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The Personality of Female Prisoners

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The theory has been put forward in *Crime and Personality* (Eysenck, 1964) that criminals are characterized by a combination of extraverted and neurotic personality traits; put in operational terms, it was suggested that compared with a control group of normal (non-criminal) subjects they would have higher scores on the N and E scales of the MPI or the EPI (Eysenck, 1959; Eysenck and Eysenck, 1964). In the second edition of the book the further hypothesis was added that prisoners would also be characterized by high P scores; the letter P refers to a third dimension of personality provisionally entitled 'psychoticism'. Earlier investigations of the N × E hypothesis have been reviewed in the second edition of *Crime and Personality* (Eysenck, 1970) and by Passingham (1972); the most recent study of both hypotheses is contained in two papers dealing with the personality make-up of male prisoners (Eysenck and Eysenck, 1970, 1971). The conclusions to be drawn from an examination of the literature are as follows: (1) As far as P is concerned, prisoners undoubtedly have much higher scores than do various types of control groups. (2) As far as N is concerned, most studies show prisoners to have significantly higher scores than controls. (3) As far as E is concerned, it appears that scores sometimes do and sometimes do not separate prisoners and controls in the predicted direction; it seems that we must distinguish between the two main components of E, i.e. sociability and impulsivity (Eysenck and Eysenck, 1969). Prisoners are significantly more impulsive, but less sociable, than controls.

Burgess (1972) has pointed out that the separate testing for significant differences of E and N does not provide a proper test of Eysenck's theory, which postulates that prisoners should be more frequently in high N–high E quadrant, i.e. should have scores combining N and E. In an ingenious series of analyses, he has taken several studies in which separate testing of E and N produced poor differentiation, and shown that nevertheless prisoners had a very significantly higher number of cases in the high N–high E quadrant than did the controls. He also suggested the use of the formula: $h = E \times N$ in order to derive a single score (h for hedonism) which would express the essence of Eysenck's theory by combining in an unweighted fashion the two elements which are hypothesized to contribute jointly to criminal behaviour. This score too was found to give good differentiation.

The present study extends our earlier work by testing women prisoners and comparing them with various samples of control (non-prisoner) women on the three personality traits P, E and N. As Cowie, Cowie and Slater (1968) have pointed out, very much more is known about male criminals than about female ones, perhaps because there are so many more of them; in any case, our survey of the literature has produced very little that is germane to the topic of personality in female prisoners. In the absence of any contrary indications, it seemed reasonable to set up as hypotheses to be tested the same ones already investigated with male prisoners, viz. that female prisoners would differ from controls with respect to both P and h, having higher scores on both these variables. The theoretical considerations which led to the setting up of these particular theories will not be reviewed here; a full account is given in Eysenck (1970).

The concepts of extraversion and neuroticism will be familiar to most readers (Eysenck, 1957, 1967, 1971); that of psychoticism, although introduced as an additional dimension of personality soon after the other two (Eysenck, 1952a, b; Eysenck, Granger and Brengelmann, 1957), is probably less so. A detailed discussion of the meaning and genetic composition of the concept is given elsewhere (Eysenck, 1972), and the close link between the concept as

measured by questionnaire and by clinically diagnosed psychosis has been demonstrated by Verma and Eysenck (1973). The scales used for the measurement of P have gone through a series of factorial analyses in order to achieve independence from E and N and satisfactory loadings and reliability (H. J. Eysenck and S. B. G. Eysenck, 1968; S. B. G. Eysenck and H. J. Eysenck, 1968, 1969a, 1972); additional scales have been produced for the measurement of P in children (S. B. G. Eysenck and H. J. Eysenck, 1969b; Eysenck, Easting and Eysenck, 1970). Eysenck (1972) has drawn attention to the close genetic relation between psychoticism and psychopathy, including criminality; it was this genetic relation which suggested that a P scale might discriminate between criminals and controls. While the nature of this factor can only be appreciated by a study of the detailed high-loading items defining it, some feeling for the factor may be gained by briefly listing some of the most important characteristics of high scorers as they emerge from such scrutiny; (1) solitary, not caring for people; (2) troublesome, not fitting in; (3) cruel, inhumane; (4) lack of feeling; insensitive; (5) sensation-seeking, looking for 'arousal jags'; (6) hostile to others, aggressive; (7) liking for odd, unusual things; (8) disregard for danger, foolhardy; (9) making fools of other people, upsetting them. What emerges from these admittedly subjective interpretations of questionnaire responses is a fairly congruent picture of an odd, isolated, troublesome person; glacial and lacking in human feelings for his fellow-beings and for animals; aggressive and hostile, even to near and dear ones; trying to make up for lack of feeling by indulging in sensation-seeking 'arousal jags' without thinking of the dangers involved. These same tendencies emerge also in the sexual field (Eysenck, 1970, 1971). There appears to be a close relation between P and masculinity; men on the average score much more highly than women on this factor. (This may be connected with the fact that men also show much greater criminal tendencies).

