## PERSONALITY DIFFERENCES BETWEEN PRISONERS AND CONTROLS

## SYBIL B. G. EYSENCK AND HANS J. EYSENCK<sup>1</sup> Institute of Psychiatry, University of London

Summary.—2,070 male prisoners and 2,442 male controls were administered the Eysenck Personality Questionnaire, which gives scores on Psychoticism, Extraversion, Neuroticism, and Lie scales. The groups were subdivided into age groups, ranging from 16 to 69 yr. at the extremes. It was found that the Lie scale disclosed little dissimulation in either group. Scores on Psychoticism, Extraversion, and Neuroticism fell with age for both prisoners and controls. Prisoners had higher scores than controls, as predicted, on all three scales. It is concluded that prisoners show predictable differences in personality as compared with controls.

The theory of criminality advanced by Eysenck (1976) predicts that criminals, equated for age and sex with normal controls, would show elevated scores on extraversion, neuroticism, and psychoticism. The literature (for review, see Eysenck, 1976) gives some support to these predictions, although there are several studies which are not in accord. There are many reasons for the discrepancies which appear. Not all studies have used appropriate measures of personality, such as the Maudsley Personality Inventory or the Eysenck Personality Inventory; this is particularly true of the earlier studies which were not done in order to test particular predictions. Many studies failed to control such factors as age, which correlates significantly with Psychoticism, Extraversion and Neuroticism. The number of cases used has sometimes been quite small. In some studies dissimulation has not been controlled by the use of Lie scales; even when such scales have been used, straightforward comparisons have been made on personality scales in disregard of the high Lie scores of criminals. More recent studies have been more successful in giving support to the original hypothesis (Eysenck & Eysenck, 1970, 1971a, 1971b, 1973), particularly where adolescents (Foggitt, 1974) or children were studied (Allsopp, 1975; Allsopp & Feldman, 1974, 1975). It seemed desirable to carry out a reasonably largescale study, using the latest personality inventory in order to obtain information on the differences which might be found between criminals and controls on Psychoticism, Extraversion, and Neuroticism; a further aim was to test the reliability of observed differences from one age group to another. Only male subjects were tested in this study; females will be reported in a later study.

The test used was the Eysenck Personality Questionnaire; this is a develop-

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ment of the Eysenck Personality Inventory which includes a psychoticism scale, as well as scales for the measurement of Extraversion and Neuroticism, and a Lie scale. Details about the test are given in the manual (Eysenck & Eysenck, 1975). The manual also gives details about the male control group; this included 2,442 subjects, ranging in age from 16 to 69 yr. It constitutes a reasonably random sample of the population. The prisoner group consisted of 2,070 inmates of several of Her Majesty's Prisons; they were routinely tested by prison psychologists and constitute a reasonably random sample of prisoners. The prisoners knew that the test would not be used in making any decisions about their future, and apparently believed these reassurances. The mean scores for the members of both groups are given in Table 1, separated for different age groups; this table also gives the number of subjects in each subgroup.

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MEANS AND STANDARD DEVIATIONS OF PRISONERS AND CONTROLS FOR PSYCHOTICISM, EXTRAVERSION, AND NEUROTICISM

Age	Sampl	imple (N)		Psychoticism			Р	Extraversion			Р	
(yr.)	Prisoners	Contro	ls Prise	oners	Con	trols		Priso	ners	Cont	rols	
			М	SD	М	SD		M	SD	M	SD	
16-19	356	571	6.60	2.90	4.54	2.07	.001	14.29	2.37	14.57	2.30	
20-29	980	836	5.41	2.54	4.10	1.94	.001	13.83	2.56	13.68	2.56	
30-39	446	422	4.70	2.14	3.27	1.68	.001	13.07	2.74	12.86	2.70	
40-49	213	332	4.41	1.83	3.07	1.55	.001	13.17	2.64	12.42	2.87	.01
50-59	72	210	3.82	1.34	2.35	1.45	.001	12.73	2.80	10.78	2.93	.001
60-69	3	71	2.33		2.61	1.15		13.67		10.63	2.75	
Total	2070	2442	5.30	2.48	3.74	1.86	.001	13.64	2.61	13.24	2.68	.001
						-		Neuroticism				P
								Prisoners Contro		rols		
								М	SD	M	SD	
16-19	356	571						13.25	3.05	10.48	2.93	.001
20-29	980	836						12.63	3.14	9.69	2.86	.001
30-39	446	422						12.51	3.13	9.28	2.85	.001
40-49	213	332						11.92	2.98	9.13	2.70	.001
50-59	72	210						13.45	2.81	10.08	3.07	.001
60-69	3	71						5.33		8.44	2.81	
Total	2070	2442						12.65	3.11	9.73	2.89	.001

It is clear that for Psychoticism and Neuroticism there are significant differences between controls and prisoners in all age groups in the predicted direction.<sup>2</sup> For Extraversion, differences are insignificant until we reach the older age groups, when differences in the predicted direction become significant. In Fig. 1

<sup>&</sup>quot;Note that there are only 3 subjects in the oldest prisoner group; no significance tests have been carried out on this age group.



