

Personality in imprisoned and non-imprisoned people: evidence from the EPQ-R

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There are several studies about the personality of convicted criminals. The PEN system has been one of the most frequently tested models. Eysenck (1977) predicted that criminals would show higher scores on P, E, and N. Some studies support that view, while others do not. However, sampling could help to explain the contradictory findings. The present study analysed 229 imprisoned and 322 non-imprisoned participants. Both samples were carefully selected. The imprisoned sample comprised all types of delinquents with a mean age of 32.57, while the non-imprisoned sample comprised participants with a mean age of 29.85. The EPQ-R was used to measure P, E, and N. The results show that the imprisoned sample scores higher on psychoticism, extraversion, and neuroticism. Moreover, while there are sex differences within the non-imprisoned sample, there are no such differences within the imprisoned sample. The latter result suggests that personality, but not the sex variable, could be related to antisocial behavior.

Personalidad en población penitenciaria y no penitenciaria: resultados a partir del EPQ-R. Existen múltiples estudios acerca de la Personalidad de los delincuentes. El sistema PEN es uno de los modelos más frecuentemente puestos a prueba. Eysenck (1977) predijo que los delincuentes puntuarían más alto en P, E y N. Algunos estudios apoyan esta idea, mientras que otros no. El muestreo de participantes puede ser una causa de las discrepancias. Por ello, el presente estudio analiza una muestra de 229 presos y 322 no presos. Ambas muestras han sido cuidadosamente seleccionadas. La muestra de presos incluye un amplio espectro de delincuentes con una media de edad de 32.57 y la muestra de no presos presenta una edad media de 29.85. Se aplica el EPQ-R para medir E, N y P. Los resultados muestran que los presos puntúan más alto en E, N y P. Además, mientras que se observan diferencias de sexo en la muestra de no presos, dichas diferencias de sexo desaparecen entre los presos. Este último resultado sugiere que no es el sexo sino la personalidad la variable que puede contribuir a explicar el comportamiento delictivo.

Why do individuals first enter into crime? Why do they keep offending? Why do some people become criminals?

It is usually stated that criminals differ from each other. An individual who steals a car to go joy-riding has a different reason for acting in that way than the individual who embezzles thousands of Euros in a computer fraud. The former will probably come across an opportunity that he simply cannot resist, acting impulsively. The latter has carefully planned the fraud over a long period of time. Both are different criminals. There is no single explanation for criminal behaviour.

There are at least three sets of factors associated with criminal behaviour: early influences, current circumstances, and circumstances immediately previous to the antisocial behaviour itself. Different factors will be prevalent for different individuals. If parents have few rules about how their child should behave, if they leave

their child unsupervised, and if they do not exercise any control, then the probability of the child getting into antisocial behaviours increases (Lykken, 1995). However, only some individuals seem to be «vulnerable» to these early influences. In fact, a small fraction of the population is vulnerable to adverse environmental influences. Why?

Personality may help to answer this question, although the relevance of this kind of individual difference parameter has been denied sometimes (Andrews & Bonta, 1994; Andrews & Wormith, 1989; Wilson & Herrnstein, 1985). Furthermore, criminal justice professionals have emotionally rejected the possibility that assessment of personality might enhance the prediction of antisocial behaviour (Bonta, 1996). But, in fact, personality may play a role. Consider this: social class of origin is a very weak predictor of juvenile delinquency (Tittle & Meier, 1991). What this means is that social class of origin in interaction with vulnerable personalities will empower our knowledge about the «causes and cures» of antisocial behaviour (Eysenck & Gudjonsson, 1989). As suggested by Agnew (1992) social class theories will incorporate more psychological concepts: personality is among them.

There are several studies that compare imprisoned and non-imprisoned people. There is overwhelming evidence supporting the

view that those imprisoned show higher scores on P, N, and E (Eysenck & Eysenck, 1971, 1976, 1977; McClean, 1964; Wilson & McClean, 1974). These studies analysed evidence from the *Eysenck Personality Questionnaire* (EPQ). However, there are some studies that do not replicate those findings. Hoghugh & Forrest (1970) found no differences for E and N between 100 approved school boys and 100 matched controls; they used the *Junior Maudsley Personality Inventory* (JMPI). Millman (1969) found approved school boys showing lower scores on E than matched controls using the *Junior Eysenck Personality Inventory* (JEPI). Note that studies supporting Eysenck's view analysed adult convicted prisoners, while studies not supporting his view analysed young adolescents.

