between the two means is highly significant as is borne out by an F-ratio of 9.114 ($p < .01$) (Table XVI). This may be attributed to the socialising effect of the
reformative trend in jail as also to lesser need or opportunities for overt aggression as term lengthens.

**nAgg and Type of Jail**

The obtained means of nAgg scores 5.60 for Closed and 4.10 for Open jails (Table I) show that the prisoners in the Closed jails are higher on nAgg than those in the Open jails. The difference between the two means is highly significant with an F-ratio of 6.891 (p< .01) (Table XVI). This is easily understandable in view of the free congenial and co-operative atmosphere prevailing in the Open jail as opposed to the dominating discipline and autocratic atmosphere in the Closed jail which tends to lead to higher nAgg in its inmates.

**Interactions for nAgg and Various Aspects of Crime**

Multiple range analysis for nAgg (Table XX) shows that the group BU-6C is giving the highest while the group PsU 24°0 is giving the lowest mean nAgg score. The studentised range is significant at .01 level. Thus Urban based Body offenders who have undergone less than six months of their sentence and are lodged in Closed jails have the highest mean nAgg score. The Urban based Property offenders who have undergone imprisonment
for more than two years and who are lodged in the Open jail have the lowest mean nAgg scores. There is a preponderance of -6 and C groups in the groups with higher mean scores. These results are amply reflected in the analysis of variance (Table XVI). The R-ratios for three of the main effects i.e., Type, Term and Q/C are highly significant. There are two significant interactions at .01 level for two factor level viz. Ty x Q/C and Term x Q/C and one at .05 level viz. R/U x Q/C. A three factor interaction of Ty x R/U x Q/C is significant at .01 level. The graphic depiction of the two level significant interactions for nAgg is shown in Figs. 11.1, 11.2 and 11.3.

Relationship of nAgg and other Variables Studied

A scrutiny of the intercorrelation matrices of different sub-groups of criminals shown in Tables XXII to XXV reveals that nAgg correlates significantly with some of the other variables studied in the present work. The net result is as under:
Interactions of Analysis of Variance

Performed on $n$ Aggs.

Fig. 11.1: Type X type of Jail
- Property
- Body

Fig. 11.2: Rural-Urban X type of Jail
- Rural
- Urban

Fig. 11.3: Term X type of Jail
- Short
- Long

Mean scores
<table>
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<th>S.No.</th>
<th>Group</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Property</td>
<td>$I, N(P\text{FN}), P$</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Body</td>
<td>-</td>
<td>$P$</td>
</tr>
<tr>
<td>3.</td>
<td>Rural</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Urban</td>
<td>$I, N(P\text{FN}), P$, nSec</td>
<td>$S$, nAch</td>
</tr>
<tr>
<td>5.</td>
<td>$-6$</td>
<td>$I$</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>$24^+$</td>
<td>-</td>
<td>$P$, nAch</td>
</tr>
<tr>
<td>7.</td>
<td>$0$</td>
<td>$I, N(nPF)$, $N(P\text{FN}), P$, $nP\text{FW}$</td>
<td>-</td>
</tr>
<tr>
<td>8.</td>
<td>$C$</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

nAch correlates negatively with nAch but has a positive relationship with $I$, $N$, $nP\text{FW}$ and $P$. Only in the Body offenders and the $24^+$ groups the relationship with $P$ emerges as negative. In the Urban group nAch relates positively with nSec, but negatively with nAch and $S$.

5. **Need for Security and Crime**

The obtained means for nSec in the present research, based on the summed scores on ten pictures (AAPAS) show that the criminals score higher on Sec as compared to the non-criminals on parallel set of pictures as given below:
The above comparison substantiates the hypothesis that criminals are high on nSec. Taking recourse to crime is obviously an expression of their being discontented with their life and its immediate situations.

**nSec and Type of Crime**

The obtained means for nSec 10.38 for Body offenders and 8.85 for Property offenders (Table I) show that Body offenders are higher on nSec. The difference between the two means is significant with an F-ratio of 6.554 (p < .05) (Table XVI). The correlation matrix for Property and Body offenders (Table XXII) shows that in Body offenders nSec correlates positively with nPew while in Property offenders the correlation between nSec and nPew is negative. Body offenders are higher on nPew as already discussed, in comparison to Property offenders; this explains their being high on nSec.
**nSec and Habitat**

The obtained means for nSec of 10.35 for Rural and 9.08 for Urban criminals (Table 1) bring out that the Rurals have a trend towards higher nSec as compared to the Urban. The difference between the two means is, however, not significant as shown by an insignificant F-ratio of 3.32 (Table XVI); which may be explained on the basis of almost identical socio-economic status of the two groups. The Rurals and the Urbanites of lower groups in this region have similar problems regarding economic and social security and almost same aspirations for removal of their insecurity.

