BRIT. J. CRIMINOL. Vol. 22 No. 3 JULY 1982

PREVENTIVE SENTENCING AND THE DANGEROUS OFFENDER

A Commentary on Recent Proposals in England from the Standpoint of Experience with Patuxent Institution

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IN consequence of having written once before a dissentious article concerning dangerousness (Gordon, 1977), I have been invited to comment on the recent report sponsored by the Howard League for Penal Reform (Floud and Young, 1981). Let me make clear that apart from what I have learned from Part II of that report, where current policies and practices for coping with the dangerous offender in England are described at length, I am totally ignorant of the context to which it is directed. Should the report have implications, for example, which are quite apparent to persons familiar with such matters in England, I am in no position to recognise them. In view of my limitations in this respect, I take much of the report entirely at face value. This means that I do not question its conclusion that the present manner in which dangerous offenders are handled in England is not itself so productive of injustice as to require immediate radical reform, nor do I take a position with respect to the reporting committee's unanimous opinion that the length of prison sentences in general ought to be much reduced (p. 108). Should such a broad reduction of sentences be effected, however, I certainly concur with the report's conclusion that special sentences protective of the public ought then to be available for a minority of dangerous offenders.

A Neglected Function of Protective Sentencing

In anticipation of arguments against protective sentencing, let us be clearer than usual about the functions the added protection would serve. At one extreme, romantics such as Quinney (1970, p. 291) assert that " Criminal law is used . . . to secure the survival of the capitalist system ". At the middle position, most criminologists acknowledge the importance of protecting the public, whatever the political context; but I cannot bring to mind any explicit recognition, at the opposite extreme, of the extent to which criminal law protects the criminal. Stinchcombe's (1963, p. 151) allusion to the state's " monopoly of violence " is suggestive, but I suspect that he had different considerations in mind. Floud and Young (1981, p. 38) do state, " The shorter sentences become, the more difficult it would seem to be to argue [against] . . . a special protective sentence for a minority of exceptional offenders "; but the point is not developed further.

In so far as his victim and his victim's surviving kin are concerned, the criminal's utility is purely negative. The important fact that *lex talionis*

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limited retaliation for loss of an eye to *only* an eye is too often overlooked. Much of the mindless domestic violence and most of the homicides between acquaintances in the course of petty quarrels that we see daily in large American cities illustrate the rapid escalation of retribution for offence that occurs when " justice " is routinely meted out by an aggrieved party.

As sentences are shortened to the point where they clearly fail to satisfy victims, they will also fail to deter acts of personal retribution from victims who are normally law-abiding (see, for example, Hall, 1980, 1981a). Zero length sentences, for instance, would guarantee both conditions. Under such conditions, I suspect, justice would degenerate into vendettas, with those who are more organised eventually prevailing as vigilantes over the less organised. In the final analysis, the realistic determination to avoid such a degenerate state of primitive justice must set a lower bound on just how magnanimous the law can become (*e.g.* Anderson, 1981; Hoge, 1979a; *Evening Sun*, 1980).

Although it is uncertain to what extent the reduction of sentences contemplated in the report would approach such a hypothetical lower bound, recognition of that natural boundary's existence places the question of longer, protective sentences in its proper light. Those who might be inclined to criticise longer sentences for some perpetrators of a given crime must argue either against the boundary effect I have proposed or against the difference in sentences, that is, against the lowering of some. For lowering all sentences risks the boundary effect. Thus, it should be difficult for those who profess a concern for the offender to oppose the recommended protective sentencing. Others may oppose lowering any sentences, but their view would fall outside the discussion in the report.

I write with confidence about the boundary effect because of what is happening in the United States. Under the pressure of heavy crime, spontaneous forms of citizen organisation have already arisen that, in the absence of both reasonable protection and sufficient deterrence, would certainly evolve towards vigilante measures such as the anti-criminal " death-squads " of Brazil (Hoge, 1979b; see also Crewdson, 1979; Prial, 1979). I have in mind voluntary neighbourhood patrols (called Citizens On Patrol in Baltimore), the Guardian Angels (which began as a patrol of New York subways, but has now spread to other cities), the more militant Jewish Defense League in New York, and—on a still higher plane of organisation—the great proliferation of private guards and private police (Baylin and Carson, 1980; Carson and Baylin, 1980; *Washington Post*, 1980). Within the past year in the Baltimore area two separate families of homicide victims have turned activist and initiated lobbies and public meetings to protest against crime (Hall, 1982a; see also Cummings, 1978), and not long ago in New York the surviving brother of a victim placed the resources of his firm behind a survey concerned with the consequences of crime (*The Figgie Report*, 1980). The concentration of such dignified, rational responses on the part of individual citizens within a short period has no precedent here within my lifespan, and speaks for itself.

Indications of the same trend yet to be fully assessed are the deadly earnest letters about crime now appearing regularly in our newspapers; the broadening support for the death penalty, which has increased from 42 per

cent. in 1966 to 62 per cent. in 1978 and then to 66 per cent. in 1980, when among whites it reached 73 per cent. (*New York Times*, 1969; Gallup, 1978; *The Figgie Report*, 1980, p. 128); and the soaring registration of handguns, in many cases by persons expressing strong personal distaste for gun ownership (Hall, 1982b). Last year in the State of Maryland, handgun registrations averaged 92 per day, and their annual total reached a number not exceeded since the urban riots of 1968 that followed the assassination of Martin Luther King (*The Sunday Sun*, 1982, p. 15).

Responsive to all this, finally, is the political process. At low enough levels of crime, I suspect, the electorate will, through apathy or ignorance, tolerate almost any penal policy (including none), even if individual victims will not. However, as the electorate becomes more saturated with victims, what can be accomplished in the lowering of sentences becomes more limited, and not just because of dissatisfaction with sentencing in general. Ultimately, the boundary effect will become a phenomenon in its own right. Anyone opposing protective sentences who assents to lowering other sentences in general must take into account these realities.

The Handling of the Corporate Crime Issue

I also agree more or less with the way in which the report deals with the question of equity in the matter of controlling corporate or white-collar crime (pp. 4, 12–15). Essentially, it approves equal treatment for equally dangerous cases, whether of traditional crime or of the white-collar variety, while noting the practical difficulties and " ambiguous " public attitude surrounding the latter. It could have pursued the matter further, but at the risk of entering a controversy not central to the main issue. Still, some additional comment may be in order, since the question is not easily settled.

No one opposes suitable punishment for white-collar criminals. In fact, modern society has an extensive and costly apparatus for preventing and detecting business crime. However, there has been a tendency to employ this issue as a *tu quoque* immobilising those who would act more effectively against violent, personal crime; the same end is served by forcing into a single category matters and offenders that are extremely heterogeneous. Too often, the lumping together of cases is so inclusive that the argument has little value except as a method for attacking capitalism.

Thus, Braithwaite and Condon (1978) cite " institutional violence " in which preferences for profit rather than public safety supposedly cause babies to die because of lack of food, shelter and medical facilities, and the historian Henry Steele Commager (1980) condemns as " corporate violence " " those who produce cancer-causing cigarettes, lying advertisements, worthless cereals, worse than useless drugs, defective automobiles, airplanes that pollute the air and chemicals that destroy life in the streams ". Even Monahan (1981, p. 107), in his own recent book on predicting violent behaviour, noted as perhaps more harmful than " street " violence " manufacturing unsafe products, building lethal dams, and operating fatal coal mines ". He did not qualify this list by adding " knowingly " or feel com-

pelled to agonise over the problem of defining and predicting " lack of safety " in products to the same extent as he has in his writings concerning the parallel problem of danger in persons. Product liability rules differ widely from state to state (Miller, 1982), and even such benign institutions as Johns Hopkins University are in frequent litigation as defendants.

Rossi *et al.* (1974) found that even if a fatality was involved (as through culpable negligence) white-collar or business crimes fell below most of the usual crimes of violence when rated as to seriousness by respondents to a general survey. Blacks and whites were in close agreement. The authors concluded that respondents did not see white-collar crimes " as particularly serious ". The high degree of agreement among many segments of society in rating badness or seriousness of offences generally (Gordon *et al.*, 1963; Rossi *et al.*, 1974; Sellin and Wolfgang, 1964; Roth, 1978) suggests that there would be a high degree of consensus towards business crime as well. Among college students, at least, judgments of seriousness are " distinguished by their consistency over a period of 50 years " and, except for sex offences, most changes reflect those in the nature of crime rather than in values (Greenberg *et al.*, 1979, p. 38).

