Misleading statistics and the death penalty

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Misleading statistics are found in every field of human endeavour. There is some elusive quality surrounding death penalty, however, which makes misleading statistics chronic in this field. Perhaps it is because on this issue, to a greater extent than most others, the wish is the father of the thought.

The latest entrant to the minefield in this problem area is the article by Zimring, Van Vuuren and Van Rooyen which appeared in an earlier issue of this journal.¹

The foundation for the argument advanced by Zimring and his colleagues is located in a simple statistical table having two sets of entries. The first set of entries consists of two percentages. These show that of the murders known to the police, 2.7 per cent of the victims were white and the remaining 97.3 per cent were non-white. The second set of figures relates to death sentences actually imposed. These show that of all the death sentences imposed, the victims in 43.4 per cent were white and the remaining 56.6 per cent were non-white. Not surprisingly, the authors conclude that the law takes a more serious view of murders where the victims are white than where the victims are non-white. There is a fallacy in this reasoning.

The import of what Zimring and his colleagues is saying has to be considered with reference to the null hypothesis. It has been said that every experiment and every research endeavour is directed towards testing the null hypothesis. The null hypothesis simply asserts that in any given situation the only factors or influences prevailing are the laws of chance (probabilities). The null hypothesis is central to inductive statistics which is what Zimring and his associates were concerned with, whether or not they referred to it. It is quite clear from the statistical table presented that the null hypotheses has to be rejected. That is, there is something other than the laws of chance prevailing in the distribution of death sentences. The test of the null hypotheses does not identify what that other influence or influences are. Zimring and company state that it is a racial bias. But the statistics which they present do not establish this.

Many years ago Ellison Khan cautioned against the use of crude statistics in

the consideration of the death penalty.² It is a pity that his warning was not taken to heart. It is difficult to imagine a more crude set of statistics than those relied upon by the authors of the article in question.

Before analysing further the source of the error committed by Zimring and his colleagues, it is not altogether remote from the central point to consider an aspect of the statistical information which was not commented upon by these authors. Perhaps the most startling information presented is contained in the first set of figures. The distribution of murder victims does not reflect the distribution of the racial groups in the population at large. The percentage of non-whites murdered does not reflect the distribution of non-whites in the population. In other words, more non-whites are being murdered proportionately than they are found in the population. Hence the null hypothesis must be rejected. There must be some influence other than chance which determines the selection of the murder victim. Since Zimring and his associates prefer a simplistic interpretation in terms of race bias, it is fitting to use this explanation. It must be concluded that murderers are not only murderers, they are racists as well. Murderers, in common with the judges, also esteem white lives above the lives of non-whites. That is why more non-whites than whites are murdered. This conclusion is no better and no worse than the conclusion arrived at by Zimring and his colleagues. There may, in fact, be a racial bias in the imposition of the death penalty but Zimring and his associates have not shown it.

The error underlying the analysis is that regard is not paid by these authors to other factors. It is known, for example, that in South Africa most crimes are intra-racial. That is blacks assault blacks, black women are raped by black men and blacks steal from blacks. Crime among whites follow the same pattern. In previous years, the principal exception to this rule occurred in the crime of burglary (housebreaking). These days, car hijacking should probably be added to the list. It does not make a great deal of sense to consider racial bias in the imposition of the death sentence without considering the racial distribution of the perpetrators and the sentences which they receive. Unfortunately these statistics are not presented by Zimring and his colleagues.

The present author admittedly does not have sufficiently wide practical experience of murder trials to justify extravagant generalisations. Such limited experience as he does have, however, suggests that many murder trials of black accused are not murders in the sense in which many members of the public understand murder. Although the law imputes an intention to kill, these cases are probably best regarded as aggravated assault. The accused does not start off with the intention to kill. What starts as a squabble (often innocuous) turns serious when a knife, gun or other dangerous instrument is introduced. In such cases, the judge does not even call for assessors, a sure sign that there is no possibility of a death sentence being imposed. For statistical purposes, it is necessary to distinguish these murders; that is, first degree and second degree murders, or capital and non-capital murders as they are known in

other countries.

Causal analysis in the social sciences can only be resorted to with a measure of confidence when three, four or more variables are considered simultaneously.\(^3\) In such multivariate analysis, certain variables have to be 'controlled' in the analysis, or their influences at least taken into account.

One such additional variable is the age of the perpetrator. It is well known that there is a reluctance to impose the death penalty on young offenders. The extent to which young blacks are represented in murder trials needs to be taken into account as well as other factors.

Any adequate analysis of the factors leading to the imposition of the death penalty could not be undertaken on the basis of statistics provided by the Commissioner of Police (the source relied upon by Zimring and colleagues) or other similar source. Each case will have to be examined at source and the relevant date extracted by the researcher if it is hoped to arrive at a reliable conclusion.

The sentencing of offenders is perhaps the most complex and difficult issue in the entire criminal system. Regrettably, very little instruction is provided and insufficient research undertaken on this matter. The available evidence does suggest that the imposition of a sentence cannot be explained on the basis of one, two, three or more influences taken separately. In the log linear equation which describes the situation, the explanation is to be found in three-way interactive terms.\(^4\) That is, the influences interact with each other. This is the reason for the complexity. This is also the way it should be.

Zimring, Van Vuuren and Van Rooyen conclude that mandatory and non-mandatory imposition of death sentences could not withstand constitutional challenge because of the inequities produced. This is perfectly true but only for as long as scholars persist in drawing the wrong conclusions from data.

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\(^3\) H Lever 'Inferring the intervening and dependent variables' (1979) 30 *British Journal of Sociology* 81.

\(^4\) G Fishman, V Krause & H Lever 'Factors affecting juvenile court decisions in Israel' (1982) 52 *Sociological Inquiry* 305.