**nSec and Term of Imprisonment**

The mean nSec scores obtained for 6 are 8.57 and for 24+; 10.86 (Table 1). This shows that the prisoners who have undergone a longer term of imprisonment have a higher nSec as compared to those who have been in the jails for a shorter term. The difference between the two scores is highly significant as is clear from an F-ratio of 11.505 (p < .01) (Table XVI). There is a wave of sympathy among the kith and kin with the criminal immediately following his conviction. They try to compensate for his loss of
liberty through gifts and frequent interviews. As time 
passes these feelings cool down resulting in irregularity 
of interviews and fewer gifts. This may account for 
higher nsec in 24+. Besides, the prisoner’s long 
absence from home may cause certain family problems 
which were not there when he had just entered the jail. 
Some of these problems may have a direct bearing on his 
loss of security hence higher score for nsec in 24+.

nsec and Type of Jail

The obtained means for nsec of 10.37 for open 
and 9.06 for closed jail (Table I) show that the open 
jail prisoners have higher nsec than those in the 
closed jail. The difference between the two means is 
significant with an F-ratio of 3.731 (p < .03) (Table XVI). 
This difference may be due to the reason that the majority 
of prisoners in the open jail are from the 24+ group.

Interactions for nsec and Various 
Aspects of Crime

Multiple range analysis for nsec presented in 
Table XXI shows that the group PZM 24+.0 has the highest 
while the group PZM-6G has the lowest mean score. The 
studentized range is significant at .01 level. Thus
Rural based Property offenders who have completed two years of their sentence and are lodged in Open jail have the highest while the Rural based Property offenders who have undergone less than six months of imprisonment and are lodged in Closed jails have the lowest mean nsee scores. These results have been amply reflected in the analysis of variance (Table XVI). The F ratios for the main effects of Type, Term and O/C are significant. For Type and O/C the F ratio is significant at .05 level while for Term at .01 level. The interactions for Ty x Term, Ty x O/C and R/U x Term are highly significant (p < .01) and the interaction for R/U x O/C is significant at .05 level. The graphic depiction of the two level significant interactions is shown as Figs. 12.1, 12.2, 12.3, and 12.4.

Relationship of nsee and Other Variables

The intercorrelation matrices in Tables XXI to XXIV show that nsee scores of different groups of criminals correlate significantly with some of the other variables studied in the present research. The overall result of the significant correlations is presented below:
Interactions of Analysis of Variance
Performed on n Sec.

Fig. 12.1 Type X term
- Property
- Body

Fig. 12.2 Type X type of Jail
- Property
- Body

Fig. 12.3 Rural-Urban X term
- Rural
- Urban

Fig. 12.4 Rural-Urban X type of Jail
- Rural
- Urban
Summary of the Trend of Correlations of 
nsec with other Variables Studied

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Group</th>
<th>Positive r</th>
<th>Negative r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Property</td>
<td>nPow</td>
<td>nPow, N(EPI)</td>
</tr>
<tr>
<td>2.</td>
<td>Body</td>
<td>nPow</td>
<td>N(PeIN)</td>
</tr>
<tr>
<td>3.</td>
<td>Hural</td>
<td>L(EPI)</td>
<td>nPow</td>
</tr>
<tr>
<td>4.</td>
<td>Urban</td>
<td>L(EPI), L(PeIN), nAgg</td>
<td>L(PeIN), nach</td>
</tr>
<tr>
<td>5.</td>
<td>-6</td>
<td>nAff</td>
<td>nPow</td>
</tr>
<tr>
<td>6.</td>
<td>24^</td>
<td>L(EPI)</td>
<td>nPow</td>
</tr>
<tr>
<td>7.</td>
<td>0</td>
<td>L(EPI)</td>
<td>nPow</td>
</tr>
<tr>
<td>8.</td>
<td>C</td>
<td>L(PeIN), nAff</td>
<td>N(EPI), N(PeIN), nach, nPow</td>
</tr>
</tbody>
</table>

The above chart shows that nsec is significantly correlating negatively with nPow in five of the eight groups, with N(EPI) in two groups, with N(PeIN) in two groups and with nach in two groups. nsec correlates significantly and positively with nAff in -6 and C groups with nPow in Body and with nAgg in urban groups.

Factor Analysis

Factor analysis, as a technique, affords a method of restructuring data in meaningful ways and in so doing yields new perspectives which might not be apparent.
otherwise. The personality and motive data, obtained in the present study, were analysed through factor analysis (Tables XXVI to XLI). It was found that seven factors could meaningfully account for most of the variance. These factors are presented, in terms of their defining variables, group-wise in Table XIII. The percentage of variance for which each factor accounts is shown against the factor number.