Critics can allege " false consciousness ", of course, but the burden of elevating common business offences in the seriousness ranking is a far heavier one than simply calling attention to particular serious instances, as the critics have largely been content to do. In order to accomplish their aim, the critics would have to contend with the fact that, unlike murder, rape, assault, and robbery, the economy has a product of goods and services, not all of which is worthless; in the third quarter of 1980, for example, that Gross National Product had an annual worth in the United States of 2·6 trillion dollars (Federal Reserve Bank of St. Louis, 1980, p. 12). Except for vice and victimless crimes, most crime involves what economists regard as " transfer " payments, often accompanied by the infliction of harm as well.

Social scientists who ignore these complications are making comparisons in only one direction, that is, stressing the costs of business violations as opposed to comparing the costs and benefits of corporations and ordinary criminals. It is hard to conceive of a totally predatory business organisation, without departing from the realm of normal business altogether and entering that of Mafia-like enterprises (other than vice) and fly-by-night firms that provide only an appearance of productive activity. But those are not what the polemics are about.

The same considerations apply to normal offenders, incidentally, as in the setting of bail, where account is taken of whether or not the accused has a steady job, a permanent residence, and no prior criminal record, *i.e.* whether he is mostly a productive or unproductive member of the community. Even if found guilty, unless the offence is quite serious (as in the case of the " Son of Sam " killer of six who qualified on all three actuarial criteria and was actually recommended initially for release without bail!; see *Evening Sun*, 1977), such persons are usually dealt with leniently.

If a consumer feels himself victimised in a business transaction he can often view it as an exception among many satisfactory transactions, whereas

there is seldom such a compensating consideration in the case of traditional career criminals (an informative exception is when the criminal victimises a family member, *e.g.* a drug addict or sexual offender). Restitution from corporations is certainly not unknown if one proves one's case, but restitution from common criminals has proved almost impossible to enforce, even for juvenile vandalism (Baylin and Carson, 1980, p. A4; Kelly, 1980; Brenna, 1981; *Evening Sun*, 1981a; Rodricks, 1981).

In my view the committee intended that white-collar criminals would be treated like other criminals, according to their probability of inflicting grave harm, but did not accept the exaggerated and sweeping definitions of harm from business so often made by radical critics of modern society; and probably neither would the courts when considering the imposition of protective sentences.

The Problem of Defining Dangerousness

The high seriousness scores assigned to violent crimes, crimes against the person, and residential burglaries (which do receive a fairly high score from police; see Sellin and Wolfgang, 1964, Appendix E-4) are commensurate with evidence showing that surviving victims and the kin of victims of such crimes regularly sustain grave and persisting psychological damage (Lejeune and Alex, 1973; Hilberman, 1976, pp. 35–39; Stuart, 1977; Bennetts, 1978; Fosburgh, 1978; McCahill *et al.*, 1979, pp. 67–77; Ellis *et al.*, 1980; Maguire, 1980; Silberman, 1980; Terr, 1981). Thus, subjective estimates of seriousness made in dispassionate moments, reactions to crimes by actual victims, and real fear on the part of potential victims combine to set certain crimes apart from others.

This broad and authentic consensus across the full spectrum of offences led me to conclude in 1977 that, with perhaps rare exceptions, one or a few individuals, especially if properly instructed, monitored, and provided with feedback, can be relied upon to rank complex offences for the many, that is, to judge where they fall along a single continuum of noxious behaviour (Gordon, 1977, pp. 226, 251). I also concluded that communication about this continuum with a high degree of inter-subjective understanding is possible, even without any special effort to cultivate that understanding. Consequently, this important part, at least, of what has been termed " the problem of defining dangerousness " is not really much of a problem; the tendency of intellectuals to portray decisions they oppose as highly relativistic and idiosyncratic would be misdirected at this stage. Sharing this view, apparently, Floud and Young (1981, p. 10) conclude: " All in all, public judgments of danger do not seem to be as inherently irrational and inconsistent as is sometimes suggested."

The less familiar remaining task, of designating a cutting-point in the ranking and of making classificatory decisions with respect to it, does represent a problem that requires more than ordinary attention. I suspect that it is this problem, rather than the ranking of behaviours, that gives rise to the opinion that dangerousness " lies in the eye of the beholder " (quoted

by Shah, 1978, p. 154). Deciding where to place a cutting-point involves acceptance of a certain degree of arbitrariness. Moreover, adjacent cases may be treated quite differently just because that point passes between them. Recognising the need to make the decision in question (somebody must be hired, accepted, married, etc.) is the usual cure for excessive fastidiousness (Gordon, 1977, p. 226). In the present context, the steady conviction that additional protection of the public is necessary and inevitable provides the impetus for overcoming reluctance to proceed in the face of some irreducible uncertainty.

Even if somewhat arbitrary, the decision concerning the cutting-point can be subjected to negotiation, evaluation and compromise — all sources of consensus. As always, there are two kinds of error (locating the cutting-point too high or too low), but the decision can reflect a shared conviction concerning which of the two is the more tolerable. For example, the point can be placed so as to bias the errors in the direction, say, of over-leniency. Once its desired location has been settled, communication of the critical point to decision-makers can be facilitated by means of aptly chosen operational examples. The fact that choosing a cutting-point can be viewed as basically a political problem does not necessarily imply that it is therefore less easily resolved; quite the contrary—political problems are resolved every day, often by informed representatives rather than by lay members of the community.

All these considerations are separate from the more difficult problem of determining for particular individuals the probability of the behaviour to be prevented. For categories of persons, the determination of probability is only an empirical problem, although it may sometimes include almost insuperable administrative or ethical difficulties. However, judgment may still be required when assigning individuals to categories or when constituting categories if data are lacking for probabilities. The probability itself can be combined with weightings for substantive behaviours to form expected utilities, thereby simplifying the task of decision by reducing two dimensions to just one reflecting rational trade-offs between the two. Thus, how probable danger has to be before protective action against a given person could be taken would depend on the nature of the danger. Note that probability is continuous and so the problem of cutting-points or thresholds can be raised here all over again.

I suspect that the attempt to treat the definitional problem as a whole without analysing it into these more manageable components, while at the same time being subjected to distracting and guilt-inducing rhetoric concerning corporations and white-collar crime, was largely responsible for much of the confusion in the literature at the time my earlier article was written. One author at that time confessed even to difficulty with the definition of " violence ", while in the streets the safety and patience of the public were steadily diminishing. A more analytic approach was apparently long overdue. Brooks (1978), for example, rightly noted the problem of vagueness concerning the definition of dangerousness or of dangerous persons in legislation and court decisions, but he began to offer sensible remedies:

" The magnitude of harm dimension, whether to person or to property, whether to physical being or to the psyche, should be more carefully elaborated and examined. The degree of probability of the harm should be carefully appraised. The frequency with which the harm is likely to occur is critical; and, finally, the courts should more closely examine the imminence question. . . .It is also important . . . that the judge make findings of fact to support his ruling that the respondent is dangerous " (Brooks, 1978, p. 54).

In its recommendations, the Floud and Young report expresses its conception of " grave harm " using broad rather than specific examples, such as, to name a few, serious bodily injury, serious sexual assaults, severe or prolonged pain or mental stress, loss of or damage to property which causes severe personal hardship, and damage to the environment which has a severely adverse effect on public health or safety. This indicates that the committee had confidence that its ideas could be communicated adequately to the courts (pp. 116–118, 154), a confidence that I share. Its reasons for avoiding a list of specific offences seem cogent: a short list would be too restrictive and might exclude possibilities for grave harm, but a longer one would compel judges to consider preventive sentencing in connection with every trivial offence listed, an equally undesirable result. In agreement with Brooks, the committee recommends that the court's decision to impose a protective sentence should state the reasons for doing so, including, so far as possible, " particularised statements of the risk " (pp. 37, 131, 156), thereby making an appeal against the sentence " easier to argue " (and perhaps making the sentence, judging from complaints of vagueness in the United States, easier to defend).