Haapasalo (1990) compared 92 convicted prisoners (mean age= 33.7, range= 21_53) and 967 controls (mean age= 38.7, range= 17_71) taken from the Finland standardization sample of the EPQ. Prisoners showed higher scores on P and N, but not on E. Extremely violent offenders were not included. Rahman (1992) compared 92 male prisoners (mean age= 29.16, range= 20_43) and 544 controls (age range= 18_50) taken from the Bengali standardization sample of the EPQ. The results show that prisoners have higher scores on P and N, but not on E. Gomà (1995) compared 77 convicted males for armed robbery (mean age= 22.96) and 170 male controls (mean age= 29.97) using the EPQ, and found higher scores on P and N, but not on E. Chico (1997) analysed 300 imprisoned males (mean age= 19.9, range= 18_30) and 300 army recruits (mean age= 19.1, range= 18_23). The Spanish adaptation of the EPQ-R was used. Those imprisoned showed higher scores on P and N, but not on E. Dardeman (1999) compared 47 young delinquents (mean age= 17, range= 14_20) and 82 controls using the EPQ; the results show that the young delinquents obtained higher scores on P, E, and N.

The main goal of the present study is to compare a sample of imprisoned with a sample of non-imprisoned people in some basic personality traits, namely, psychoticism, extraversion, and neuroticism. The sample of imprisoned people is carefully selected to represent a typical Spanish incarcerated population. The sample of non-imprisoned people comprised a broad age range. The Spanish adaptation of the EPQ-R was used as a measure (TEA, 1997). The main prediction follows Eysenck's classical view about criminal personality (1977): those imprisoned will show higher scores than non-imprisoned subjects on P, E and N.

Method

Participants

229 individuals comprised the imprisoned sample. They were taken from three prisons located in Madrid. 182 were male and 47 female. The mean age was 32.57 (SD= 9.8, age range= 17 - 67). The imprisoned sample included delinquents from the three grades considered by the Spanish penitentiary system (first, second, and third grade). Moreover, some imprisoned were still waiting for the trial, while others were already sentenced.

The non-imprisoned sample included 322 individuals. 131 were male and 191 female. The mean age was 29.85 (SD= 12.9, age range= 17 - 68).

Note that 80% of the imprisoned sample comprised males. This is due to the distribution of the Spanish penitentiary population in which 90% are males (Dirección General de Instituciones Penitenciarias, 1998; see Herrero, Ordóñez, Salas, Colom, in press).

Measures and procedures

The EPQ-R was used to assess three basic personality traits: psychoticism (P), extraversion (E), and neuroticism (N). The reliability indices of the Spanish standardization are: P= .65, E = .80, and N= .82 (TEA, 1997).

The EPQ-R was administered individually. Participation was voluntary. The imprisoned sample filled the questionnaire either in the prison modules or the prison school. The non-imprisoned filled the questionnaire at their homes and they were recruited by nominated undergraduate psychology students.

Analyses

In order to answer the question of whether or not there are any differences between the imprisoned and non-imprisoned samples, we carried out an analysis of variance. The prediction is that the imprisoned sample will obtain higher scores on P, E, and N.

The effect size is also computed for the personality measures. Effect size is represented in *d* units (Cohen, 1977).

Finally, the effect of sex was considered. The imprisoned and non-imprisoned samples were analysed looking for possible sex differences on P, E, and N.

Results

Table 1 shows the descriptive statistics corresponding to the imprisoned and non-imprisoned samples. Effect sizes are also presented in Table 1.

The imprisoned sample scores higher than the non-imprisoned sample on P [$F(1,530) = 28.604, p < .01$]. The difference is also significant on E [$F(1,530) = 12.256, p < .01$]. Finally, the imprisoned sample scores higher on N [$F(1,531) = 63.039, p < .01$].

The highest effect size is for N (.71). P shows an effect size equivalent to half of a standard deviation (.46). Finally, E shows the lowest effect size (.31).

Therefore, the imprisoned sample scores higher on psychoticism, extraversion, and neuroticism than the non-imprisoned sample. This finding is entirely consistent with Eysenck's view about criminal personalities.

Table 2 shows the descriptive statistics for males and females.

Samples	Descriptive statistics	P	E	N
Non-imprisoned	Mean	5.81	11.38	10.10
	SD	2.61	3.85	5.14
	Skewness	.707	-.540	.430
	Kurt	.910	-.436	-.489
	N	323	323	324
Imprisoned	Mean	7.26	12.54	13.6
	SD	3.64	3.59	4.7
	Skewness	.888	-.555	-.310
	Kurt	1.161	-.461	-.662
	N	208	209	209
Effect size (<i>d</i>)		.46	.31	.71

Table 2
Descriptive statistics of males and females

Samples	Desc. statistics	P		E		N	
		M	F	M	F	M	F
Non-imprisoned	Mean	6.26	5.53	11.33	11.48	9.18	10.72
	SD	2.93	2.33	3.75	3.86	4.88	5.22
	Skewness	.642	.589	-.497	-.556	.529	.349
	Kurt	.417	1.003	-.156	-.583	-.147	-.643
	N	130	189	130	189	130	190
Imprisoned	Mean	7.27	7.21	12.78	11.65	13.9	12.42
	SD	3.78	3.06	3.58	3.51	4.6	4.94
	Skewness	.868	.987	-.642	-.301	-.309	-.251
	Kurt	.905	3.039	-.323	-.632	-.597	-.962
	N	166	42	166	43	166	43

In the non-imprisoned sample, males have higher scores on P [F (1,318)= 6.166, $p < .05$], females on N [F (1,319)= 7.102, $p < .01$], but no differences on E were observed [F (1,318)= .122, $p = .727$]. Variances are not homogeneous for P (Levene test= 9.532, $p < .01$).

