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EVALUATION RESEARCH IN CRIMINAL JUSTICE

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CORRIGENDUM

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The Norwegian poem quoted by Christie, and written by a person named Oehlenschläger, should read as follows:

Hva er vel livet ?
Et pust i sivet
Som symker med,
Et spill av krefter
Som higer efter
En evighet.

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Materials and Proceedings of a Research Conference convened in the context of the Fifth United Nations Congress on the Prevention of Crime and Treatment of Offenders.

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INTRODUCTION

This publication contains a series of papers commissioned by UNSDRI, and a summary secretariat account of the proceedings of a research meeting convened in Geneva on 10 and 11 September 1975 in conjunction with the Fifth United Nations Congress on the Prevention of Crime and Treatment of Offenders. What had initially been planned as a scientific workshop turned out to be a widely attended conference chaired in succession by Senator Mario Zagari of Italy, Professor José Arturo Rios of Brazil and Mr. Mustapha Zerrouki of Algeria. The names of the speakers and other participants who registered with the conference secretariat are listed in Appendix A of this volume. Appendix B contains various written statements submitted during or after the meeting by individual participants.

The choice of evaluative research as the central theme of our conference was deliberate. It is in fact quite evident that the criminal justice system — all too often a conglomerate of measures, half-measures, planned and unplanned social responses and reflexes — seriously needs systematic evaluation both at policy and at operational level, and from the viewpoint of its efficacy as well as with regard to its efficiency. This need for objective assessment is particularly felt in the context of an international congress in which national delegations and international officials tend to exchange *ex parte* statements on recent improvements and innovations. The purpose of our research meeting was of course not to dampen the enthusiasm reflected in these

statements, but rather to suggest ways by which policies and operational experience could be objectively assessed as a pre-condition for determining their validity in time and their transposability in space.

In the past decade, empirical methods of evaluation research (including systems analysis, cost-benefit models, etc.) have registered major advances in a variety of areas, ranging from economics to agriculture, public health, education and, to a lesser extent, criminal justice. Yet there remains a series of basic perplexities of a conceptual and methodological nature.

One perplexity, perhaps most typical for the criminal justice area, concerns the definition of goals, i.e. the yardstick or yardsticks by which failure or success of a given measure or programme can be measured. These goals are rarely simple and explicit. More often than not, the evaluator is faced with multiple objectives — at times parallel, at times intersecting or complementary, at times conflicting. Among the implicit or explicit objectives of modern prison systems, for instance, one can list reprobation, vengeance, isolation as a means of protecting society from offenders, deterrence, humane treatment, therapy and rehabilitation. Can success or failure be measured for any or all of them ? Can they, and can the cost of criminal justice interventions (especially also social and political costs) be quantified and integrated in a rigorous equation ? And if so, what can the researcher do about conflicting and contradictory goals (e.g. isolation vs. rehabilitation; deterrence vs. humane treatment in prisons) ?

Neither the papers presented in this volume nor the discussion in Geneva produced any conclusive answers to these questions. There was a clear consensus, however, that evaluative research could not begin and stop with a determination of system efficiency in terms of reduced operational costs, crime rates or recidivism. General social impact and the moral justification of particular policies at systemic and

sub-systemic level had to be part of any evaluation even though the choice among objectives, and the reconciliation or balancing of conflicting goals, would remain essentially a political rather than a scientific function.

Other problems facing the evaluators in the criminal justice area relate to the quality of the data with which they have to work. A few excerpts from the papers reproduced in this volume are revealing:

> " It might be thought... that official statistics of crime rates represent the ultimate in criminological hard data, but the spuriousness of these figures due to unreportability and inconsistent recording procedures is now widely recognized. " (Biles, p. 78 below).
>
> " It is impossible in a statistical study to capture the essence of institutional life in the vivid way that has been done in some participant observer research, and difficult to quantify the complex interplay of situations and personalities... " (Clarke, p. 111 below).
>
> " It is probably less damaging to miscalculate a well understood phenomenon than most elegantly to quantify a heap of nonsense. " (Christie, p. 65 below).

The conclusion — reflected most clearly in the conference proceedings — was that evaluation should rely on relatively simple research methods. While qualitative and quantitative data have to be seen as complementary (in fact, no quantitative analysis is conceivable without a qualitative data base), it may be necessary to begin by accurate observation and description, rough flow measurements and perhaps a historical perspective before resorting to complex methods of quantitative analysis. Nor should evaluative research be seen as a substitute for simple common sense. As was pointed out by one of the conference participants, speaking from the perspective of a Third World country: it takes no scientific inquiries to conclude that something is wrong when an old prison houses a population five times larger than originally planned; in such an instance evaluative research would not only be a luxury, but it might delay action which would be both urgently needed and feasible.

Lastly, it must be stressed that from a practical viewpoint evaluative research is only as good as the impact it has

on the relevant decision-makers at policy or operational level. All too frequently, this impact is lacking in the criminal justice area. Of course " impact " does not always mean concordance between the researcher's conclusions and the policy-maker's decision, and can thus not be determined by simple input-output models. The researcher's functions and those of the policy-maker are different, and should not be confused. But deliberate efforts are nevertheless needed to improve communication channels, and to bridge the gap between scientists on the one hand and decision-makers on the other.

Measured by our expectations the Geneva conference was a success. It did not solve problems, nor did it propose standard or universal models of evaluative research. What it accomplished was to bring together scientists, policy-makers and line operators, identify issues which preoccupy both, define current trends and set the base for future joint work at a more technical level. Could we have held out for more ? Probably not. Evaluation is a mood as much as a technique. If the mood exists — and the discussion clearly indicated that it does — evaluative research efforts can be developed in concrete settings, utilizing methods compatible with available resources, data base and overall social policy considerations.

PEIDER KÖNZ
Director

P.S. After the manuscript of this publication had been put in final form, a set of papers commissioned by the Crime Prevention and Criminal Justice Section in 1974, in preparation for the Fifth United Nations Congress, was brought to our attention. One of these papers, by Ahmed M. Khalifa — Chairman of the National Centre of Social and Criminological Research in Cairo — relates directly to the subject of our Geneva Conference. It was thus agreed with the Section to reproduce it as part of this volume. Our thanks go both to the Section and to our friend Dr. Khalifa for his contribution.

EVALUATIVE RESEARCH WITH HARD DATA

by M.H. BRENNER and D. CARROW

Central Issues

We are concerned here with methodology for the evaluation of criminal justice system (CJS) efforts. The goals of the CJS reflected in current evaluation literature predominantly concern either deterrence of the incidence of new crime or prevention of recidivism. Any attempt to assess CJS efficacy must take into account not only the newer evaluative methodologies, but established findings, theories, and research methods that have been successfully utilized to research illegal behaviour. The law, police, courts, and correctional institutions can be understood as special elements of social control, coming into play when the normal mechanisms of social control are operating less effectively. Other pervasive and more stable institutions of social control include the economy, the family, political processes, value and belief systems, and systems of cultural norms in general. In this conception, we are viewing CJS processes as possible intervening variables which may impinge upon causation of crime, and evaluation of criminal justice efforts becomes a component of criminology in general.

There has been a long tradition of separation of the different research traditions concerned with criminal behaviour. Perhaps the major classification of divisions is threefold: (1) social and behavioural sciences, including criminol-

ogy, (2) jurisprudence, and (3) corrections, or penology. There are also very important distinctions within these three major categories. Especially noteworthy are the distinctive disciplinary traditions of the social and behavioural sciences, including psychology and psychiatry, sociology, anthropology, economics, political science and philosophy. The divisions among these fields have produced vastly different types of theory as to what influences the incidence of criminal behaviour, and great differences in methodology as to the means for establishing causation in the investigation of criminal behaviour.

It is not far from the mark to say that a great many of the critical " methodological " problems in CJS evaluation are directly related to the lack of utilization, and/or control of, all the relevant variables by the sophisticated methodologists, and the frequent lack of methodological quality in standard criminological approaches. The great bulk of the evaluative literature in criminal justice clearly reflects this absence of linkage between methodological sophistication, and substantive grounding in criminology. The investigation of CJS processes, and particularly correctional processes, has taken such limited account of multivariate causation, both conceptually and methodologically, that most of the research results reported over the last twenty years must be discounted as ambiguous. At the other extreme, the recently emerged generation of specialists in evaluative procedures, largely drawn from the disciplines of statistics, operations research and industrial engineering, have greatly contributed to the analytical sophistication of evaluative efforts by their rigorous quantitative approaches, but frequently at the great cost of the relevance of their models, for they often lack adequate theoretical and substantive understanding of those factors that have been well known, in a variety of disciplines, to alter the crime rate. These factors include those stemming from the individual's background (including psychological, socio-economic, and cultural factors) and socio-cultural changes

(involving the economic and political systems, demography, values and norms, among others). Thus even the sophisticated work in this field suffers from the " methodological " problem of insufficient controls for critical factors which ordinarily influence outcome measures.

As a result, when the question is finally raised as to the effect of the criminal law, police, court and correctional administration in reducing new crime or recidivism, answers are either equivocal or negative. Indeed, there appears to be strong journalistic opinion that (at least) correctional and rehabilitative programmes have *proved* ineffective. Ironically, the professional opinion one often hears is that we really do not know the comparative effectiveness of CJS efforts because of methodological difficulties. It is the argument of this paper, that on the contrary, most of the appropriate *methodologies* for such evaluation have been developed some time ago [1, 2, 3] and that it is largely for lack of inclusion of proper controls for the full range of variables that normally affect evaluation outcomes (principally the incidence of crime) that the evaluative literature has suffered from lack of " methodological " acuity.

In summary, due to " methodological " difficulties, we do not as yet know the level of effectiveness of CJS processes. The proper question, however, is not whether such processes are effective, but rather *how* effective, in quantitative terms, both in themselves and as compared with other factors that influence criminal behavior. It is only after having assessed the *independent* effects of a given criminal justice activity that we can begin to ascertain the respective societal costs and benefits of CJS efforts.

"Hard Data" in Concept Measurement and Research Design

This paper is entitled, " Evaluative Research with Hard Data." We shall understand the term " hardness " of data to refer to the solidity or weight of evidence that can be

mustered in support of an argument. In colloquial usage, one frequently hears the term " hard data " used to identify the validity or reliability of the measures used in research. In terms of the applicability of the phrase " hard data " to entire research studies (and evaluation studies in particular), we must consider not only these (1) issues in the measurement of concepts through the use of quantitative or categorical indicators: it is also necessary to consider (2) the *quality of methods* of measurement of relationships. In addition, (3) the quality of explanation of the linkages among variables, for which the relationships have been measured, and (4) the theoretical *interpretation* of those relationships, must be assessed.

Measures of the concepts used in the research, as well as the measurement of statistical relationships, and the explanation and interpretation of those relationships ordinarily allow us to determine the truth value, or believability, of research findings. The measurements of concepts constitute the original sources of the " data "; they refer to operational definitions of variables which will be used to assess the " experimental " procedures, the behavioural outcomes, and those factors theoretically external to the problems which are to be controlled, since they will influence the behavioural outcomes independently of the experimental variables [4, 5, 6].

By comparison, the measurement of relationships involves the statistical (or, on occasion, nonquantitative) gauge of the extent to which variables are associated [7]. The more simple statistical procedures allow determination of the statistical significance of a relationship, or the probability that it has not occurred by chance. More sophisticated statistical procedures, furnishing considerably " harder " data, indicate the importance of a relationship or the extent to which a causal variable accounts for variation in an outcome variable (i.e., analysis of variance techniques). The statistical (or other) methods of control for external variables that

affect outcome include sampling techniques, with an attempt to approximate " independent random sampling " in the classical experimental design, techniques for manipulating the " experimental " procedures, and statistical analysis of the differential behavior of population subgroups [1, 12].

Explanation of the research findings involves determination of the statistical associations and causal linkages among all factors in the study that have a demonstrable effect on the outcome variables [8, 9, 13]. The problem of interpretation, on the other hand, refers to identification of the rationale underlying the relationships among principal variables in the study. Usually, the rationale will cite a theoretical underpinning, based on the historical development of a field of intellectual inquiry. This theoretical rationale attempts to transcend the findings of empirical relationships in a search for " intervening variables " through which the process represented by the relationships may be understood [9, 10, 11].

Quite apart from the truth value, or believability, of the findings of a specific study, the researcher confronts the issue of the generalizability of those findings to other populations and during other historical or future time frames [13]. Here again the issue of sampling arises. In this case, we are concerned with the selection of target populations based on, e.g. region, demography, cultural, political or economic situation. " Hardness of data ", then, refers to both the truth value and the generalizability of research findings. It is clearly a multidimensional phase which leads to the evaluation of research from a variety of standpoints.

As a general rule, the " harder " the data of a research study, the more useful it is for policy considerations. Thus, studies which employ the most sophisticated techniques of measurement of concepts and relationships, explanation and interpretation of those relationships, and generalizability of findings, can be most readily adopted for the purposes of

cost and benefit determination of specific policy alternatives. Ideally the decision-maker, then, uses the hardest findings available, even if they are not based on quantitative measures. For this reason, studies using comparatively soft data may be most useful, from a policy standpoint, if they happen to offer the " hardest " material bearing on the policy issue in question.

The following is a list of research strategies or designs, in ascending order of " hardness " of methods or data:

1. Participant observation

2. Clinical studies based on small samples

3. Journalistic studies

4. Ethnographic studies

5. Surveys of opinion as to specific facts:

a. Delphi methods, based on expert opinion

b. Surveys of the general population or specific subsamples

6. Development of theoretical models based on the cumulative theoretical and substantive literature in a given discipline

7. Clinical studies, but based on large samples or a large number of trials

8. Semi-experimental designs:

a. Matched-pair or stratified sampling

b. Statistical controls based on comparisons of subsamples

9. True experimental designs

10. Semi-experimental designs with relatively complete theoretical models.

11. Experiments and simulation using relatively complete theoretical models

12. Large-scale, cross-sectional (regional) or time-series analysis using complete theoretical models.

This listing does represent the bias of the present authors, but appears to follow the intellectual development of the social and behavioural sciences in general. Study types 1-5, ranging from participant observation to surveys of opinion on factual questions, are among the "softest " of research strategies since they usually do not incorporate tests of statistical significance of factual findings (as distinguished from opinions as to facts). Study type number 6 represents a breaking point between the softer and harder designs. It is a theoretical exercise dealing with the development of logical and coherent models based on the cumulative research literature in a specialized area. Study types 7-12 all involve relatively sophisticated use of scientific methods. As one moves to a level of greater " hardness " in study design, one observes increasing sophistication in theoretical model construction, experimental and statistical methods of control for external variables, quantitative measures of variables and strength of relationships, and generalizability across populations and over time.

The research scientist that consistently strives toward a greater " hardening " or sophistication of his data need not denigrate the users of comparatively soft data. We observe with each passing generation the increased sophistication of research methods, so that the work of earlier researchers appears soft by comparison. It is most important to utilize the findings of softer studies, where there is some consistency in the literature, in formulating the major hypotheses that should be tested by the more sophisticated techniques. This is one of the principal means whereby scientific method is used to build a cumulative fund of knowledge.

Early in this paper the general argument was offered that it is essentially the lack of sophistication in the development of multivariate theoretical models which is the source of inadequate use of many of the technical research methodologies which have been available for quite some time in the social and behavioural sciences.

Three Central Problems in Evaluation of the Criminal Justice System

The three major research problems in evaluation of CJS efforts, to which the remainder of this paper is devoted, stem directly or indirectly from the lack of integration of theory and research findings from related disciplines. The three problems are:

1. Incomplete research designs.

2. Problems of measurement of the principal outcome, namely the true incidence of criminal behavior.

3. Inattention to important outcome measures other than the incidence of crime.

These three problems, in turn, directly relate to the quality of (*a*) measurement of concepts, (*b*) measurement, explanation and interpretation of relationships, and (*c*) generalizability of research findings. Incomplete research design can seriously compromise the quality of measurement, explanation and interpretation of relationships as well as the generalizability of research findings. The problem of measurement of the principal outcome variables and that of inattention to the measurement of other significant outcomes clearly raise questions as to the quality of concept measurement and again to the generalizability of findings. The " hardness of data, " or the truth-value and generalizability, of even the most sophisticated research on CJS efforts, comes

into question where any of these three major problems remains unresolved.

The absence of multivariate models, or at least perspectives, substantially (1) decreases the probability that complete research design will be attained, which (2) decreases the probability that factors which affect outcomes, independently of the " experimental " procedures under evaluation, will be controlled for. These external factors include those involving individual background characteristics, social environmental situations which occur after the experimental process has been concluded, and other processes of the CJS as a whole or its subsystems. The issue of lack of control for critical variables affecting outcome is referred to here as the problem of incomplete research design.

The problems of actual measurement of the incidence of criminal behaviour, which is the " hardest " indicator of outcome in studies of effectiveness of CJS efforts, stem largely from lack of consideration of the different causal factors that may affect the true crime rate depending on how that crime rate is measured, i.e., whether by accounts of victims, self-reports by offenders, reports of crime to the police, arrests, crimes brought to trial, convictions, or imprisonment. This issue of causal factors having different implications for outcome, depending on the measure of outcome used, also extends to the time-span after which the outcome measure is taken and the difference in outcome between new crime and recidivism.

The third general problem that stems from lack of conceptualization of the multivariate causal components in evaluative research designs pertains to the failure to distinguish among categorically different types of outcome measures. The broadest outcome measures of the *effectiveness,* or overall impact of CJS efforts relate to the incidence of crime. However, appropriate outcome measures for the evaluation of the performance, or *efficiency,* of the CJS relate directly to the manifest objectives of each identifiable

subsystem of the CJS, including legislative processes, police, prosecution, defense, jury, incarceration, rehabilitation, parole, etc. [14, 15, 16]. Evaluation to improve efficiency is frequently done internally since its purpose is to investigate possible changes in a programme with a view to improving performance, rather than to see how the programme is doing in comparison with similar programmes or in any absolute sense. Because the outcome of an evaluation is usually either a change in the resources allocated to a programme or a suggestion for improvement in its operation, the distinction between evaluation of effectiveness versus that of efficiency traditionally discriminates, respectively, between outcomes which have a bearing on resource allocation and those which have implications for improved standards of performance.

A complete evaluation will examine the issues of both (1) resource allocation, based on estimates of effectiveness: whether a programme is to be continued as is, grow, or be reduced, and (2) internal management, based on estimates of efficiency: whether there are grounds for improvement of programme operations. Therefore, a complete evaluation must consider multiple outcome measures which speak to the issues of programme effectiveness and efficiency. The series of resulting outcome measures then lend themselves to comparative cost and benefit estimation for use in policy determination.

Problem I: Incomplete Research Designs

It would appear obvious that understanding the effects of criminal justice programmes on crime would require an understanding of those factors that ordinarily are important in the causation of crime. At the very least, one would have to assume the operation of a certain mechanism in crime causation in order rationally to propose a programmatic method of deterring or reducing crime. The problem is not any lack of theory as to crime causation, but that it is

extremely rare to find that an evaluation of a criminal justice programme refers to the extent to which the programme theoretically ought to alter the crime rate.

Three basic types of theory that have a bearing on the incidence of crime can be identified. The first of these would refer to the life history or social-psychological development of the individual: the process of his socialization. The second relates to the effect of social control processes, mainly those connected with the law or other aspects of the criminal justice system. The third type deals with inconsistencies in the cultural or organizational structure of society. It is only by careful definition of the relationship of a criminal justice activity to the larger sources of impact on crime that one can in turn assess the effects of that programme on crime.

Moreover, from an empirical standpoint, there is considerable evidence that a great many factors, including individual background, social control, and social-structural and cultural change, simultaneously affect the crime rate [17, 18, 19]. Thus to understand the independent effects of the law or criminal justice programmes, one must " hold constant " or otherwise control for the effects of these other demonstrably important factors.

A proper evaluation, therefore, must:

1. Specify the theoretical rationale whereby the criminal justice enterprise ought to effect the crime rate (or other outcome). This procedure is nothing more or less than a specification of the major hypotheses that should underlie any scientific investigation.

2. Control for the effects of all significant variables that would of themselves significantly affect the crime rate (or other outcome).

Recent methodological developments in the social sciences have pointed to the appropriateness of constructing a

structural model by which causation is understood to flow from the interaction of a number of different variables. Such a model, resembling those in the physical sciences, includes the integration of different theories all of which have a simultaneous effect on the outcome phenomenon. In addition, the interaction patterns among the causal variables are also elucidated in terms of an integrated system [20, 21].

Such a model ideally incorporates quantitative estimates of the impact of each major causal factor on the outcome variable under study (as well as the impact of each causal factor on every other). This is technically referred to as a path-analysis model [22]. The significance of the quantitative estimates is that they allow determination of the relative importance of specific causal factors to the outcome variable. There may be a dozen or more factors that have a statistically significant impact on the incidence of a specific crime, for example, only but a few, perhaps one or two, may be of sufficient importance to alter the incidence of crime by thirty percent or more.

From a policy standpoint the determination that a causal factor has a statistically significant but proportionately unimportant relationship to a specific outcome may not be very pleasing. At the same time, it is only by including all significant causal factors in the research analysis, that we are able to determine the comparative influence of each. The necessity of including all significant causal variables in this problem of determining comparative influence is that, as is usual in social science, the causal variables themselves influence one another and it is necessary to control for the effects of each causal variable on every other. This is accomplished through multivariate analytic techniques among which multiple regression analysis is prominent [23].

Thus it is not only necessary to use such multivariate causal factors in order to determine those variables which have significant impact on outcome, but also to ascertain which factors have even a minor beneficial or deleterious

effect. Although we may not expect extraordinary effects through minor alterations in legal or criminal justice programmes, we may want to be assured that such an alteration in procedure was worthwhile, especially in terms of costs and effort. The evaluator of a relatively extensive and costly change would certainly want to assess that change in terms of the relation between costs and benefits.

The problem of environmental or situational effects

Among well-known theories of criminal behaviour, causal factors stemming from changes in the social environment are quite prominently indicated [24, 25]. It is clear that if they do indeed have the important causal effects claimed, then they must affect the degree to which the criminal law or criminal justice programmes are able to influence the rate of true recidivism. The effects of these situational factors can occur in two ways: they can influence recidivism (1) independently of, or (2) interactively with the effects of criminal justice system efforts.

It is possible that the situational effects may be so overpowering as to completely eclipse the criminal justice system effects. This is especially true where the environmental effects are independent of the CJS effects. Where, on the other hand, the environmental effects interact, or combine, with the criminal justice effects, the influence of the criminal justice factors may themselves expand or contract depending on the influence of the environmental factor. A typical example of the latter case is in vocational rehabilitation programmes. The effects of such programmes will depend on the flexibility of the regional labor market at the time of a prisoner's release. Should unemployment be high, it may be very difficult for the previous inmate to become self-supporting despite quite substantial increase in his vocational skills. On the other hand, a period of high demand for labor may either take great advantage of the

inmate's increased job skills or not require them at all. Industries may then be willing to train him in an entirely different skill at their own expense.

Some general idea of the differential effects of environmental factors can be obtained by an initial listing of the categories or groups of environmental effects that might alter the rate of recidivism. Only a very limited number of such categories can be identified in this paper, but a fully developed scheme would have to take into account changes in societal values, norms, beliefs, social and economic structure, demographic patterns, and political changes. Among the more frequently listed environmental effects on crime are the following:

1. Changes in regional employment and income patterns [26].

2. Vogues in types of crimes committed [27]. Such vogues prominently include fluctuations in drug and alcohol-related behavior, patterns of violence, use of specific weapons, and general developments in the technology of illegal enterprise.

3. Changes in social habits among varying social groups that may become involved in illegal activity [28]. Social-demographic classifications of such groups are typically in terms of: socio-economic status, age (especially juveniles), race and ethnicity, sex, and region (province, or urban, rural, suburb).

As it is necessary to control for the effects of individual background factors in estimating the influence of criminal justice programmes, it is also necessary to control for subsequent environmental effects on outcome. In fact, we encounter much the same kind of difficulty as one finds in the discussion of experimental design, which relates to the fact that the arrest rate, or other CJS process statistics, is used

as the measure of true recidivism. In those cases where the treatment programme exerts a statistically significant beneficial effect on the rearrest rate (and we have also carefully controlled for individual background factors), the significant findings may be a gross under-statement of the actual beneficial effects. The reason for this is that during a period of high levels of employment and demand for labor, for example, the employability of all groups increases whether or not they have received vocational training. Also, we must consider that the inmate who is more intelligent and vocationally capable to begin with may take greater advantage of the training programme; but the true crime rate of such skilled individuals may ordinarily be very difficult to measure by their rearrest rate, since they will be especially capable of avoiding arrest should they engage in illegal activity.

Thus, if the results of the experimental training programme are statistically significant, but we do not control for environmental effects, we will probably not commit the Type I error of verifying a false hypothesis, but we may greatly underestimate the impact of the programme. Moreover, in the typical example just cited, in which the effects of vocational training on reemployment interact with those of the regional labor market, the rehabilitative programme may not operate at all except for the influence of the environmental effect. The possibility is then risked that the use of correctional programmes found to be statistically significant at other times and in other places may either produce no effect or even be found counterproductive.

An even more difficult problem is encountered when the results of experimental programmes are *not* found to be statistically significant. Given the finest experimental design, without a control for environmental factors, the Type II error may be committed of falsifying the proposition that the correctional programme is effective. In this case, we have a situation of total suppression of the effects of the programme by the environmental factor, as distinguished

from a large but not total suppression of those effects where the results are found to be statistically significant. As in the earlier situation, the beneficial effects of a vocational training programme, for example, may be totally obviated by a poor labor market. Similarly, the more socially competent and skilled individual who may take maximal advantage of such training programmes, and may indeed benefit by them greatly in terms of future employment, may be greatly under-represented in a recidivism measure based on arrest rates. It is assumed that the more highly skilled individual will more successfully elude arrest, so that the reduction in the true crime rate of such people may be considerably greater than that indicated by rearrest and may be "statistically significant" at the very least.

Status of the research on Problem I

Since the inception of probation and parole in the early part of this century, methods of selecting those prisoners or probationers that would be the best risks have been the preoccupation of many correctional studies. To this end Burgess [29] is said to have conceived of the notion of assigning scores to potential parolees based on various personal background factors of the individual: much of the focus of this research has been to decide which background variables are the best predictors of parole success.

Parallel to this field of inquiry was the attempt, initiated by the Gluecks, at predicting juvenile delinquency by analysis of background variables, particularly social adjustment criteria. The Gluecks used such psychosocial variables in this analysis as family situation, assessment of mental health, academic performance and parental relations, economic conditions, interests, ambitions, and military experience. The parole prediction methods, for the sake of efficiency no doubt, use a much narrower range of variables, based mainly

on previous experience in the CJS. Thus the classic study by Mannheim and Wilkins [30] in predicting success after release from Borstal training as compared to institutional training in England uses as variables: whether individuals were urban, had been previously fired, on probation, at approved school, had a record of drunkenness, held no job for nine months and had a stable home.