Although some of the examples of grave harm may seem more troublesome than others, particularly the one concerning environmental damage where many important instances lack precedent, the stipulation that the offender must have " committed an act of a similar kind on a separate occasion from the instant offence " (p. 155) helps to exclude hapless cases. However, since the repetition need not involve a prior conviction, I would favour the addition of the word " knowingly ", so as to cover the possibility that an executive or small businessman who violated environmental laws on successive occasions had the opportunity to know what he was doing prior to the instant offence. Perhaps such a distinction is recognised already in English law. What constitutes an " occasion " could also bear further clarification. If one has violated on Monday and Tuesday, and is caught on Tuesday, have we one occasion or two of environmental damage?

The problem of " false positives " and of how accurate a prediction of dangerousness had to be to justify preventive confinement also confused the discussion in the United States in 1977. My own concern with these issues, which the report deals with in a manner that I find wholly satisfactory, arose out of my service as a board member of Maryland's Patuxent Institution, which at that time was a treatment centre and place of indeterminate confinement (potentially for life) for " defective delinquents " committed by the courts upon accepting the recommendation of Patuxent's diagnostic staff after initial referral by the court. These matters are treated in the next

section, where it will be seen that they have had both political and scientific aspects not always easy to separate.

The Prediction of Dangerousness Issue in the Evaluation of Patuxent Institution

Political considerations

A focus of controversy since its opening in 1955, for its size Patuxent Institution under the Defective Delinquent Law may well have been " the most sued institution in America " (Jonas D. Rappeport, M.D., quoted in Holden, 1978, p. 665). In the early 1970s, it faced a coalition of civil libertarians and fiscal conservatives (who objected to its above-average cost per inmate and who preferred to " warehouse " criminals), as well as a series of sensational attacks beginning in mid-1974 from a local newspaper that was losing a circulation battle with its competitors (Knable, 1982). An editor who took over that newspaper in 1978, since departed, has commented that when he arrived he found the *News American* " a dishonest, inept paper " (Jon Katz, quoted in Knable, 1982, p. D9). This essentially confirms the view of the committee, on which I served, that conducted an investigation into the newspaper's charges, as well as of Floud and Young (p. 10) who state: " the role of the news media is more complicated and their influence on public opinion is more uneven than is generally allowed when they are accused of encouraging excessive public alarm at rising rates of ' traditional ' crime instead of directing attention to the new and greater hazards of modern social life."

The *News American* had given virtually unlimited space to any and all critics, however irresponsible, of Patuxent and of the policy of treatment under indeterminate sentencing. Many critics were simply anonymous, and remained so despite efforts to hear their confidential testimony during the investigation. Much of this criticism was picked up with minor factual errors still preserved and repeated in a news publication of the American Psychological Association (Trotter, 1975). At that period, the overly enthusiastic de-institutionalisation movement that reduced the population of psychiatric hospitals from 650,000 to 150,000 was also cresting in America (Altman, 1979, p. B4; Slovenka and Luby, 1974; Koenig, 1978; Peterson, 1978; *Evening Sun*, 1982). Hence, negative publicity concerning a psychiatric facility such as Patuxent, where inmates were held involuntarily, found many receptive ears. Although conceived as purely benevolent, the de-institutionalisation movement also offered implicit fiscal savings to the states while guaranteeing for patients their right to enjoy " least restrictive treatment " and to be protected against " misguided benevolence ". This combination of appeals proves to be a potent one. Eventually, reactions from professional critics in amplified form found their way back to the Maryland Legislature, where demands for Patuxent's closing then became a *cause célèbre*.

Caught between vocal critics of Patuxent and its defenders (the Governing and Advisory Boards, which contained academics from respected local institutions), the Governor of Maryland decided to commission an evaluation from a neutral outside source, the Contract Research Corporation (CRC)

of Massachusetts (a state where the de-institutionalisation movement had been extremely influential). Some scepticism as to its neutrality is definitely warranted at this point, for a minor member of the evaluation team had been questioned by a friend of the author as to what she thought the outcome would be and, although their study was just getting under way, her reply was: " We're going to close it down." This statement is surely as deserving of thoughtful attention as complaints critics have accepted from inmates concerning, say, the merits of the indeterminate sentence under which they were being held (see Gordon, 1977, note 11 for examples; and CRC, 1977, pp. 35, 43, 102–105; Hoffman, 1977, p. 199).

The CRC report was critical of Patuxent on a variety of grounds, one of the most central being the problem of diagnosing and predicting dangerousness. Its technically argued recommendations and its authority as a third party tipped the balance against Patuxent, and legislation was passed doing away with the Defective Delinquent Law and converting Patuxent into a centre for correctional system inmates volunteering for treatment and found " eligible persons " by diagnostic staff. To mollify those who might protest against the loss of the protective sentence, a mandatory 25-year sentence without parole except through Patuxent was provided for offenders convicted of a third violent crime. To my knowledge, perhaps one person has since been tried under this law, a desuetude typical for such legislation. Patuxent did retain its parole powers, and so in principle it can still release offenders earlier than the regular Division of Parole, which requires offenders to serve at least one-third of their sentences (lately, under the pressure of over-crowding, one-fourth). Now Patuxent's power to parole is itself under question as the legislature fears some " lifers " may be released earlier than is customary. Relatives of victims killed by inmates at Patuxent have also displayed an active interest in this question.

I have given this overview of the situation because the impression is widespread that the merits of indeterminate and preventive sentencing, perhaps in combination with treatment, have received some definitive test with the repeal of Maryland's Defective Delinquent Law. What was tested, actually, was a much more inclusive set of views that could more accurately be termed the " politics " of the issues. Had Patuxent managed to continue unchanged for only about four more years, it would have entered a period in which the public mood was far more receptive to the idea of protective sentencing. Only last year, for example, a new Governor of Maryland found it necessary to accept resignations from the two highest officials in the state prison system — his own hand-picked appointees — because they had become identified with controversial policies favouring community correctional facilities and early release, both of which were seen as providing insufficient protection to the public, and there is some concern even now that he remains vulnerable on the crime issue. Under the replacement officials, repeated offenders were transferred to more secure facilities and escapes fell by 40 per cent. (Gilbert, 1982). The *News American*, along with other local papers, now provides its readers with in-depth analyses of the ever-worsening crime problem.

Meanwhile, the staff at Patuxent are free to accept only serious offenders who appear relatively amenable to treatment, to release malcontents to return to the regular correctional system if they wish to do so, and to transfer trouble-makers back at the institution's pleasure. No one disputes its treatment methods, which remain essentially unchanged; when the Defective Delinquent Law was voided on July 1, 1977, only 27 per cent. of Patuxent's inmates whose sentences had not expired decided to " opt out " to the regular correctional system (some of them probably wanted to try a different paroling authority); and there is now a waiting-list for admission that varies in size, but which stood at 186 in January 1979 (*e.g. Evening Sun*, 1978). Some individuals declared ineligible are even suing to gain admission. Many of the complaints against Patuxent, apparently, held the interest of critics and inmates only as ways of undermining protective confinement.

Scientific considerations

I was invited to consider those aspects of the CRC report dealing with the matter of dangerousness for a special journal issue devoted to the evaluation of Patuxent (Gordon, 1977). Other contributors were to consider its historical development (Lejins, 1977) and criticisms of the treatment programme. Unfortunately, the last of these responses to the report was never prepared because its author suffered a serious illness.

The CRC (1977) report, which was presented in condensed form by various of its authors in the same journal issue, simply summarised the literature on predicting dangerousness as it stood at that time, and concluded that " it is still impossible to predict with any accuracy which inmates still constitute a danger to society ", consequently " many inmates who are no longer dangerous are retained at Patuxent " (CRC, 1977, pp. 64–65). Much of that literature, I found, was based on mentally ill patients, on long-stale diagnoses, on ageing and mixed-sex groups of patients, and on over-interpreting the implications of certain administrative decisions concerning the holding of criminally insane patients in secure hospitals, decisions that reflected the continued illness of the patients perhaps more than they implied their continued dangerousness. High false positive rates from patient and offender populations characterised by relatively low base rates of dangerous behaviour were cited routinely in the argument concerning Patuxent, although the CRC report itself had provided a much lower false positive rate for the Patuxent population, whose base rate was higher than that in most other places. Testifying before the Maryland Legislature prior to the evaluation, one authority critical of Patuxent had cited a false positive to true positive ratio of 9 : 1, based on a California Youth Authority population of offenders with a low base rate. This authority's ratio later proved to be too high for Patuxent by a factor of 6·3 (Gordon, 1977, pp. 216–222).