In the imprisoned sample, no difference was found between the sexes: P [F (1,207)= .010, $p = .921$], E [F (1,208)= 3.402, $p = .067$], and N [F (1,208)= 3.482, $p = .063$]. Variances are homogeneous for P, E, and N (Levene test= 4.898; .105; .733; $p > .01$).

Because of the sex difference on P and N within the non-imprisoned sample, an additional analysis of variance was computed. Only the male sub-samples were analysed this time. The results indicate that imprisoned males have higher scores on P [F (1,295)= 6.320, $p < .05$], E [F (1,295)= 11.454, $p < .01$], and N [F (1,295)= 73.065, $p < .01$]. Variances are homogeneous for P, E, and N (Levene test= 5.888; .002; .201; $p > .01$).

Finally, only the female sub-samples were analysed. The results indicate that imprisoned females have higher scores on P [F (1,230)= 15.840, $p < .01$]. No difference was found either on E [F (1,231)= .072, $p = .789$] or N [F (1,232)= 3.764, $p = .054$]. Variances are homogeneous for P, E, and N (Levene test= .795; .820; .021; $p > .01$).

Discussion

There has been a long and heated debate about the presumed personality differences between people who have committed so-called antisocial behaviours and people who have not. Some studies support the relationships between personality and criminal behaviour, while others do not. Why are there such discrepancies in the literature?

Although several causes could help to answer the question, we support «sampling» as one of the main reasons. More studies than desirable do not analyse heterogeneous samples. However, this is extremely important (Eysenck & Eysenck, 1985). If you do not have a broad variety of imprisoned individuals and a broad range of non-imprisoned individuals, your conclusions could be biased.

To our knowledge, there is only one study comparing imprisoned and non-imprisoned people using the EPQ-R as a measure of

basic personality traits (Chico, 1997). However, while a difference was found in the present study on P, E, and N, Chico (1997) failed to find a difference on E. We think that the discrepancy could be explained by the differences among the analysed samples. The control group in Chico's study comprised non-conscripts army recruits, which suggests a possible restriction of range for E.

Moreover, there are some changes in the items included in some of the EPQ-R scales. Thus, for instance, «impulsivity», that is usually associated with antisocial behaviour, is no more a facet of E, but of P (Pérez, 1984). There are some studies that failed to find a difference on E between imprisoned and non-imprisoned samples. But their results can be challenged under the sampling issue mentioned previously: not all prisoners are representative of the prison population, but of, say, robbers (Gomà, 1995). Furthermore, some studies compare young delinquents with matched controls (see above). Those samples are clearly not representative.

What the present study shows is that when a heterogeneous sample of imprisoned and non-imprisoned subjects is analysed, then Eysenck's view about criminal personality is strongly supported: those imprisoned have higher scores on P, E, and N.

The socialization process is based on the conditioning of responses of fear and shyness. When conditioning runs into a pro-social path, then the person develops what Eysenck calls a «conscience» (Eysenck, 1977). However, extraverts are less prone to conditioning. And this tendency increases with high N scores. Therefore, higher scores on E and N will be obtained by antisocial personalities. Neurotic and extraverted personalities are less susceptible to the socialization process, and hence they represent a vulnerable personality. Last, but not least, P always emerges as a distinctive feature of antisocial people. Several items of the P scale tap behaviours usually associated with crime (Eysenck & Gudjonsson, 1989).

Finally, the failure to find a personality difference between the sexes in the imprisoned sample suggests an exciting future line of research: sex may not be predictive of future criminal behaviour. It is surprising that while non-imprisoned males show higher scores than non-imprisoned females on P and the latter show higher scores than the former on N, the difference completely disappears within the imprisoned sample. The result supports the statement that female personality, but not the sex variable, could help to predict future antisocial behaviour. The latter evidence is supported by the results of the Dunedin Longitudinal Study: «the Dunedin findings point to gender similarity in the personality correlates of partner abuse. Individual differences in personality predicted which women would hit their partners in the future as well as which men would hit their partners. Apparently, some women's perpetration of physical violence is motivated by the same intra-personal factors that motivate men's perpetration» (Krueger, Caspi & Moffitt, 2000, p.991). Nevertheless, more research is obviously needed.

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