Later, both of these types of measures were incorporated by Leslie Wilkins and reformulated to apply to adult felons as well as juvenile delinquents, when Wilkins established base expectancy scores for the California Youth Authority in 1969 [32]. These scores depended both on the offenders, penal experience and on psychosocial variables, and were estimated using multiple regression techniques.

That these variables have rarely been used to evaluate correctional enterprises, but rather as parole predictive devices has been commented on by Gottfredson [32]: " The most useful role... for prediction methods may be found not in selected placement applications but in treatment evaluation research ". Several of the more thorough attempts to research such prediction scores include efforts by Wilkins [31], McClintock et al. [33], Read and Ballard [34], McGerigle [35], Beverly [36], and Kassebaum, Ward and Wilmer [37]. Two studies that deal with the problem of separating out preselection variables from treatment effects use two different methods of classifying subjects according to backgrounds. Gottfredson and Ballard [38] use " association analysis " (a cluster analytic technique) to classify offenders into nine subgroups based on some similar attribute in order to predict potential parole survival. Pahl and Blumstein [39] in evaluating a college level educational programme in a prison, used stepwise multiple linear discriminant analysis to find a classification decision rule by which they could correctly classify 95 percent of the population so as not to confound institutional and self-selection variables.

Warren [40], in assessing differential treatment for delinquents, lists several classification schemes (or " offender typologies ") that would seem to be more significant in evaluating different treatment effects. Listed are the California Youth Authority base expectancy scores, offence categories, psychosocial measures, community adjustment measures, and interpersonal maturity levels. These types of measures are essential in the classification of offenders so that a researcher can randomize groups into experimentals and controls or construct comparison groups.

The importance of situational variables is reflected in work release, job placement, community treatment programmes, halfway houses, etc., all of which have been innovations to combat the social pressures on the offender upon release from prison. Particularly salient is the economic aspect. Votey and Philips [41] and Brenner [42] have written extensively of the economic precipitators of criminal activity — the parameters of which are not often in the control of the person affected.

Despite the widespread acknowledgement of this problem among correctional personnel, there has been little attempt to incorporate situational variables into models analysing post-release adjustment. The most effective work has been done by Jenkins and his co-workers, who developed a sixteen item scale called the Environmental Deprivation Scale which measures support from significant others, occupation, and organizational affiliation of the released inmates. Over a three year period of evaluation, the scale was shown to be highly predictive of recidivistic behaviour [43]. Two other studies, Mesa County Work Release [44] and Brown [45], interview parolees to discover what effects jobs, family support, and job training have on consequent recidivism. Finally, Votey and Philips [41] in constructing a theoretical feedback model of the CJS have as independent variables economic opportunity and economic resources.

Problem II: Measurement of the Principal Outcome — The Actual Incidence of Crime

Inference from CJS measures in general

In evaluation studies of CJS processes, perhaps the most frequently used outcome variable is recidivism as measured by the extent of rearrest. While the utility of this measure lies in its relative accessibility, it is certainly a less than adequate measure of the incidence of recidivism. This problem is compounded several fold as the researcher introduces statistical measures of crime incidence based on CJS administrative data, which are increasingly removed from the actual incidence of crime. One can assess the relative validity of these outcome measures by reference to the degree of inference required to link the outcome measure to crime incidence. Ranking typical outcome measures in this manner, from most to least valid, we have: (1) victimization studies, (2) self reports of crimes committed, (3) crimes known to the police, (4) arrests, (5) crimes brought to trial, (6) convictions, and (7) imprisonment.

In the case of self-reported crime, it is not only necessary to question to what degree there may be substantial understatement (or even overstatement), but rather which populations, among " experimental " and " control " groups, will be more likely to under-estimate, over-estimate, or be entirely truthful. In the case of arrests, the researcher must be particularly attuned to the problem of differential law enforcement as discrimination will occur according to the nature of the criminal act, the age, ethnicity, socio-economic status, and sex of the alleged offender, and the region in which the criminal act occurred. As one moves from arrest to the point of trial, similar but larger problems of inference arise from discrimination based on crime category and socio-demographic factors, and this progression of increasingly lar-

ger sources of biased inference is magnified as one moves from trial to conviction and to imprisonment.

Recidivism appears to be most frequently measured by rearrest and occasionally by return to prison. Since a substantial proportion of former prisoners are in a state of parole for a lengthy period, " violation of parole " — usually referring to rearrest — is often taken as the critical measure. It is most important to understand thoroughly the implications of utilizing rearrest as a measure of recidivism. Conceptually, recidivism refers to a re-establishment of criminal tendency or a new incidence of actual crime on the part of a previously identified criminal. The fact that there is a gross discrepancy between arrest (let alone being brought to trial, convicted or imprisoned) and criminal action itself is generally not taken into account.

From a statistical standpoint, perhaps the greatest source of the discrepancy between crimes committed and arrests stems from the comparatively low level of reporting by the general population of crimes of which they are the victims. The recent LEAA-sponsored Bureau of the Census survey of metropolitan populations on crime victimization [46] in the United States has indicated that in many instances reports to the police represent less than a third of the crimes committed. It appears that in certain crimes of violence and low-level larceny, the proportions of crimes reported drops to possibly a fourth or a fifth of actual crimes. When one gauges further the discrepancy between the number of crimes known to the police and the arrest rate, the arrest rate per number of crimes known to the police seems again to be approximately one third. Subsequent measures, based on the consequences of arrest and trial, represent even smaller fractions of the totality.

The problem is not only that the arrest statistics are gross under-representations of actual criminal activity, but that there is likely to be strong systematic bias in the typology of the criminal population that ultimately comes to be

identified with the statistics on arrest. Thus, there is ample evidence that the more highly skilled and professional criminal will experience far fewer contacts with the police per crime committed. Indeed, the probability of arrest is so low that it would certainly appear that the habitual criminal who is unable to elude arrest is unskilled, lacking in general intelligence, or perhaps does not possess the important criminal contacts for easy disposal of the material gains of his illegal activity. The clear implication of this is that the criminal with a lengthy arrest, or " recidivism " record, is indeed the hapless, comparatively unintelligent, and criminally unsophisticated and poorly connected individual.

From the standpoint of multivariate predictors of future *true* recidivism, the data derived from rearrest rates are probably, therefore, quite misleading for they say little about the reduction of the incidence of new crime. It is perhaps in the area of the use of such predictive tables in deriving an estimate of the " worthwhileness " of parole, that the greatest damage may be done. If the probability of violation of parole, i.e. through rearrest, is taken as the measure of the social cost of parole for a given prisoner, then it becomes probable that those less likely to be rearrested — namely the most highly skilled and possibly prolific criminals — would be the ones most readily paroled. This would of course imply that such a parole system would *increase* the probability of crime victimization by the skilled criminal — quite possibly increasing the probability of crime-victimization over time. At the same time, it would suggest that the less skilled and more easily apprehended criminal would be less likely to be paroled, and would find himself imprisoned for comparatively longer periods. The latter situation ironically implies that the criminal that would probably be apprehended in any case, and thus do comparatively less criminal damage in the society, continues to be incarcerated.

A parole system based on probability of recidivism, as measured by rearrest, then may actually increase the potential

true crime rate both because the more skilled criminals are paroled and the less skilled criminals, who would do comparatively little damage, are not. This problem is compounded by the likelihood that in rearresting even the unskilled criminals who are paroled (though they may have substantial records), a disproportionate amount of police manpower, to say nothing of criminal justice and correctional effort, is expended on the unskilled — thus leaving the public even less protected from the skilled criminal.

Relation to experimental design

In order to avoid the problem of interpretation of experiments dealing with innovation in the CJS, it is necessary to completely control for the effects of variables which might tend to alter the rearrest rate while not altering the crime incidence rate. The most nearly perfect means of controlling for such effects is to utilize the classical experimental procedure whereby subjects are selected entirely randomly. In the case of random selection, and the demonstration that the recidivism-rearrest rate is *significantly* lower for the experimental (as against the control) group, we are unable to interpret the results as indicating either that the skill of the group of subjects is higher, or that any important aspect of their backgrounds will account for the lower arrest rate, because the effects of such variables will have been totally obviated. Thus, it becomes logically necessary to state that (a) the decrease in the rearrest rate is due to the effects of the programmes. If differential skill does not bias the population that is rearrested, then it can be successfully argued that (b) the lower arrest rate is probably indicative of a lesser actual incidence of crime.

This does not clear up all of the problems of interpretation, certainly, but is does at least allow us to settle the

matter of whether if a given programme is found to reduce the rearrest rate significantly, it probably also reduces the crime rate significantly. This is not an unimportant conclusion by any means, but it nevertheless leaves unsettled the matter of how *important* the *statistically significant* result was. Since we do not know the relationship between arrest and actual crime rates, we can only make very rough estimates indeed. Moreover, this problem of distinguishing statistical significance from importance (based, for example, on the proportion of criminal activity reduced or increased), is more serious if one tries to make inferences about the types of crime that may have been prevented, since even less is known of the relation between victimization by specific crime and the arrest rate.

In the previous case of obtaining statistically significant results based on a population of randomly selected subjects, the Type I error of validating an untrue hypothesis was avoided. Such experiments still allow the error of inferring the falsity of an essentially accurate hypothesis — a Type II error. This can occur when a correct experimental procedure has been followed, but the results obtained were not statistically significant to the point of demonstrating that the recidivism-rearrest rate was lower for the experimental group. The problem is that while the rearrest rate may not have been lower for the experimental group, the crime incidence rate may have been lower. This may be true because the experimental programme itself may have beneficially affected the more skilled and professional criminal, while the criminal who is less intelligent and sophisticated would not have been reached. This is not an unusual situation by any means, since educational, psychotherapeutic, and vocational and rehabilitation programmes often can only be taken advantage of by the more intelligent individual.

To put it a bit differently, assuming an equal proportion of intelligent and sophisticated criminals in both the exper-

imental and control groups, there may be little difference in the post-experimental behavior of the comparatively less intelligent individuals who would ordinarily be the prime sources of statistics on recidivism (i.e., rearrest). There might be a substantial difference, however, among the more intelligent criminals in the experimental situation who may have been able to take advantage of the programme, but we are unable to tell because in both the experimental and control groups the more intelligent criminal goes undetected in terms of arrest rate.

Measurement of lag

Still basically unresolved is the problem of the appropriate time at which to measure outcomes of CJS processes. One may conjecture, on the one hand, that the deterrent effects against recidivism decrease with the passage of time, and that the punishing quality of imprisonment fades after some critical period. On the other hand, it is possible that for specific groups of offenders the difficulty of adjusting to society is most acute upon release from prison, especially since they may have had their most intense contact with the criminal subculture during their stay in prison. In this latter case, the probability of recidivism would diminish with the passage of time.

An equally important issue relates to the environmental, situational factors, including the labor market and patterns of change in social values and norms, which certainly vary with the passage of time. Is it appropriate to take one's outcome measure at a single point in time, at different points or as an average over several time periods ? It is probable that the estimate of effectiveness of a criminal justice activity in reducing recidivism will vary considerably according to the time the outcome measure is taken.

New crime versus recidivism

The broadest goals of the criminal law, police enforcement, and imprisonment are to deter the incidence of new crime in the population-at-large, and to reduce the incidence of recidivism. It is rare, however, to find that the larger question of the two, that concerning the incidence of new crime, is approached from the standpoint of an " outcome " measure in evaluative studies of the CJS. Moreover, the impact of the criminal justice system may differ greatly depending on which of these two outcome measures is used.

For example, the profound stigma and dishonor attached to being identified as a criminal is such as to totally alter an individual's career possibilities, family and community life. While fear of such stigma may deter the population in general from committing new criminal acts, it may have exactly the opposite effect with respect to recidivism. Once an individual is publicly identified as a criminal, it may be difficult to bring further opprobrium upon him. Moreover, as the stigmatizing effects of the CJS prevent normal adjustment to economic and community life, the probability increases that the former prison inmate will resort to illegal means in order to achieve a dignified way of life by social standards.

Status of research on Problem II

There have been attempts on the part of researchers to (a) correct rearrest rates to provide more accurate indicators of subsequent criminal activities, and (b) introduce other outcome measures that are highly correlated with recidivism.

Blumstein and Larson [47] take account of the fact that recidivism cannot be measured directly, because of the possible magnitude of Type II errors, e.g. failure to count as recidivists those who have actually recidivated, in order to derive more accurate recidivism rates. Assuming an underestimate of the reporting of recidivism, Blumstein and Lar-

son use Markov chains of probability to estimate true recidivism.

Stollmack and Harris [48] attempt to assess the differential impact of two treatment effects by the use of " failure-rate analysis ". Here the dependent variable is time until failure. Since failure rates (recidivism) fit an exponential curve, differential programme effects can be estimated by the amount failure rates deviate from the expected curve. While this is quite sophisticated, it still does not account for the difference in contacts with the police between skilled and unskilled criminals.

Lipton, Martinson and Wilks [15] list as outcome measures, besides recidivism, institutional adjustment, vocational adjustment, educational achievement, drug and alcohol readdiction, personality and attitude change and community adjustment. McGerigle [35] cites criminal diagnoses, psychometric tests, and community adjustment measures as possible outcome criteria. Further he states that if a narrow view is taken of evaluation, then recidivism actually is a proxy for community adjustment and should in itself be the main outcome measure. Weeks [49] in his outcome assessment of the Highfields project, uses recidivism rates as well as pre — and post — experimental measures of attitude change and personality structure change. Stuart Adams [50], assessing community adjustment in the PICO Project, uses an index of community adjustment based on (1) occupation, (2) family life, (3) use of leisure time, (4) social relations and (5) social responsibility.

Given this variety of alternative outcome measures, there is no reason that an index of variables known to be highly correlated with success or failure, i.e., such as adjustment, cannot be constructed to validate recidivism rates.

One set of outcome measures that has yet to be assessed involves those latent effects of being incarcerated that have a negative effect on the post-release success of offenders. While there is as yet no clear evidence that length of prison

term affects parole outcome [51], it has been concluded by some that institutional treatment is *not* more effective (in terms of preventing reconvictions) than treatment in the community [52]. In fact it may be more harmful. The Highfield experiment in short-term treatment of juvenile offenders [49], while the actual results are equivocal because of possible preselection biases, did show that such limited exposure to correctional treatment was as effective if not better than the more traditional longterm treatment at Annandale Reformatory for Boys in New Jersey. Another rather interesting result that is perhaps indicative of the latently negative effects of the CJS on subsequent criminal behaviour is a report on Attendance Centres in England [33, 31]. In this case, boys who had the least contact with correctional personnel seemed to be most successfully adjusted even when criminal background and other factors were controlled for. The question to be raised is, what, if any, are these latent effects and are they in fact measurable ?

Problem III: Inattention to Important Outcome Measures Other Than The Incidence of Crime

Inferred societal goals versus manifest subsystem goals

Evaluation of CJS and correctional processes typically assumes there to be essentially three " goals " or objectives against which performance of these systems can be measured. These goals are: (1) prevention of new crime, (2) deterrence of recidivism, and (3) incarceration of adjudged criminals so as to prevent their injuring the community. There is a serious problem in this classification of goals in that it does not leave us with a means for estimating the efficiency, as distinguished from effectiveness, of the CJS.

The " effectiveness " of an institution refers to the degree to which it satisfies the broadest societal needs that are in theory functionally related to the activities of that institution. These broad goals of a social institution are thus inferred, or assumed, to be the direct or indirect result of the operation of that institution. The inferences and assumptions as to the relation between the functioning of a social institution and the satisfaction of broad societal goals may, or may not, be correct.

We observe that with the increasing sophistication of technology, social institutions are more nearly capable of dealing with fundamental societal problems. Some of the clearest examples are available in the field of medicine where well-established practices are subsequently viewed as totally ineffective and possibly harmful. Nevertheless, regardless of their efficacy there have always been correct and incorrect means, according to medical professional standards, for the application of medical and surgical procedures. So, too, in the case of CJS processes, we must distinguish the correctness of the procedure from its assumed effects where these effects probably vary according to the background and subsequent social environment of the released inmate.

Each important activity of each subsystem of the CJS includes at least one manifest goal toward which its functioning is directed. This is true of the activities of criminal legislation, police, prosecution, defense, judicial activity, jury, incarceration, rehabilitation, parole, etc. It is possible to identify the manifest goals of each of these subsystems of the CJS in order to measure the efficiency, or adequacy, of performance of these activities. The assumption, of course, in evaluating efficiency is that our standards of performance are appropriate. At any given time in the history of a society, it is possible to articulate the manifest goals of each function of any important societal institution. That function should be clearly related to a manifest and short-term goal of performance, as well as to a longer term and assumed relationship to the fulfillment of a broader social need.

The long-term goals then provide the standards by which *effectiveness* of the institution is measured, whereas the short-term or manifest goals provide the standards of evaluation of the *efficiency* of operations within the institution. The following is a list of the manifest goals of different components of the CJS and examples of measures of " productivity ":

1. Political system of legislation of the criminal law.

   Functions: manifest goal is current expression of societal values and norms.

   Indicators of performance: relation between societal values and norms (public opinion) and

   a. Timing, and

   b. Substance, of legislation.

2. Police.

   Function: detection of crime and apprehension of criminals.

   Indicators of performance:

   a. Rate of notification of police of crimes by victims.

   b. Arrests per crime known to the police.

   c. Cases prosecuted per arrest.

   d. Convictions per arrest.

3. Prosecution.

   Function: presentation of evidence leading to the conclusion of criminal guilt: screening of cases to be prosecuted.

Indicators of performance:

a. Convictions per case prosecuted.

b. (Minimum) number of provable cases not prosecuted.

4. Defense.

Function: protection of the alleged criminal from finding and consequences of criminal liability.

Indicators of performance:

a. Convictions per number of defendant cases brought to trial.

b. Average sentence per conviction.

5. Judicial.

Functions: representation of the criminal law on procedure for determination of criminal liability; also occasionally, determination of criminal liability; determination of appropriate punishment (sentence).

Indicators of performance:

a. Convictions per case brought before a judge.

b. " Appropriateness " of sentence per conviction, by category of crime.

6. Jury (as a system).

Function: determination of criminal liability theoretically without bias, on evidence presented.

Indicator of performance:

a. Rate of conviction, by crime and socio-demographic category of defendant and of complainant.

7. Entire criminal court system.

Function: unbiased determination of criminal liability; where guilt established, determination of proper punishment (sentence).

Indicators of performance:

a. Rate of conviction per crime brought to trial, by crime and socio-demographic background of defendant.

b. Severity of sentence, by crime and socio-demographic background of defendant.

c. Delay in coming to trial.

8. Correctional system.

Function: enforcement of punishment (sentence) of adjudged criminal.

Indicators of performance:

a. Average length of sentence served per sentence rendered by the courts, by crime and socio-demographic background of inmates.

b. Parole.

(1) Conformity to standards for judgment of suitability for parole.

(1) Return of paroled inmate to prison within, e.g., 1-2 years.

c. Rehabilitation: number of persons " successfully " completing rehabilitative programmes according to professional standards of judgement, by type of rehabilitation programme.

(1) Vocational rehabilitation.

(2) Psychotherapy.

One should not leave this section without indicating that prevention of new crime and deterrence of recidivism are not the only broad, inferred, societal goals of the CJS. At least one other broad goal must be identified which is not much discussed in the evaluation of criminological literature. This goal pertains to the entire origin of the authority by which the state obtains the prerogative of protecting the society as a whole from criminal activity, having removed that prerogative from the hands of the injured person or group. With the establishment of the State, the right of the individual to take personal revenge for injury that violated societal norms, was terminated. In its place there was established the " rule of law " by which the State became empowered to enforce societal norms by the use of the armed forces (or police) of the State in accordance with a code of punishments. Since the introduction of the formal CJS, therefore, a primary goal of the criminal law and corrections has been to avenge the criminal injuries done to individuals in the society through punitive actions by the State. This historically predominant conception of the proper outcome of CJS has been almost totally neglected, or perhaps forgotten, in the legal and correctional philosophy of modern industrialized societies as well as in modern considerations of the goals, and therefore the evaluation, of the CJS.

Social costs

A thorough evaluation of the efficiency of CJS activities must take into account not only manifest goal attainment, but also the social costs incurred in the activities themselves. The society may demand different levels of institutional productivity depending on the social costs involved. The social costs involved in CJS operations include basic resources (capital and labor costs), psychological disruption (frustration, anxiety, low morale), and deviance from current

social values and norms or the intent of the criminal law. The objective of minimizing social costs can be stated more specifically as follows:

1. Minimization of conflict *among* the three subsystems relating to criminal justice: (*a*) social values and norms, (*b*) the criminal law and (*c*) norms of CJS administration.

2. Minimization of conflict *within each* of the subsystems pertaining to criminal justice, i.e., minimization of internal conflict among social values and norms, or among components of the criminal law, or among norms of the CJS.

3. Minimization of deviance from norms represented by (*a*) the criminal law, and (*b*) CJS administration.

4. Minimization of " friction ", or negative impact of one subsystem of the CJS process on another.

5. Minimization of " friction " by external factors (change in the crime rate, demographic patterns, economic system) on CJS processes.

6. Minimization (or at least stabilization) of expenditure of resources (capital, labour) on CJS efforts.

7. Minimization of non-humanitarian (or unintended negative) effects on: victims of crime, criminal suspects taken into custody or arrested, persons brought to trial, inmates of correctional institutions and released prisoners.

8. Minimization of unintended negative psychological effects on CJS personnel.

The seventh point deserves some elaboration, since despite its great importance, it is often overlooked in evaluation efforts. A clear goal of criminal justice activity is to confine the punitive effects of CJS to those intended by the

law. What are the unintended deleterious effects of incarceration, for example ? Perhaps most noteworthy is the potential vocational and social maladjustment of the individual in relation to the society he encounters possibly for a life-time upon terminating his incarceration. This will be due to the probability that his job skills may have become obsolete; or his absence from the labor force may make him unsuitable for re-employment in the occupation or industry in which he was once working. In addition, his adjustment to the opposite sex and family life, perhaps to his children, may be seriously impaired. In this respect, the incidence and developmental patterns of homosexuality in relation to incarceration are well-known in the journalistic and scholarly literature.

We have also to consider not only the effects of the former immate's adjustment on his own future, but on the lives of other members of his family, who under the law are innocent of his wrongdoing. Very special consideration must be given to his children who may not only suffer as a result of the former inmate's maladjustment, but who may themselves become embittered and dangerous to the society. Secondly, one must take into account long-term psychological maladjustment which again is neither the intention of the law nor does it represent any of the manifest goals of the CJS.

Analysis of effciency of the criminal justice system

A thorough evaluation of a component of the CJS process can approach the problem either from the vantage point of maximizing " productivity ", to the extent of meeting the highest level of professional standards, or minimizing social cost, either in terms of value of the normative system or in administration of the CJS. An analysis of the efficiency of an element of the CJS process must account for the relative approximation of CJS processes to societal standards

of performance, including both productivity and social costs. Such evaluation of efficiency represents the classic cost-benefit approach.

There are basically four approaches to research into the efficiency of human institutions: (1) analysis of the internal logic of operation of the system, (2) analysis of factors which determine productivity levels, (3) analysis of factors leading to deviant performance, and (4) cost-benefit analysis.

Analyses of the internal logic of operation of the CJS could focus on norms of behaviour, institutional functions, or administrative structure. The basic problem centers on the logical consistency of the operating components of a social system. In the case of the CJS, it is useful to study (*a*) the consistency of the legislative process and the criminal law itself with current societal values and norms, (*b*) the internal consistency of the criminal law, (*c*) the consistency of the criminal law, on the one hand, and societal values and norms on the other, with established administrative norms governing the activities of police, courts, and correctional institutions, (*d*) the internal logic of administrative norms as they operate within each of the major CJS subsystems, including legislation, police, courts, and correctional institutions, and (*e*) logical consistency of administrative relationships (according to administrative norms, functions, and structure) among CJS subsystems: criminal legislation, police, courts, and correctional institutions.

Analysis of productivity utilizes the types of outcome measures that relate to the standards of performance listed earlier. Each of the subystems of the CJS are identified according to function and manifest (at least short-term) goals. These goals then become the standards against which "productivity " is measured. Productivity analysis seeks to ascertain the factors that explain variation in productivity levels. The causal factors may arise from (*a*) activity within any one subsystem of the CJS, (*b*) the interaction among subsystems of the CJS, or (*c*) external factors which impinge

on the operations of any subsystem of the CJS, including changes in crime rates, demographic patterns, or disturbances in the national economy.

The analysis of " deviant " patterns of institutional behaviour utilizes measures of deviance themselves as the outcome indicators. The broad objectives of these analyses and the derivation of their outcome measurements were discussed earlier where these indicators of deviance were described as social costs. These social costs refer to the difference between actual administrative behaviour and the administrative norms, criminal law, or societal values and norms. We are therefore referring to aberrant practices which do not conform to established normative patterns as they are ordinarily understood in the CJS, or by the criminal law, or in the society generally.

At issue here, then, are not low levels of performance (since that is studied in productivity analysis), but rather aberrant practices which conflict with established rules of conduct. Typical examples include promulgation of laws which are inconsistent with current societal values, inconsiderate or inhumane detection or investigation methods by police, unduly lengthy pre-trial incarceration, seriously biased court room procedures, or verdicts, inhumane practices in correctional institutions, and highly variable or irrational parole or discharge practices. As in the case of productivity analysis, in the analysis of deviant CJS practices, we look to factors originating (*a*) within the CJS subsystem in question, (*b*) with the interaction among different CJS subystems or (*c*) with external factors that have an impact on the operation of any CJS subsystem.

Analysis of the internal logic of operation of an institution requires a different style of analysis than that involved in ascertaining factors involved in productivity or aberrant practices. Analysis of the logic of CJS operations is typically undertaken by legal scholars, legal philosophers, sociologists and anthropologists, and, more recently, operations researchers and systems analysts. There is, of course, an extensive tradition of legal scholarship and social philosophy examining the logical structure of the criminal legal system, the criminal law, and the system of sanctions imposed in criminal sentences [53]. In comparatively isolated and economically underdeveloped societies, anthropologists are more frequently found to research the logical relations among societal values and the political-legal, religious, economic, and family systems [54]. Sociologists often utilize the correctional systems as instances of complex organizational structures. Operations researchers, with a focus on analyses of efficiency of CJS institutional operations, have recently been involved in studying the internal logic of functional relations among CJS subsystems and their linkage to external societal pressures that alter their behaviours [55].

" Productivity " and " deviance " analyses are fundamentally empirical in research strategy. Indeed, treating measures of productivity and deviance as outcome measures, the research designs employed are not different from multivariate causal analysis applied to the CJS where the outcome measures pertain to the incidence of criminal behaviour. What is involved is a hypothetical listing of the numbers of variables from within, or outside of, the CJS which affect any of the CJS subsystem's productivity or deviance outcome measures. As in the analysis of crime incidence outcomes, we ideally specify a multivariate causal model, which describes the relationships between causal and outcome factors, as well as among causal factors themselves [7]. The objective is to determine the extent to which a given causal factor (controlling for the effects of other causal factors) affects the incidence of outcome measures as they occur within the CJS subsystem.

There are two important views on the proper analytic framework to use for identifying the outcome measure. One takes administrative decisions to be the chief outcome measures [56], while the other focuses on population flows [57].