During my own review of the literature I was struck by the fact thats without reference to particular populations with particular base rates, conclusions about false positive rates and the predictability of dangerousnes, could not be generalised. I also singled out two other studies, by Koppin

(1976) and Kozol *et al.* (1972), that had identified high-risk offender populations more like Patuxent's in their dangerousness. Including Patuxent's, the three produced true positive rates of dangerousness ranging from 38·7 to 48·3 per cent. among those predicted positive (dangerous). Such statistics are known technically as the " predictive value " of a diagnosis (Galen and Gambino, 1975). At that time these predictive values were the highest in the literature and had the lowest implied false positive rates (*i.e.* their differences from 100 per cent.).

Since then, Rofman *et al.* (1980) have reported a predictive value of 41 per cent. for assaults occurring shortly after emergency commitment by various physicians to a typical Veterans' Administration psychiatric hospital because of risk of physical harm to others; this rate was observed despite the fact that the patients were receiving appropriate medication in an understanding environment. By implication, the rate would have been higher had they not been committed. All ultimately violent patients produced at least one violent incident within 10 days of commitment. The results indicate that, under certain conditions at least, psychiatrists predict dangerousness rather successfully.

Some students of the predictability problem had responded unfavourably to Kozol *et al.*'s rate of dangerousness by noting that false positives still outweighed true positives by about two to one (Monahan and Cummings, 1975; Monahan, 1973). One of Patuxent's persistent critics had reacted to a similar predictive value attained there earlier by pointing out that the diagnostic staff were still in error most of the time (Sidley, 1974). Such dissatisfaction with even the higher predictive values ever achieved, which were still considered proof of the inability to predict dangerousness, led me to ponder the assumptions on which it was implicitly founded. In the following paragraphs, I briefly describe the results of that exercise, and comment where appropriate on the treatment of the same issue in the recent works concerning dangerousness by Floud and Young (1981) and by Monahan (1981).

Safety: the forgotten end of the dimension of interest. With false positive to true positive ratios of, say, nine to one, by far the best bet in the absence of pay-off odds would be to go with the dominant base rate and predict " safety ". But when higher predictive values such as Patuxent's 41·3 per cent. began to appear, the imbalance in the base rates of dangerous and safe outcomes shifted markedly.[1] As dangerous outcomes approach 50 per cent. it becomes less and less accurate to state that one cannot predict dangerousness without adding that one cannot predict safety very well either. During the time when it stood alone in the literature, Kozol *et al.*'s predictive value may have been easy to disregard for policy purposes. However, the evaluation team actually had all three higher rates before it, including Koppin's unpublished one. Carrying over the rhetoric of the immediate past into a policy debate in

[1] This rate is a lower bound, because it applies to individuals diagnosed as defective delinquent, but not certified by the court, who then served their sentences in the regular correctional system. According to their histories, they are slightly less dangerous than certified defective delinquents (see Gordon, 1977). See the rates given later in this article.

which safety could not be predicted very well according to the critic's own standards, without actually stating so, was an unfortunate omission, although excusable perhaps because it occurred precisely at a transition point in the study of the phenomenon in question. One can imagine the ears of policy-makers pricking up at mention of not being able to predict safety very well for a given individual. Most of us are predictably quite safe.

It is gratifying to see that both the dangerous and the safe poles of the continuum receive explicit mention by Floud and Young (*e.g.* p. 21). Monahan (1981, p. 26) now also mentions the two poles, but in a somewhat tangential manner. Acknowledging that one's prediction of safety is almost as poor as one's prediction of dangerousness in a given population does weaken the criticism against predicting dangerousness.

The effect of homogeneity on prediction. Shah (1978, p. 155) lists 15 decision points, not necessarily consecutive, in criminal justice and mental health systems at which consideration of an individual's dangerousness is raised. One could add to his list self-selective " decision points " at which an individual repeats offences. Quite clearly, a group of individuals who have been selected as dangerous at one or more of these points is apt to be more homogeneous for purposes of the next prediction than a group consisting of the same individuals plus an equally large group of ordinary citizens included for contrast with them at the next decision point.

The committing psychiatrists in the study by Rofman *et al.* passed along a group, certainly one selected from among a larger number of patients whom they had seen, which turned out to have a predictive value or dangerousness rate of 41 per cent. Rofman *et al.* contrasted this with a dangerousness rate of only 8 per cent. for control patients admitted voluntarily or for other than harm-threatening reasons to the same locked wards. Imagine now being asked to predict among just the first group who would be assaultive (*i.e.* contained in the 41 per cent.), and who would not. What basis would one have for expecting to do much better than the psychiatrists had already done?

Cocozza and Steadman (1976) concluded from a situation much like this that they had " clear and convincing evidence " of " the failure of psychiatric predictions of dangerousness ", because psychiatrists could not distinguish within a group of mostly non-white, indicted felony defendants found incompetent to stand trial those who would be, for example, assaultive during their initial hospitalisation. The base rate for the entire group was 40 per cent. Forced to provide a prediction mandated by law for these referrals, the psychiatrists succeeded in raising the predictive value only to 42 per cent., which was not much higher than the 36 per cent. assault rate in the group they called non-dangerous. All of the individuals, probably, were far more dangerous than the average citizen (or they would not have been where they were). If both physicists and laymen are asked to judge which of two nearly exactly equal weights is heavier, and both groups perform equally poorly (*i.e.* close to chance), one does not infer that physicists cannot judge weight.

Similarly, referrals from courts to Patuxent for diagnosis, if made intelligently, would already be highly homogeneous, and this would cause diagnostic decisions to appear more arbitrary than if ordinary citizens had also been

included. The fact that the evaluation team could find no significant difference between the diagnostic files of those the Patuxent staff found defective delinquent and those not is probably largely a reflexion of this homogeneity in combination with the low statistical power of sampling only 11 of each (CRC, 1977, p. 76). Differences in age and criminal history between these categories had been well established (Gordon, 1977, n. 65).

It is possible to show that the modest correlations between predictions and outcomes in populations with high base rates can be improved substantially (*e.g.*, from 0·44 to 0·57) by adding equally large samples of ordinary citizens —who have extremely high true negative predictive values—before calculating the correlation (Gordon, 1977, p. 225). Thus, whether prediction is assessed by predictive value as by Rofman *et al.* or by correlation, it is evident that selection of any sort prior to the prediction makes the prediction seem poorer than it actually is with reference to groups that have widely different base rates.

Such a wide-range reference is the one natural to the public, which normally experiences an extremely low degree of exposure to dangerous individuals, and which is very sensitive to local changes that are as small as several multiples (*i.e.* doubling or tripling) of the ambient risk level (Gordon, 1977, p. 227). Note that multiples much higher than that, perhaps even one hundred or more times higher, are achieved by predictive values as high as those discussed here. How many among us witness an assault rate as high as 41 per cent. or a violent arrest rate as high as 41·3 per cent. within their own circle? Those charged with protecting the public or, for that matter, everybody *must* address themselves to such multiples if they are to perform their function.

Because populations are usually arranged one above the other in tables classifying predictions against outcomes, I have referred to these multiples as " vertical comparisons ". With respect to the same tables, the comparisons of exclusive concern to the critics of dangerousness in 1977 were " horizontal ", because they typically involved only true and false positive rates for a single population.