Questionnaire used

The inventory used in this study has not been published, but the actual questions used can be traced in the publications mentioned, together with factor loadings and other statistical information. There are 24 questions relating to P, 22 questions relating to E, and 22 questions relating to N; questionnaires and key are obtainable from the writers. The items are printed in random order; subjects are tested individually, and no information is given as to the nature of the factors measured. The E and N scales are very similar to those contained in the MPI and the EPI.

Population tested

Our experimental population consisted of 264 female prisoners in Holloway Prison, London. Of these women, two-thirds were over 21 years of age, one-third under that age. Two-thirds had been sentenced, one-third were on remand. Differences on P, E and N were negligible and have been omitted in the computations to follow. Prisoners were tested without compulsion, in small groups, by a member of the Psychology Department.

There were three control groups in all; these have been kept separate in the tables in order to overcome some of the difficulties which arise from the impossibility of obtaining a properly matched sample. These three samples were as follows: (1) Random sample. This was a group of 357 women approached by a market research agency in an attempt to obtain a quota population sample; these women were group tested in a special hall hired by the agency. Testing included appraisal of advertisements and other commercial tasks; the personality inventory was included among other types of tests. This group approaches a random sample quite closely, although the very top and the very bottom 5 per cent of the population are probably underrepresented; we have in the past found that mean personality test scores so obtained agree very well with other random samples obtained by different methods. (2) The second sample was made up of mothers of a random sample of schoolchildren; the children had been approached first, in connection with an entirely different research, and the parents were later approached and filled in the questionnaires. There were 577 of these mothers, whose mean age would of course be higher than that of the

prisoners. (3) The third sample was made up of 385 students, with a mean age below that of the prisoners. This sample included not only university students but also students of nursing and various other non-academic types of course. It was hoped that, while none of these groups was identical with the prisoners with respect to age and social class, the differences in mean scores between the control groups would give a rough indication of the importance of these factors, compared with the differences between all control groups and the prisoner group. In addition, a single control group was made up from all the women controls tested, such that the age distribution and the class distribution were not too unlike those of the prisoners; this single control group was made up of 264 women.*

Results

Means and S.D.s for the various scales and groups are given in Table I; also given for the sake of comparison are scores for 1,301 male prisoners, for a random sample of 435 males, obtained in a manner similar to that used for our random sample of females, for a sample of 534 fathers, and for one of 423 students, these last two obtained in a manner similar to that used for our samples of females. Our first concern is with the P scale scores. The following findings are very highly significant: (1) Female prisoners have higher P scores than female controls; note the close similarity in size of mean score between the three control groups. (2) Male prisoners have higher P scores than male controls; note the similarity in size of mean score between the three control groups. (3) Male prisoners have lower mean P scores than female prisoners. (4) Male controls have higher mean P scores than female controls. In other words, although generally males have higher P scores than females, yet female prisoners have higher P scores than male prisoners. This is an unexpected finding, but the figures leave no doubt about its accuracy. In as far as the high P scores of female prisoners go, the results are as predicted; it is the fact that the scores are in excess even of those returned by male prisoners that is surprising. However, it may be noted that prison psychiatrists have drawn our attention to the fact that female prisoners are psychiatrically much more unusual and disturbed than are male prisoners; the possibility should be considered that crime is so unusual an activity for women that only the most unusually high P scorers overcome the social barriers involved.*