The decisional orientation analyses the impact of societal and internal CJS factors on decisions at a specific juncture in the CJS process as well as the effects of a variety of prior CJS decisions on a single subsequent decision; in this sense, the CJS processes are seen as administrative decisions arrayed over time and having an impact on one another.

From a population-flow viewpoint, populations of varying criminological and socio-demographic character can be seen to pass through the CJS according to legal and administrative parameters of the CJS and societal pressures. A variety of population models can then be used to approximate the movement of individuals through the CJS either in a singular pathway or as a result of multiple factors causing the populations to move from one state to another through time [58]. Once an empirically-based decision or population flow model is obtained, decision theory [59] can provide the quantitative groundwork for subsequent cost-benefit analysis.

Status of the research on Problem III

The recent introduction of cost-benefit analysis in correctional evaluation paves the way for an entirely new set of variables and outcome measures which also have importance for policy planning. The definition of costs and benefits can be of variable inclusiveness. Adams [63] gives an example of costs as " correctional costs ", which is the sum over time of the results of recidivism. Votey and Philips [41] posit " social costs ", i.e., crime or taxes, as a broader definition of costs.

In an outstanding project using cost-benefit analysis, John F. Holahan [64] analysed the economic costs and benefits of Project Crossroads in Washington, a pretrial diversion programme for Washington youth. The analysis was based on the notion that job training for a 90 day period pending revocation of pretrial release (i.e., if offenders dropped out and committed offenses they would stand trail) would (1) decrease costs to the CJS because of fewer cases to process, (2) increase potential productivity of releases, (3) reduce future social costs of recidivism, and (4) increase earnings and educational level of releases. While costs were in fact reduced, whether or not benefits were noteworthy is difficult to assess, given the short-term operation of the programme. This quasi-experimental design, moreover, could have benefitted from more traditional methodologies, e.g., the use of a control group and also a broader range of outcome measures such as social and community adjustment measures.

In another Washington, D.C. project, one involving methadone maintenance, programme costs were compared to these benefits: (1) police court and corrections cost averted, (2) productivity and earnings restored, (3) health costs reduced, and (4) private crime losses reduced. Finally, Adams [14] reports a systems analysis and simulation of the California Criminal Justice System [66] in which assignment to various correctional systems and alternative sentencing policies were evaluated in terms of cost. The project formulated mathemathical models of the CJS and forecasted costs for five years.

The conceptualization of the CJS in total system terms was instituted by Alfred Blumstein and Richard Larson [67], who conceive of the system as flows of individuals through various components of the arrest-trial-conviction-release process. Each stage in the process provides a different outcome measure and a means for estimating the probability that individuals will enter particular units of the total system during one year. The projected costs as well as annual workloads for CJS personnel are then calculated. The scheme is based on a steady-state assumption and a linear model; however, due to lack of empirical data, it remains highly theoretical.

In a later attempt to construct a feedback model for recidivism, Belkin, Blumstein and Glass [68] try to give support-

ing evidence for the proposition that if recidivism rates are reduced by one third the total arrests can be reduced by a factor of two, since the " true recidivism rate " is actually much more extensive than arrests would indicate [68]. By tracing the individual through the CJS, they estimate a true recidivism rate of .875, based on the probability of individual outcomes as well as certain parameters such as the Virgin (or new) Arrest Rate, total arrests per unit time, probability of all dispositions other than incarceration, proportion of persons rearrested after release, and the mean time between arrests. To estimate these parameters, use was made of the Wolfgang et al. [69] cohort analysis of delinquent youths in Philadelphia, the U.S. Bureau of the Census [46] victimization studies, and Christensen's [70] projected measures of percentage of persons arrested in the United States.

Finally, Votey and Philips [41] try to analyze the social costs of criminal behaviour in terms of the total CJS and, in particular, using cost variables. Variables used in the multiple regression equation to project how to minimize social costs are conviction rate, probation rate, rehabilitation rate, cost of conviction, cost of probation, costs of maintaining detention centers, general deterrence variables, and situational variables of the released offender. This research seems the nearest approach so far to a total system model which takes account of the appropriate variables.

Lindsay Churchill [71] writes that systems analytic techniques have the greatest immediate potential in research on police and court functions. He criticizes the Task Force Reports (President's Commission on Law Enforcement and Administration of Criminal Justice) for having utilized systems analysis experts only, not social scientists or criminal justice personnel. The outcome of this oversight is that the Task Force report mis-specified the CJS in its model. After a listing of the variables necessary for empirically assessing delay in the courts by simulation, he notes that part of the

problem that the Task Force faced was the lack of appropriate data. Since then, we have the victimization studies [46] as well as the Wolfgang et al. [69] cohort analysis which gives an estimate of the incidence of criminal behaviour in a cohort of 10,000 youths followed from 1945 for ages 10 - 18 in Philadelphia. Use was made of official criminal statistics and a Markov model to predict delinquency at different ages.

Summary and Recommendations

Individual Problem Areas

Problem One: Incomplete Research Design

Developments in the construction of scales identifying (*a*) individual background factors and (*b*) situational factors which have a significant impact on the incidence of crime can now be routinely built into efforts to evaluate CJS programmes. Since CJS programme factors theoretically ought to have some impact on true recidivism, the CJS variables can be segregated in terms of their effects on subsequent crime through experimental or statistical controls imposed on the individual background and situational factors.

However, in order to improve (1) the identification of significant variables, and (2) the explanation and interpretation of findings, there should be accelerated movement toward integration of evaluation of CJS effetiveness with general criminological research as it has developed in the social and behavioural sciences.

Problem Two: Measurement of the Principal Outcome Measure — True Recidivism

Here again, multivariate approaches stemming from criminological research findings and theory appear to provide

the most practical solutions. Since the only easily obtainable measures of recidivism are from CJS sources, the different CJS-derived statistical measures (crimes known to the police, arrests, conviction, imprisonment) should be cross-validated against one another and against measures of the incidence of victimization in the population-at-large. Obviously, such analyses cannot be performed in conjuction with every evaluative research effort. Periodically, however, assessments should be made of the relationships among CJS statistical measures, as well as the incidence of victimization. These periodic estimates can then be used to determine the comparative validity and reliability of varying measures of recidivism, particularly where the estimates are derived in a setting that includes at least one major evaluation of the CJS.

In addition, there are now sufficient numbers of studies that point to the utility of employing proxy measures that have been causally associated with the incidence of crime as additional sources of validation of CJS-derived measures of recidivism. These proxy measures deal basically with the economic, social, and psychological adjustment of former inmates.

Problem Three: Inattention to Important Outcome Measures Other Than The Incidence of Crime

The basic problem has been in the traditional lack of distinction between outcome measures of the effectiveness of CJS processes and those of the efficiency, or performance, of the CJS. During the past decade, operations researchers have clarified this important distinction and have begun to develop measurement standards for estimating the costs and benefits of the activities of subcomponents of the CJS. Future developments in the analysis of CJS performance, however, must rely to a greater extent on substantive familiarity with the field of corrections, and especially with research into political-legal processes, jurisprudence, and stochastic behavioural processes that impinge on the CJS through their impact on the incidence of crime. In order to construct holistic and effective models of operation of the CJS, the full sequence of major decision points and population-flows from the making of law to arrest and conviction and finally to the correctional system, must be included. Any major source of impact on the CJS that is not identified in the operating model may cause significant distortion. Such distorting effects perhaps exert their greatest damage in large-scale cost-benefit analyses in which ultimate value to the society as a whole is being considered.

The construction of quantitative models, as is traditional in operations research and systems analysis, is an " applied " endeavour which must be grounded on thorough empirical description of the operations of the CJS. We have described empirical analyses that seek to determine those factors that ordinarily affect levels of productivity, rates of systemic deviance, basic decisions and population-flow patterns. These types of studies, however, generally fall to the social and behavioural sciences as they perform basic research on complex organizations, administrative behaviour and population dynamics. It is easy to conclude that developments in the operational analysis of CJS efficiency will not proceed rapidly unless the efforts of operations researchers are intimately related to those of social and behavioural scientists.

National and International Comparisons

No existing research design that we have reviewed has made possible an overall evaluation of the CJS and its effectiveness. The reason for this is that any specific CJS usually has a series of unique relationships to the political and sociocultural situation that exists in each nation. Therefore, total CJS evaluation efforts probably must occur at the national level (or occasionally at the provincial level where a highly distinctive CJS may exist). Analysis of the effectiv-

eness of a national CJS can be based on time-series analysis, where the influence of the CJS, in addition to other factors, may be observed to influence (measures of) crime incidence over time. Since major changes in the CJS occur infrequently, a standard procedure is to begin by estimating the impact of a number of socio-economic and demographic factors on trends in crime. The procedure is then to examine the degree to which the usual relationships between social changes and the crime rate are altered by major decisions which pertain to some aspect of the CJS [72].

Another method by which the effectiveness of national-level CJS processes may be estimated is through international comparisons. Theoretically, given a reasonably complete description of the CJS in a significant sample of nations, it should be possible to compare their respective operations with the crime rates prevailing in the countries sampled. Moreover, if victimization rates (or perhaps even crimes known to the police), are used as the estimates of crime incidence, many of the difficulties discussed in this paper on the measurement of crime can be avoided. It would remain necessary, of course, in such a study to control for socio-cultural factors not originating within the respective CJS's, and the standard multivariate models would still be required. In addition, the comparative efficiency of CJS processes of several different countries are also comparable where each operating component of the different systems can be accurately described. Such description generally requires the expert reportorial skills of legal and political scholars, anthropologists and sociologists. These latter types of international comparisons of CJS processes are particularly well-suited for management by international agencies.

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IS IT TIME TO STOP COUNTING ? *

by N. CHRISTIE

1. *On hard versus soft data*

The basic distinction is not between research with or without hard data — or between hard data and soft data as they are often called. The delimitation of hard data is much too soft to be useful. Is recidivism registered in the crime statistics to be called " hard " data, while recidivism known to the field-worker is to be seen as soft ? Is an econometrician working with money to be called a hard-data man, while a social anthropologist studying the use of beer as a medium of exchange in a tribe in Sudan to be defined as working with soft data ? (Cf. Barth 1967.) Is measurement of the pain of imprisonment by the number of suicides to be given credit as a study based on hard data, while pains described through poetry are soft data ? But what about writing on the walls of the lavatories ? Let us say that we control for such relevant factors as availability of writing material, wall space, possible time spent there, etc. If we then make a content analysis of the graffiti and find that Institution A has relatively more sad writings on the walls

* I am in this paper — as in so many others — heavily influenced by the philosopher Arne Naess, particularly by his recent book *Okologi, samfunn og livsstil. Utkast til en ökosofi,* Universitetsforlaget, Oslo, 1974. Another major inspiration has been the writing of Vilhelm Aubert, particularly his article " Om metoder og teori i sosiologien ", in *Det skjulte samfunn,* Oslo 1969.

than Institution B, is this a piece of evaluative research with hard data ? Are soft data made hard when we start counting ? And are they made harder the more we tighten the design ? If this line of thinking is followed, we are easily brought to a position where the distinction between hard and soft research is converted into a synonym for good versus bad research. Such a synonym is unnecessary. But there is more to it than that. It might also blur another important distinction by making things too obvious. If hard-data research is just another word for good research, then it seems obvious that we *ought to strive for hard-data evaluation* — the good research. Confronted with soft data, we ought to tighten the design, and particularly shape our data so that they might become counted.

Yes. And no.

Since yes is the obvious answer, let me concentrate on no. And let me do so by introducing another major methodological distinction.

2. *On quality versus quantity*

Quality has to do with the thing, the phenomenon. Quantity has to do with how much.

Quality comes first. You can understand a lot about life and the world through knowledge of qualities. You cannot understand anything through quantities that are not linked to qualities. But this is more clear in theory than in practice, and here lies one of the major reasons for emphasizing the importance of qualitative research. Counting is a strenuous task. Time given to counting might take time away from describing and understanding the phenomenon that is being counted. It seems often to be the case, that the more sophisticated the counting, the less sophisticated is the understanding of the phenomenon being counted. The other way around may also be the case: the more sophisticatedly the phenomenon is described — thoroughly, with

insight, with artistic nerve, apprehension and ability to communicate the result — the less sophisticated is the quantification. But again, quality comes before quantity. It is probably less damaging to miscalculate a well understood phenomenon than most elegantly to quantify a heap of nonsense.

But this is advancing too fast. Let me enter the field of sociology of knowledge. And let me there raise the following question: *Whose interests are best served by quantification ?*

I have two groups in mind. First: those with power.

3. *The power in quantification*

The man with power can bend my will against his will. That means, among other things, that his conception of the world is more valid than mine. His definitions are more important than mine, his perception more than mine, his ideas more than my ideas. To see means to select what shall be seen. The phenomenon is not one, but many. Decisions on what to take into account — or to count — are strategic for control.

And then to counting. Authorities will by and large be fonder of investing energy in quantitative research than in qualitative, because *fast entry into quantification at the same time means that the phenomenon as defined by the authorities will be used as the base for the account.* Recidivism, escape rates, treatment results, personality change, aptitude improvements...

The man without power might have the opposite interest. His major interest might be to get authorities — or the general public — to understand how it really was to be punished. His interest would be to convey the broadest possible experience of what a day in the life of a prisoner really was like, what a day under " compulsory treatment "

meant, what compulsory use of drugs within an institution meant, how greatly or how little the difference between a prison and a hospital was experienced, how the police, the probation worker or the judge actually operated, how he, himself, looked upon what officials called recidivism. Attention given to the quality of a phenomenon gives more room for attention to those aspects of reality that authorities have *not* authorized as important. It seems therefore to be a good rule of thumb, that if you want to listen to weak voices, you should not be too fast in commencing the count. Give first of all ample time to *the phenomenon.*

There is another reason why authorities — particularly administrators in modern industrialized societies — are so fond of quantification: it fits the style ! Administrators are used to handling quantities, that is what they are there for. And that is what they are trained for, formally through the educational system, or informally within the bureaucracy. They are not paralysed by tables and diagrams. On the contrary, they know that such symbols of expression are part of the kit of all their equals. Budgets are fought with numerical statements, not poetic ones.

Again the other side might have other needs. The prisoner, or the general public, might feel uneasy, alienated or just that something is wrong. Or particularly, that the whole or the important part of the phenomenon is not represented in the diagram. But figures are not his style. Diagrams and tables make weak people even weaker by being a foreign language. It makes them more childish. We all regress in a foreign language. Those whose language is used get additional power. We are here confronted with one of the many obstacles to participatory democracy. And again the rule of thumb seems to say: If you want equal participation, use ample time — and give generous reward to the use of ample time — for as complete a description of the phenomenon as possible before you start counting what must always be only fragments of the totality.

Related to the two foregoing points is the question of the normative base for evaluation. Again conflicting interests are in play. Power-holders are interested in norms as *they* see them. Administrators are in addition interested in *simplicity and stability.* Without a minimum of these elements, the system might become too complicated to run. This all calls for evaluation according to relatively simple criteria, or maybe best of all, where the criteria are implicit.

The counter-interests might here most easily be described with an example from a field outside of criminology. Let us enter ecology. It is striking how much of the conflict within that area centres on the question of *how wide a spectre of norms shall be allowed to enter the discussion.* Just as in crime prevention, administrators are interested in a low degree of specificity of the values that are to represent the basis for evaluation. The general director of an electrical generating system has a strong interest in defining his task as a technical one. He has to plan for an ample supply, and he has done a good job when the supply is running smoothly. The various pressure groups among ecologists, naturalists or adherents of zero growth are, however, attempting to disrupt this simple picture. They try to get the general director — and Parliament — to increase the number of norms declared relevant. They attempt to force on him a concern for small mountain communities, for birds, for long-term climatic considerations, for what the next generation would think if there were no waterfalls left, for the preservation of a life-style where production of industrial commodities is given a low priority, etc. The troubles of the general director increase with each additional norm it is demanded he shall allow to enter the evaluation of what he is doing.

As in ecology, so also in penology. Penology is much too important a matter to be left to penologists. It cannot be left to other professionals or to those hit by the sanctions either. Crime and punishment are central topics in any society. If that society pretends to be a democratic one, it

is a topic that has to be opened for general participation. That means in our connection that the major problem for evaluative research has to do with the explication of the normative system. Evaluation means that a phenomenon is compared with a standard — a norm — for how the phenomenon ought to have been. So, in a way, it is wrong to say that quality or the phenomenon comes first. *Norms come first.* They decide what sort of phenomenon has to become known. Quantification has only third priority.

The danger in too fast an approach to counting is probably clear by now. It might detract from energy spent on describing the basic phenomenon. And it might mislead the researcher into an over-simplified view of the norms against which the phenomenon ought to be evaluated. Particularly, too fast counting might let the administrative system for law and order get away too easily with using its implicit norms as guidelines for evaluative research.

If the dangers in early quantification are so clear, why then do we so easily forget about them ? To answer that question, we have to go back to the problem of whose interests are best served by quantification. But this time we will not centre on administrators, but on ourselves: researchers, universities.

4. *The prestige and convenience of quantification*

There are three major advantages in playing around with figures rather than with phenomenology or clarification or normative systems.

First: Counting builds a bridge to the administrators we just left. If they raise the problem, and the money, and the scientists answer by counting what they are asked to count, then the two groups might co-exist in a beautiful symbiotic relationship. I say " might ", because there are exceptions when the figures do not fit. But they are few and easily neutralized. I will come to this later. Mostly relationships between top administrators and their paid researchers resemble the one between the mediaeval emperor and his artisan.

Secondly: Counting also belongs to the beautification kit of social science. That is what the big brothers in natural science are supposed to do. It is not actually true (cf. Kuhn 1961) but according to the image it is true. And it gives protection vis-à-vis the general public. It looks scientific. It draws a line between social science and journalism. The utmost banality of most social science would be made obvious if it were not for numbers, diagrams, terminology. Description of the real phenomenon can't be made that mysterious. Nor can explication of norms. What is the difference between Erving Goffman's *Asylums* (1961) and Stan Cohen's and Laurie Taylor's *Psychological survival* (1972) and what any person might have been able to perceive and write if he or she had the ability to perceive and write ? Maybe there is no difference. And that is just the point. There is no difference, except in quality. So, without that quality, without talent, we use figures. That is safe. That keeps us going. That keeps an increasing number well cared for, comfortably situated in positions that maybe ought not to exist.

Thirdly: Number are not only perfectly well suited for external use, they are also fine for internal use, inside the research institutions or the universities. They are fine for protecting the scientist against leaving his familiar surroundings, university offices, public files, computers. And furthermore, the figures are essential because of the *evaluative system* that operates within that setting. Quantitative data give the evaluator a comfortable feeling of exactness in his evaluation. It is only a feeling, but a good one. Is Hemingway to be given tenure, but not Steinbeck ? It is an impossible question. Most competitions between scientists are equally impossible, but the impossibility is hidden behind figures. Particularly for students, it is safe to work with

figures. Given a part of a problem and a cookbook on how to count, you can't go completely wrong. It also saves the professor a lot of work. Who knows if a phenomenologist among the students was actually a Goffman in disguise ? But it takes only ten minutes to see if a student has his correlations right. A fellow named Oehlemschläger is supposed to have got for his final language thesis in the gymnasium the rather open question: What is life ? He answered:

Hva er vel livet ?
et pust i sivet
som symher med.
Et spile ar krefter
som higer efter
en evighet.

It can't be translated, at least not by a sociologist. Enjoy the music. But he got away with it. According to the general mythology around the author, he got top grades on the basis of these lines. But the risk must have been tremendous. Most of us are risk-avoiders.

Maybe we could again establish a methodological rule of the thumb. This time it would sound: Look at your figure-fetishism with the utmost scepticism. Maybe counting is better for you than for your problem. Maybe a device for decreasing the importance of figures would be to decrease the differences in the stratification-system within your research organization.

Another device might be to arrange circumstances so that scientists were more oriented towards the general population than towards colleagues and fellow-professionals. Lewis Coser (1957-58) has shown that Georg Simmel's admirable literary style probably was a consequence of his outsider position in German society. Simmel was a sociologist without a guaranteed audience. He had to capture

readers, he had to write as a writer. There is some distance from Simmel to a situation where we can force students to buy our books, or where we ourselves are forced by certain journals to employ a style that hides the work from anybody in the general public more safely than any document inside the CIA. As Vilhelm Aubert has pointed out, there are probably some advantages in belonging to national societies that are so small that you can't find a sufficient number of inbreeds in your own profession to write and talk to. Lack of equals inside the ivory towers forces you out. Or in Aubert's formulation (1969, p. 194): " When the major American journals according to my estimate so rarely present material of serious interest, it might be explained by the fact that the professional community there is so large that it contains its own market and can concentrate on its own trivia. Paradoxically enough, this might create a basis for a less provincial social science in the small... countries than in the sociologically avant-garde USA ".

Let us leave the field of sociology of knowledge, and instead exemplify the need for explicating norms and understanding the totality of the phenomena within some major areas of the legal apparatus.

5. *Some applications*

Evaluative research within the judiciary might be used as an example. The Ministry of Justice might be interested in such questions as the cost of the system, reliability of judgements, number of cases appealed, length of time until a case is settled, waiting time within different types of courts, satisfaction of clients, extent of bribery within the court system,... I rather have to stop. The list is already much too long for most administrators. But compared to what the country ought to know, the list is much too short. What about the functioning of the court as an active element in building neighbourhood spirit ? Does the court function

in ways that take people's destinies out of their hands, or does it give them a vehicle for solving their own problems ? Is the court system a part of themselves, or is it one of the many institutions in modern society that have been captured by powers outside the local community ? Has it been mystified away into a privileged area for persons able to convince others that to judge conflicts demands professional know-how ? What is the position of victims in such a system ? Has the victim been stripped of his right to take part in solving his own conflicts ? Who *owns* the problems ? The judge, the psychiatrist, the penologist, the victim in interaction with the offender, the local comunity ? No important evaluation can ever be thought of without clarification of the norms telling us how the system ought to operate.

Similar lists might easily be established within all other areas of legal systems. The police is an elementary case. Police efficiency is of course not the only goal. A centralized, professionalized police takes good care of some goals. But there are many goals to be served in pluralistic democratic societies. There is the goal of keeping power under control. There is the goal of keeping centralized state authority from running wild. There is the goal of preserving elements of social relationships based on informal control. There is the goal for some of us of preserving a maximum of egalitarian relationships. There is the goal of hampering development in the direction of the professionalization of everybody. Counting is not the first priority.

And then to the traditional area of evaluative research within criminology, the evaluation of sanctions. I will use this area as my major example in the last section which I now turn to.

6. *Is it, then, time to stop counting ?*

That would be an impossible position to defend, particularly because some of the accounts have turned out to be

extremely useful both for practice and theory. Some names come immediately to mind: Leslie Wilkins has, first in Great Britain and later in the U.S., given more arguments for the non-effects of treatment than any other person I know of. Karl O. Christiansen has done the same in Scandinavia. (I say this to give him deserved honour, but he dislikes intensely my interpretation of his data.) These results do actually open the field for new curiosity regarding the phenomenon and also new interests in explication of the norms the penal measures have to be compared to. Another extremely important example of good counting was recently published by Wolfgang and Riedel (1973). They are able to prove not only that *sentencing* to death hits blacks more often and for smaller offences than it hits whites, they are also able to prove that the *actual carrying out of the executions* hits blacks equally discriminatorily. Even after being sentenced to death, it is an advantage to have white skin. It is one of the most important articles to be found in modern criminology, an *Archipelago Gulag* of the West.

So, I will not defend a non-quantitative position. But I will nonetheless try to weaken the prestige of that position.

First with an observation of what happens when the quantifiers have helped to weaken the prestige of treatment. I recently attended a joint meeting arranged by four of the international organizations in the area of criminal policy and control. What was both striking and fascinating during that whole meeting was the continuous struggle to cope with the finding that recidivism seems by and large unrelated to the form of sanction. Independent of the topic for the day, this theme reappeared again and again. Good, and encouraging. What was not quite that encouraging was the field observation with regard to the ultimate goal of the exercise, and also with regard to the ease of reaching that goal. The goal (I admit there are reasons to distrust my ability to observe, but a report from the proceedings is to be published) seemed to a large extent to be one of neutralization of the relevance

of the finding. The result of non-effect of treatment is by now, in striking contrast to 10 to 15 years ago when it seemed only to some of us to be well established, generally accepted as a true statement. But that does not necessarily have consequences for action. If new reasons, new ideologies are established for old systems, then new data need not have any reformative power. Social systems are just as good as personality systems at protecting themselves. If *treatment* ideologies don't survive empirical tests, the system shifts with the greatest of elegance into deterrence or an ideology of simple protection against dangerous people.

My point is a pessimistic one. I do not degrade the importance of counting within these areas. It has to be done. But at the same time one has to be aware of the amazing ease of restructuring ideologies when the facts do not fit. But this leads us back to our two major points: the importance of explication of the normative system which states what one wants to accomplish, and secondly the importance of knowing the whole phenomenon. Evaluative research is a sort of endless regress. Deviations from stated norms are found, norms are reformulated, new deviations are found. And then, sometimes, practice is changed. The more the norms are explicated, and the more they are arranged in an internal hierarchy the more vulnerable the system will be to the claim that it ought to change when the count shows that supposedly important goals are not reached. The study by Wolfgang and Riedel is particularly important in showing deviance from norms so high in the hierarchy that it — at least for an outsider — seems impossible to change the norm. The practice has to be changed. When those who are supposed to be responsible for criminal policy in a country can so often and easily maintain old institutions — and clients — for new purposes, then this is only because of the extremely imprecise status of most of their major goals.

The lack of effect of the accounts gives even more weight to the importance of knowing the *whole* of the

phenomenon. It is convenient to know that treatment effects are small or completely lacking. But it is not very surprising after Goffman. And the phenomenologist has so much to say in addition. He can suggest *why* it does not work. And he can describe the inhumanity in many features of the total institution. The stripping of identity, the diagnostic culture, the systematic training in non-responsibility, is it not sufficient to show that total institutions of this type are bad — plainly bad — for human beings ? Why spend so much energy on counting recidivism ? Why don't we instead count square metres per inhabitant in jails ? Why don't we plainly register noise-level during the nights and inactivity-level during the days ? Why don't we register smell and heat and sorrows, and compare them to what are perceived as minimum standards in our particular society ? That is plain evaluative research.

It is not time to stop counting.

But it is time to know more *before* counting, *while* counting and *after* counting.

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EVALUATIVE RESEARCH WITHOUT HARD DATA

by DAVID BILES

The term " evaluative research " applies to a wide range of activities which aim to measure the extent to which programmes fulfill their objectives; or, to state it more accurately, the aim of evaluative research is " to provide objective, systematic, and comprehensive evidence on the degree to which the programme achieves its intended objectives plus the degree to which it produces other unanticipated consequences, which when recognized would also be regarded as relevant to the agency " (Hyman, Wright and Hopkins) [2]. There is thus no difficulty in defining the first part of the title of this paper, but real difficulties arise in attempting to define the latter part, " hard data ". It would be easy to suggest that hard data are items of information that are reliable and valid, but that would be too stringent. Such a definition would mean that there could be no evaluation without hard data.