The study by Cocozza and Steadman (1976) presenting what they considered " clear and convincing evidence " was one which did include a vertical comparison between two diagnostic categories defined prior to outcome. Here, psychiatrists were able to raise the multiple in the vertical comparison only to 1·2 (42 per cent. divided by 36 per cent.), which is the key fact for the conclusion that was drawn (and also the average multiple over the study's various outcome criteria). These data yield a phi correlation of only 0·06. In view of their similarity, I would ascribe the difference in apparent success of diagnosing dangerousness between this and the Rofman *et al.* (1980) study, where the phi correlation equals 0·37, to the fact that Cocozza and Steadman's psychiatrists were compelled to accept as input a group with a dangerousness rate almost exactly that of the group Rofman *et al.*'s psychiatrists had produced as output. That output had a multiple of 5·1 with reference to the control patients admitted to the same locked units, and probably an astronomical multiple with reference to the general public.

Rightly sceptical of the conclusions Cocozza and Steadman (1976) drew from their study concerning psychiatrists' ability to diagnose dangerousness, the report by Floud and Young takes the position that the difficulty lay in "slovenly diagnosis" (pp. 30, 199, 202). My opinion (Gordon, 1977, pp. 224–225) was that the psychiatrists were up against the homogeneity of the material they had been forced to diagnose, and after considering the recent Rofman *et al.* study I favour that explanation more than ever. The fact that the psychiatrists' classifications correlated most highly with the violence of the instant offence, but they stressed delusional thinking in their written reports, does not necessarily mean that their procedures were poorer than usual, as has been surmised. Whenever material becomes more homogeneous than usual in the respect of interest, correlations are lowered (*e.g.* among ratings by reviewers of research proposals to the National Science Foundation; see Humphreys, 1982). Why should dangerousness be an exception?

If input is held relatively constant, and correlations are thus lowered, outcomes become indeterminate. A seeming paradox arises from the fact that, as predictive values approach the mid-range probability of 0·50, outcomes actually become more heterogeneous, since the variance of a dichotomous variable is maximal at a probability of 0·50. How can it be argued that inputs are becoming more homogeneous while dichotomous outcomes are becoming more heterogeneous according to the predictive values I have cited? The seeming paradox depends on the implicit assumption that heterogeneity of a dichotomous outcome can be employed as a valid test of the heterogeneity of input. The test works only if the input is restricted to a true dichotomy in which individual cases are permitted to have only one or the other of two probabilities of a given outcome: zero or one. Permit any other two probabilities for individuals, and the outcome probability of 0·50 or any other can be generated by a variety of dichotomous proportions in the input, some less heterogeneous (further from the proportion 0·50) than others. Permit other than a dichotomous input, and more probabilities than zero or one are required.

Once it is granted that the disposition towards dangerous behaviour is surely not an all-or-nothing phenomenon, limited to the probabilities zero or one, it becomes appropriate to think in terms of a continuum, and the seeming paradox vanishes; there is no incongruity in the fact that a homogeneous continuous variable is associated with dichotomous outcomes at any level of probability. There is ample indication that the populations like Patuxent's would be relatively homogeneous on such a continuum: witness their pre-selection by various mechanisms; their rarity in the general population, such that they must constitute the uppermost percentiles of the distribution with respect to dangerousness; and their high scores on Steadman and Cocozza's (1974) Legal Dangerousness Scale (LDS), which represents a weighted summary of past criminal behaviour reflecting juvenile record, prior incarcerations, prior violent crime, and severity of the instant offence.[2] With prediction of outcomes reduced essentially to chance as a result of this

[2] These categories are accorded 8, 4, 2 and 1 point, respectively.

homogeneity, one properly regards individual members as indistinguishable from each other, *i.e.* as equally dangerous or equally safe. The crucial question becomes; How dangerous or safe are they on the average?

How dangerous on the average? The question can be answered with an eye to both the past and the future. With respect to the past one looks for criteria that are not only descriptive but preferably hold predictive implications as well. With respect to the future, one looks at predictive value for a specific outcome if that value has been determined.

Although the evaluation team included Steadman and was thus certainly familiar with the LDS—then perhaps the one successful device in its area—they never applied the scale to the Patuxent population. I did, as best I could, and found on the basis of aggregate profile statistics that the modal inmate scored 14 out of a possible 15 (Gordon, 1977, n. 36). Patuxent is now experimenting with the scale, and for this commentary I requested individual scores for the last 50 defective delinquents who had been committed before the law was changed, and whose records had been placed into the computer. Dr. Sigmund H. Manne, Director of Research at Patuxent, kindly supplied this information, which is the first of its sort available.

One expects differences between aggregate and individual level data, so I first checked the LDS score for the 50 considered as an aggregate. As before, it was 14. In this respect, the recent 50 defective delinquents were identical to those in Patuxent's past. The individual scores themselves had a strikingly prominent mode at score 15 (14 cases), a median of 9·8, a mean of 9·62, and a standard deviation of 4·77. The range was from zero to 15. In view of the mode's being at 15, a verbal description of the typical Patuxent profile given years ago before the LDS was created (Boslow and Manne, 1966), which I had scored at 15 (Gordon, 1977), proves quite accurate.

The import of the LDS statistics concerning dangerousness can be derived from available comparisons. The Patuxent mean falls at the 64th percentile of Koppin's (1976) 111 male offenders found not guilty by reason of insanity, who had a mean of 6·82 and a standard deviation (SD) of 5·74. Her high-risk group, 48·3 per cent. of whom were dangerous after release, had a mean of 11·36 and an SD of 3·60. The LDS mean for the few *Baxstrom* study patients who had to be returned to secure hospitals after transfer to civil hospitals was 9·2; the remainder had an LDS mean of 6·0 (Steadman and Cocozza, 1974). A score of five or more is generally found to differentiate the more from the less dangerous individuals in existing studies (Steadman and Cocozza, 1974; Koppin, 1976). Retrospective scoring reveals that individuals currently admitted to Patuxent for treatment as " eligible persons " have a mean of 6·63 (N=48), while those rejected have a mean of 9·66 (N=68), according to Dr. Manne.

The large mean differences between intake to Patuxent in the past and present, and between eligibles and ineligibles presently, illustrate the effect of routine administrative action on the composition of offender populations. Of interest is the fact that, although the LDS difference between eligibles and ineligibles is statistically significant ($p<0·01$), there has been no discernible

difference between these categories in their proportions having a violent instant offence consisting of murder, rape, assault, or robbery (95 per cent. and 93 per cent., respectively; *Annual Report . . .*, 1981, pp. 31, 35). Plainly, the scale makes discriminations within an already highly violent segment of population. Also of interest is the fact that only 71 per cent. of the committed defective delinquents during 1970–72 had instant offences of this violent sort although, as we have seen, defective delinquents had a higher LDS mean than current eligibles; the reversal is not surprising, perhaps, in view of the former's average of 4·9 prior convictions and more than 2·6 prior incarcerations (Gordon, 1977, p. 248).

In view of their high LDS mean, which is comparable to that of other highly dangerous and rare populations in the literature, of their extensive prior records and extremely high rate of violent instant offences (somewhat lower than the current rate for eligible persons, however, probably because of the attraction now of Patuxent to " lifers "), and of their high predictive value of 41·3 per cent. for future arrests for violent offences, it is fair to regard the Patuxent defective delinquents as being among the most dangerous populations ever concentrated. Their special nature is also indicated by my estimation on the basis of their prevalence that they represented a population consisting approximately of the most dangerous person in each 1,000 white males of a given age (Gordon, 1977, p. 223). (Blacks would require a different calculation.) Judging from a recent study by Greenfeld (1981), which showed that about 1·7 per cent. of white males experience prison confinement between the ages of 18 and 64, the Patuxent defective delinquent would represent *roughly* the most dangerous one-seventeenth of the adult white population sent to prison. Although these figures will surely be of some guidance to English penologists in interpreting the Maryland experience, there may yet be much uncertainty in translation if one is not familiar with both countries.

Those who plan preventive sentences elsewhere may find it instructive that preventive incapacitation for these few in Maryland could have generated such strong political opposition even during a brief period of special susceptibility. If the response in the United States was not too atypical, those making provision should design with an eye to avoiding unnecessary liabilities. Later, I compare the provisions of the erstwhile Defective Delinquent Law with those in the English proposals from the standpoint of such liabilities.

