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DYSGENIC FERTILITY FOR CRIMINAL BEHAVIOUR

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Summary. A sample of 104 British parents with criminal convictions had an average fertility of 3·91 children as compared with 2·21 for the general population. The result suggests that fertility for criminal behaviour is dysgenic involving an increase in the genes underlying criminal behaviour in the population.

Introduction

In the early decades of the century Galton and other eugenicists expressed concern about the large numbers of children produced by those with low intelligence and deficiencies in certain personality traits described as 'character'. It was argued that intelligence and character are socially desirable and are to some degree under genetic control. Hence if those deficient in these traits have high fertility the genes responsible for them will increase and the genetic quality of the population will deteriorate (Galton, 1909).

A number of studies have examined this thesis in so far as it relates to intelligence. The most thorough of these studies have been made in the United States by Vining (1982), Van Court & Bean (1985) and Retherford & Sewell (1988). All three studies found that the eugenicists were correct in their belief that there is a negative association between intelligence and fertility. The data make it possible to calculate the deterioration in genotypic intelligence resulting from this negative association, which is estimated at about one IQ point per generation.

Although this dysgenic trend has been shown for intelligence, it is believed that no studies have been carried out to discover whether a similar dysgenic trend has been occurring for character. The objective of this paper is to present what is believed to be the first evidence collected on this issue. By character, Galton meant integrity, trustworthiness, honesty and a sense of civic obligation. Criminals are weak on these characteristics and can be regarded as a criterion group of those deficient in character. The question of whether there are dysgenic trends for character can therefore be explored by enquiring whether criminals have higher fertility than non-criminals, and this is the approach adopted in the present paper.

Method and results

The Cambridge Study in Delinquent Development is a longitudinal survey of a sample of 411 boys first selected in 1961–62 at the age of 8–9 years as a representative

sample from working class districts in London. The sample has been followed up over subsequent years, during which the focus of the study has been on the characteristics differentiating the boys who developed into delinquents from those who did not. It has been found that the boys who later became delinquent tended to be characterised by low IQs and large family size, and to come from families where the parents had criminal convictions and low incomes. The principal findings of the study up to the mid-1980s have been reported by Farrington & West (1990).

For the present study, information has been abstracted from this data base for the criminal convictions of the parents of the boys in the sample up to the time of the boys' 10th birthday and on the numbers of children of these parents. The parents have been divided into two groups consisting of those where one or both parents had a criminal conviction for an indictable offence and those where neither of the parents had a conviction for an indictable offence. The mean number of children of the parents with criminal convictions (N=104) was 3·91 (SD=1·77), and the mean number of children of parents without criminal convictions (N=307) was 3·12 (SD=1·46). The difference between the two groups is statistically significant (t=4·16, p<0·001).

This result shows that in this sample the fertility of criminals is higher than that of non-criminals drawn from the same social class and urban residence in London. The criminal parents may not be matched perfectly with the non-criminals for gradations of social class and other variables, but this is irrelevant. The crucial point is that the criminals have higher fertility than the non-criminals.

It is also interesting to note that the fertility of this sample of criminals is greater than that of the British population as a whole. Average fertilities for British married couples for the marriage cohorts of 1941–45, 1946–50 and 1951–55, the three relevant comparison groups, obtained from census data, were 2·14, 2·19 and 2·29 respectively, averaging 2·21 (Coleman & Salt, 1992). This is a more important comparison than that for the fertility of criminals versus non-criminals within a working class community of London. The reason for this is that the fertility of criminals as compared with that of the total population allows the magnitude of the dysgenic trend to be estimated. The result indicates that the fertility of 3·91 of this sample of criminals is 77% higher than that of the British population as a whole.

Discussion

The result shows that this sample of criminals has considerably higher fertility than that of the British population as a whole. For this trend to be dysgenic, criminal behaviour must be to some extent under genetic control. The two methods of ascertaining whether this is the case are to compare the similarity for criminal behaviour of identical twins and fraternal twins reared in the same families, and to examine the degree to which adopted children resemble their biological parents for criminal behaviour.

The rationale of the identical–fraternal twin comparison method is that because both types of twin are reared in the same environment, any difference between them in the incidence of criminal behaviour must be due to genetic differences. The

similarity of the twins for criminal behaviour is known as the concordance rate. If both twins have criminal records they are described as concordant. The results of the eight major studies of concordance rates among identical and same sexed fraternal twins have been summarised by Eysenck & Gudjonsson (1989). All the studies showed that identical twins are more concordant for criminal behaviour than fraternal twins, the concordances for the two types of twin in the combined data being 67% and 30% respectively. It has been estimated that these different concordance rates indicate a heritability of 0·59 for criminal behaviour (Cloninger *et al.*, 1978).

The second method for ascertaining whether genetic factors contribute to criminal behaviour is to study whether children who have been adopted show any resemblance to their natural parents in regard to crime. The two leading studies are by Crowe (1975) in the United States and Hutchings & Mednick (1977) in Denmark. Both studies found that adopted children resemble their natural parents more than their adoptive parents in regard to criminal behaviour. In the Hutchings & Mednick (1977) study, 22% of adopted males with criminal biological fathers had criminal records, as compared with 10% of adopted males whose biological fathers were without criminal records. These results confirm the conclusions drawn from the identical–fraternal twin comparison method, to the effect that criminal behaviour has a significant heritability.

If criminal behaviour has a significant heritability, and if criminals have higher than average numbers of children, the genes underlying criminal behaviour must have increased in frequency in the population in the middle decades of the twentieth century. This is likely to be one factor in the increase in criminal activity which has been a marked feature of Britain and a number of other economically developed nations from the 1950s onwards. Just how great the genetic contribution has been to the increasing prevalence of crime poses an interesting question. As a first approximation, it is proposed that if criminals have 77% more children than non-criminals, as indicated by the results presented here, and if criminal behaviour has a heritability of 0·59, crime over one generation should increase by 45% (77 × 0·59). The actual increase in crime in Britain over the relevant period 1950–75 has approximately quadrupled from around 500,000 to 2 million crimes a year (Maguire, 1994). This increase is considerably greater than the rise that would be predicted from the greater fertility of criminals. It appears that about 11% of the secular increase in crime is attributable to the increase in the genes underlying criminal behaviour.

Although a significant heritability for crime has been well established for several decades, no criminologists appear ever to have wondered whether the secular increase in crime might have a genetic component arising from the greater fertility of criminals. This initial study may encourage others to examine other data to determine whether the present finding of high fertility among criminals can be confirmed and to provide further estimates of the genetic contribution to the secular increase in crime.

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