The central difficulty here is that of drawing a distinction between hard and soft data, and it is submitted that this distinction cannot be drawn on the basis of the traditional concepts of reliability (the extent to which different raters obtain the same measurements) and validity (the extent to which an index measures what it purports to measure). Two examples will illustrate this point. If I talked to 50 policemen out of a service of 1,000 I might form the conclusion that the service was demoralized and recommend that steps

be taken to improve the situation, or if I conducted an intensive clinical assessment of a long-term prisoner I might form the opinion that he was highly dangerous and recommend that his application for parole be refused. In both cases an information input has resulted in a policy recommendation, but would we call the input hard or soft data? In both cases the decision-makers would be wise, of course, to seek a second or third opinion, but even a single opinion cannot necessarily be rejected as either unreliable or invalid. If further opinions confirmed my recommendations the reliability and validity of my views are considerably enhanced, but it is doubtful that any observers would cite these cases as examples of the use of hard data.

Neither of the above examples is strictly relevant to evaluation, but they illustrate the use made of soft data on socially important policy matters, and they also illustrate the conceptual difficulty of drawing a clear distinction between hard and soft data. Possibly some observers would argue that these two examples could have been cases of the use of hard data. This could have been the case if the policemen had been given pre-tested questionnaires and the 50 were demonstrably representative of the 1,000. And the use of hard data could also have been claimed if the prisoner had been given standardized objective tests instead of a clinical assessment. But this would be splitting hairs and gaining nothing.

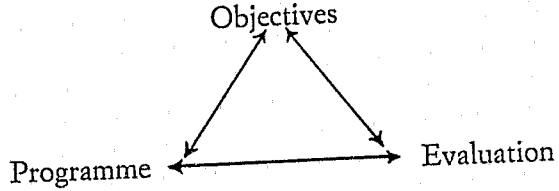
The term hard data is generally used to indicate extensive statistical material, usually presented in the form of tables or graphs and ostensibly satisfying the criteria of reliability, validity and representativeness. Much criminological dialogue would claim to be based on such data, but ironically, the more extensive the use of statistical material the less likely it is that these criteria are satisfied. Thus, what are apparently impressively hard data may be seen to be comparatively soft if examined closely. It might be thought, for example, that official statistics of crime rates represent

the ultimate in the criminological hard data but the spuriousness of these figures due to unreportability and inconsistent recording procedures is now widely recognized. Similarly, the studies which aimed to identify the " cause of crime " by comparing large numbers of offenders with non-offenders are today not regarded as especially useful or constructive. The criminological researcher of today is much less ambitious than his predecessors and he will generally be satisfied if he can either assist in the understanding of the *process* whereby individuals or groups become labelled as criminal, or make intelligent assessments of the effectiveness of crime prevention and correction programmes. The first of these modest aims is strenuously pursued by the sociologists who focus on deviance, and the second is most often the concern of researchers employed by government agencies. (It is conceded that research workers in criminology or criminal justice extend their horizons beyond these two areas, but these seem to the writer to be the areas of major concern over the past decade.) It is the latter area of evaluative research which is central to this paper.

Leaving aside temporarily the unresolved problem of distinguishing between hard and soft data, it is undoubtedly true that evaluative studies on corrections and criminal justice have greatly increased in number over the past decade or more. Stuart Adams has outlined this development in a most valuable recent publication [1], and Charles Wright has reviewed the field in a short but authoritative article [3]. Both writers have appropriately stressed that the first stage of any evaluative research is the clear specification of objectives. If the objectives of a programme or criminal justice activity cannot be, or are not, clearly stated then the programme or activity will probably collapse and, whether it survives or not, evaluation is impossible. That is obvious, but what is not always obvious is the fact that objectives of any criminal justice system are rarely clearly stated and even when they are,

they vary widely at different points within the system. The objectives of law enforcement are not identical to those of the courts or of corrections and yet law enforcement, courts and corrections are the three interacting and interdependent sub-systems which comprise a criminal justice system. And what of the law itself? Are the objectives of the law the same as the objectives of its agents? The answer to these megaquestions are hardly likely to lead to specifications which will be readily translatable into empirically measurable indices. And yet, as has been said, unless objectives are clearly specified, evaluation is not possible.

Perhaps the solution lies in a broader view of evaluation and a wider use of soft data. Furthermore it is probably necessary to recognise the legitimacy of competing or even conflicting objectives of any single criminal justice activity and therefore to provide different types of evaluation corresponding to each of the objectives. This can be illustrated by reference to an example, but it is necessary first to outline some elementary theory. It is proposed that for any social action programme the objectives, programme and evaluation form an interacting triangle which can be shown diagrammatically thus:



The objectives clearly dictate the programme but practical limitations, such as the availability of human and other resources, conversely influence the objectives, and if there is even the slightest heed given to the extent to which the programme is successful, i.e. the objectives are fulfilled, then some form of evaluation is incorporated. The evaluative procedures may be intuitive and not clearly articulated

but these procedures, which are themselves dependent upon the objectives of the programme, will themselves influence what is done and why it is done. Where the evaluation is built in and acknowledged as a legitimate adjunct to the programme the dynamic nature of the interaction between the three elements is abundantly clear, but even with subliminal evaluation the proposition of interaction still holds true although not obviously so.

As a refinement of the proposition above, it is further proposed that the conceptual distances among the three elements vary according to the nature of the objectives being proposed. Thus the triangle may be large or small according to the particular objectives being assessed, all of which may apply to a single programme.

To place this theoretical excursion into a practical context an illustration will now be given. The criminological literature abounds with learned discussions on the purposes of imprisonment and from this we may discern at least three distinct and separate aims. These may be summarized as follows:

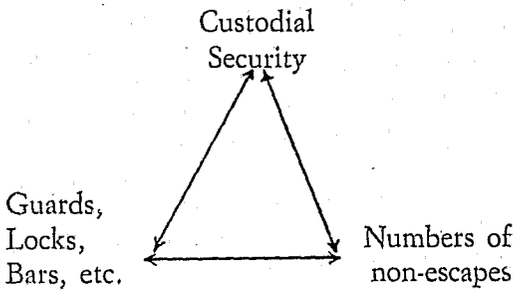
a) to maintain security; to incapacitate the offender and thereby prevent crimes in the community for the period of time fixed by the court,

b) to rehabilitate the offender; to reduce recidivism by providing such treatment or training activities as will assist in his readjustment to the outside community, and,

c) to deter potential offenders by ensuring that the undesirable consequences of unlawful behaviour are widely known.

Other objectives may be stated, or those cited may be expressed in different language, but for each of the three above a different evaluative model may be drawn.

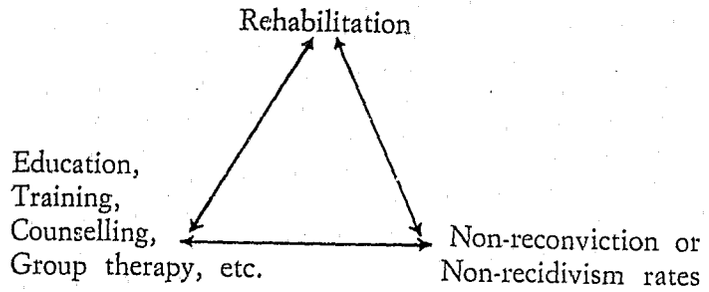
The maintenance of security is generally relatively easily achieved by the use of guards, locks, bars, walls, etc., and the assessment of the effectiveness of this aspect of the prison programme is also relatively easily carried out by counting the frequency of escapes and subtracting this from the total number of inmates. Thus for this objective the evaluation is conceptually close to the custodial activity, and it might seem that little is gained by the use of a model. Nevertheless, for the sake of comparison with later models it is shown diagrammatically as follows:



Even at this primitive level of evaluation a security effectiveness rating of 95, 99 or 99.9 percent is meaningless unless it is compared with that of another institution, or with the same institution at a different time, and such comparisons can only be validly made with equally escape-prone populations.

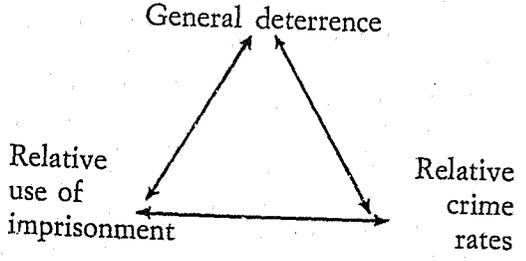
The second suggested purpose of imprisonment, rehabilitation, presents the researcher with challenging problems, but here the three elements are clearly conceptually separate and the situation is in accord with popular views of correctional evaluation. The modern correctional administrator would say that his aim (apart from maintaining security) is to rehabilitate offenders by providing treatment and training programmes, the effectiveness of which can be

gauged by reference to the reconviction or recidivism rates. This is shown as follows:



Apart from the problem of making comparisons between different groups of offenders as mentioned with regard to the evaluation of security, the main difficulty with this evaluative strategy lies in defining recidivism in such a way as to take into account both the relative frequency and relative seriousness of criminal offences.

The third suggested purpose of imprisonment is an evaluative nightmare. If the imposition of imprisonment on known offenders really does deter potential offenders then presumably it would follow that in communities where imprisonment was widely used the general crime rates would be lower, all other things being equal, than in communities where imprisonment was less frequently imposed. The fact that this proposition is either impossible to demonstrate (all other things never being equal) or is probably false need not detract from the evaluative model in which the three elements are widely separated as is shown thus:



Here the three elements may have only symbolic influence on each other. It is possibly true that some judges and magistrates impose harsher penalties if they perceive there to be an unacceptably high crime rate, but nowhere has it been satisfactorily demonstrated that such a shift in sentencing policy leads to a reduction in the incidence of crime. Perhaps the realistic conclusion should be that we do not have the skill to conduct evaluative research at this broad level.

The three approaches to the evaluation of the effectiveness of imprisonment described above suggest that the outcomes are either self-evident (as in the case of maintaining security), problematical or lacking in conviction (as in the case of reducing recidivism), or impossible (as in the case of general deterrence). It should also be noted that all these approaches are dependent upon the use of so-called hard data. The only area of any doubt is that concerning reducing recidivism, but even with this clear-cut objective and readly available method of assessment, no studies have convincingly shown that the provision of education, training, therapy or whatever has a positive effect on recidivism rates. If that be the case then perhaps the objectives of these programmes should be restated. It may be more realistic for correctional administrators to state that they run these programmes simply in response to the stated needs of the inmates. The programmes are an indication of respect for fellow human beings and perhaps, incidentally, an aid to control. If that be what these programmes are all about the evaluation is simple; one just asks the inmates if they are getting what they want and also asks the guards if the programmes are making their job easier or harder. With this approach the evaluator is up to his armpits in soft data.

The methodologically rigorous, empirical hard data evaluative research which aims to compare the outcomes of different types of correctional techniques is not to be denigrated, but evaluation without hard data should be recognized as an alternative basis for decision-making. As any historian will testify, policy decisions are more likely to be influenced by the current political climate than they are by any pseudo-objective assessment of the likelihood of success or failure. Our personal lives too are dictated more by taste, prejudice and emotion than they are by the well established facts about the consequences of poor diet, cigarette smoking or alcohol consumption. In the field of criminal justice decisions are likely to be guided by either expediency or humanitarianism rather than by the results of scientifically pure evaluative research, but it is possible to identify an intermediate position which avoids the extremes of both "data-free opinion" and obsessive scientism. This intermediate position would use many sources of data, both hard and soft, and thus pay due regard to the full complexities of any situation in the criminal justice continuum. It would also allow the criminal justice decision-maker to include legitimately in the spectrum of factors that influence him his own personal tastes and preferences, which he includes now but which it is unfashionable to admit doing.

In any criminal interaction that results in apprehension, conviction and punishment of the offender, there is a vast array of more-or-less interested parties. The victim probably has a point of view and yet is seldom heard apart from the role of witness for the prosecution. The offender, too, may have useful insights into the behaviour of the victim, the police and prosecution and he will certainly have an opinion about the appropriate penalty. Similarly police, prosecutors, judges and correctional workers all have points of view which are seldom noted if they trespass beyond their traditionally defined roles. If one adds the voice of the general public and that of the government at local, regional and national levels, the multitude of possible influences on any decision becomes apparent, and the assumption that

any activity or programme has but a single objective and can be evaluated in regard to that objective, is shown to be naively simplistic. A commitment to a rigid evaluative model for all criminal justice decisions may turn out to be an impossible strait-jacket and one that impedes the development of increasingly rational and sensitive criminal justice policies.

A further justification for the extended use of evaluation without hard data is that fully fledged evaluative techniques often take more time than is realistically available to decision-makers. Furthermore the social and political climate, the nature of the crime problem, the resources available and the types of offenders can all change dramatically over a period of three to five years, and that would be a reasonable time-span for a detailed evaluation of a crime prevention or correctional programme. The results, even if significant, are likely to be out of date before they are available. It is relevant here to note that the Special Intensive Parole Unit (SIPU) studies of the California Department of Corrections, the reports of which were published in 1956, 1958, 1962 and 1965, failed to demonstrate that small case-loads were more effective in reducing recidivism than large ones, and yet, over the period of time that the studies were being conducted case-loads were reduced in size anyway. The decision to make this change was clearly not influenced by the results of the research. At a guess, it was probably the pressure from parole officers themselves that brought about the reduction. If that is correct, the same result could have been achieved with a much cheaper and quicker research project which entailed simply asking parole officers (and parolees) what they thought was a desirable case-load.

Large-scale evaluative projects, like SIPU, with their randomly assigned experimental and control groups, are always necessary even if they do not produce the expected results, but they will never comprise the totality of evaluative research for several reasons. As stated above, they are too

time-consuming and too expensive to be applied in many situations, and it is only in the rare case that the researcher is able to construct experimental and control groups that are truly equivalent. The clinical trial of correctional techniques, as proposed by Norval Morris and Colin Howard [3], pp. 190-194 is extremely difficult to arrange in practice. In many situations it would be clearly unethical for individual offenders to be randomly assigned to one or another treatment regime if one were perceived as more punitive or less desirable than the other. And if the two treatment regimes are seen by the potential recipients as equally punitive or undesirable (or equally attractive) it is unlikely that any worthwhile insights will be gained from the research because the difference is not very great.

To overcome this problem, much evaluative research endeavours to make use of the natural variations within the system, identifying offenders that have been assigned to different treatments (e.g. prisoners and probationers) but are apparently similar with regard to offence, prior criminal history, age, sex, education, marital status, etc. This is usually referred to as a quasi-experimental methodology incorporating the use of " matched groups ". The problem here is not an ethical one, but a matter of the interpretation of the results. If significant differences are found, the researcher is always faced with the nagging doubt that some other factor which was not " matched " explains the difference. The results may be interpreted as confirming the sound judgement of the judges or administration authorities who originally assigned the offenders to different treatments. For a detailed discussion of this approach and its problems, reference is made to the highly sophisticated work of Leslie Wilkins [4].

A variant of the quasi-experimental approach is that which uses statistical probabilities or base expectancy scores to indicate the likelihood of reconviction for individual offenders. This technique allows the researcher to observe

whether groups of offenders given different treatment succeed or fail at higher or lower rates than expected and thus infer the effectiveness of the treatments. This is a form of prediction and as such it suffers from an unavoidable difficulty: to the extent that prediction scores are used as a guide to action, they invalidate themselves. A simple illustration will make this clear. If a parole prediction study shows that characteristic " X " is highly predictive of failure and the parole board thereafter denies parole to prisoners with the characteristic, later studies will show that " X " is of no significance because none of the relevant prisoners was at risk. The real-life use of prediction is, of course, never as simple as this, but the principle nevertheless holds true.

A further weakness of experimental, quasi-experimental and predictive approaches to evaluative research is that they seldom if ever pay much attention to the views of the recipients of the programmes that are being evaluated. The individual offender about whom much thought has been given by judges and correctional administrators is reduced by the researcher to a statistic or a series of holes in a computer card. What he thinks and feels about the programme or about the research is not generally considered relevant. Pure research therefore most often gives us facts without human meaning; the data may be hard, but they may also be indigestible. The rise of the " New Criminology " has, of course, brought about a dramatic change in this situation and we have now available to us numerous accounts of the lives and attitudes of offenders themselves. Few persons, however, would want to classify this material as the results of evaluative research. A philosophy which sees the offender as a victim to be pitied and pays little regard to the needs of the present and future real victims of crime is likely to be singularly lacking in appeal to the policy-makers who are the users of criminological research. Nevertheless, it is probably true that some form of compromise or reconciliation between the approaches of the empiricists and the new criminologists is likely to avoid the faults of both extremes and ultimately prove to be of value to the total community.

In addition to overlooking the views of the clients, most formal evaluative research also pays scant regard to the attitudes and values of the front-line staff who put innovative programmes into effect. There are exceptions, of course, where enthusiastic staff members are the initiators of new ideas and new programmes that the researcher is required to evaluate, but in these cases it is generally professional staff and not more numerous practitioners that are listened to. The hierarchy of credibility is closely correlated with status in correctional or crime prevention agencies. Much simple, straightforward research could be usefully conducted to assess staff attitudes to current programmes and staff receptiveness to new ideas. As one possible example of the type of theoretical model that could be used as a basis for the assessment of the attitudes of correctional personnel, I would like to devote a little space to what I call a " Taxonomy of Correctional Objectives " (the full statement of this model has been accepted for publication in the *International Journal of Criminology and Penology*). The model may be used to classify people's thinking about prisons and has been developed from observation of prisons and conversations with prisoners, prison officials and other interested people. It is hierarchical in the sense that thinking about imprisonment at any level above the first implies both mastery of the concepts contained in lower levels and a progression through the lower levels to the level being used.

The basic assumption underlying the taxonomy is that all people, whether individually involved or not, initially think about prison and imprisonment at the lowest level of conceptualization and either fixate at that level or progress to one or other of the higher levels, any progression follow-

ing the sequence given below. The taxonomy is based on five levels of thinking, the first three of which are especially relevant to prison officers and administrators. A brief description of each level follows:

Level One. Thinking at this level is exemplified by concern for material matters related to imprisonment: for example buildings, prisoners' clothing, food, hygiene and security. At this level of thinking the prison official is concerned primarily with maintaining the custody of his charges in appropriately hygienic conditions. The first questions members of the lay public characteristically ask about prisons concern matters such as cell sizes, routine, height of walls, etc., thus indicating level-one thinking. Much debate at this level revolves around whether or not new prisons too closely resemble motels.

This is named the *physical level* of correctional thinking, and is the most primitive. It is " concrete thinking " in every sense of the term.

Level Two. Thinking at this level is exemplified by concern for the programme of activities (work, recreation, etc.) within the prison and the prisoners' immediate response to it. The aim is to control inmate behaviour by other than physical means, and the successful application of this approach results in a " happy prison " with both staff and inmate morale being high. Level-two thinking is prompted by both expediency (in that it assists the achievement of level-one goals) and humanitarianism (in that the staff adopt a more kindly approach to their charges). It is, however, still a limited approach as it focusses solely on the prisoners' behaviour during the period of imprisonment.

This is named the *institutional-managerial level,* and it may well be the highest level that one could reasonably expect from the majority of uniformed prison staff.

Level Three. Thinking at this level is exemplified by concern for the effect of the institutional programme on the post-release behaviour of former prisoners. Having achieved a reasonable degree of security (an acceptably low escape rate) by lower-level techniques, the aim here is primarily to reduce the recidivism or reconviction rates to minimal proportions. Techniques appropriate to this level include the provision of trade training schemes, educational programmes, psychiatric treatment (individual or group), pre-release courses and adequately trained parole and/or after-care personnel.

It must be recognized that some of these techniques may also serve level-two objectives, but in some areas there may be distinct conflict between level-two and level-three goals (for example, where a psychiatrist considers it in the long-term interests of a withdrawn and introverted prisoner for him to display more aggression even if it disrupts the prison routine). A committed level-three thinker may well argue that institutional behaviour of inmates is of little or no consequence.

This level is named the *penological level,* and it may be expected to be found in all professional personnel working in prisons, as well as officers-in-charge of institutions.

Level Four. Thinking at this level is exemplified by concern for the effect of prison administration on the total criminal justice system which is viewed as a dynamic interacting complex of the three subsystems of police, courts and corrections (including non-institutional corrections). Here the aim is to maintain an efficient criminal justice system in the interests of sound public administration. The functioning of the prison subsystem must have the confidence of the courts and of the police (and vice versa) such that each element of the total system is seen as having compatible aims. If this is not achieved and the individual elements of the system are seen — or see themselves — to be in

any degree of conflict the efficiency of the system will be impaired.

This is named the *criminological level* and may be expected to be found in prison and police administrators and politicians.

Level Five. Thinking at this level is exemplified by concern for the total effect of the functioning of a criminal justice system on the basic values of a society. In particular, the ritualization of deviant behaviour by court and prison procedures is seen as having positive social value, as the " virtue " of non-condemned behaviours is confirmed by the very process of dealing with unacceptable behaviour. The inevitability, and indeed the necessity, of there being a quantum of social deviance is seen as relevant to the maintenance of social cohesion. A fundamental question here revolves around the size of the quantum needed.

This is named the *socio-philosophical level,* and might be expected to be found in academics and others concerned with the total welfare of the society.

The immediate and most obvious application of this taxonomy lies in the evaluation of prison systems by classifying the statements made by officials within the first three levels. If, for example, an observer forms the opinion that the staff of a prison system is largely fixated at level-one thinking with little evidence of higher levels, then a strong case may be made for improved selection and training of personnel. Such a case could not be made where level-two and level-three thinking were found to predominate.

If a more precise assessment were needed the taxonomy could be used in a more sophisticated way by the content analysis of written answers to the question "What makes a good prison ? ", by a representative sample of staff. This method would allow percentages of thinking at each level to be computed. It may be of considerable interest to do this with samples of prisoners, too. For most purposes,

however, such exactitude is not required and a reasonable assessment may be made by simply listening to, and classifying, the things people say about the prisons they work in and the prisoners they control.

Theoretical implications of this taxonomy which are not relevant to staff assessment will not be pursued here, but its application in the manner described above is a fairly clear case of soft data being used in a systematic way. Undoubtedly other models could be devised for this or other types of staff assessment, but the underlying point being made is that evaluation should incorporate the attitudes and reactions of both clients and front-line staff.

The problem with a multiphasic approach to evaluation which is implied here is that it may produce apparently contradictory results and therefore not provide a clear guide to policy. If this is so, it may more truly reflect the complexity of criminal justice decision-making than the scientifically pure, experimental approach. For example, a community-based correctional programme may, after extensive evaluative research, be shown to:

- be no more effective than institutional treatment in reducing recidivism,
- have no apparent effect on local crime and delinquency rates,
- cost significantly less than most alternative forms of treatment,
- be extremely damaging to the physical and mental health of the staff,
- be more popular than institutional treatment by the offenders assigned to this treatment,
- be regarded with extreme scepticism by the local police,
- be of only marginal and precarious acceptability to the local community, and there may be many other supportive and critical findings.

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With an array of results like this the administrator is not given a clear guideline as to whether or not he should continue the programme, but he is given a great deal of information which he can use in a variety of ways. If he decides on continuation of the programme (and this is likely for reasons of cost alone) he can initiate appropriate action to deal with the negative findings that emerged. And as the first two findings are less likely to change than the others, he can call for repeated, inexpensive evaluation of other aspects of the programme. A many-faceted evaluative strategy such as this initially uses both hard and soft data, but it is submitted that the relatively quick soft data approach is likely to be as, if not more, influential than the long-term hard data approach.

The final substantive matter to be discussed in this paper is the credibility of the researcher in the eyes of the research user and it is hypothesized that soft-data evaluation is acceptable to the extent that the researcher is held in high esteem. Thus the researcher that is highly valued is likely to be just as influential with a handful of soft data as is the unknown researcher looking at the same problem who produces reams of computer print-out and impressively detailed reports. Perhaps it is really a matter of only trusting one's friends, but it does suggest that in-house researchers are more likely to be able effectively to use soft data than are outsiders. Surprisingly, the literature seems to suggest that the opposite situation is more common, with university-based researchers producing insights into the attitudes of offenders while agency-based research is generally highly statistical and formal. Perhaps this should be reversed.

Another approach to the significance of the credibility of researchers is given by Adams [1] (p. 67), who uses the term to denote " quality of research design, adequacy of the design to the specified problem and the context of the study, and general impressions of reliability and validity of the findings ". With this interpretation of credibility,

Adams has analysed 13 recent evaluative projects and assessed their contribution to agency operation and to scientific knowledge. It is interesting to note that by his analysis none of the studies rated high on credibility was rated high on its contribution to agency operations, but more than one half were rated as making a high or moderate contribution to scientific knowledge. Conversely, one half of the studies rated moderate or low on credibility were rated as high or moderate in their contribution to agency operations, but none was seen as making even a moderate contribution to scientific knowledge.

Some fascinating speculations flow from this exercise. To the extent that it is possible to generalize from this analysis (it is itself an example of the soft data approach as Adams describes his own assessment of each study as "rough and intuitive ") it would seem that evaluative research that meets accepted criteria of design, reliability and validity is more than likely to make a contribution to scientific knowledge but is unlikely to assist with the operation of criminal justice agencies. On the other hand, less respectable research will certainly not contribute to scientific knowledge, but it has an even chance of making a contribution to agency operation. It would seem that we must ask ourselves again what we are doing research for.

Of the 13 studies reviewed by Adams, five were university-based and it is salutary to note that all were rated as low in their contribution to scientific knowledge. This sub-finding tends to confirm the earlier statement favouring in-house evaluation for the administrator who wants answers to pressing problems.

In summary, it has been argued in this paper that, notwithstanding the difficulty of drawing a meaningful distinction between the terms hard and soft data, any evaluative exercise involves an interaction between objectives, programmes and measurement techniques and that the conceptual distance between these three elements varies according to the nature

of the task. Furthermore, it has been suggested that criminal justice operations are characteristically likely to have many competing or conflicting objectives and thus a single evaluative approach to any operation or programme will not provide a complete picture of its success or failure. A multiphasic approach, using interviews with offenders, staff and other interested people together with more objective data on costs, reconviction rates, etc. is advocated. A possible approach to the soft data assessment of the attitudes of correctional personnel has also been outlined and the apparent relevance of the credibility of the researcher has been discussed.

It is predictable that in the next five or 10 years evaluative research will develop in two directions. There will undoubtedly be more widespread use of empirical methods including experimental and quasi-experimental strategies and the use of base expectancy scores, but on the other hand personal, subjective and humanistic assessment of criminal justice operations is also likely to flourish. It is to be hoped that these two developments will ultimately be seen as complementary as both have a role in telling us how well or badly we or our agents are fulfilling our tasks. Perfection in criminological evaluation is no more attainable by us than it is in any other field of human endeavour. It was, I believe, Samuel Butler who many years ago suggested that the art of living is the art of making adequate decisions on the basis of inadequate information. And many years before that, George Crabbe wrote:

> Oh ! rather give me commentators plain,
> Who with no deep researches vex the brain.

It is my forecast that the future of evaluation in criminal justice will see as much attention being paid to "commentators plain " as is today paid to empirical researchers who regale us which endless hard data and in so doing invariably "vex the brain ".