The zero-one fallacy and its implications illustrated with dice. As false positive rates approach true positive rates, the prediction of safety becomes almost as problematic as the prediction of dangerousness. Moreover, refining the prediction further may prove difficult because the more successful predictive values in 1977 were attained within a narrow and extreme segment of the dangerousness continuum, where they still remained in the mid-range of probabilities, *circa* 0·4 to 0·5. However, this realisation argues that for all practical purposes individuals in such an extreme and narrow category are relatively indistinguishable from each other, and hence the important consideration should be their average level of dangerousness overall. As

dangerousness goes, the Patuxent inmates and similar groups have proved very dangerous indeed on the average.

But what of justice to the false positives who, in these examples, outnumber the true positives? Some of this concern emerged in connection with studies of the criminally insane, who are not legally accountable for their actions. However, this added quantum of concern need not apply in the case of criminals who are sane, and who therefore can be held accountable for having made themselves indistinguishable from members of a category who are highly dangerous on the average. Furthermore, sane or not, if it is justifiable to regard dangerousness as a continuum, a question of degree as Kozol *et al.* had argued, why not consider that to be a probability continuum? After all, in common parlance, " dangerous " invokes probabilistic conceptions such as " likely to inflict injury ". With dangerousness construed in terms of probability, individuals belonging to the same category would all be dangerous to the same degree, regardless of the exact outcome in each case.

Prediction of outcomes can be construed as prediction of probabilities, but the critics had unilaterally applied a model in which the dependent variable was an individual outcome rather than a probability or, if one prefers, in which the two probabilities zero and one were being assigned, but no others Correlations based on individual outcomes are apt to be much lower than correlations based on probabilities across relatively homogeneous categories of persons. Which model is more appropriate, quite aside from its advantages to one side or the other? I was struck by the fact that, although the critics could not distinguish between the two alternative models on the basis of their data, they had never explicitly considered the choice despite the widespread acceptance of stochastic models throughout the social and physical sciences.

I have already hinted at the model that assumes each individual's probability of an outcome must be either zero or one, in connection with the earlier discussion of a seeming paradox. Now it is necessary to indicate that such a model constituted the central assumption, sometimes tacit, sometimes explicit, of the dangerousness critics, including those who applied the argument against Patuxent. Patuxent critic Sidley (1974, p. 86), for example, insisted that the diagnosis of defective delinquent " must be homogeneous with respect to outcome " in order to comply validly with the law. This demand has evidently persisted among certain types of clinicians for a long time, for Monahan's (1981, pp. 98–99) book contains an interesting quotation from Meehl (1954, p. 20) quoting Allport to the effect that ascribing a probability of delinquency to a member of an actuarial category is a " fatal nonsequitur ", for the truth is the individual has either an 100 per cent. or a zero per cent. certainty of becoming delinquent. Without realising it, Allport was apparently substituting *ex post facto* probability for *a priori* probability.

As I indicated earlier (1977, p. 234), the zero-one notion also harks back to a medical model despite the rejection of that model by some sociological critics. In medical diagnosis, the individual either has the disease or not,

although the physician may not be able to determine with certainty at any given time which statement would be correct. However, guessing whether an individual *is* a delinquent or *is* a leper is different from predicting ahead of time who will become one. The zero-one model would be structurally correct in the former case, but not necessarily in the latter unless the individual's class possesses one of those two probabilities. In the former case, the outcome has already been fully determined, although perhaps not detected. In the latter, the outcome has been fully determined only if the class possesses a probability of zero or one; otherwise there is as yet neither an outcome nor a full determination to detect. Allport's statement should be read as an article of faith from a great psychologist that structures of personality fully determining a future outcome already existed and perhaps could be discovered, but his confidence was surely excessive, if only because there would also be situations to consider.

For convenience, imagine we are dealing with a known predictive value or probability of 0·50 whether a die drawn blindly from a box and tossed without further inspection would display a six. In the zero-one case, the box would contain two kinds of dice, half having sixes on all sides, the other half having ones (the false positive outcome). The two kinds of dice really are different from each other according to this model, and once a die has been drawn the outcome is fully determined prior to the toss, although not yet known. Under the contrasting model, each die would contain three ones and three sixes and there would be dice of just one kind. In this case, the parameter 0·50 emerges from a structural property of the dice and the model is stochastic at the level of the individual rather than merely at the level of the box (category).

The dangerousness critics could not determine which of these two models they were confronting, yet they had proceeded as though they knew it was the zero-one case, in which false negatives and false positives really were different from the start and not just after the toss. Much of their rhetorical force concerning " innocent " false positives depended upon that assumption. In the case of Patuxent, the model and its rhetoric were extraordinarily inappropriate, for it assigned a probability of being dangerous of zero — think of it, zero!—to false positive individuals who had averaged 4·9 prior convictions. Hardly anyone has a probability of zero for being dangerous, let alone a Patuxent inmate who had proved himself a false *negative* repeatedly upon prior release. Since false negatives are equivalent to true positives, it seemed misleading suddenly to characterise such a person as " innocent " in the same sense as normal individuals or as profoundly different from true positives, whatever the next outcome.

Simultaneously, in England, Scott (1977, p. 128) argued that it would be better to substitute a probability figure when predicting dangerousness, that dangerous behaviour " lies at the extreme of the aggression parameter " where predictive tests, as always, tend to become unreliable, and that " a common mistake is to confuse recidivism with dangerousness ".

Probability is now becoming more prominent in definitions of dangerous-

ness (*e.g.*, Rofman *et al.*, 1980; see also Shapiro, 1977).[3] In the view of the report, " Predictive judgments . . . are statements of probability " (Floud and Young, 1981, p. 180). Nevertheless, the word " probability " does not appear in the proposals, which explicitly make a vertical comparison to other offenders in which the person for whom preventive sentencing is being considered must be thought " more likely " to do grave harm than those whose instant offence is of a similar nature (p. 155). Leaving it at " more likely " is more reasonable than may appear because law-makers (who are " literary " intellectuals typically) are notoriously uncomfortable when dealing in probabilistic terms (see Gordon, 1977, n. 94; Monahan, 1981, pp. 118, 147–148). In discussing this issue, however, Monahan (1981, p. 78) protests that my viewpoint " makes the accuracy of prediction impossible to test " and that the " mental health professional cannot lose ". However, accuracy is not ascertainable from one case ordinarily, for even if the prediction proves correct it could be a result of coincidence. The accuracy of probabilistic statements can of course be tested (Shapiro, 1977), if outcomes are permitted to occur and cases are accumulated in various categories ranging across the probability continuum. In any case, by his own admission Monahan himself has come a long way from his earlier positions and now agrees that there are circumstances in which predictions of dangerousness are " both empirically possible and ethically appropriate " (1981, p. 19).

The Floud and Young report rejects the analysis of injustice to false positives implicitly based on the zero-one assumptions, as well as the uncritical application of the term " innocent " to false positives who, by committing a second offence and in other relevant respects, have made themselves indistinguishable from categories more likely than others to do grave harm, and who thereby have left open to questioning their normal " right to be presumed harmless " (chap. 3). Recognising the effect of homogeneity on prediction (p. 31), their report dispatches the simplistic equating of innocence with false positiveness of outcome by rejecting the idea that " the mistakes that are inherent in predictive judgments relate to determinable, misjudged individuals " (pp. 26, 48). Protections for individuals reside in past adjudication of guilt, and due process in applying the judgment of future risk necessitating confinement. In view of these requirements, their conception of preventive confinement is an entirely reactive rather than proactive one, and thus not vulnerable to accusations of actuarial witch-hunting.