**CONCLUSIONS**

The results indicate that a consistent pattern of factor scores emerges in all the eight groups of criminals for Factor 1. N both on EPI and PAN clusters with P consistently for all criminals as factor 1 which brings out the "extreme emotional maladjustment" in criminals, termed the "high psychotic-neurotic" score by Narayanan and Mani (1977) in a comparative study of murderers, criminals and normals. They have suggested the computation of a score called P by multiplying PAN, evidently, as these two scores are seen to be very high for the criminal group. Mohan and Singh (1980) found N and P clustering as one factor in criminals.

Factor II is conspicuously an "extraversion- Intraversion" factor formed by the clustering of
$E(P\gamma I)$, $S$, $I$ and $M$ ($P\gamma N$) with heavy factor loadings in all the groups. In the Urban group $E(P\gamma N)$ moves over to factor IV relating with $nN\sec$; while a proportion of $S$ is split up to pair negatively with $nP\gamma w$ as the VI factor. In the Short term group $E(P\gamma N)$ moves over to relate positively with $nN\sec$ and form the VII factor. In the Long term group $I$ breaking away from the $E/I$ constellation relates negatively with $nN\sec$ and $nP\gamma w$ as the IV factor. In the Property group a part of $E(P\gamma N)$ relates positively with $nNagg$ to form the V factor.

The scale has emerged as one single unitary factor for all the eight groups with heavy factor loadings. This substantiates the finding of Mohan and Singh (1980).

An independent factor of $nN\sec$, has emerged in the Property offenders, the Aural criminals and the Open jail group. In the Body offenders, the Urban criminals and the Closed jail group $nN\sec$ relates negatively to $nNaff$ to form factor III, $V$ and VI respectively. A part of $nN\sec$ in the Closed jail group is split up to relate positively with $nP\gamma w$ as factor V. In the Short term group also $nN\sec$ relates positively to $nP\gamma w$ as factor III, while in the Long term this relationship emerges as negative in factor IV.
nAff has appeared as independent factor in the Property offenders, Rural criminals, Long term and Open Jail prisoners. In the Short term group it is relating positively with nSec as factor V.

nPow is emerging as an independent factor IV for the Body offenders. It is negatively relating with nSec. in the Property group but positively so in the Rural group to form factor IV in each case. In the Urban criminals and the Open jail group nPow relates negatively with I to form factor IV and VII respectively.

nAgg emerges as an independent factor in six groups; Body offenders, the Rural and Urban criminals, the short and long term and Closed jail prisoners as factor VI, VI, VII, IV, VI and IV respectively. In the Property offenders nAgg along with A(Phys); both having positive loadings, forms factor V. In the Open jail prisoners nAgg is positively related to nSec as factor IV.

In three groups nSec. emerges as an independent factor viz. in Body offenders and in Long term and Closed jail prisoners as factor VII in all cases.

The results of the factor analysis, in the present study, bring out that the criminals in all the eight groups are characterised by similar personality.
core constituted by high values of N and P. However, differences have emerged in the peripheral configuration of personality and motive variables around this central core which impart to each group its separate identity. For effective results, the finesse of reformative treatment in prisons should relate to the special identity of each group.
TABLE XIII
Personality and Motive Factor Structure of Criminals

<table>
<thead>
<tr>
<th>Property</th>
<th>Body</th>
<th>Rural</th>
<th>Urban</th>
<th>( \phi )</th>
<th>( \phi^2 )</th>
<th>Open</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors</td>
<td>Factors</td>
<td>Factors</td>
<td>Factors</td>
<td>Factors</td>
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<td>Factors</td>
</tr>
<tr>
<td>I. 19.9%</td>
<td>I. 20.84%</td>
<td>I. 23.18%</td>
<td>I. 19.54%</td>
<td>I. 22.2%</td>
<td>I. 18.2%</td>
<td>I. 22.7%</td>
<td>I. 19.42%</td>
</tr>
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<td>EPI N +.83</td>
<td>EPI N +.86</td>
<td>EPI N +.87</td>
<td>EPI N +.82</td>
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<td>PEN N +.94</td>
<td>PEN N +.96</td>
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<td>PEN N +.96</td>
<td>PEN N +.96</td>
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<tr>
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<td>F +.79</td>
<td>F +.79</td>
<td>F +.79</td>
<td>F +.85</td>
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<td>II. 16.3%</td>
<td>II. 16.0%</td>
<td>II. 15.8%</td>
<td>II. 16.8%</td>
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<td>III. 12.4%</td>
<td>III. 12.4%</td>
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<td>IV. 8.9%</td>
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<td>IV. 10.4%</td>
<td>IV. 9.0%</td>
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<td>nPow +.75</td>
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<td>V. 8.5%</td>
<td>V. 7.4%</td>
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<td>V. 7.4%</td>
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<td>VI. 6.5%</td>
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<td>nAch +.97</td>
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<tr>
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<td>VII. 5.4%</td>
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<td>VII. 6.8%</td>
<td>VII. 5.7%</td>
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<td>VII. 5.8%</td>
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