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CROSS-INSTITUTIONAL DESIGNS AND THEIR PLACE IN EVALUATING PENAL TREATMENTS *

by R.V.G. CLARKE

Introduction

Two important problems will have to be dealt with in future evaluative studies of penal treatments. The first is that existing research has shown that any differences between treatments in their long-term effects (usually measured by the proportions reconvicted within two or three years of completing treatment) are exceedingly small; the second is that the complexity of penal treatments makes it difficult to put forward a valid explanation for any difference in effects that are found. In a previous paper [6] Ian Sinclair and I put forward a number of suggestions for dealing with these problems, including the greater use of what we called " cross-institutional " designs. ** Because of limited space we did not discuss the methodology of such designs in detail and I therefore thought it would be useful to analyse the approach more fully in this paper. I should make clear at the outset that these designs are not seen by us as provid-

* This paper was prepared in consultation with Dr. Ian Sinclair. I wish also to thank Home Office colleagues for their comments on the draft.

** Though these designs can be seen as an extension of existing methods, they justify a special name in that they allow different analyses to be performed. The main disadvantage of the name chosen is that it implies somewhat misleadingly that use of the designs is restricted to the institutional field.

ing solutions to all the problems of penological research, but they have a part to play which has not so far been properly exploited.

Essentially, the cross-institutional method proceeds by comparing a large number of institutions of a particular type within a single research design. This comparison would usually be made of different prisons, for example, rather than of prisons with Borstals or with any other kind of institution. Intake to the institutions being studied is standardized by using prediction, partial correlation or other statistical techniques, and measures of various aspects of the treatment process are correlated with measures of the effects. Since the method depends on the correlating of scores which have been assigned to each institution for the various dimensions under study, it is probably unworkable with a sample of fewer than eight or ten institutions. As explained in Clarke and Sinclair [6], these designs can readily be adapted for use in evaluating the work of courts, probation officers, or indeed any treatment that takes place in separately identifiable units. They in fact belong to a wider class of 'representative designs' [2, 3] in which the object of study is examined in a representative sample of the natural situations in which it occurs. A current Home Office study, in which vandalism on 50 public housing estates is being correlated with their design and physical lay-out, follows similar principles, as does also a study of the variation in complaints against the police in the 23 divisions of the Metropolitan Police District.

Since my experience of these designs is largely confined to the institutional field the discussion is framed in these terms, though doubtless the points made are of more general application. In the following section, three cross-institutional studies are described for purposes of illustration. These have been drawn from work recently completed by the Home Office Research Unit, mainly because few other

such studies have been undertaken in the penal field *. It is especially important to note the ways in which account is taken of the intake to the institutions being compared and how the aspects of treatment selected for study are quantified and separately correlated with the measures of effects.

Illustrations

1. *Sinclair, 1971* [2]

Sinclair's study [14, 15] of the probation hostel system in England and Wales was carried out in the mid-1960's. At that time there were 23 such institutions which took boys aged 15 to 21 from the courts for a twelve-month period. The hostels varied a little in size but most accomodated about 21 boys. In the majority of cases, the reason for hostel placement was that the offender was homeless or came from a bad home but was not sufficiently delinquent to justify being sent to an approved school or to Borstal.

Sinclair found that the proportion of boys that left prematurely as a result of absconding or a further court order varied greatly among hostels, from 14 per cent in one to 78 per cent in another, and his research was mainly directed to explaining this variation. It could not be accounted for by differences in the boys entering each hostel: a careful study of 429 boys who entered the hostels in 1963-64 showed that those who had left home or had an above average number of previous convictions were more likely to leave prematurely, and that those who had been

* The well-known study by Street, Vinter and Perrow (1966), for instance, would not be a cross-institutional study in our sense as only six institutions were included, input was not standardized and outcome not evaluated. The other cross-institutional studies known to me, with the Exception of Léauté's study for French prisons and Bondeson's (1974) study published in Swedish, are, however, mentioned at various points in the paper.

removed from bad homes were less likely to do so, but that the hostels with high rates of premature leaving had not taken abnormal proportions of such boys. Nor was the variation explicable by the more obvious differences among hostels such as size, location, or age-range.

A considerable amount of the variation could be accounted for, however, by the way in which the warden and his wife ran the hostel. Sinclair constructed a measure of " permissiveness " which included such items as " Boys may/may not turn on the TV without permission " and " Boys may/may not have pin-up pictures of girls in their rooms ", and he also administered a staff attitude questionnaire developed by Jesness [10] to the warden and his wife in 16 of the hostels. The questionnaire gives measures of staff attitudes on 13 scales such as defensiveness, strictness, emotional warmth, and aggression. By using partial correlation techniques, through which the relationship between two variables can be examined while holding constant the effect of other measured variables, it was found that wardens with the lowest rates of premature leaving were those that ran a strictly disciplined hostel but were kind in their dealings with the boys and were in agreement with their wives about how the hostel should be run. Other combinations of attitude and practice, such as kindness and permissiveness or strictness and harshness, were relatively unsuccessful in terms of the proportions of boys that left as a result of absconding or a further court order. However, with the exception of one hostel which will be discussed later, the reconviction rates of boys that did not leave prematurely were not affected by the hostels to which they had been.

2. *Sinclair and Clarke, 1973*

This cross-institutional study [16] was designed to test the hypothesis arising out of previous work [4, 5] that by absconding from approved school a boy increased his chances of

being reconvicted after release. Although Wilkins (unpublished), in his attempt to construct a prediction operation for the success or failure of approved school training, had found that absconders were more likely to be reconvicted, Clarke and Martin had reported that the chances of absconding were more heavily dependent on the school to which a boy was sent than on factors in his background or personality.

Sixty-six approved schools for boys in England and Wales were studied by Sinclair and Clarke: 22 junior schools catering for boys aged 10 to 13, 22 intermediate schools for those aged 13 to 15, and 22 senior schools for boys aged 15 to 17. At the time of the research an approved school order was the main disposal open to the courts for the more serious youthful offenders who were judged to need fairly long-term residential training. In all, there were 88 such schools for boys, most of which accommodated between 50 and 100. Only those schools were included in the study for which standardized information was available in centralized records about the IQ and previous court appearances of the boys admitted.

The mechanics of the study were considerably simplified by the availability of yearly absconding and reconviction rates for each approved school. The absconding rate was the number of boys running away from the school in each year, expressed as a percentage of the average daily population of the school. Reconviction rates were the proportion of boys released on after-care in each year that were subsequently reconvicted within a three-year period. The mean IQ and the mean number of previous court appearances for the boys in each school during the period under consideration were calculated, and these mean scores were used as a crude measure of intake.

Thus the design of the research was as follows: for each school the reconviction rates of boys released in 1965 were correlated with their absconding rates in 1964 (when

most boys released in 1965 would have been in residence), holding constant the mean IQ and the mean number of previous court appearances for the boys released from each school in 1965. For purposes of illustration the raw data and results for the 22 senior schools are given in Tables 1 and 2.

TABLE 1

School	*Absconding rate*	*Reconviction rate*	*Mean IQ*	*Mean previous court appearances*
1	6.5	57.5	89.4	2.43
2	14.0	68.7	87.1	2.53
3	14.0	60.6	94.6	2.81
4	16.0	57.4	94.2	2.65
5	19.0	67.2	92.4	2.62
6	20.5	56.2	96.9	2.21
7	21.0	60.0	97.3	2.31
8	23.0	54.3	99.8	2.33
9	23.0	53.7	101.6	2.25
10	24.5	68.9	98.5	2.75
11	25.5	68.0	92.4	2.70
12	26.5	54.4	118.0	2.18
13	28.0	63.2	100.9	2.40
14	28.5	49.0	102.0	1.82
15	30.5	62.2	97.4	2.63
16	31.0	71.2	97.3	2.56
17	32.5	64.6	94.4	2.88
18	34.5	66.7	85.8	2.75
19	35.0	70.4	88.1	2.33
20	35.5	53.6	92.2	2.37
21	39.0	72.2	84.2	2.15
22	44.0	73.3	88.8	2.47

TABLE 2

	Product-moment correlations
Absconding *vs* reconviction rate	0.41
Absconding *vs* IQ	— 0.13
Absconding *vs* previous court appearances	— 0.13
Reconviction rate *vs* IQ	— 0.58 **
Reconviction rate vs previous court appearances	0.46 *
IQ vs previous court appearances	— 0.32
Partial correlation of absconding and reconviction rate (IQ and previous court appearances held constant)	0.51 *

* Significant at 5%.

** Significant at 1%.

The results (which were similar for all three groups of schools studied) confirmed that schools with disproportionately high absconding rates have worse reconviction rates, and lent weight to Clarke and Martin's recommendations [4] about the need to reduce absconding and the ways in which this might be done.

3. *Dunlop, 1974*

In her study of intermediate approved schools, Anne Dunlop interviewed some 400 boys who were in eight schools during the mid-1960s about their experience of training. On the basis of their replies she constructed scales

to measure the emphasis of each school as seen by the boys on the following aspects of training:

trade-training; education; relationships with adults; relationships with peers; responsibility and maturity; punishment and deterrence; leisure activities; and religion.

She correlated the scores from these scales with each school's absconding and " misbehaviour " rates as well as with the five-year reconviction rates for the boys released from each school. Before doing this, however, she re-ordered the reconviction rates on the basis of a regression analysis to take account of the differing intakes to the schools. The factors that were related to reconviction in the boys' backgrounds and that were taken account of in the analysis were:

previous court appearances; broken home; " problem " family; previous experience of institutional placement or " fit person " order; absconding from institutional care or own home; intelligence; and a composite " adverse family circumstances " score.

The main finding of the correlational analysis was that schools which were seen to lay emphasis on trade-training had significantly better reconviction rates (when intake had been controlled in the way described) than schools which emphasized other aspects of training. The schools that emphasized trade training also tended to stress the need for mature and responsible behaviour, however, and had lower absconding and misbehaviour rates. It was this, Dunlop argued, that was the important factor in their success rather than any trade skills that were taught. The main ground for her argument was that while schools that emphasized trade training had better reconviction rates, the boys in these schools that claimed trade training had benefitted them personally were no more successful than boys that did not believe this.

Discussion

It will be seen that the studies outlined above provide some answer to the two problems for evaluative research identified in the opening paragraph to this paper; exceptionally for penal research, all the studies found differences in long-term effects * and, again exceptionally, they related these differences to specific aspects of the institutions studied. It is important to note that such long-term effects of treatment as were found were very small, and it is likely that they were identifiable only because a large number of institutions were studied in each case. Thus in Sinclair and Clarke's study, though absconding was significantly related to reconviction it accounted at best for only about 10 per cent of the variation in schools' reconviction rates. Similarly in Anne Dunlop's study, a boy's likelihood of reconviction was barely significantly affected by the particular school he had attended: the partial correlations on reconviction with intake held constant varied only from 0.1 in the most successful school to -0.1 in the least successful. Despite this, the fact that the eight schools involved in the study could be ranked for their degree of success meant that a number of significant relationships were found between reconviction rates and various aspects of the treatment process.

This ability of cross-institutional designs to deal with

* In all three studies differences in reconviction rates were studied after allowing for differences in intake. This was done in a variety of ways. Sinclair showed that the factors in boys' backgrounds that were related to their chances of leaving the hostels permaturely were equally distributed between the more and less successful hostels. Sinclair and Clarke used partial correlation techniques to hold constant two crude measures of input (mean IQ and mean previous court appearances). Dunlop carried out a regression analysis in which the background variables that were related to a boy's chances of reconviction were used to provide a basis for re-ordering the crude reconviction rates for the schools. As pointed out in the previous paper[6], equating input by any form of matching or prediction is less suspect in cross-institutional designs, where allocation may be primarily determined by geographical constraints, than in comparisons between different kinds of treatment where subtle decisional factors that are difficult to measure may be at work.

the complexity of treatment processes within an evaluative framework is their most valuable attribute and occurs only because so many institutions are compared within a single study. This extension of existing designs, which have normally compared only two or three separate treatment units, has therefore added a different dimension to the kind of analyses that are possible. So long as the variable can be measured (even if only crudely), the researcher can isolate the effect of any aspect of the treatment process in which he is interested and can relate it to other variables of treatment. This is of great value in developing and testing the models of treatment that researchers need if they are to be in a proper position to advise practitioners. It can be done for an exploratory investigation such as Anne Dunlop's, where the effective elements in training are being sought, as well as for more precise hypothesis-testing work such as that of Sinclair and Clarke.

Thus, instead of ignoring the marked variations between the institutions of a particular class, the designs exploit them to unique effect. Tizard, Sinclair and Clarke [20] have criticized what they describe as the " steampress " model of institutions which assumes that those in a particular group are all alike in terms of their aims, organization, staffing, and effects. The steampress model has been given currency by participant-observer studies of single institutions (e.g., Goffman [8]; Polsky [13]), as well as by evaluative studies that have compared, say, a single example of a " therapeutic community " with a " traditional " institution, on the untested assumption that each of them is representative of the broader class to which it apparently belongs. At the conclusion of a cross-institutional study, on the other hand, it is possible (provided institutions have been properly sampled) to make valid generalizations about the whole class of institutions under study.

These are advantages, however, purchased at some cost. The weaknesses of correlational methods in general

are discussed below, but perhaps the most obvious disadvantages of cross-institutional studies are that they are not well-suited to the comparison of different *types* of treatment *, that there needs to be a minimum number of institutions to make the design workable and that from the research worker's point of view they tend to be immensely laborious; of the examples mentioned in this paper all except Sinclair and Clarke's study took several years to complete. The amounts of data that accumulate can be difficult to handle, especially in exploratory investigations where there is no particular hypothesis to guide the analysis and, unless there is total reliance on centralized records as in Sinclair and Clarke's study, the familiar problems of gaining access to institutions are multiplied many times. On the other hand, interference with the work of particular institutions and the inevitable reactive effects of the research on treatment are usually short-lived and, since so many institutions are involved, problems of discussing undesirable practices or safeguarding confidentiality are not as serious as in reports of studies made of single institutions. Moreover, as cross-institutional studies are concerned with naturalistic rather than experimental situations, there is a reasonable chance that the existing good practices they identify might be more widely applied.

Though they are not suitable for evaluating experiments or new departures in treatment, exceptional institutions identified through a cross-institutional study can, of course, be studied in greater depth against the backcloth provided by the cross-institutional findings. Thus Sinclair [14] looked more carefully at the only hostel in his sample that appeared to reduce the chances of reconviction and found that it was run by a warden who was heavily involved

* Tizard [19] and his colleagues have nonetheless successfully used a cross-institutional design in comparing the regimes of hostels for severely retarded children with those of mental subnormality wards catering for similar groups.

with the boys but was prepared to withdraw affection when his discipline was flouted, who attempted to show the boys the effects of their actions, and who discussed their behaviour within the hostel in relation to the problems they faced outside.

Emphasizing the variation between institutions may, of course, run the risk of playing down their underlying similarities as well as the assumptions on which the system as a whole operates. For example, Goffman [8] and Sykes [18] have set much importance on the experience of being incarcerated and its overwhelming effect on inmate response — but a cross-institutional study may be in danger of overlooking such a factor since it would be more or less common to all the institutions studied. Nonetheless, analytical studies of a number of institutions can sometimes illuminate in a particularly striking way the central purposes of the system: thus Sinclair's finding that the way in which the hostel warden exercised discipline over his charges was crucial to his success calls attention to the primary purpose of placing such boys in the hostels. Concentrating on differences between institutions could also mean that less attention will be paid to the inmates than to staff and organizational variables — but it will always be necessary to collect a certain amount of information on residents for the purposes of standardizing intake and for detecting interactions between institutional factors and different types of residents.

The reliance of the designs on measurement may also be seen as a drawback since it is difficult to rank institutions on some important characteristics such as — for approved schools — whether they are run on a house system or as a single unit. But differences between institutions, even on such dimensions, may well be of degree rather than kind and it may be possible to construct measures to reflect this. Thus in schools which consist of physically separate house units, staff may not always be allocated to particular houses, and in schools which have no separate house units, games

and evening activities may be organized on the basis of nominal house membership.

On a slightly different point, it is impossible in a statistical study to capture the essence of institutional life in the vivid way that has been done in some participant-observer research and it is difficult to quantify the complex interplay of situation and personalities which can lead to the epidemics of absconding or the riots that are so feared by those running penal institutions. As should be clear from the examples discussed above, however, this does not mean that cross-institutional studies can be concerned only with trivial or superficial aspects of institutions, but that they have a particular part to play in institutional research which has not yet been properly exploited.

Problems of Correctional Research

Cross-institutional studies share the problems inherent in all correctional research, most obviously the fact that correlation does not necessarily imply causation. But with increasing refinement of statistical analysis and with replication of results (which can be difficult where there is only a limited number of institutions), a causal relationship may sometimes be confidently asserted. For instance it has become increasingly difficult to challenge a causal link between smoking and cancer, in the face of evidence from so many studies that the likelihood of cancer is precisely correlated with amount smoked and that its locus (whether mouth, throat or lungs) is predictable from whether or not smoke is inhaled. As far as institutional research is concerned, however, " explanation " may have to " remain at present a mixture of theory and tested inference on the one hand, and of assertion and illustration on the other " [19].

Some particular correlational problems arise in cross-institutional designs. As argued in the Council of Europe paper mentioned above [6], " correlations are easier to

interpret when there is a clearly dependent and independent variable and the direction of causality is one way. This condition is not fulfilled in institutional settings where, for example, the staff influence the residents and are in turn influenced by them ". Second, there is the ever present danger of jumping from observations about institutional effects to statements about inmates (a version of the so-called ' ecological fallacy '). Thus, having found that schools that emphasized trade-training had lower reconviction rates, it might have been tempting for Dunlop to conclude that boys that learned a trade in school and valued this were more likely to escape reconviction. This, as we saw above, was not found to be true — rather, emphasis on trade-training was related to an emphasis on responsible behaviour and an absence of actual misbehaviour in the school, which were the important factors in the schools' long-term success according to Dunlop. Third, as Tizard [19] has again pointed out, institutional characteristics have a tendency to " clump " so that it is sometimes difficult to find a single instance that might shed light on the effect of a particular variable. In his study of the way in which staff managed retarded children in institutional care it would have been useful to find an example of a hospital ward where the sister in charge had a child care training as well as a nursing qualification — but there was no such person in the sample. Finally, correlation coefficients can be particularly sensitive to the effect of a single aberrant institution: in Sinclair and Clarke's sample of intermediate approved schools there was one with extreme scores for absconding, reconviction and IQ, and the effect of its inclusion in the correlations was very marked — sufficient to change that for absconding and IQ, for example, from weakly negative to significantly positive. As indicated above, the researcher needs in any case always to be carefully on the alert to the lessons an unusual institution may hold for the others in the system.

Intermediate Criteria

Though the ability of the designs to identify small long-term effects of treatment is valuable, perhaps the interest of researchers will be caught just as much by the great variation between institutions in their shorter-term or intermediate effects on behaviour. It is rewarding to try to explain variations of between 14 and 78 per cent in the absconding rates of senior approved schools, and is likely to mean that more attention will be paid to such " intermediate criteria " of treatment effects. In conclusion, therefore, it is worth discussing further the use of intermediate criteria in the context of cross-institutional studies.

The first point to make is that it will clearly be advantageous if the intermediate criteria studied are found to be related to long-term effects, especially where they are also related to staff and organizational variables over which the administrator can readily exercise control. Not only would this be useful for those running institutions, but it would also be valuable in constructing models of how treatments operate. But in view of the probable importance of the environment to which an inmate is released in determining his subsequent offending, it is perhaps expecting rather much that intermediate and long-term effects should be related at all strongly to each other. Second, whatever their long-term effects may be, prisons, Borstals and other penal institutions will continue to accommodate large numbers of people for the foreseeable future. If ways can be found of running these institutions, within existing limits of cost, but with fewer management and relationship problems and perhaps more in line with contemporary liberal ideals, so much the better. In addition, the use of intermediate criteria holds the promise of reaching a deeper understanding (made easier by the relatively structured and finite environment under study) of the relationship between environment and behaviour. Such knowledge will in the long term undoubtedly

benefit those who seek to alter the criminal behaviour of those who, at present, continue to re-appear at regular intervals before the courts.

Behavioural intermediate criteria, such as absconding rates and rates of premature departure from hostel, were central to the three illustrative studies considered in this paper. Absconding rates are probably of most value in studying open institutions, particuluarly ones such as approved schools, where absconding is common. In closed institutions, absconding may be so rare that it is of greater interest in relation to the offender's state of mind than to the institutional climate. Absconding rates do have an advantage, however, not shared by some related criteria such as punishment rates or transfer rates, of being uncontaminated by the staff decision factors which can so complicate comparisons of institutional effects. Information about absconding is usually reliable as well as complete and it is difficult to think of other records concerning the infringement of institutional rules for which the same could be said. There may, however, be considerable scope within the context of a cross-institutional design for collecting information by means of self-report techniques about the breaking of rules concerning smoking, stealing and fighting.

The use of attitude and personality tests to measure the intermediate effects of institutional treatments has absorbed a considerable amount of research effort without much to show in return: there is still no agreed constellation of " delinquent " personality or attitude traits nor any clear-cut relationship between scores on psychological tests and the likelihood of reconviction. This, of course, makes it difficult to interpret confidently any changes in scores during treatment, or differences between treatments, and the interest in generalized personality and attitudes is perhaps now giving way to the more precise study of inmate perceptions of treatment. In Anne Dunlop's work the reactions of boys to training were obtained through individual interviews,

while in Millham, Bullock and Cherrett's [11] cross-institutional study of approved schools the reactions of boys were obtained by means of an *ad hoc* questionnaire.

Some instruments have also been developed (for example by Grygier [9], and Moos [12]) which can be used in settings other than those for which they were first designed. Grygier's measure of " treatment potential " for juvenile institutions is the correlation between the popularity of boys as rated by their peers and their response to training as rated by the staff. In a cross-institutional study undertaken in Canada, it was found that the measure of treatment potential correlated highly with assessments of effectiveness made by administrators and was adversely affected by large institutional size, low staff-pupil ratios, less stringent staff selection procedures, and higher intake of older or aggressive boys. (This latter finding underlines the need in cross-institutional studies to standardize intake not only with respect to reconviction but also in relation to any intermediate criteria employed.) Moos has developed " social climate " scales for use in psychiatric hospitals and in prisons which give measures, through the eyes of the residents, for a number of dimension such as staff friendliness, discipline, and inmate cohesiveness. Though such instruments have opened up a number of fresh avenues for study, it is still too early to make a considered assessment of their value.

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ANALYSING EVALUATIVE RESEARCH

by W. Buikhuisen and L.J.M. d'Anjou

1. *Introduction*

Countries throughout the world are developing in such a way that society is becoming more and more complex. One result of these developments is that the government's part in regulating the life of the community is constantly becoming more important. Innumerable measures have to be taken. These give rise to important questions, such as: how well do these measures serve their purpose; what undesirable side-effects do they produce; what do all these efforts cost, and what do they achieve? This knowledge can only be obtained by continual scientific evaluation of the government's policy. The primary purpose of scientific evaluative research must be to reveal whether a measure which has been taken or is being considered is effective. Such research also has to show in what circumstances the measure is effective and whether it works on everyone, on a certain target group, or on certain persons in certain situations.

Analysing policy is not, however, the only valuable aspect of evaluative research. As a scientist the researcher will also want to know why certain measures are effective and others are not. The answers to these questions *why* will provide material for or against existing scientific theories.

This paper confines itself to the present state of affairs in one section of government activity. It deals with research

into the effectiveness of government measures that are designed to control undesirable behaviour. Here the government chiefly makes use of penal sanctions to achieve its purpose. The subject of this paper is further limited by the fact that it only deals with research into the primary preventive effect of measures. By primary prevention we mean measures aimed at persons who may possibly start behaving undesirably. Secondary prevention, on the other hand, is concerned with measures aimed at persons who have already behaved undesirably (preventing recidivism).

The paper consists of three sections. The first will be about the present state of evaluative research. The second section will go into the reasons why evaluative research in the field of primary prevention has dropped behind both in quantity and quality. The last section will suggest a number of ways in which evaluative research can be improved.

2. *The present situation*

2.1. *Volume of evaluative research*

At the beginning of this year the Research and Documentation Centre of the Ministry of Justice in the Netherlands carried out a literature survey to discover how much empirically tested knowledge there was about the primary preventive effect of measures. The survey was not restricted to the effect of penal measures: others were also considered and their effect examined, provided they were connected with the prevention of criminal behaviour.

The chief aim of the literature survey was to make an inventory of research which evaluated by empirical means the effect of primary preventive measures. Defined in this way, the field was so wide that it had to be narrowed down

in two respects: firstly, by limiting the sources consulted, and secondly, by dealing with publications that had recently appeared. The appendix gives the sources that were consulted. We concentrated our search mainly on the years 1970 to 1974 inclusive. But the survey was not confined to research done within this period. Other research was included if our attention was drawn to it by literature references.

Forty-six research projects were found in all. This number does not of course represent the actual number of projects in this field. There are various reasons for this. Firstly, it was impossible to acquire in time all the literature we identified. Secondly, some of the reports we did acquire in time proved unsuitable for our purpose. Finally, we were restricted by the number of aspects we selected in the literature (appendix) which meant we could not examine all regions of deviant behaviour in equal depth. This applied in particular to traffic offences.

In spite of these restrictions, the general conclusion is that the quantity of research into the primary preventive effect of measures is small. This is certainly the case if one remembers how extensive the spectrum of undesirable behaviour is which the government takes measures to control.

2.2. *Subject of evaluative research*

The studies we found may be arranged in two ways. We can look at the sort of measures under consideration, or at the type of behaviour which was the subject of the study. In this section these two aspects will first be developed separately; this will be followed by a survey arranging the studies according to these aspects.

Measures designed to control delinquent behaviour may be divided into two groups: 1) direct measures; 2) indirect

measures. The group of measures aimed directly at delinquent behaviour may be subdivided into:

a) Measures that in one way or another make delinquent behaviour unattractive. This can be done by prohibiting it, morally censuring it, pointing out its bad effects, or attaching negative results to it. This is chiefly the field of penal measures.

b) Measures that make delinquent behaviour practically impossible, or more difficult, or remove the reward connected with it. Some examples of this are prevention by means of technical devices such as burglar alarm systems and surveillance by closed circuit television.

c) Measures that reduce the delinquent nature of the behaviour by ceasing to label it " undesirable ". This belongs to the field of decriminalisation.

We shall not subdivide the group of measures designed to control indirectly the occurrence of delinquent behaviour. These are measures offering alternatives for delinquent behaviour, making these alternatives more attractive or more attainable. Supplying public transport at night to prevent drunken driving, or providing recreational facilities to prevent vandalism are two such measures.

Delinquent behaviour may be divided into: 1) traditional criminal behaviour, such as crimes against the person and offences against property, and 2) behaviour that has more recently been declared an offence, its penal nature having been set out in modern criminal law which has developed as accompaniment to the affluent society. Traditional criminal behaviour may be divided into two categories:

a) Traditional criminality which is characterized by the fact that others than the perpetrator suffer harm. These forms of behaviour are regarded as crimes in most countries.