* The phrase 'not too unlike' may seem to lack precision. As far as age is concerned, there was, of course, no difficulty in matching the samples precisely. As far as class is concerned, however, no great accuracy can be claimed. The reason for this is, of course, very simple; rating scales for social class are made for men, and do not apply at all well to women. Many of the prisoners had been prostitutes, often earning far more than a University professor. What social class would one put such girls into —compared, say, to a housewife whose father was a semi-skilled worker, and whose husband is a very highly paid salesman? We know of no way of overcoming these difficulties with any degree of exactitude; hence our purposely imprecise phrase. The difficulty here encountered was in part responsible for our decision to have three separate female control groups; these groups are differentiated with respect to social class and age, so that any marked effects of these variables could be noted.

* An alternative formulation might be that prison is so unusual a sentence for women that only the most unusually high P scorers pass through the screening processes involved.

Table I

Scores on P, E and N scales of male and female prisoners and of various normal control groups

	N	P	E	N
Female prisoners ..	264	7·55±3·74	11·88±3·85	13·04±4·66
Controls:				
Ramdom sample ..	357	2·89±2·11	11·20±4·28	12·01±4·43
Mothers	577	2·45±1·96	9·67±4·06	10·76±4·75
Students	385	2·42±2·11	11·25±4·14	12·79±4·75
Male prisoners ..	1,301	6·55±3·16	12·51±3·63	11·39±4·97
Controls:				
Random sample ..	435	4·52±2·64	13·41±3·88	10·09±4·49
Fathers	534	3·54±2·40	9·71±4·22	8·25±4·57
Students	423	4·36±2·46	12·28±4·07	11·24±4·57

As far as E is concerned, female prisoners have higher scores than any of the controls; even the students, who are younger than the prisoners, score below them, in spite of the fact that E scores decline with age. The significance levels of the three comparisons involved are respectively ·05, ·001, and ·05. The female prisoners have lower E scores than the male prisoners; this sex difference is quite common, as can be seen from a comparison of the male and female control groups. In respect to E, Eysenck's original hypothesis is borne out (even though a proper test would of course, involve a combination of E and N, as already pointed out; such a combined test will be presented later on). It should also be noted that the E score throws together sociability and impulsivity items; the difference would presumably have been greater had only impulsivity items been considered.

Concerning N, female prisoners score significantly higher than female controls; the only group which approaches the prisoners is the student group, and previous work has shown that students tend to be particularly high on N (see also data for male students). (Significance levels are ·01, ·001, and N.S.) Male prisoners too have higher N scores than male controls. Females, whether prisoners or controls, have higher N scores than males; it is in good accord with previous experience (Eysenck and Eysenck, 1969). Results for N are in good agreement with prediction—again with the proviso that N tested in isolation from E does not provide a proper test of Eysenck's hypothesis. We may conclude that, taken in isolation, scores on P, E and N discriminate between female prisoners and female controls of various kinds, with prisoners showing higher P, E and N scores. The fact that female prisoners have higher E and N scores, taken separately, might seem to make it unnecessary to apply Burgess' quadrant test, or calculate his h score, but for the sake of interest both these calculations have been performed.