I had charged the critics of dangerousness with covertly imposing their private analysis of social cost weightings by making comparisons only in the horizontal direction and ignoring vertical comparisons, and Koppin (1976) had also recognised the importance of this issue in relation to the two kinds of error. Monahan (1981, p. 76) now provides an explicit discussion of the importance of taking both kinds of social costs into account, those resulting

[3] Ethan S. Rofman, M.D., Associate Professor of Psychiatry at Boston University, informs me that he has constructed dice from two-inch wooden cubes that he uses in lectures to illustrate my zero-one and probabilistic models. According to Rofman, mental health audiences seem to understand the issue better with this demonstration than when the discussion is couched only in terms of dangerous individuals. Rofman also uses a third set of dice, of more heterogeneous composition, to illustrate dangerousness in the population at large.

from false negatives as well as those from false positives; in so doing, he correctly qualifies the earlier tendency to equate relying on the base rate with " the best strategy " when predictive values are modest by noting that such a strategy is " best " only in the trivial sense of reducing the total error rate. However, in an interesting innovation, the Floud and Young report rejects the social cost form of analysis based on balancing " individual and social interests " and substitutes in its place the concept of making " a just redistribution of risk ", which follows in part from the recognition that certain repeated offenders ought to assume a greater share of the risks their presence and history entail (1981, p. 49). Perhaps the report's conception goes more directly to the heart of the matter, but I feel that we all end up in the same place. It could be argued that its " just redistribution " implicitly reflects a social cost analysis (see, for example, its p. 161), but I find nothing worth arguing about, wishing only that its authors had developed their interesting idea further so that its potential advantages as they saw them were more fully laid out. The handling of this issue may be coupled with an unstated assumption that it would be the court that performed the social cost analysis in accordance with the guidelines concerning " grave harm ", but then this fails to account for the report's explicit rejection of the social cost approach.

A ceiling effect on predictions of dangerousness, at least for practical purposes? A striking feature of the higher predictive values available in 1977 was that they fell only in the lower mid-range of probability despite being linked to offender categories experienced by society as the most dangerous of all. Over and above the formal issue of false positive rates, there seemed to be a tendency to extract from these modest probabilities the conclusion that the dangerousness of the categories to which they applied was equally modest. Certainly, in the absence of additional information it was difficult to tell from the abstract probabilities alone where the categories fell in a normative distribution of dangerousness.

I felt obliged to point out that sometimes certain phenomena of interest occurred only within a very narrow segment of the probability range, and that the most intense manifestations of those phenomena known might often be associated with probabilities that were unimpressive in magnitude, perhaps even extremely low. Although it might seem that the concept of extreme dangerousness ought to be reserved for probabilities, say, above 0·90, that could be like reserving the concept of dangerous batsman for batting averages above 0·900, when everyone knows that a baseball player with a batting average much above 0·300 is extremely dangerous and that season batting averages seldom exceed 0·400 (even for legendary figures like Babe Ruth). These considerations and the fact that no one had then succeeded in achieving predictive values above 0·5 despite much effort led me to suggest that dangerousness might be a phenomenon whose probabilities lay below 0·5 (except for trivial cases). Despite their modest size, the higher predictive values might actually describe the Babe Ruths of dangerousness, and if society was going to protect itself against such dangerous persons it would

have to do so at predictive values between 0·3 and 0·5 or not do it at all (see Gordon, 1977, 235–236).

This would mean that predictions would never be immune to the criticism, heard so often, that they were wrong more often than right at the level of individual outcomes. The predictions might also fail to satisfy a yearning on the part of professionals to be right in the preponderance of outcomes and to feel that by setting 0·5 as the threshold for a finding of " dangerous " they had successfully biased the decision in the direction of leniency in accordance with prevailing values.

Such an attitude had been reflected in the consultative document sent out by the committee to selected advisors early in 1977, where it was noted (Floud and Young, 1981, p. 164); " Any such classification of offenders on the basis of criteria available at present would be wrong in more cases than it would be right.... The inference is clear: an offender should not be treated as dangerous only on account of the rate of repetition of serious offences among a class to which he belongs." True, this was embedded in a sharp distinction drawn between actuarial and individualised assessment, where the latter was preferred, but the attitude could interfere with the rational defence of the latter, as we have seen, for the two forms of assessment, although distinguishable in principle, have much of their logic in common, as the authors were aware (pp. 186–197).

Holding to the hope of improving individual assessments, in the course of a friendly discussion of my position on the level of predictive values it may prove reasonable to expect, an appendix of the report suggests that I may have been in danger of over-stating the case (p. 196). Perhaps offender categories are not as homogeneous as they seem, and further distinctions are possible, conceivably by a combination of actuarial and clinical methods. The same appendix seems to show the attitude towards the 50 per cent. level of accuracy that I mentioned above (p. 184): " Only if attempts to assess dangerousness are restricted to groups [with a probability higher than that] are they statistically justifiable." In view of this attitude, my position would be troubling. Let us see where things now stand.

The report mentions three studies where predictive values for subsequent violence did exceed 50 per cent., usually by a few points, for groups with at least three convictions for violence (p. 184). Greenfeld's (1981) data indicate that, once confined as adult males, both blacks and whites have a probability of subsequent re-confinement by age 64 of over 0·50 per cent. This result, it should be noted, is distinguished by length of the follow-up period, and violence *per se* was not the issue.

Koppin (1976) explored every conceivable predictor of violent recidivism among her group of 111 offenders, but found it impossible to improve on the simple combination of age with an LDS score of 5 or more. However, Koppin (1977) then undertook a study of the LDS itself. Scores of 10 or more raised her previous rate of 48·3 per cent. (for scores of 5 or more) to barely over 50 per cent. At this point she re-scored her sample giving equal weight to each of the four criteria used in the LDS. For those qualifying on none, one, two, three and all four of the scale's criteria, the risks or predictive

values were zero, 6, 35, 41, and 58 per cent., respectively.[4] Note that a score of 4 corresponds to an LDS score of 15, which was the modal score for defective delinquents at Patuxent. All of these successes at going over the 50 per cent. level have relied entirely on features of the individual's past criminal record.

Abolition of Maryland's Defective Delinquent Law on July 1, 1977 led to the immediate release (with the usual prior preparation, since there had been time to anticipate) of all Patuxent inmates whose normal sentences had expired. There were 33 such individuals still confined (most defective delinquents were eventually released) and another 28 on parole. Thus, there was again a natural experiment analogous to the release of criminally insane patients under the *Baxstrom* decision in New York.

By April 1982, 46·4 per cent. of the 28 former parolees had been arrested, and 32·1 per cent. convicted. Of the 33 confined because they had not been considered suitable for parole or release, 60·6 per cent. have been arrested, 39 per cent. for what might be called violent offences, and 45·4 per cent. convicted. These statistics reflect offences committed only in Maryland, except for one sensational homicide in California that came to attention here, and the conviction rates will certainly increase with time because not all of the cases have yet been tried. Crimes charged to offenders from the 33 who had been held at the Institution include shooting two 12-year-old girls in the head, killing one, as they scouted ahead of their families to find a picnic site in a state park (Hall, 1981b; *Evening Sun*, 1981b); assaulting a nine-year-old girl, who was so traumatised she could not testify at re-trial, which led to the offender's sentence being cut to 15 years from 40 (Hanst, 1978, 1980); two rapes by separate individuals, and an assortment of assaults, miscellaneous sex offences, robberies, and destructions of property. Once again, I am indebted to Dr. Manne and the staff at Patuxent for obtaining these data.

Clearly, the 50 per cent. level can be exceeded, up to about another 10 percentage points in certain cases, but not thus far as the result of refined psychological diagnosis. The improvements stem from singling out sub-categories of offenders with extreme past histories. If Koppin's criterion of a score of 15 on the LDS were to be used, for example, it would limit protective confinement to only 28 per cent. of Patuxent's defective delinquents and to 21·6 per cent. of her total sample or 40 per cent. of her high-risk group discussed earlier. Setting such rarefied cutting-points may not provide sufficient protection to the public, because they exclude too many individuals who are still worthy of being considered dangerous. Patuxent's arbitrarily released defective delinquents, for example, have not exceeded the 50 per cent. level except in total arrests of all kinds. We do not, at present, know the LDS scores of those 33 individuals, but it is likely many of them would prove false negatives under a more demanding cut-off than whatever was used to hold them at Patuxent.

[4] Koppin (1977) feels the original LDS weights were assigned to attain high reproducibility in Guttman scaling. Along with others, such as Manne at Patuxent, she suggests the weight of 8 for a serious juvenile record may be arbitrary. Her re-scoring with unit (equal) weights is certainly justifiable according to Wainer (1976). Note that the correlation between score and probability in Koppin's (1977) study is 0·98.