Crimes against the person, offences against property, vandalism, etc. come under this category.

b) Moral criminality, where at most the offender himself is the one to suffer. Whether these acts are regarded as offences varies from one country to another. This group includes sexual offences, illegal gambling, abortion, use of drugs, etc.

Behaviour that has been more recently declared an offence may be divided according to the sort of law that has been broken into: *a*) contravention of economic, fiscal or environmental regulations, often called white-collar criminality, and *b*) contravention of traffic regulations.

From Table 1 it is obvious that researchers have concentrated almost exclusively on measures that make delinquent behaviour unattractive in one way or another. They have been primarily concerned with so-called repressive measures. It is also evident that not all forms of delinquent behaviour have been studied in equal depth. The emphasis has been on traditional criminality and traffic offences. There have been hardly any studies in the field of economic and enviromental law and tax evasion.

2.3. *Quality of evaluative research*

Evaluative research must satisfy certain methodological demands. Some of the main requirements are:

1) The measure evaluated must be capable of being put into proper effect. In this connexion it is also very important to ascertain that the population at risk *a*) is aware that the measure exists and *b*) knows what it is about. It still happens too often that the people concerned are ill-informed about measures that are actually meant for them.

2) It is equally important that the objectives of the measure in question should be made operational. For this purpose, research data should be collected in such a way that the change in what is usually called the dependent variable can be correctly measured.

3) The design must be such that results can be ascribed unmistakably to the measures taken. Campbell and Stanley call this the elimination of rival hypotheses. They compiled a list of ways in which what they called the internal validity of a study might be impaired, examined a number of research designs and showed to what extent each one avoided these forms of impairment. (Campbell and Stanley use the term validity in a rather different sense. Internal validity means the extent to which a certain research scheme eliminates the possibility of the dependent variable being changed by any factor other than the independent variable — the measure. External validity is the question of the generalizability of research results.)

4) The most important requirement is that the group being studied be representative of the population at risk; and the results must be capable of being generalized to that population.

A number of research designs will now be presented, typical of those actually used in the field of primary prevention. They are arranged in diminishing order according to how well they eliminate rival hypotheses, thus from good to poor according to internal validity. Use has been made of Campbell and Stanley's notation in describing these designs. O stands for an observation, X for the measure to be examined. The O's and X's occuring in the same line follow each other in time, and relate to the same group. A dotted line between two lines means that the groups are not equivalent. An R means that the groups have been compiled at random.

TABLE 1

FOCUS OF 46 RESEARCH PROJECTS

Measures	Number of projects * by Types of Delinquent Behaviour			
1) direct, designed to	*1) traditional*	*2) moral*	*3) white collar*	*4) traffic*
a) make undesirable behaviour unattractive	22	4	1	15
b) make undesirable behaviour impossible or more difficult, or to remove its reward	—	—	—	1
c) reduce undesirable behaviour by ceasing to label it undesirable	—	1	—	—
2) indirect, designed to control undesirable behaviour by creating alternatives, or making alternatives more attractive or attainable	—	1	1	—

* The total of 46 represents 43 projects, three of which are counted twice because they concern two different categories. The other three projects are not represented because they do not fall within any of the categories.

The following designs can be distinguished:

1) *The pretest/post-test control group design*

ROXO
RO O

Campbell and Stanely classify this design as a true experiment. The research subjects are taken from the whole population at random and distributed over an experimental group which is exposed to the measure, and a control group which is not. The researcher must be able to control

the measure completely and make sure that it affects only the experimental group. In studying the primary preventive effect of measures, it is obviously rather difficult to satisfy the requirements of complete randomization and control. Complete isolation of the experimental variable also presents problems. Therefore the research designs below are often used. Campbell and Stanley call the first two quasi-experimental designs.

2) *The non-equivalent control group design*

$$\begin{array}{c} \text{OXO} \\ \hdashline \text{O}\ \ \text{O} \end{array}$$

This design, which much resembles the real experiment described above and is often confused with it, has the drawback that the experimental and control groups are not equivalent from the outset. This is because it is impossible to distribute the subjects from a common population at random over the two groups. Attempts are made to meet this objection by matching beforehand, or by checking relevant factors afterwards. The fact that the two groups are not equivalent means theoretically that there are more potential rival hypotheses.

3) *The time-series experiment* OOOXOOO

In this design there is no control group, nor is it necessary for the researcher to control the measure. If there are enough concrete data, this type of study can be carried out after the fact. Most of the threats to internal validity can be eliminated, as the important thing is trend changes. One of the major drawbacks of this scheme is that trend changes can also be caused by factors that occur simultaneously; this must be compensated for, when interpreting the results of the study. Another possibility is to include the time-series of a control group (whether equivalent or not) for purposes of comparison.

4) *The ex-post correlational design*

This is a more comprehensive type of research design which Campbell and Stanley call pre-experimental; the static group comparison.

$$\begin{array}{c} \text{XO} \\ \hdashline \text{O} \end{array}$$

More than two O's are compared here at the same time, all of which have been influenced in different ways by the measure X. This may be because a number have been exposed to the measure and others have not. Or it may be because the extent to which this has occurred varied from group to group. Here the main problem is that it is impossible to ascertain how widely the groups differed before the measure was applied; in theory, this would permit a good number of rival hypotheses. Campbell and Stanley consider this design useful mainly for a pre-study in which hypotheses can be eliminated. The hypotheses that slip through this test must be examined afterwards in a better design.

5) *The one-group pretest/post-test design* OXO

In this design the same group is studied once before and once after the measure. This design is the most unsatisfactory of all, since it is difficult to eliminate all kinds of rival hypotheses. Things may happen at the same time as the measure, for instance, which may equally well explain the difference between O_1 and O_2. The difference observed may simply be a result of the passage of time. Pretesting may also possibly influence the result, or it may be a matter of a rather extreme situation returning to normal. Finally, the selection method, together with the above factors, may be responsible for the results.

We shall now show to what extent the studies we found satisfy the above requirements.

1) *The pretest/post-test control group design*

Two studies comply with this research design. In both cases a certain preselection of the population in question occurred, after which units were distributed at random over experimental and control groups. Such preselection naturally makes it more difficult to generalize. One of the studies (Törnudd [77]) was fairly limited in scope, and the dependent variable was measured by means of official arrest figures. (The objections to this will be discussed in connexion with design 4.) The other study (Schwartz and Orleans [63]) made such use of independent variables — the threat of punishment and an appeal to the conscience — that it is unsuitable for direct use. Thus the practical value of both studies is fairly limited, but their great contribution is that they show that experiments in this field are possible.

2) *The non-equivalent control group design*

Five studies come under this heading. One of them (Decker [29]) made use of this design and design 5) and will be discussed below. In four of these studies (Buikhuisen and van Weringh [20]; Michaels [48]; Munden [51]; Weaver and Tennant [82]) the researchers either collected data themselves, by personally checking, tyres, for instance, or sufficiently contrete data were used, such as accident figures. The other study used the self-reporting method, which is obviously less reliable (see objections under design 4). Pre-matching and post-checking for comparability were restricted in four of the studies — in two they were restricted to one factor — without its being made clear why these particular factors and not others had been matched or checked.

3) *The time-series experiment*

There are 10 studies in which some form or other of trend comparison is used. Four of them (Barmack and

Payne [11]; Campbell and Ross [22]; Robertson, Rich and Ross [56]; Ross [57]), all concerned with traffic, comply with the design as defined by Campbell and Stanley. The researchers use sufficiently concrete data, mainly accident figures, to establish changes in the dependent variable. These studies concern measures which were introduced fairly abruptly. Possible rival hypotheses are carefully considered. Of the other six studies, one (Schwartz [62]) is a close investigation as to whether the incidence and gravity of rape cases were affected by the introduction of more severe penalties. But it makes use of the official figures for rape and does not take sufficient account of other possible explanations for changes. We knew too little about the way in which one study (Virtanen [79]) was carried out. The other studies we examined (Kutchinsky [44]; Schöch [61]; Sellin [66–67]) were simple trend comparisons, three using official crime statistics. Alternative explanations were not considered.

4) *The ex-post correlational design*

This form of research was used in 12 studies, in all cases to test one or more of the deterrence hypotheses. In 10 of these studies (Antunes and Hunt [5]; Bailey [6]; Bailey, Gray and Martin [8]; Bailey and Smith [9]; Bean and Cushing [12]; Chiricos and Waldo [27]; Gibbs [34]; Logan [47]; Tittle [74]; Tittle and Rowe [76]) the researchers used official crime and prison statistics; the two others (Jensen [42]; Waldo and Chiricos [80]) used self-reporting.

As we know, the drawback to using official figures is that they only give a partial picture of the dependent variable, delinquent behaviour. These figures have also proved to be sensitive to other factors besides changes in the volume of crime (Seidman and Couzens [64]). Even prison statistics have proved not to be faultless (see e.g. Tittle [74]; Bailey, Gray and Martin [8]). Finally, the theoretical model used is

fairly complex of factors influencing one another. For instance, the number of crimes known to the police depends partly on the size of the police force and that in turn depends partly on the number of crimes known to the police. Besides, only a proportion of all crimes committed are known to the police. How large a part this is depends on police detective work and the willingness of the public to report crime to the police. These in turn are determined by, among other things, the readiness of the police to do something about crime. This readiness is influenced by the degree of probability that the offender will be punished; and this is determined by the prosecution policy of the public prosecutor and the sentencing policy of the courts. These are only a few examples of the whole complex of relationships that develop when the criminal law system goes into action.

It is also a moot point whether self-reporting is a reliable system. Presumably some of the persons questioned do not entirely trust the guarantee of anonymity which they are given. This will be especially true of the more vulnerable group, those who have committed a fairly serious crime. This will mean, of course, that the more serious crimes are under-reported. It is also possible that the ones who most fear punishment repress the thought of their delinquent behaviour, and therefore under-report this behaviour. It is in any case noticeable that crime studies in which self-reporting is used often deal with less serious offences than one comes across in official statistics (Zimring and Hawkins [85]). We have already explained that the drawback of the correlational design is that internal validity may be jeopardized, so we will not go into this again now. Finally, the subjects in the two self-reporting studies were a student population; this considerably limits the possibility of generalizing.

5) *The one-group pretest/post-test design*

This method was used in eight studies. In three of them (Bundesanstalt für Strassenwesen [21]; Decker [29]; Swov [70]) sufficiently concrete data were used, while in the other studies (Chambliss [25]; Kutchinsky [45]; Naeve [52]; Savitz [60]; Springer and Mittmeyer [68]) the researchers used official figures or self-reporting. Only in three studies was any kind of control used to increase the internal validity of the study.

6) *Other forms of research*

There are another seven studies which cannot be classified in our categories. In one of these (Gunnarson et al. [37]) it was not clear what design had been used, as we had only a brief summary of the project. On four studies (Beutel [16]; Campion [24]; Fattah [32]; Teeven [73]) a design was used which much resembled the ex-post correlational design, except that no correlational calculations were used. In the two other studies (Sellin [65]; Graves [36]) two different situations — with and without capital punishment and the numbers of crimes against the person during weeks with and weeks without an execution taking place — were simply compared. In five of the seven studies, moreover, official crime figures were used.

7) *Research into the effect of sanctions falling outside the scope of this survey*

There are two studies on the effect of sanctions dealing with behaviour areas other than those we have named. Tittle and Rowe [75] use a combination of designs 2 and 3 to examine the effect of the threat of sanctions on the one hand, and moral exhortation on the other, upon cheating in a college. Considering the kind of population studied, and the situation that had to be controlled, no great problems were encountered in carrying out the research and collecting

the data. The study of Bowers and Salem [17-18-59] is an ex-post survey in which data were collected about certain types of deviant behaviour in colleges and universities, and about sanctions imposed. Using data obtained, four different models of the causal relations between formal sanctions and deviant behaviour were analysed. This study had the advantage of covering a wide range — 99 colleges — but the disadvantage that it had to rely on self-reporting for determining deviant behaviour. Finally there was a laboratory experiment (Reifler, Howard and Lipton [55]) which examined the effect of exposure to pornographic material. All these studies have the disadvantage that they can only be generalized to a limited extent.

Summary

Summarizing the results of the foregoing section, we find that of the 47 studies included (one of which was counted twice), 19 made use of an experimental or quasi-experimental design. True, 11 of these 19 studies did not completely meet the requirements of the design selected (in one case it could not be ascertained whether it had done so or not). In 30 studies, moreover, insufficient concrete data were collected about the dependent variable. Finally, the results of a number of studies could only be generalized to a limited extent owing to the population chosen. Summing up, one can state that, from a methodological point of view, too many evaluative studies are not sophisticated enough.

2.4. *Conclusions*

The data on the present state of evaluative research into primary prevention can be summarized in three main points:

1) Government measures to control deviant behaviour are sufficiently subjected to scientific evaluation.

2) As this study has shown, the attention of researchers to the primary preventive effects of measures is unevenly distributed in two respects:

a) Attention is paid primarily to the effect of measures that make deviant behaviour unattractive (repressive measures). This is, par excellence, the field of penal measures such as imprisonment and police action. There is a conspicuous lack of interest in evaluating the effectiveness of alternatives to penal law. Although these are obviously scarcer, a closer study of them is fully justified because they are patently more humane in character.

b) Attention is paid almost exclusively to the effects of measures against traditional criminality, notably index crimes and traffic offences.

3) The quality of many of the evaluative studies done so far is not good enough. A study group of the Organisation for Economic Co-operation and Development, evaluating the present research into traffic, came to the same conclusions [54].

3. *Explanation for the present situation*

3.1. *Why is so little evaluative research done ?*

Two sets of factors may explain why so little evaluative research is done. The first are factors related to the government's attitude to evaluative research. The second have to do with researchers and the carrying out of research.

3.1.1. *Factors related to the government's attitude*

In formulating policy, the government must be prepared to take account of the findings of evaluative research. Otherwise, evaluative research may lose significance.

Another restrictive factor is the tendency to protect one's own organization and allied organizations from criticism of their policy. It is a fact that anyone who allows his policy to be subjected to evaluative research is laying himself open to attack. Such research may be embarassing or may threaten the organization whose policy it is studying. In theory this may be the policy of the same organization that has commissioned the research, or the policy of an organization with which the principal is on good terms, and wishes to remain so. Another possible factor is that government officials sometimes do not fully realize how important is the contribution that scientific research can make to policy development.

Researchers themselves, of course, are also partly to blame for this situation. Their methods, the polarizing attitude they often assume towards the government, and similar factors, are certainly partly responsible for the fact that the government relationship to research is by no means ideal. In this respect researchers could do more about image-building.

3.1.2. *Factors related to research and researchers*

First of all, there are technical factors which impede research. It is difficult, for instance, to measure the effect of primary preventive measures on deviant behaviour. In the case of many offences, we often do not know how frequently they go undetected, nor whether this number bears any permanent relationship to the number of known offences; this " dark number " makes research in a number of fields more difficult. Moreover, as it is largely impossible to control the independent variable — the measure — it is often difficult to confine the effect of this variable to the experimental group. As our study has shown, the extreme difficulty of satisfying the requirement of complete randomization restricts the possibility of carrying out true experiments.

Besides these technical difficulties, there are also factors of a psychological and tactical nature which may be an obstacle to research. The researcher is often unable to persuade the government to allow him to research the effect its policy is having. This is even more true of experiments. Here the difficulties are even greater, because there are ethical and political objections to experiments with penal measures. A general reason for the failure to overcome resistance is that the training which the social science researcher undergoes pays hardly any attention to this aspect of scientific research. Training courses should pay more attention to tactics and psychology.

Sometimes training courses also fail to teach students how to handle management problems of all kinds which may arise in the course of evaluative research. This often involves large-scale operations which are quite beyond the average researcher.

Finally, there are financial factors which may impede evaluative research. It is a fact that this kind of research is expensive — often very expensive. Limited funds automatically limit research possibilities. As we have just said, government officials do not realize that scientific research can help them solve their problems, so it is difficult, when scanty funds are being distributed, to obtain a high priority for carrying out evaluative research. This is another reason why more use will have to be made of psychology in order to " sell " research.

3.2. *Why is evaluative research so unevenly distributed ?*

We have seen that evaluative research is unevenly distributed in two respects: firstly, because it has continued to confine itself largely to measuring the effects of penal sanctions, and secondly, because research has concentrated particularly on what we have called the more traditional

forms of criminality, and on traffic offences. Why this one-sidedness ? It is, of course, theoretically possible that our results are a product of the method we have followed. Our research, after all, was related to a random sample of journals, most of which were criminological. This might explain why most of the research in our study is of a criminological nature. But this could only be a partial explanation. Firstly because we did not look only at criminological journals; secondly because we used the abstracts on crime and delinquency; and finally because we must assume that important evaluative studies in the field of primary prevention, wherever they were published, would certainly have been publicized in the literature we studied. Presumably therefore our observations, generally speaking, give a true picture.

What explanation then could there be for the bias that we noticed ? Let us start with the question of why so much attention has been paid to repressive measures. This question is not difficult to answer. Both from a relative and an absolute point of view the number of alternative measures is remarkably small. Alternative sanctions are still rare within the judicial system. The fact is that this kind of alternative is only possible in a limited number of countries. Something that does not exist cannot be evaluated. From a penological point of view it is certainly desirable that more creative thinking should be directed towards finding alternative punishments of this kind. At the same time it is very important that especially when such measures are introduced, evaluations should be made of their effect on the offender and of the reactions of the victim and of society in general to these new ideas.

It has already been stated that few evaluations are made of measures in the economic, fiscal and environmental fields. As regards the environment, a possible explanation is that people have only recently realized that this is a serious social problem. This could explain why evaluation has lagged be-

kind in this field as compared with others. Considering the seriousness of the problem involved here, we hope it will soon close the gap.

The absence of research into the effectiveness of measures adopted to combat contravention of economic and fiscal laws may be partly explained by the difficulty of obtaining access to these areas. It is difficult for researchers to ascertain transgression in this area without the cooperation of the persons concerned, but this does not apply to all cases. Contravention of price control, for instance, is fairly easy to ascertain. Schwartz and Orleans [63] showed that it was easy to observe behaviour changes in the making of income tax returns. So we must look for other explanations. Perhaps it is partly due to the fact that offences of this kind are not felt to be real crimes. Partly because they are not regarded by the penal system as real criminal problems [85] and partly because they are offences with which many people are familiar. True, they know they are not right, but they feel no moral disapproval. From a social point of view, however, these are offences which can cheat the community on a grand scale. It is therefore important for criminologists to start studying the effectiveness of measures against them.

Finally, we must mention one area that is often neglected: the wide field of government measures aimed at increasing the welfare of the country's inhabitants. This field includes modernizing educational systems, increasing employment, improving housing, providing recreational amenities for young people, etc. Measures of this kind, which presumably in theory have a favourable effect in that they help to prevent first offences, are hardly ever evaluated. This is understandable to some extent. These are complex operations aimed not so much at preventing crime as at promoting human welfare. The fact remains, however, that it is important to check what effect these social amenities have on criminality. In fact, it is also important to determine

such relationships in order to form criminological theories. Criminologists should therefore avail themselves more of the possibilities of experimenting offered them by the government.

3.3. *Causes of methodological shortcomings in evaluative research*

The fact that research is of a low standard can be explained by our previous statement that little research is being done. Thus little technical skill in examining primary prevention is accumulated, with the result that little can be learned from the strengths or weaknesses of previous studies. Training in criminology is therefore way behind, and cannot familiarize future researchers with the methods and techniques which can be used in research into the effectiveness of primary prevention measures. Another of the consequences of this lack of research experience is that future researchers are not made aware by their training of the research possibilities opened up when measures are abolished or new ones introduced. Perhaps even more important is the fact that the community of researchers is too easy-going in fixing the requirements which evaluative studies must meet before they can be described as " scientific ".

4. *Improving evaluative research*

There are two distinct means by which evaluative research can be improved. Firstly, we can show how more evaluative research can be done. Secondly, we can make suggestions for raising the standard of this research. We shall start by showing how more evaluative research can be done. Then we shall indicate how the standard of evaluative research can be raised by improving research techniques and organization. Moreover, we shall have to see how research into the effects of measures to combat deviant behaviour can be improved by constructing a theoretical framework.

4.1. *How can evaluative research be promoted ?*

Anyone wanting to do evaluative research is very much dependent on the co-operation of others. He may need this co-operation because experimental variables must be introduced (e.g., intensification of traffic surveillance); because, to enable scientific research to be done, random selections must be made; or because the researcher must have access to the systems he is evaluating or the persons who form part of them. Evaluative research therefore encroaches very much on everyday life. Moreover, we have already observed that anyone who permits his work to be subjected to evaluative research puts himself in a vulnerable position, since the research may show that the policy which has been followed has not come up to expectations.

In view of all this, it is obviously not easy to obtain the co-operation which is absolutely necessary for this sort of research to take place. How can this co-operation be obtained ? As so often is the case, political pressure may be effective. This is, so to speak, a task for researchers' organizations. As a group they must bring pressure to bear on the government. The difficulty is that researchers are often individualists. Each goes his own way, and this means that researchers have little influence as a pressure group. They will have to learn the importance of organised action. It could gain them facilities and opportunities which they would not have obtained as individuals.

But political pressure alone is not enough. It is very important to foster mutual understanding and for the two sides to establish close co-operation. To do this we need research promotion. This will benefit not only researchers but also administrators. Research promotion means that researchers must show administrators how research can help in developing policies. This presupposes that researchers are prepared to co-operate with the government in considering certain questions of policy, to help the

latter make a good analysis of the problems, but especially to point out which problems, or aspects of problems, should be studied more closely by means of research. This kind of co-operation is also necessary for each side to obtain a truer impression of the other. Researchers tend to stereotype administrators as authoritarian, out to manipulate others, indifferent to research unless it suits their own ends; while administrators see researchers as theorists whose studies take far too long, who hold abstruse talks that are of no practical use. Such stereotyped ideas are extremely unprofitable. The scientific staff of government bodies can provide a useful liaison by briefing researchers on the objections that may be encountered if certain plans are submitted, and by pointing out to administrators how important it is to involve researchers in government. Certainly the researcher will still require patience with the resistance that evaluative research, because of the threat inherent in it, tends to arouse. He will have to make allowances for it when presenting research plans. How successful he is will depend on how well he has done his homework (for instance, by getting important personages interested in what he wants to do), and on his reationship with the administrators in question.

We should like to make one more remark on this subject. The resistance engendered by evaluative research depends partly on what the researcher is asking of the administrators. Sometimes, as we have already said, the researcher wants drastic changes, such as the introduction of new measures. Such difficulties could often be avoided if researchers were more aware of the numerous possibilities of taking new measures which are soon to be announced, changes in legislation which are on the way, new plans that are under discussion. There are many opportunities for the researcher to join spontaneously in what is going on, rather than demand drastic measures of his own. If he suggests measuring the effect of such proposed changes he will generally receive a more favourable response.

4.2. *How can the standard of evaluative research be improved ?*

Raising the standard of evaluative research is of course primarily a question of improving its methods and techniques. Actually a new specialization is needed here, a kind of " measurology ". But this should not be confined to methods and techniques. It should not only deal with such questions as how behaviour changes can be measured, but also with such things as the organizational problems with which researchers are faced, the psychology of promoting and introducing projects of this kind, teaching researchers to anticipate the resistance they will probably meet, and — last but not least — how to make sure that the results of the research are actually incorporated in policies. For this is often not the case. It is a matter of great importance to promote a science of measurology. We shall have to make systematic efforts to do so, since it is the only way to get better and more extensive evaluative research done. A first step might be to convene experienced researchers. Seminars should be held to discuss the problems inherent in evaluation research and the solutions that have been found. If the problems are listed this may be a powerful stimulus for new projects to be carried out to solve them. The experience gained in the course of these seminars should be recorded in a kind of " measurology " manual, so that when future researchers are being trained, they can gain more benefit from practical experience and theoretical knowledge. Such seminars could also have a stimulating effect on evaluative research.

4.3. *The need for theoretical models*

One of the things we notice in all the projects carried out, and in the literature on primary prevention, is that they are built on weak theoretical foundations. Little headway has been made in developing a theoretical model that throws

light on the effects of primary prevention. In fact, the present models, including those recently evolved, are still based largely on Bentham's model. As these models have few if any empirical foundations, they express a preconception rather than a statement about the reality of primary prevention. Projects have also been too fragmentary so far. Usually they centre on a few aspects of the model used, and are too disconnected to allow the accumulated research findings to give a complete picture of the possibilities of achieving primary prevention. The issues investigated, moreover, are often too wide. Research is done, for example, into whether a stronger police force results in fewer road accidents. Such enquiries, however, pay too little attention to the matter of who responds to the measures taken and who does not, and why.

It would go beyond the scope of this paper to suggest a complete theoretical model. We can, however, give a general outline for evolving one. In the first place the model must take into account three aspects of primary prevention:

1) The measure. Each measure has its own characteristics, which may help it achieve its aim or hinder it. These characteristics depend on the kind of behaviour for which they are designed, and on the people involved. The principles of penology and sociological jurisprudence are important factors here.

2) Behaviour. The crucial question is why people behave deviantly. Characteristics of man and his environment are of great importance here. This is the field of behavioural sciences such as sociology, social psychology and the psychology of deviant behaviour, supplemented where necessary by data from other disciplines.

3) The government organizations responsible for implementing and maintaining laws and measures. These

organizations do not operate in a vacuum but are influenced by the measures taken and by one another's activities. Changes in sentencing policy, for instance, may affect the crime detection policy of the police, and thus the number of known delinquents.

In the second place, such a model must pay great attention to elaborating related concepts, such as the likelihood of being caught and punished, perception of the sanction, the sanction's significance for the persons in question, their knowledge of the present laws and sanctions, relative deprivation and instrumental and emotional behaviour. If a model is elaborated in this way, hypotheses can be deduced from it and tested by the methods previously described.

In the third place the model must deal with more specific questions. The main thing is to know what works *in what circumstances* and also to know why a thing works or not. Generally speaking evaluative research must ask more questions, such as:

1) On what persons does the measure work, and on whom does it not work ? (Instead of the more dichotomous question does the measure work, yes or no ?)

2) Why does the measure work in one case and not in another ?

3) What are the characteristics of the persons responding to the measure, and what are the characteristics of those immune to it ? What are the differences between them ?

Only by concentrating on answering such questions will we find out to what extent, with the means at our command, we can achieve primary prevention, and to what extent we cannot.

APPENDIX

The sources consulted:

1. The documentation system of the Scientific Research and Documentation Centre of the Ministry of Justice of the Netherlands. The categories examined for empirical research were general prevention; types of undesirable behaviour which presumably has been researched, such as offences against property, crimes against the person, drunkenness, traffic, tax, environmental and economic offences; authorities concerned with this undesirable behaviour such as the police and the judiciary.

2. A letter to 29 criminological institutes in various countries asking for information on their own research (current and completed) on primary prevention, and bibliographies. From these we received 16 replies.