FIG. 1. Psychoticism, Extraversion, and Neuroticism scores of prisoners and controls, subdivided by age

are plotted the mean scores of prisoners and controls, by age for Psychoticism, Extraversion, and Neuroticism. All three scores *decline* with age for both populations except that for the prisoners the decline in Neuroticism is not significant.

Results for the Lie scale are given in Table 2. Here there is a clear-cut *increase* in scores with age. Prisoners up to the age of 30 have higher Lie scores than controls; at higher age levels the position is reversed. Over-all, prisoners have slightly (although significantly) lower Lie scores than controls. These

Age (yr.)	Prisoners		Controls		Р
	М	SD	M	SD	
16—19	6.67	3.97	6.07	3.62	.05
20—29	7.15	4.13	6.66	3.82	.01
3039	7.83	4.47	8.63	4.25	.01
4049	8.40	4.62	9.67	4.47	.01
5059	9.94	4.36	11.06	4.50	
60—69	12.67		12.30	4.47	
Total	7.45	4.31	7.81	4.34	.01

TABLE 2

data do not suggest that there is much difference in dissimulation between the groups. This conclusion is borne out by the level of correlation between Neuroticism and Lie scores in the groups; as Michaelis and Eysenck (1971) have shown, the size of these correlations is a direct function of the dissimulation which is being produced by the particular testing conditions. The observed Pearsonian correlations are given in Table 3; it will be seen that they are very

Age (yr.)	Psychotic	cism, Lie	Extraver	sion, Lie	Neuroticism, Lie		
	Prisoner	Control	Prisoner	Control	Prisoner	Control	
16—19	14	11	13	03	09	10	
20—29	19	12	01	07	16	09	
3039	14	03	05	.00	13	08	
4049	11	08	05	.05	11	02	
50—59	17	17	07	.10	20	12	
6069		.10		01		03	
Total	17	13	05	08	14	08	

## TABLE 3 Correlations Between Lie Scale and Personality Scales for Prisoners and Controls

close to zero and indicate a low level of dissimulation. Also given are the correlations between scores, Psychoticism and Lie, and between Extraversion and Lie scale scores. Clearly, these are all too low to suggest that criminals (or controls) were faking good or malingering.

According to the theory (and in fact), the three personality variables are independent, and their effects should be combined to produce the best prediction. Groups were divided into "high" and "low" scorers on each variable, using the joint prisoner and control mean scores to obtain optimal dividing points, i.e., to obtain groups as nearly equal in size as possible. We then added together scores for all the prisoners and all the controls who had scored high on all three personality variables and also all those who had scored low on all three. The results of this analysis are shown in Fig. 2. It will be seen that 33% of



FIG. 2. Percentage of prisoners and controls having high or low scores in all three personality scales (Psychoticism, Extraversion, and Neuroticism), subdivided by age

the prisoners in the 16- to 19-yr.-old group belonged into the "high" category, i.e., had high scores on all three scales, while only 20% of the controls in that age group belonged into the "high" category. Conversely, only 2% of the prisoners belonged into the "low" category whereas 8% of the control group did. It will be seen that there is a regular fall in the percentage of "high" scorers with age for prisoners and controls alike and a regular rise of "low" scorers again for prisoners as against 15% of controls are in the "high" category; 5% of prisoners as against 13% of controls are in the "low" category. Thus the percentage of high scorers exceeds that of low scorers by 17% for the prisoners; for the controls the percentage of low scorers exceeds that of high scorers by 2%. All major comparisons and age trends were tested by a method suggested by Goodman (1971) and significant.

These differences are considerable although, of course, they do not give us anything approaching absolute separation of the two groups. It would be unreasonable to expect such an absolute separation even if the questionnaires had perfect reliability. Undoubtedly the control group would contain by chance a number of "criminals," i.e., persons who either had been in prison at some time in the past, who would go to prison some time in the future or who ought to have gone to prison but were lucky to avoid capture. Similarly the prison group undoubtedly contained a number of people lacking in mens rea, e.g., inadequates who committed their "crimes" merely in order to escape from the harsh reality of life outside the prison. Ideally both groups should be purified of such inappropriate members; unfortunately there seems to be no way of doing this. The "true" differences between the groups, i.e., corrected for attenuation due to unreliability of the measuring instruments and corrected for lack of validity of the criterion, would undoubtedly be much greater than those reported here. It may be concluded that the above results are in line with the theory linking personality and antisocial behaviour (Eysenck, 1976).

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