Recalling the boundary effect discussed earlier, it is likely in the absence of sufficient deterrence and adequate protection that offenders such as the two against young girls, at least, would be prime candidates for vigilante action. The English proposals provide for retention of the life sentence for homicide, so this would act to discourage extreme retribution, which is normally the most feasible form of vigilante justice. However, if other sentences were lowered, and if protective sentences were either not provided or insufficiently protective, there might emerge gradually over time a feeling on the part of the public that the law was not only failing to protect them, but was in addition protecting against them the chronic serious offender who committed crimes less severe than homicide. For if members of the public were to take decisive action against a criminal who attacks but fails to kill children and who is released again, they themselves would be eligible for a life sentence. This could prove a very demoralising and politically intolerable state of affairs.

I am not suggesting, for I have no way of knowing, that the protective sentences contemplated in the report would fall short in meeting the public's eventual expectation of adequate protection. I do wish to warn, however, against cut-offs that are placed too high to reduce sufficiently the rate of false negatives just for the sake of attaining a magic number such as a predictive value over 0·5. In its actual recommendations, I was pleased to note, the report never again refers to any particular level of probability, but instead relies on the vertical comparison with other offenders that I described earlier, with its implied multiple of simply greater than one (*i.e.* " more likely "). Apparently, some development occurred concerning this issue in the course of preparing its parts. One game of Russian roulette with a six-cylinder revolver has only a modest predictive value of 17 per cent., but a high multiple for a high cost in comparison to other pastimes.

Since the report anticipates the replacement of most regular sentencing by protective sentencing for a sub-set of offenders, the new arrangements may very well have to operate at predictive values below 0·5 in order to attain all of their objectives. Maryland's Defective Delinquent Law was designed to operate in the context of normal sentencing, and so its cut-off could well prove too high to take as a model in supplanting normal sentencing. While the level of 0·5 certainly has been exceeded, I am not sanguine that the resulting levels of false negatives are tolerable in the absence, at least, of normal sentencing.

Comparing the Proposals with Maryland's Old Defective Delinquent Law, with an Eye to Future Polemical Hazards

There are many similarities and some important differences between the proposed laws and Maryland's Defective Delinquent Statute. At the risk of prejudicing American readers against the English proposals, because feelings still run high against Patuxent,[5] I review them briefly.

[5] At a recent criminology conference, for example, I referred in passing to Patuxent and was informed by the eminent host that he would not believe anything that came from Patuxent, although he had no special knowledge of the Institution. This attitude forms an interesting contrast to that of

Term for the key nosological entity. Because the term " delinquent " is associated in the United States with juvenile offenders, " defective delinquent " turned out to have unfortunate connotations in later controversy concerning individuals committed at an average age of 24·6 (Gordon, 1977, p. 218). The term also failed to convey a concern with dangerousness. The English proposals contain no special term for the type of offender for whom they are designed, but at the present stage, at least the concern with " grave harm " is evident. Not using a term more directly tied to danger does have the advantage of muting potentially undesirable labelling effects (which are often exaggerated), if the offender is ever to be released. Perhaps compromise would be a wise course to pursue if a definite term is ever required.

As a medico-legal hybrid, the term " defective delinquent " was also open to the criticism of vagueness, an issue at least that can be addressed specifically when the criterion is simply dangerousness.

Use of a medical model and provision for treatment. The report by Floud and Young (p. 22) rejects the idea that dangerous persons represent an entity lodged mainly within the corpus of medical theory. Since the proposals retain provision for a psychiatrist to report to the court when a protective sentence is under consideration, nothing is lost and much potential controversy is side-stepped. Use of a medical model almost inevitably raises the question of treatment, and this question proved a major source of difficulty for Patuxent. When treatment is not promised, one need not face the question of whether it has been delivered or whether treatment is even possible within a maximum security prison. Moreover, the prison setting is not an attractive work environment for most psychiatrists, and governmental pay scales are not seen as competitive with private practice (Lejins, 1977). Finally, the combination of medical-psychiatric treatment with preventive sentencing seemed especially to enrage some critics, particularly those from a profession priding itself on having a voluntaristic, helping ethos. Treatment at Patuxent now attracts no controversy at all.

The locus of decision. Contrary to the assertions of some critics, under the Defective Delinquent Law decision-making authority remained with the courts. In this respect, there is little formal difference between that law and the English proposals. Courts referred convicted individuals to Patuxent for diagnosis, and their acceptance of the diagnosis was not automatic (only 85 per cent. of recommendations were certified). The courts also entertained appeals, and de-certified on appeal. Recommendations for release by the Board of Review serving the Institution had also to obtain court approval (this was usually automatic). However, the discreteness of the stages of these processes encouraged the impression that the courts had surrendered some of their authority to Patuxent. Since such discreteness in the early stages is not a feature of the English proposals, but only in the procedures for review and release by a Review Tribunal, much criticism will potentially be avoided.

the citizens who patiently investigated every allegation against Patuxent, no matter how absurd, without pay and at personal cost of time and income, and to that of publications that adopted a credulous stance towards every bizarre criticism prior to 1977.

Determinate versus indeterminate sentences. Although the sentence at Patuxent was truly indeterminate, the average defective delinquent remained there only about seven years before parole (Gordon, 1977, p. 218), and very few individuals, as we have seen, remained beyond their sentences (only 33 in a 500-bed facility in 1977). Patuxent inmates were confined longer than usual, however, because they were not paroled as soon as they might be in the regular correctional system (although a few were paroled sooner).

The English proposals are for determinate preventive sentencing, with the length set by the court in accordance with its judgment of how much protection is warranted by the degree and probability of grave harm anticipated. The report's authors evidently felt that its favouring of determinate sentences required justification (pp. 60–62), but in practice the policy may prove little different from what the actuality was at Patuxent. Since the practice may prove little different, there in fact is considerable benefit to be had as a result of avoiding controversy over indeterminate sentencing, especially as concerns the stress it imposes on inmates. With treatment no longer an issue, there is no reason to entertain the indeterminate sentence as a potential source of motivation for therapy (see Gordon, 1977,p. 11). The question of whether the duration of confinement was sufficiently long to provide the protection envisaged by the law would apply to Patuxent as well as to the arrangements under the English proposals, and could only be addressed with concrete facts.

Concern for due process and safeguards. In this respect, the English proposals and the abolished Defective Delinquent Law are equivalent, and I cite only a few points of comparison for illustration. Relatively little or none of the decisive controversy that brought about the change in Maryland's law had to do with strictly legal matters. Usual mechanisms of appeal would apply in both countries. Although the proposed legislation in England provides for an immediate automatic review by that country's Court of Appeal, such an immediate independent judgment also existed in Maryland in the form of the required recommendation from the Patuxent diagnostic staff—lacking their approval, the court had no authority to commit an offender to the indeterminate sentence. About 50 per cent. of all initial referrals for diagnosis were eventually certified by the court. In both countries, an offender would need to have a record of prior offence before preventive confinement could be considered. There are nearly parallel provisions for a quasi-judicial Board or Tribunal for review and for parole. In the case of Patuxent, first review had to be within 90 days, and annually thereafter. Under the English proposals, the time of first review by such a body is left more open, with a limit of three years. However, it could well be earlier. Thereafter, review is required every two years. In both countries, offenders would be entitled to hearings, legal aid, and in Maryland examination by an independent psychiatrist if requested at the certification stage. In the majority of cases in which such an independent examination was requested at time of commitment, despite the frequent contention by critics that the concept of " defective delinquent " was hopelessly vague, the independent psychiatrist agreed

that the defendant qualified under the statute if he reached any diagnosis at all (CRC, 1977, p. 58). On the basis of strictly procedural safeguards, there is no clear advantage of one set of provisions over the other.

Conclusions

The proposals contained in the report from Floud and Young have obviously been arrived at in the course of a penetrating and elevating review of fundamental issues. I have tried to respond both critically and supportively. I have taken as my vantage-point experience with Maryland's Defective Delinquent Law in the context of recent fluctuations of the public mood in response to crime trends in the United States. For the benefit of readers abroad, I have risked being too caught up in particulars in order to convey a sense of concrete events not easily comprehended in the abstract. However, if there is one good lesson to be learned from the practical consequences of the debate over the dangerousness issue, I think it would have to be that there is such a thing as being too abstract.

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EDITORIAL NOTE

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