3. Journals:

a. Abstracts on Criminology and Penology, volumes 1970 to 1974 inclusive;

b. the following journals, volumes 1970 to 1974 inclusive:

1) Canadian Journal of Criminology and Corrections/Revue Canadienne de Criminologie

2) Crime and Delinquency

3) Journal of Criminal Law and Criminology

4) Journal of Research in Crime and Delinquency

5) Law and Society

6) Social Problems

c. the following journals, 2 volumes (wherever possible 1973 and 1974):

1) Acta Criminologica

2) International Journal of Criminology and Penology

3) International Review of Criminal Policy

d. the following journals, 1 volume (wherever possible 1974):

1) American Behavioral Scientist

2) Blutalkohol

3) British Journal of Criminology, Delinquency and Deviant Social Behaviour

4) Howard Journal of Penology and Crime Prevention

5) Issues in Criminology

6) Journal of Applied Social Psychology

7) Journal of Criminal Justice

8) Monatschrift für Kriminologie und Strafrechtsreform

9) Nederlands tijdschrift voor criminologie

10) Revue de droit pénal et de criminologie

11) Revue de science criminelle et de droit pénal comparé

12) SISWO: beriechten over onderzoek.

4. The Documentation Centre library, containing 574 works, chiefly in the criminological field.

5. Bibliographies in journals and literature lists, and references in the literature we found.

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IMPACT OF CRIMINOLOGICAL RESEARCH ON DECISION MAKING

by H.H. Brydensholt

I. *Introduction*

This subject can be treated from two generally different points of view. There is that of the researcher: How does criminological research reach the decision maker in such a way that it has an influence upon the decision? Or that of the decision maker: How to make it possible that the decisions which have to be made are in accordance with research findings? My natural starting point will be that of the decision maker.

It must first be stated that from the decision maker's point of view the topic " Impact of Criminological Research on Decision Making " is inadequately formulated. Criminology in a narrow, traditional sense has something to do with the description of the causes of criminal offences, the treatment of the offenders and other phenomena focussing on the offender. In addition classical criminology deals with the relations of the offender to the surrounding persons, groups or to society as such, just as the circumstances of the victim have been dealt with. Modern criminology has strained the framework to the breaking point. Increasingly attention has been turned towards the functioning of the justice system, how the individual parts of the system (e.g., the police) really operate. There is more and more interest

in the importance of society from a macro-perspective. Even if this extended understanding of the field of criminology has increased the applicability of criminological research for decision makers, it must be emphasized that the decisions cannot only be based upon this type of research. As I shall later repeat, the research results which at present have the greatest influence upon the Danish prison and probation service are taken from psychology (especially military psychology) and modern management. From these experiences the most fruitful wording of our topic would be " Impact of Research on Decision Making in the Justice System ".

Such a wording can partly emphasize a multidisciplinary attitude towards research, which is a necessity, and partly that the justice system should be understood as a whole. The latter does not of course deny that in many cases one can with advantage treat individual parts of the system, but one should be conscious that the individual parts are integrated in the overall system which has been established to prevent crime.

It is quite obvious that there is interest that research should have an influence upon decisions. The researchers are interested that their knowledge be utilized. The decision maker is interested to have the best possible knowledge as a basis for his decisions. And society is obviously interested that the resources invested in research are utilized in policy formulation and it is interested to ensure that the administration functions rationally and efficiently.

The arguments formulated on the importance of freedom of research which are made against co-operation seem to be of inferior significance when one compares the advantages of co-operation. Not because independent research is not necessary but because experience shows that it is absolutely possible to develop ways of co-operation between research and decision making which yet leave research entire freedom. Such a model of co-operation has

existed in Denmark for several years. Similar models exist in several other countries, so when I describe the Danish model, it is simply because it is the one about which I have detailed knowledge.

II. *Model for Co-operation between Researchers and Decision Makers*

In 1972 a co-ordinating committee between research and the prison and probation service was set up. A broad spectrum of research disciplines is represented: criminal law, criminology, psychiatry, psychology, social medicine, forensic medicine, general sociology, cultural sociology, labour sociology and management. Fourteen scientific institutions are represented.

The director general of the prison and probation service is the chairman of the committee, and other members include the chief of the treatment section and his deputy, the chairman of the research group which is described later on, an employee of the statistics section, as well as representatives from the largest staff organizations of the prison and probation system. Secretariat is provided by the prison and probation service. Great importance is attached to the fact that the staff organizations are directly represented. Not only does it facilitate the planning of research, it also increases the confidence of the staff as to the results which are obtained.

The co-ordinating committee has two all-day meetings a year with about 25 participants. The fundamental point about these meetings is that they provide a forum which could not be achieved in any other way — at least not without much more trouble.

The prison and probation service reports frankly about the development programme, both long range and in more detail for the coming year. The intention is that the

research institutes shall be fully aware of the fields where research can be introduced if they want to be sure the results will influence administrative decisions. As an example of how it can work, a couple of years ago the prison and probation administration declared that a comprehensive delegation of decisional power was being planned. The central administration wanted to delegate to the different prisons concrete decisions both of a purely administrative character and concerning the prisoners. Further delegation in the various prisons was wanted however, so self-governing staff groups were created in the pavillions and the corridors of the closed prisons. The plans were based upon modern management theory. The result was that a group of students from the Institute for Organizational and Labour Sociology at the School of Commerce in Copenhagen designed a research project which followed the effects of such a vast delegation in the closed psychiatric institution at Herstedvester.

Just as essential as information about the development plans of the prison and probation service is the information given by the various research disciplines concerning research in progress. This gives the administration complete, up-to-date knowledge, which is of course in itself important, but which is also necessary for rational management of the research activity of the prison and probation service.

The tradition has been developed that, besides this exchange of information, at every meeting a researcher is given the opportunity to present a research project which has recently been completed. At recent meetings there have been presentations of the results of the comprehensive Danish-American research on the importance of genes for criminality (based upon investigations of adopted children, adoptive parents and biological parents), the effect-investigation of social pedagogic treatment of hard drug abusers and frequency investigations of different forms of crime (based upon victim surveys). The participants in the meet-

ings appear highly satisfied with the opportunity to go deeply into a single subject from a specified research discipline. This also offers an opportunity for inter-disciplinary discussions of methods which can prove extremely useful for the participants from the administration.

Beside this big organ of information a smaller research group was set up at the beginning of 1974. The chairman of this group is a prison director, who has previously been in a scientific career. The other members of the group are a criminologist, a sociologist, a psychiatrist — all of them coming from institutions outside the prison and probation system — as well as two employees from the Prison and Probation Administration, from the development section and from the statistical section respectively, both of them having had prior personal research experience.

The research group has a consultative function to the Prison and Probation Administration in all cases concerning research and, as far as larger issues are concerned, to the above-mentioned co-ordinating committee. The group is supposed to put forward proposals for the implementation of research projects within the prison and probation service itself and — by request — to submit recommendations concerning the research expenditures of the Prison and Probation Administration as well as to express their opinion about applications for research permission. Furthermore, the research group should take care of the research information activity, so that it acts as an editorial committee with regard to research publications which presumably will be published by the central administration.

The group has a meeting at least once a month. A fixed item on the agenda is discussion of the very great number of applications for research permission within the institutions of the prison and probation system, including access to the case record of the prison and probation service, which — partly as a consequence of the work of the co-ordinating committee — come from persons or groups

outside the administration. The group provides important scientific guidance for researchers whose projects cannot immediately be granted. The evaluation must primarily be based upon scientific grounds, but through close contact with the top officials of the Prison and Probation Administration it has been ensured that the group takes the necessary administrative considerations into account, especially those to ensure discretion concerning individual persons and that individual institutions are not overcrowded by researchers in such a way that the daily work is made unreasonably difficult.

Though formal research permission is granted by the administration, the real competence has been delegated to the group, which is thus acting as a self-governing project group. For the administration this implies the advantage, among others, that criticism of refusals on the assumption that they are politically determined is avoided.

For the sake of the information activity of the group, it is always a condition that the researchers who obtain permission to use the facilities of the prison and probation service must submit a brief summary of the results achieved. It is intended that these summaries shall be published at certain intervals. The first publication is presently being prepared. In addition, the group is publishing a series of complete research reports. So far eight reports have been published, and four others are in the process of being published. The publications are produced extremely fast and inexpensively by rotaprint with a standard cover so that they are easy to identify. Responses indicate that the series has already achieved a favourable reputation in both scientific and administrative circles. Research which had been directly initiated by the group is mentioned below.

The experience gained so far with the co-ordinating committee and research group has been so positive that both research and the administration have shown an interest in extending the model so that contact will not only concern

the prison and probation service, but the whole justice system. It has consequently been decided to enlarge the co-ordinating committee to include representatives of the courts, the police and the public prosecutor. The chairmanship will at the same time be taken over by the Permanent Secretary of the Ministry of Justice. The research group will also be expanded to include among others a representative of the permanent crime prevention council. The change reflects a deliberate intention to shift research resources from incarceration and after-care — which in Denmark, as in other countries, have attracted a disproportionate research interest — towards the earlier stages of the justice system, especially general crime prevention.

III. *Direct Application of Research*

It has gradually become usual for the different administrative units within the justice system to make use of research. In some places, such as Great Britain, quite a comprehensive research unit has been built up within the administration itself. The Home Office Research Unit was created in the 1950s, and the Unit's yearly reports on projects and publications show an extensive activity. Other countries have preferred to base more research on outside contracts. For various reasons including limited research resources, Denmark has rightly chosen the latter solution. Of course it is not a matter of absolute alternatives, but where the main emphasis is laid. In Denmark, too, quite a number of studies are made by people employed by the administration. This must be considered important if only in influencing the administrative environment toward greater interest in research results.

In recent years a number of research results of projects initiated by the administration — but to a large extent carried out as contract research — have been of decisive

importance for the higher-level decisions of the prison and probation system. Mention should be made of the following:

Example A: Beginning in the middle of the 1960s arrangements have been made so that a large number of Danish prison inmates can travel on their own for week-end visits to their family or other persons to whom they are closely related. There are also other forms of unescorted leaves of absence where individual circumstances are in favour of such leave (e.g., illness among relatives, to try to find employment on release). While these latter forms of leave have caused no special public discussion, the week-end leaves have occasionally given rise to considerable public and political debate. The critics have maintained that a considerable part of the criminality of society is due to these regular leaves, which are granted not out of any specific, individual need, but on the general assumption that it is important for later resocialization that an inmate with a relatively long sentence has the opportunity to maintain a certain natural contact with his relatives while he is serving the sentence.

The regulations on week-end leave can be briefly summarized as follows:

Immates serving a sentence of imprisonment for five months and more may be granted leave to visit specified persons (family and others).

Inmates in open penal institutions may not have leave until four weeks have been spent in the institution (three small open prisons have obtained exemption, so that they can grant leave after only one week), whereas inmates in closed penal institutions may not be granted leave until one fourth of his term has been served; but he must first have spent a minimum of ten weeks in the institution.

It is always a condition that there appears to be no risk of abuse.

One leave may be granted every three weeks, normally from Friday after the end of normal working hours until Sunday evening.

In order to ensure an equal practice with regard to week-end leave a report must be submitted to the Prison and Probation Administration if an inmate has not been granted unescorted leave after a period of six weeks in an open institution. Similar rules apply to inmates in closed institutions if leave has not been granted when the inmate has served more than one-third of his sentence.

Out of the approximately 2,000 persons daily serving a sentence of ordinary imprisonment (besides about 1,000 persons remanded in custody before sentence has been passed, and 500 persons serving " lenient " imprisonment mainly for drunken driving), more than one-half are committed to open institutions. The regulations have had the result that almost everyone in the open institutions who fulfills the temporal conditions for week-end leave is in fact granted leave every third week. In the closed prisons, on the other hand, only about 10 per cent of the total prison population are granted such leaves.

The number of leaves has remained constant at about 15,000 per year during the 1970s, of which about one half are unescorted week-end leaves. Recent years have brought about more detailed statistics concerning the number of leaves and abuse with or without criminality. The abuses with criminality have always been less than 2 per cent. Abuses without criminality — covering cases of returning to the penal institution in an intoxicated state and cases of not returning have in recent years constantly been about six or seven per cent.

When debate concerning leaves flared up in 1973-74 due to a few gross abuses, the statistics compiled up to that time by the prison and probation service were criticized. It was pointed out that of course the statistics could only cover cleared offences and criminality about which the prison

and probation service was informed during the serving of the sentences; but of course it might happen that criminal offences committed during leave from a prison were cleared up after release. It was pointed out that it was rather uninteresting to see the extent of abuses of leaves, but that it would be more interesting to see the number of persons granted leave who managed to spend the whole period of their sentence without abuses. The assumption of the critics was that there were many who managed one or two leaves which were consequently taken positively into account in the statistics, but that they at one time or another committed a criminal offence during a leave, and that they therefore should not have been granted leave at all.

Naturally one cannot escape the uncertainty implied in the fact that one can only register the reported criminal offences. On the other hand the prison and probation service had already at the beginning of 1974 elaborated and published a pilot study indicating that even if the criminality which was cleared up after the release of an inmate was taken into account, and even if the statistics were made out on the basis of persons and not on the basis of the number of leaves, this would not decisively disturb the picture already obtained. The vast majority of leaves was without abuse.

During a consultation in the Standing Committee of Justice of Parliament, the Minister of Justice, who was defending the arrangement of leaves in force, had to promise that a quick fullscale investigation would be initiated, designed in accordance with the criticism that was put forward. The result of this investigation is now available in the form of a report published in the series of research reports in May 1975.

The investigation is intended to clarify the extent of criminal offences committed by inmates when they are on leave, when they do not return after a leave, and when they have escaped. In order to make this investigation as

complete as possible it was decided to examine all the inmates being released or transferred from all the penal institutions in the country (including the psychiatric institutions) in the period 1 July to 31 December 1973, and who had been granted at least one leave without escort or who escaped during the period being examined. This defined a group of 1,292 persons and 7,302 leaves.

The information upon which the investigation is based is taken from the whole justice system. The prison and probation system provides information on the periods in which the inmates concerned have been away from the institutions legally or illegally. Information is taken from police files about interrogations concerning the criminal offences of the inmates during leave, while not returning from leave or during escapes, as well as the nature of the offence committed and the subsequent sanction. In order to give the most realistic picture of the recorded criminal offences it has been decided to follow the police files six months after the latest possible date of release or transfer, so that there has been at least six months to clear up any criminality. There is reason to believe that by far the greatest part of criminality that is ever cleared up will in this way be part of the results of the investigation.

In this investigation a leave is said to be abused if either a criminal offence during leave is recorded, or if the prisoner does not return from leave and a criminal offence committed during his absence without leave is recorded. Among the 7,302 leaves investigated 95 abuses of leave were found, corresponding to 1.3 per cent. Among the 1,292 persons investigated, 85 were found to have committed abuses, corresponding to 6.6 per cent of the total number of investigated persons.

The report also contains a number of tables divided into types of leave, the individual institutions and the age of the inmates. Without going into further details I may mention that abuse in relation to age group showed by far

the greatest level in the lowest age group, 17-20 years (16 per cent). In the 21-30 age group the percentage of abusers was about seven, in the 31-37 group it was less than 4 per cent, and in the highest age group (38-64) less than 2 per cent.

Further explanation is hardly necessary to state that a research report of this character is of the greatest significance, on both the political and the administrative level.

Example B: As mentioned above the Prison and Probation Administration has wanted to go forward with attempts at a comprehensive delegation of competence within the individual institutions. The relatively big open institution at Kragskovhede (having a population of about 250 young recidivists) has been chosen as the research field. The institution has been divided into six units corresponding to the six living quarters. Each of the units has its own permanent prison officers, whereas earlier they might have to work all over the institution. In addition a permanent social welfare officer has been attached to each of the units, the welfare officer having moved out of the administration building into an office in the living quarters. Some typists have also moved out of the administration building and are placed in the living quarters. Finally, a permanent teacher has become attached to each of the units.

The total staff of a single unit operates as an autonomous unit which has been given extensive competence to make decisions concerning, for example, leaves and release on parole. It is the intention that decisions generally be made at the place where the inmates are living, and in such a way that the resources of the staff having the closest contact with the inmates are used to the maximum.

It is obvious that in such a system a number of coordinating functions have to be built in order to ensure that the individual groups follow similar lines. I shall not go

into further details of the model, which to a large extent corresponds to what in modern management is called a matrix organization with delegated guidance. At first the organization of prison work was not affected.

To get a relatively sure knowledge about what effect this change of structure had, the prison and probation service employed an independent sociological consulting firm, which had experience with corresponding investigations in private firms, to follow the development on a research level. The preliminary report was made after the course of six months and showed that, as a rule, there was great satisfaction with the change among both employees and inmates. Furthermore, it turned out — which was not the intention — that the change implied a significant rationalization which made certain staff reductions possible.

An exception to the general satisfaction was the workshop staff. Since the prison officers (guards) had taken up a more engaged attitude towards the inmates, it seems that the often positive personal relationship that existed between the workshop staff and the inmates was felt to be diminished. On the basis of this finding a structural change concerning the prison work was carried out, with a significant delegation of competence in planning the work to the staff of the individual workshop, with involvement of the inmates in the process. This structural change was also followed by research, and a complete report will very soon be published in the series of research reports.

It is planned that on the basis of these experiments and those at the Herstedvester closed psychiatric institution, similar structural changes at other institutions will be discussed. This research is a textbook example of the way research can be utilized in order to adjust an experiment and simultaneously make use of it pedagogically both within the institution where it is conducted and in the rest of the system.

Example C: An additional example of how research can be directly applied is an experiment with the application of an open and a closed prison as special educational institutions. The main idea is that the time spent in pre-trial custody in the 50 local prisons can be utilized to discover the persons who are in need of education and who are suitably motivated. For such persons the staff of the local prisons shall, together with the offender and the local probation and after-care unit (which is part of the prison and probation system), work out an educational plan which may imply that the offender serve his sentence in one of the educational institutions. Decisive importance is attached to the wishes of the inmate himself to utilize positively the time of serving the sentence. A research programme is being planned to show to what extent plans are actually being carried out, to what extent the education is really utilized after release, and, finally, how it influences relapse.

Example D: Finally, very comprehensive committee work concerning the future organization of the probation and after-care system is presently being carried out. The committee has — besides some people from the prison and probation system — representatives of other parts of the justice system and of the ordinary social welfare system. The work is nearing termination and a report will be presented before the end of 1975. It can be expected that radical changes away from compulsory supervision will be proposed. It is desired that research be planned and initiated before changes are introduced, so that a standard of comparison will be ensured.

IV. *Indirect Application of Research Results*

In this chapter a question will be dealt with which I suppose is of special interest for researchers. While it is well known that the administration can apply research

directly, the question remains to what extent the results of ordinary independent research can influence the decision makers.

I think that the most essential part of this question has already been dealt with above. Experience shows that it is more a question of establishing the necessary organizational contact than of fundamental problems of research or the administration as such. Some requirements can be stated, the fulfillment of which will increase the influence of research on the decision makers. But before returning to this question it is appropriate to look at a few actual examples of outside research results having influenced crime policy.

Example E: A periodical research report was published from May 1968 to August 1970 by Danish military psychologists (Bent Rieneck et al.) where one of the main results — roughly rendered — was that social maladjustment is " infectious " in such a way that more than a proportional increase of social difficulties is obtained by concentrating together young persons with adjustment difficulties. Furthermore, it was shown that mutual influence in such a group would be so strong that outside pedagogical influence on the group seemed to have no effect. On the other hand, the socially maladjusted persons were highly susceptible to influence if placed in a group of young people without special adjustment difficulties. Influence would typically flow from the young persons with ordinary social standards towards the maladjusted young persons. The risk of influence from the " bad companions " should consequently not be so serious in mixed groups where the maladjusted persons are a minority.

The researchers themselves pointed out that these results, which were based on extensive research on young conscripts, made it natural to question the expediency of bringing together socially maladjusted persons, which is the

case within the institutions of the prison and probation system.

Knowledge of this research reached the prison and probation administration by way of a newspaper article written by the leader of the research team. This research influenced the decision to change one of the youth hostels of the prison and probation system, Skejby. Up to that time the institution had 24 clients, to a large extent drug abusers, who had either received a suspended sentence or had been released on parole. In 1973 this arrangement was changed by letting half of the rooms to ordinary young persons, while the remaining rooms as before were used for clients. At the same time, the staff members of the youth hostel were given the task of supervising 12 other clients, who were placed in private family care so that the capacity of the institution was not reduced.

The experiment is still being followed by research, partly into the course of the time spent at Skejby, partly into how the clients manage themselves later on. The indicators of social adjustment applied are work, education, consumption of alcohol, drug abuse and crime. The experiment, which has been followed by Danish television, is promising. The first research report will come out in the autumn of 1975.

Example F: In recent years Denmark — like many other countries — has experimented with various alternatives to the ordinary child and youth welfare institutions. The proponents of change are young persons that have continued the standards introduced into the youth culture during the 1960s. The institutions in question are, to a certain extent, used by the ordinary social authorities for the care of clients that cannot be placed at the traditional institutions. The nontraditional institutions are characterized by a complete working community, e.g. farms or fisheries run by the institution or the collective. They do not treat, but accept and

make demands upon the client. A researcher at the Institute for Organization and Labour Sociology at the Copenhagen School of Economics and Business Administration has described such alternative institutions and their results (Tore Jacob Hegland, " Terapi paa grasrota ", *Socionomen* No. 16, 1974).

This emphasis upon the significance of the working community coincides with the experience of the prison administration in many countries. The fact of having a common interest in a working community implies more natural personal contact than there is between a prison officer and a prisoner — presumably regardless of the sort of " treatment " training the prison officer has.

Opinions of this sort were taken into consideration when, in 1974, the personnel structure was planned for a new closed prison intended for about 90 young offenders. The prison, located at Ringe on Funen, will be ready for service in January 1976. It was decided to avoid completely the traditional manning with prison officers, workshop staff and social welfare officers and teachers. Instead, the staff should primarily consist of persons all of whom are able to work in the furniture factory which will be set up within the prison. It will therefore be the same personnel group working in the living quarters in the morning and in the evening, and working with the inmates in the factory during the day. In this way, they will all have a natural working community with the prisoners.

To further strengthen the actual community the traditional institutional kitchen has been given up. Instead smaller kitchens (college kitchens) have been established in each unit of the living quarters. It is assumed that the officers who are working in the unit will prepare their food together with the prisoners. The ingredients for the food will not be supplied. Instead a weekly amount of money will be granted to the inmates, who themselves can decide

what to buy in the shop which a local merchant will open in the prison at certain hours.

Importance is attached to the fact that the staff will consist of both men and women. It is also planned that female inmates will live together with male inmates rather than in special living quarters. One of the problems here of course is that there are so few female inmates that it will be difficult to place more than 10 to 15 women among about 70 men.

Teachers and social welfare officers will — apart from one co-ordinator — come to the institution from outside. Thus the prison will be served by the ordinary educational system of the town, and the ordinary social welfare authorities of the area. We did not want that the sort of " all-round officer " whom we endeavour to get for the staff of the prison, should have his role diminished by the presence in the prison of other personnel groups, who traditionally have higher status.

It is an integral part of what we aim to create that we will continue the policy of delegation with which, as mentioned earlier, we are experimenting in other places. It is also the intention that the staff members of the individual living quarters shall be self-governing groups. Through a special system of budget programming they will have a great influence also on the economic dispositions. But simultaneously the system will require that they define the aims beforehand that they want to achieve. And they themselves will be given the opportunity of currently asessing the extent of the aim achieved (i.e. management by objectives).

Now I return to the question of how to ensure that results that have been obtained through research outside the system may influence the decision makers. Why has the research treated in Examples E and F had an influence? On the part of the researchers there are certain common features. In both cases the researchers have been engaged in spreading the knowledge of their results, and in order

to do this they have used untraditional methods like newspaper articles and lectures for a non-scientific audience.

It cannot be denied, however, that the success of their informational activity is dependent on the fact that they have " popular " results. These are in accordance with other trends in society towards breaking down social barriers and towards a regard for working communities. It is understandable that the researcher presenting a very " unpopular " result — e.g. concerning the significance of genes for crime — will be less inclined to enter into an ordinary public debate, running the risk of being identified with ideas and attitudes with which he does not agree. If this is generally true, it will but underline the significance of not relying on the more accidental channels of information. We must ensure direct organizational contact between the researchers and the decision makers.

Turning now to the administrative side, the decision makers, how to ensure the willingness to let oneself be influenced by research ? Here research may be seen as one of several means of getting a more " correct " understanding of the problem to be solved and the possibilities that are available. Information about outside research is, in principle, equally as important as an open and efficient system of information within the organization itself. By this abstraction the problem tends towards the sort that is treated in modern management theory.

The question of ensuring that research has an influence on decisions becomes therefore a question of training decision makers in modern management. This promotes a new type of manager, one that is rational and creative and for precisely that reason in search of information. Here, however, an organizational question enters the picture. In the same way as it could be dangerous in an organization to have a special development section on the same level as other sections, I consider it also dangerous in a certain way to have an isolated research unit. It must be seen as the most

distinguished task of the top managers to engage themselves in planning, and as part of planning also be personally engaged in the provision of research information. If these activities are directed without the personal engagement of the top managers, there will always be a risk that the planning reports and the research reports are buried under so many other reports on their overloaded desks.

ASSESSING THE IMPACT OF CRIMINOLOGICAL RESEARCH ON DECISION MAKING

by R.W. Burnham

Introduction

The chief purpose of this paper is to provide a specific focus for a workshop discussion. Therefore I have referred to the preceding or existing literature a little; but in order that the paper can focus most precisely upon what seem to be the key issues at the moment, I have omitted a state-of-the-art survey of the traditional kind, with an abstract of each of the main authorities followed by some kind of summary. Instead there follows an eclectic account of various problems which have been perceived by different workers in the field, some suggested responses to the problems and what seem to me to be the main inferences we can draw at the moment with respect to future research. This is, therefore, and unusually for such an occasion, a very personal paper. This approach has been adopted deliberately, and after some thougth, because the most recent ideas which seem particularly germane have come to me largely through informal, often verbal, contact with others, rather than from published work.

Although, therefore, authorities are not cited by name I do not wish to deny credit to the many writers and scholars whose works I have read or with whom I have conversed. The writers whose work I have found most immediately stimulating are Professor J. P. Martin and Dr. Saleem Shah.

I have had valuable conversations with many workers in the field, and I would single out in particular Leslie Wilkins, and the group of senior administrators assembled specifically to help me by Mr. Moriarty and Mr. Croft of the Home Office. There are, however, many other influences which have come together in directing my thoughts, and I have attempted to mould these into a coherent whole rather than to report in summary form what others have said.

One important aspect which as criminologists we have not yet developed far is that this topic is but one area of the whole range of impact studies that have been carried out on management and organization theories over the last few years. It may well be therefore that ultimately we shall find either support for some of our theoretical doubts and tentative ideas, or advice and guidance as to how to overcome the problems, in the writing of non-criminologists. However, as someone involved in the first design of the original study begun at UNSDRI some four years ago (*Criminological Research and Decision Making,* UNSDRI, Rome, 1974), I attempted a survey then of the non-criminological appropriate literature and found disappointingly little of immediate relevance. The situation may have changed a little since, but I am not aware so, and to prepare a complete report would take many months of full-time work. The influence of some such studies, however, is close to the surface in many of the remarks that follow. In brief, therefore, I have attempted to provide a stimulus and focus for an intensive discussion in a limited time, drawing on other people's thinking as much as on my own, rather than to provide a scholarly paper emphasizing comprehensive coverage more than immediate and specific relevance.

