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'Criminal Genetic Types' Pose a Research Dilemma

AUSTIN, Texas—The XYY chromosome anomaly was the subject of considerable discussion at the meeting here last week of the American Society of Human Genetics. The men showing this anomaly are ironically called "supermales," for they have two Y chromosomes in place of the single Y of normal XY males, which in turn distinguishes us from normal XX females.

However, most of the XYY males so far described were found as inmates of institutions for psychopathic criminals. The question under discussion here was just how frequently they occur in the whole population, and in order to answer this, several investigators have screened large numbers of randomly chosen newborn children.

The figures in various studies have been grossly inconsistent, varying from one in 250 to less than one in 2000. It is not yet possible to explain this inconsistency, and some speculate that this and other chromosome anomalies may occur in clusters, conceivably as a side effect of local virus epidemics. It costs about \$50 to examine a single individual carefully for his chromosome type, and it is therefore obvious that the necessary large-scale studies to clear up the origin of the anomalies will be tedious and expensive.

THERE IS enough evidence to support the concept that XYY males are abnormally predisposed to get into the most serious difficulties in their social adjustment, but we have no idea about the roots of the problem or just what fraction of XYYs will make such miserable failures of their own lives and inflict so much

harm on others. This concept has been reinforced by lurid examples of mass murderers purported to be XYY in cases still under adjudication.

It was further reinforced in the last few days by news from Melbourne that one Edward Hannell, charged with murder, was acquitted on grounds of insanity on evidence that he was an XYY and that "every cell in his brain is abnormal." The news accounts did not give full details of the trial and we may hope that the verdict was supported by more specific evidence of the defendant's mental incompetence.

A dozen or so newborn XYYs have been identified in the research screening programs reported here. We know so little of the biology of violence, and the social interest in the subject is so great, that it would obviously be of the greatest importance to follow the development of these children through adulthood. It would, however, be a tragic injustice to identify them—if for no other reason than the likelihood that this would contribute to their alienation and, besides blighting their lives, confound our conclusions about the significance of the XYY anomaly.

IT IS known, for example, that the Y chromosome differs in different individuals, and it is possible that only one specific kind of Y chro-

mosome (not yet classified) is associated with the psychopathic outcome when doubled. But we can never learn this without studying whatever cases of the anomaly can be identified.

The researchers are well aware of their dilemma. The best design for experimental observations would be "double-blind" to keep the identity of the XYYs secret from the observers in a study involving numerous other control children.

This is already a social dilemma, too, and the confrontation of individuals' social interests may become worse if we adopt too rigid and too fatalistic a view of the predestination of "criminal genetic types." One line of thought would lead naturally to the sacrifice of XYY newborns as a more humane disposition than allowing them to live out their predisposed fates.

To say this is to reject it in favor of the alternative: to learn how to restore to them the possibility of membership in the human community. Indeed, we should remember that even a single Y chromosome already conveys a strong disposition to violence in our species.

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