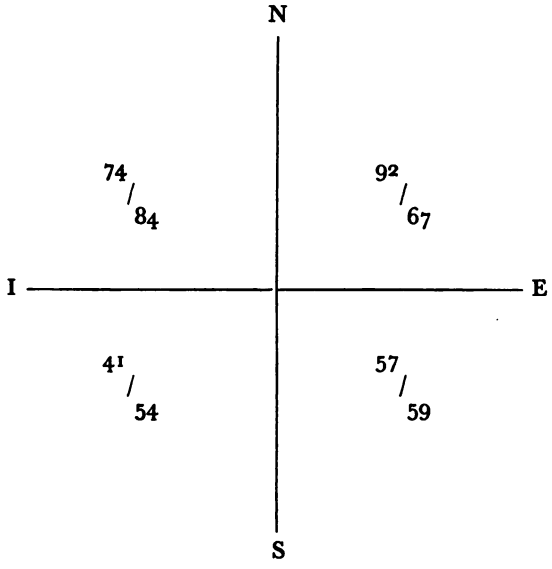
Table II shows the number of cases (N = 264 for both criminals and controls) in each of the four quadrants; scores of 12 and over have been used to classify subjects as extraverted or neurotic, scores of 11 or under to classify them as introverted or stable. This choice is of course quite arbitrary, but gives the most even allocation. In each quadrant, values for the prisoners are given on top, for controls at the bottom. It will be seen that in the critical high N/high E quadrant there are 92 prisoners and 67 controls; this is statistically significant. In the low N/high E quadrant there is no inequality; clearly E without N does not lead to greater criminal activity. In the high N/low E quadrant there is if anything an under-representation of criminals; clearly N without E does not lead to greater criminal activity. Among the stable introverts (low N/low E) also criminals are under-represented. These data support Eysenck's theory linking criminality with the N×E combination. It is worth noting that if we take a rather more extreme cut-off point to denote this quadrant ($N > 18$, $E > 15$), then only 3 controls qualify, as against 14 criminals. On the other side, taking highly introverted subjects (score on $E < 6$), there are 27 controls and only 5 criminals. Burgess's h scores were also calculated for both groups; the means are 157 for the criminals and 130 for the controls, a difference significant at the $p < ·001$ level. These figures bear out the examination of the quadrants; criminals tend to congregate in the high N/high E quadrant.

Discussion

The results of this study do not require extensive discussion; the predictions have been fulfilled in every case, showing that female prisoners are characterized by similar personality profiles to male prisoners. Prisoners show high extraversion, high neuroticism, and high psychoticism; females are characterized particularly by their extraordinarily high P scores. It seems clear that female prisoners (and male ones in a lesser degree) are psychiatrically ill to a marked degree, a fact which is not always given sufficient recognition. The N and P values of our prisoners (both male and female) are not very different from those of our neurotic and psychotic hospital populations. Important social consequences follow from these findings, but this is not the place to discuss what the consequences might be.

TABLE II

Number of criminals and controls in the four quadrants of the extraversion-introversion and neuroticism-stability plot. Values for criminals are printed above those for controls



It is sometimes objected that findings such as those reported here have little practical importance, particularly as the observed differences are less than spectacular. Even at the purely practical level such a criticism may not be quite correct; in some unpublished work we found that recidivist Borstal boys, when compared with non-recidivists, had higher P, N and E scores, very much as predicted from our theory; the test could with advantage have been incorporated in a parole prediction battery. (The test was applied during the first period of detention, and the boys were followed up for three years.) But it may be a mistake in any case to judge scientific research only in terms of immediate applicability; we are more concerned with the underlying theory of anti-social behaviour, and would suggest that the results should be regarded from that point of view. The differences observed are all significant, and in the predicted direction; their size would be more impressive had corrections been made for attenuation. The test-retest and the split-half reliabilities of the scales lie between ·7 and ·8; this means that the true differences and correlations are considerably higher than those reported. It is these corrected values which are important for theory-building, although not for practical application. Furthermore, it should be borne in mind that the theory involved is not one which attempts to account for *all* criminal behaviour; it merely draws attention to one facet of such behaviour which has been much neglected in recent years. Social factors obviously play a part in the causation of criminal behaviour, in addition to personality differences; hence it is inherently unlikely that very large differences, or very high correlations, would be found, even with perfect instruments. The results suffice, in conjunction with previously reported data, to suggest that personality does play a part in this context, and that there are lawful relations between crime and personality. In view of the many chance factors which enter into the determination of criminality, and the many other causal factors which are known to exist, such an unambiguous demonstration should not be rejected because it does not necessarily have an immediate practical application.

SUMMARY

A study is reported of 264 female prisoners, in which they were administered personality questionnaires purporting to measure psychoticism, neuroticism and extraversion. Various normal female control groups were also tested, and the results compared with questionnaire responses of male prisoners and male control groups. It was found that female prisoners are characterized by high P scores, high N scores and high E scores; in all these aspects results are as predicted from Eysenck's theory of criminal behaviour. One unexpected finding was the discovery of P scores among the female prisoners which were in excess of those found among male prisoners, although in the control groups, females have very much lower P scores than males. This finding may be related to the psychiatric observation of much greater instability in female than in male prison populations.

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