

# Letters

## XYX Chromosome and Criminal Acts

It is not surprising that lack of communication between geneticists and lawyers is leading to difficulties in the case of XYX males (see Minckler's letter, 14 Mar.). Several medico-legal journals have barely touched the subject, although the basic facts were uncovered by Patricia Jacobs and her colleagues in Scotland 3 years ago. As a barrister at the English Bar and a practising geneticist, I note the following points.

1) Genetic determinism (or, as it was once described, scientific Calvinism) contributes more to human behavior than most sociologists, penologists, and lawyers like to admit.

2) The second Y chromosome increases the probability of recidivist criminality, but only a portion of XYX males develop criminal behavior. Once a deviation occurs it becomes highly probable that it will continue; first occurrences are often shortly after puberty.

3) Fathers and children of XYX males are no more likely to be chromosomally abnormal than the rest of the population. The condition is innate but not inherited or inheritable. Characteristically, the home environments of criminal XYX boys are flawless and their behavior is "mystifying."

4) It should be recognized in law that no person should be subject to penal process merely because he is chromosomally abnormal. An overt criminal act is required.

5) All boys and men who are under lawful restraint should be classified into XY and XYX categories, so that the best treatment can be ascertained and carried out.

6) XY delinquents (whose families quite often provide a criminal environment) are expected to be much more amenable to environmental treatment. Their future is gravely prejudiced if they are incarcerated with genetically

determined XYX's who appear to be resistant to these treatments.

7) Failure to segregate XYX delinquents also prejudices their future, since it is notoriously difficult to research appropriate medical (here, perhaps, chemotherapeutic) measures unless the subjects are all suffering from the same syndrome.

8) Ideally the duty of the state, as soon as XYX is diagnosed (after the onset of overt criminal symptoms) is to protect the public, to recompense victims, to protect other inmates, and to seek to restore normal function in, and then liberty to, the XYX subject. Not all common law jurisdictions adopt this ideal order of priorities, but it will be apparent that in some of them new fields of litigation are opened up and it is important that professional people should be mindful of them.

Thus, where actions in tort lie against the state or its agents or both, each chromosomal type of delinquent, if not segregated, might sue—the XY for the gross negligence, and perhaps assault, of the state which is confining him in an environment known to be prejudicial to his chances of reform—and the XYX, because he is being negligently and cruelly deprived of the treatment and research which his condition requires. Subsequent victims of an XYX whom the state had negligently failed to diagnose despite confinement after a criminal act should also have an action in some jurisdictions. The probability factor makes the criminal XYX a predictably dangerous person and the standards of the duty to take care should accordingly be raised. Failure to segregate chromosome-types might in some jurisdictions be referable to the Ombudsman.

Psychiatrists who fail to obtain a cytologist's report on a patient who might reasonably be in the XYX category (exceptional height is one of the usual additional symptoms), and who then give advice which damages the

patient, would seem to be in the position of any other negligent medical practitioner.

9) It is not improbable that genes (at present "invisible") conferring a raised probability of criminal behavior will be discovered as geneticists increasingly refine population statistics and electrophoretic or other methods of analysis. The same principles would apply as in the case of XYX.

10) There is a need to re-sort penological ideas and priorities. Genetic "determinism" is always probabilistic. As I see it, the objects of penal action should now be: (i) to forestall injury and damage to the public, but not to follow the Wootton theory of "preventive social hygiene" or to permit the anticipation or provocation of a criminal act, since these involve violations of personal liberties (thus in the case of the XYX, "every dog may have his bite"); (ii) to prevent repetition; (iii) to make it possible for the subject to recompense his victim; (iv) to restore normal responses in the subject; and (v) to deter persons, in whom environmental influences are strong enough, from commission of criminal acts.

Is there a moral level with which to justify retribution? The judiciary has often become hopelessly illogical on retribution and some judges have come near to invoking for the nonce "vox populi—vox Dei." But with our present knowledge, we should understand that retribution is not a permissible activity of the human world; it should be left to a merciful God.

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## Graduate School Guessing Game

Schagrin's letter (18 Apr.) is intended to expose the weaknesses of the cumulative grade point average (GPA) earned in college as a predictor of performance in graduate school. But as he makes his points, Schagrin appears to be finding fault with the *criterion*—graduate grades—not with the predictor at all. To paraphrase:

1) The range of graduate grades is restricted, mostly to A's and B's, with only an occasional C.

2) The major concern of graduate schools is attrition, or dropout, not grades.