Background

It is notable that recently the goal of much criminological research seems to have changed from the pursuit of knowledge to the guidance of policy. To use traditional terms, there has been a move from pure to applied research, while the more abstract theoretical advances have been made by scholars whose main interest is not primarily in empirical research. So a distinct division has appeared in the criminological world between on one hand action or operational researchers and on the other theoreticians, some of whom by virtue of their political ideology are inevitably committed to some form of social action, but many of whom are closer to the traditional image of the scientist as a pursuer of knowledge which may or may not have practical results but the justification for which lies elsewhere. Many of us try to attempt both roles, but I suspect we tend to shuttle between rather than integrate them. Presumably most of us here are concerned with policy research, at least to some extent; we are a relatively self-selecting, and far from random sample of criminological workers. Most action and operational research is concerned with the effect, or effectiveness, of a given programme or measure. The distinction between these two terms is important, but does not need elaborating here. It may be pertinent to ask why we have, as a professional group, recently become interested in the effect of our work on decision making. Three classes of reason come to mind:

(*a*) The political, in that the support for our work, which may mean no more than funding, but should be extended to include the granting of access to data and for fieldwork, is largely in the hands of administrators, and therefore, it would be comforting to us to know that what we do is appreciated by them.

(*b*) The psychological, in that we are in many ways identical to other groups of skilled (or hopefully skilled) workers. We take a pride in our product and the measure of quality of our product is the extent to which it is used. In other words, it is the meaningfulness which it gives to our lives which is the spur to our wish to be appreciated.

(*c*) The scientific, or professional, in that we should take this problem seriously, because our concern is with the criminal justice system. If the extent to which the findings of research are utilized within that system is a significant descriptive parameter of that system, it falls naturally within our area of study.

For these three types of reasons, those of self survival, self-respect and logical completeness, it is natural that we should take seriously the question of how those that are empowered to make decisions utilize the products that we believe would be helpful to them in these decisions. It seems to me only honest for us, who perhaps as a profession are sometimes rather quick to define ourselves as prophets crying in the wilderness, to consider our own motivation for, first, wishing to describe ourselves as being in the wilderness, and secondly, looking for ways of coming in from that somewhat uncomfortable location.

The Nature of Criminal Justice Decision Making

Many opinions expressed on this topic so far have treated the terms research and decision making as reasonably non-problematic. That is, they have considered that decisions in the criminal justice system are roughly speaking homogeneous, and that the most pressing question is to construct a model for investigating these, on the assumption that one model will be appropriate at all levels. My first point for discussion is the extent to which this is the case.

It is clear that the majority of writers consider relatively high levels of policy decision in the course of their studies, the decisions taken by senior administrators, covering a large sector of at least one component subsystem within the criminal justice system. It may well be that they are right to concentrate their efforts in this area because this is where

research is indeed most relevant. However, we can distinguish at least two other levels where there may ultimately be room for impact by research findings, but of a quite different type. These I shall refer to as case decisions and management decisions respectively. By case decisions I mean those instances in which usually one, but occasionally a group of officials, take a decision concerning one individual, normally fairly quickly concerning the next step in the criminal justice process to which to transmit him. By management decisions I refer to those decisions which control the immediate future of a group of individuals, as well as the basic grade staff which are dealing with them. Thus the police officer on the street, or the prison officer in the cell block, are the main instances of case decisions, while prison governors, police superintendents, or the various members of the judicial courts are the main members of the management class. It may be that a separate category should be made for sentencing authorities.

The significance of research for sentencing policies is much debated, and the willingness of an essentially legal profession to consider non-legal factors often open to doubt. The degree to which the judiciary of all levels can be classified with, for instance, senior administrators, varies between countries; but it is certainly an empirical question, and one which has to be answered before any more specific progress can be made. There is no doubt that the decision is usually the central one in the criminal justice career of any offender; whether or not this makes it unique, as many judges who are oriented exclusively toward the law apparently believe, is a crucial but sensitive research area. It can be argued, convincingly I believe, that since judges now seem to take into account factors other than the purely legal when passing sentence, such decisions can and should be assigned to one of these categories, a case decision in terms of characterictics but perhaps a management one in significance and consequence.

The second proposition for discussion, therefore, is that although the policy decision has so far been taken to be the central concern of our interest in this area, and rightly so, the long-term effect for which we may most profitably look, could be at the lower, more individual, level of operating. It is, of course, highly likely that the decisions which bring about these changes at the individual decision level are themselves taken at a higher, policy level, and therefore it would be to some extent a matter of individual choice at which level we choose to monitor them, or claim that their effect was being felt. If some aspect of research indicated that certain styles of police behaviour were far more productive, from the total system point of view, such as in the negative sense of having fewer harmful side effects, then if such research were to affect the system at all it would presumably be through the instigation of new training programmes designed to change police perceptions of the appropriateness of certain styles of response. The decision to institute these new training programmes would have to be made at a higher level. In summary the three levels of decision postulated are not necessarily all that separate in the confused and overlapping experience which we know as the real world; but it might be helpful to clarify the distinction among them for analytical purposes.

The third point suggested for discussion is whether it is reasonable to expect the same methodologies and research tools to be helpful in analysing the effect of research findings at these different levels; or whether the different indicators that will be necessary and the different problems of access to data and types of data available will in effect give us at least three different types of problems to analyse and therefore the possibility of an extremely complex general model of investigation for all branches of criminal justice work.

Most of the few existing studies of the impact of research seem to have been concerned either with developing conceptual models for how we might go about classifying types of impact, i.e. constructing some means of understanding and

comparing the effects of research in different circumstances, or with the methodological techniques involved in tracing the course of information flow through systems. The studies commissioned by UNSDRI provide an illustration. While there is no doubt of the work of either approach, each has suffered from severe drawbacks.

The first, the conceptual model building, is limited in its practical application by the need for high quality data to enable the model to be tested. " High quality " refers to clarity of definition as well as the range and authenticity of the resources. Owing to a range of difficulties, the consideration of which will form the core of this paper, it may be that although such models, or models developed from them, will ultimately lead to marked advances in this field, at the moment we are simply not ready for them.

The tracing problem, which is in a way an attempt to provide the high quality and specific data referred to, suffers from one drawback which seems at the moment to be swamping in its effects, though whether this is inevitably so or simply a function of the state-of-the-art at the moment is an open question. The drawback is that the results of research are to be found in actions that have no visible connexion, howsoever hard the researcher digs and questions, with the originating impulse. A very useful analogy provided by a colleague is that of a hillside stream. At some point one can quite specifically say that there is a clear-cut stream which is flowing from sources of water higher up; but at least in the wetter countries this source is more often vague and diffuse rather than a clear-cut spring. Likewise streams go underground and meet with other streams and re-appear as rivers much further down; therefore, even if a dye is inserted into the stream in which we are particularly interested, by the time the river is reached this dye has diffused itself through all the waters, irrespective of their origin.

Even this metaphor has its weaknesses, because it might imply that by measuring the intensity of colouring in the broad

river, the influence of the coloured stream (i.e. research) can be in some way quantified or estimated. But there is no necessary reason why other streams in the underground process may not affect the chemical constituent of the colour, so that the ultimately observable colouring is a function of the interaction between known and unknown variables in the stage of the progression which, if observable at all, is probably not observable in enough detail to estimate that interaction. This argument suggests that the tracing problem is one which would always be with us, although we may well be able to develop more sophisticated, more precise and more reliable methods than we have now, and also that the attempt to trace may well disrupt the operation of the body whose reaction to the research is the central core of our enquiry. In other words, a Heisenberg effect is very likely to accompany any serious tracing attempt.

If the proposition at the end of the previous paragraph is correct, that the action of researching into the use of research will inevitably affect the use of research then perhaps we should reconsider our strategies to make use of this phenomenon as an asset rather than deplore it as a scientific limitation. It is from this position that I wish to argue the following pages.

A personal, biographical note at this point will not be a mere indulgence but germane to my argument. As a member of the team that designed the UNSDRI project in 1971, I was a firm advocate of quantifying where possible, of formal communication-channel analysis, of the tracing of information flow in discrete and preferably quantified terms, and most of the paraphernalia of that aspect of modern operational research. This entailed regarding the output of research work as being a clearly defined non-problematic datum of which the nature was not really in doubt. Although my allegiance to the rigorous, preferably quantified, school of social science has not changed, I feel it now appropriate that we should perhaps be prepared to learn from the phenomenologists and perhaps particularly the ethnomethodologists some of their insights into the nature of the phenomenon with which they and we are dealing. Ever since Matza exhorted us to be " true to the nature of the phenomenon " we have been aware of the complexity of the nature of the criminal act; we might perhaps now become aware of the complexity of the nature of the research fact. In ethnomethodology, which is concerned essentially with the process of coding and uncoding of messages reciprocally between two parties, the concept of reflexivity is central. Perhaps this might apply too in the case of research and system functionaries at whatever level.

This leads into a consideration of the understanding and definition of the terms " research " and " research findings " on the part of various individuals or groups of individuals who may be involved in their use. The administrator will understand by the terms, whether we use findings or research or whatever synonym, perhaps something different from that which we do (and there is of course no guarantee that even we who earn our living by this type of work necessarily have an exactly agreed definition) and that the way in which the administrator perceives the word affects his reaction to " reality ". The word reality is used deliberately to suggest that each of the different groups concerned perceives the word or concept as referring to something with a shared definition, and that they assume the other parties involved will be surrounding the term with a similar set of unspoken environmental concepts to those which apply to themselves. I suggest that this is extremely doubtful.

First, and at the most superficial and immediate level, there is the continuum to be found from statistical information of the bookkeeping, summary-of-accounts type (the number of people in prison, the through-put of a particular court system and so on) through various mathematically based analyses of such figures or of figures derived from rather more complex data gathering processes, through con-

ceptual and complex analyses of the nature of processing, their effects and possible lack of effectiveness relative to their original objective, to almost philosophically abstract analyses which still have perhaps some practical implications. All of these can be called in some way research, just as they can all be called in some way information.

At the second level, and I suspect more important, there are beliefs concerning the nature of the people responsible for these products which influence the perceptions of the possible users. It seems to be quite widely believed that each of these groups holds stereotypes of the other groups. The stereotype of the researcher is that of someone intent, not necessarily for purely scientific reasons, on disproving the validity of the policies and actions being carried out by system operatives at whatever level. Although we may have advanced a little beyond the stage where research workers were considered recent graduates enveloped in duffle coats and college scarves or more latterly an elaborate arrangement of denim below and hair above, there is still perhaps a strong belief that research workers are people who set themselves up as knowing " the truth " more precisely than the administrators. The piece of folklore from organization theory that " information is power " applies here. If group A perceives group B as, first, believing that it has more information than group A, and secondly as perhaps being right, and thirdly that the arena in which this is to be settled is one under the control of group B, there are obvious grounds for a feeling of being threatened on the part of group A. If group A therefore has the power to exclude group B from intrusion, it is not an unnatural reaction for it to do so.

I am not attempting to argue that administrators, middle management or basic grade officers of any service *automatically* regard research work as evil or wrong; but that its potentially threatening nature is one factor which is going to influence their perception of the individuals concerned

and any subsequent output. In other words, a central methodological problem is that a crucial parameter for the analysis of the use of the research is the interaction between researcher and consumer, and a crucial parameter of that interaction will be the mutual definition of both role and output. The facts which will be included in any future conceptualization of the topic, or in any model or methodological tool such as tracing, will include some consideration of the way in which those facts are defined by the various parties involved.

These considerations lead to a belief that the next development necessary before we can hope to advance considerably upon the efforts of the two schools I have already mentioned will take the form of some extended dialogue between research worker and system-operative consumer. This is, or at least appears to be, a somewhat trite conclusion of the kind which many reports and consultancies tended to finish up with but I hope to demonstrate that it is a little more than this. First the research worker must as suggested gain a much clearer understanding of what the user of research understands it to be, and secondly the process of extended interchange of ideas and views and value statements is in itself probably the most significant contribution which we as research workers can make currently to increasing the market acceptability of our products.

This remark raises another topic which I regard as worthy of serious discussion in this workshop; what is the objective of research into the use of research ? I have indicated a few possible motivations for doing this, but if our objective is primarily to get administrators or any other decision makers to take our product more seriously, it may be that simply to talk with them is in the short run the most efficacious. If we believe otherwise, we should be prepared to answer questions concerning the value of research into research; in other words, the cost-benefit calculation of man hours, both researcher and consumer, has to be

worked out to some degree before we can justify research into research if we are undertaking this for practical ends. At the beginning the distinction between research for policy pay-off and for scientific knowledge was mentioned. If we are justifying our work on the grounds of policy pay-off, then we must take into account any process which gives the highest possible benefit-to-cost ratio. If there are good reasons for thinking that discussion with various levels of administrators are more profitable as an investment of our time than attempting to apply complex models, whether purpose built or borrowed from elsewhere, to the criminal justice situation, then we must be prepared to take this to its conclusion and persuade the consumer of the virtue of our position.

If we are concerned to develop a science of criminal justice administration, an objective which I personally regard as worthwhile but long-term, then we must consider the extent to which mutual exploration of the definitional and perceptual problems to be encountered have to be settled prior to the construction of more elaborate theoretical approaches. What is in effect being advocated here is a version of what C. Wright Mills described as " Dust Bowl empiricism ", which is, of course, unfashionable almost to the point of being unacceptable in social science; on the other hand it is also generally agreed that one cannot conceive and develop the appropriate model for the analysis of any complex process unless not only some data are on hand in order to allow one to discover patterns and processes within them, but these data also are adequately representative of the reality which the model has to match. From this, therefore, I wish to argue that we should look for further progress first by attempting to describe the obstacles to the use of research, and in so doing hope to obtain more precise information on how research is defined by the criminal justice consumer; how it is conceived by him as possibly affecting his job; and what reason there may be for

his ignoring or rejecting the conclusions that emerge. This strategy assumes that the event in question, the non-use of research, is a given and looks for explanations from the perspective of the potential user, trying to establish from this both the actual degree to which non-use is indeed the case, and possible measures of potential usage.

Obstacles to the Use of Research

If we are to start by studying the obstacles to the use of research, this implies necessarily the co-operation of the system officials at all levels. As essentially this is controlled by the senior members of the administrative level, unless there is a commitment to co-operation by them, no real progress is feasible. This commitment entails two particular requirements. That of the junior members of the organization to accept as a responsibility the need to co-operate; and the formal commitment of valuable manpower time on the part of those responsible for the programme budgeting of the system as a whole. It is the second which is likely to be the more serious stumbling block. Therefore the first obstacle to be overcome is that of persuading the administrative authorities of the profitability of the enterprise and of the fact that research workers cannot be asked to provide more relevant information, which is what they are frequently asked at the moment, without being allocated a certain proportion of the timetable of those who may use this information; that is, the questions of the use and understanding of research have to be legitimized and institutionalized by the administrative authority. Only if this condition is satisfied can the mutually educative process mentioned above and the analysis of the interaction which has been postulated as a prerequisite for any analysis of the problem be achieved.

Thus the infinite regress, as it seems, of research into the use of research goes back at least one stage further, of research into means of persuading or convincing authorities

that research into research is time and therefore money well spent. It is partly for this reason that I have chosen to write this paper in a reasonably non-technical style, because although it is too long to retain the attention of management throughout its length and is therefore likely to be ignored, its style is, I hope, acceptable to them. The length is, of course, a function of its different purpose, to outline to a scientific and non-administrative audience roughly where we are now, and where next, perhaps, we might most profitably go. We may turn now therefore to an analysis of the various obstacles. The typology which follows is very tentative, the points raised overlap considerably; it is intended to assist clarity at the expense of realism.

Political Obstacles

It is clearly the case that research workers are somewhat removed from the immediate political environment in which most decision makers work; this does not mean, however, that there is no political aspect to their work, and some of the attributes which they are keen to see on the part of system functionaries may apply also to themselves. The stereotype of the research worker held by the administrator, at least in many areas in time past, has been referred to already; the reverse of administrator by research worker, is equally germane. The traditional view of the bureaucratic functionary, whether he be at the upper or lower management levels, is of a person constrained primarily by the objective of not in some way or other " rocking the boat "; that is, the decision maker is charged primarily with so arranging his decisions that his political masters are able to continue to present an account of the organization as meeting its objectives. While this may well often be true, there are two important qualifications which alter our understanding of the potential relationship between research worker and administrator.

First, the same is true in a more subtle way of research workers themselves. It has been traditional to divide research workers into those who work for government agencies, usually called in-house and those employed by external agencies. The former are regarded as having the same system environmental constraints as the administrators with whom they work, whereas the latter are free agents. In fact the latter can be dependent upon organizational goodwill, in terms of access and funding, and the development of the career pattern open to them is heavily influenced by their relationship to the central organization. Therefore perception of the role of decision maker is influenced by the beliefs of the research worker of his own reliance upon, yet detachment from, those who work formally in the system. Thus there may well be a love-hate relationship on both sides, whereas it may be believed by the research worker that he is the (psychologically) independent variable, and the potential user of his research is the dependent variable. This possible difference between the perception of the relationship at a superficial level and the possible underlying awareness of the inevitable (?) dependence can perhaps affect the style of presentation of the research worker, who has as great a need to demonstrate his indispensability and value as the administrator he overtly regards as the more constrained person.

Secondly, most decisions in a criminal justice organization are taken in a position where the input to the decision will include factors other than those covered by research or at least by any one research project. These will include the degree of public opinion involved, the urgency of the requirement to produce some defence or change of existing policy for reasons not connected with the research design, and the newness or familiarity of the topic in question.

Perhaps it is possible to construct a table or continuum of criteria of susceptibility to research for different

types of problems. Essentially those decisions where the instant political factor is not overwhelming are the most likely to be influenced by research findings: the degree to which this type of problem has been met before, and there is a precedent for the manner in which it is dealt with, and the degree of public interest, which will in turn affect the previous two factors, obviously rank high. On the other hand, there is no reason why this rank order of researchableness of problem areas in criminal justice corresponds with the views of the research workers involved as to the need for research into that particular topic. They may well believe that an area which for external political reasons or reasons of urgency is decreed to be not susceptible to immediate or high-priority research effort is in fact an area where the long-term findings on research are most crucial. This in turn can lead to two results. First, that owing to the need for immediate action, research findings already existing and perhaps dated, are used to influence policy makers, and this applies primarily at the policy level, against drawing false conclusions as to the likely consequences of any particular decision; and secondly the individual decision makers may acquire a psychological involvement in playing down the possible importance of research in order to avoid the dissonance which would be created by acceptance of the belief that research input should indeed form a significant factor in the making of the ultimate decision.

Thus the relationship existing between the research worker or team and the administrator at any given time will influence the extent to which research is defined as relevant by the decision maker and this relationship will be a product of previous experience, among other factors, not necessarily connected with the project in question.

This conclusion leads us to consider the role of luck in the status awarded to research by decision makers. The people that are called upon to make a policy decision at any point (and complications of exactly who makes these decisions will be considered shortly) are chosen for that particular decision almost entirely by a series of factors independent of the research world. In all bureacratic organizations one feature is the frequent movement of middle and senior management from one area to another. Thus the individual responsible for initiating a particular change or review, or indeed for the intention to continue a particular programme, may well have moved on by the time that the mechanics of instigating that change or reinforcing the present practices are undertaken. If individual A outgoing from the post has recently had a constructive and positive experience of the research world and so has planned for a significant inclusion of research in the decision programme while his successor B has in the past been disappointed with or antagonized by his contacts with the research world, the research-finding component will be very differently defined, and accorded very different status by the man implementing the scheme. Thus the role of fortune, often genuinely as near to random as makes no difference, in the worth attributed to research, must not be underestimated. This, of course, has very significant implications for the construction of complex models which attempt to develop generalities concerning the impact of research, and is one of the explanatory variables to which UNSDRI's Dutch study pointed, even though the study was not of sufficient scope to demonstrate this empirically. Indeed I do not know of any study of such magnitude and it would require a remarkably large scale, and therefore a very costly study, to demonstrate. On the other hand it is widely believed by senior officials, and there is good a priori reason for taking such belief seriously.

We should accept, therefore, that the environment in which policy oriented research occurs is one which will not only influence the type of research that is undertaken, but the reaction to that research and that the latter in particular is often genuinely unpredictable. What we may also assert, although with perhaps less confidence, is that the greater

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the probability that the decision maker's previous experience with research has been favourable, the greater will be the probability either of his current decision making being influenced positively by available research findings or of his willingness to commission fresh ones. This suggests in turn that the relationship between researcher and decision maker is a crucial variable, and that " education " of the decision maker by research worker may well be the significant factor in increasing these probabilities.

The area where any attempt to " re-educate " the administrator in the value of taking seriously research which may have the most immediate pay-off is that where administrators are moving from appointments that have been concerned primarily with the care and maintenance of existing policies, explaining and defending them through the appropriate political agencies, to ones where alternative courses of action and fresh initiatives are more frequently to be met. The way in which research is most likely to be defined in the first instance is in terms of relatively simple statistical information howsoever complexly derived, which can be used to defend a system of practices; research in this context, therefore, is defined as useful supportive ammunition. In the second context it is more appropriately considered as a stimulus for a fresh conceptual approach to the particular problem, so that the status of the research worker changes from a supporting role to that of original stimulus. As there is considerable evidence in organization studies that individuals take from one post to the next the psychological equipment most appropriate to the first post, the probability of such a decision maker accepting the new role of research is relatively low. Perhaps research into the different perceptions of research potential by individuals with different administrative experience may well be a cost-efficient, although politically sensitive, specific area of empirical study in this general field in the immediate future. This suggestion is in accord with my overall conclusions that we should

concentrate at least some of our energies on attempting to locate and specify reasons for the non-acceptance of research, accepting as a datum that this is so, rather than attempting to get any measure of how widely research is in fact diffused.

Organizational Obstacles

The distinction between organizational and political obstacles to the implementation of research findings is, of course, a very fine one, and there are several factors which could easily be placed in either category; some of the remarks already made could also fall in this section.

The first characteristic which seems to be common to most if not all bureaucracies is that of compartmentalization. This is largely inevitable if there is to be any clarity of organization; on the other hand it is well recognized that most such arrangements induce their own psychological or perceptual limitations on the part of the people whose work is so divided. There seems to be a deeply entrenched tendency to see the limits of one's work as being primarily controlled by the formal remit of the post. Thus within a Ministry of Justice, or whatever term is used in any given country, the police, the courts, the prison service and after-care or community services, are likely to be handled by different departments, and only those at the very highest level have any general or overall responsibility. Those at the highest level in turn are dependent upon lower level officials for the precise information made available to them; there is inevitably a very strong filter system built into the upward flow of information, and if the individuals who comprise that filter, with the best will in the world, see their job within the confines of their own paricular bit of a given subsystem, the possibility diminishes of information relevant to wider, cross-agency issues being circulated.

This, of course, is no more than an organizational truism. However, it has particular importance for criminal

justice organizations if the growing belief is at all valid that criminal justice processes should form some kind of complete system, and not merely a collection of separate agencies whose works have little or nothing to do with each other. The role of research in this respect becomes particularly crucial, because research is the type of activity which often is concerned with the interstitial areas, or to use another current jargon term, the interface, between the different systems. A large proportion of modern criminological research is concerned with the effect of one subsystem upon another, or particularly with the effect of changes of one subsystem on another. The information and advice that are passed up from those operating within one specific area to those with a wider overview and responsibility may tend to ignore research of this nature, because it seems to be of wider scope than the specific terms of reference of the individual. If, then, the higher level official whose job it is to collate the various sources of advice and information is not himself particularly sensitive to the research input, which is likely to be far more lenghty and detailed than the other material presented to him, the research can, and very easily will, fall into the gaps between the organizational components. Many criminal justice agencies are becoming aware of this problem, and are setting up procedures for a research input at the advisory level, but the complexities of deciding exactly where and in what form this research contribution should be inserted are only just beginning to be faced.

There are three other features, common to bureaucratic organizations in general but outstandingly present in criminal justice systems, which must be taken into account in any attempted summary of the obstacles to research. The first is that bureaucrats and administrators, as well as personnel at the field level, have a much more limited room for maneouvre than is frequently thought to be the case by researchers. This amounts to a statement of one of the

basic tenets of the systems approach, that no analysis of any system is complete without some understanding of the environment and the constraints which the environment places upon the system and its operatives. If administrators or operatives generally are more constrained in their choices than research workers believe them to be, and more important still, than they believe the research workers believe them to be, the perceived relevance of research findings will be lower than is appropriate. For the administrators will believe that the research producers do not understand the problem and will therefore consider their contributions, let alone their solutions, irrelevant almost by definition.

Thus the particular market within the operating field for which policy-oriented research is designed, or " pure research " is considered appropriate, should influence the style in which it is presented, because an accurate awareness of the particular limitations of choice is crucial. This also provides a challenge to the research worker so to present his findings that the perceptions of his limitations by the system operative may be re-defined.

Secondly, one of the features of life which applies from infancy to old age is that it is easier to tell someone what not to do than what to do. Research-generated information is no exception; it can frequently be used to discourage policy makers from drawing incorrect conclusions from what they take to be the significant data. It can less easily and less frequently be used to produce immediate, clear, positive guidance, so that again the chances are that the decision makers will tend to form an expectation of research as a negative thing, and therefore something which it may make their life easier to avoid.

Thirdly, in all complex organizations the origins of policy initiatives are difficult to determine. They may come from a variety of sources which may interact with each other or operate separately but simultaneously under the influence of an external variable, such as public feeling, to

produce a collective influence in favour of a certain policy. This policy may not emerge from the relatively closed " black box " of higher level decision making until its originating influences, in the form of individual people, have moved elsewhere, and the originating ideas have ceased to be clear in the memory of any that remain. That is to say, in organizations not only are decision makers difficult as such to identify, but the tendency of individuals to move at regular intervals confuses the trail if we attempt to trace back to individual influences.

Conceptual and Definitional Obstacles

" The Impact of Criminological Research on Decision Making "contains at least three words that appear to be simple but are open to different interpretation by different people. These are impact, research, and decision making. For the sake of completeness we can accept too that the term criminological is not necessarily clear in all its implications but at least let us not worry about that. Likewise the problems arising from the exact meaning of the word impact are discussed in the UNSDRI study to some extent and have been quite widely canvassed and examined in a range of social science literature even though no final conclusions may have been reached. I shall refer to it again briefly in the next section.

Research workers tend to assume that the word research is clear and requires no precise statement in the course of most dicsussions; at least I have always tended to make that assumption, and I have rarely if ever heard a colleague raise the matter in the course of technical discussion. But it has become more and more clear during the course of both the UNSDRI study and my Home Office discussions that the word has many different possible meanings for administrators or for workers in the field. " What do you mean by research ? " is a question which very frequently comes

early on, if not at the very beginning of the discussion. There are many problems and decisions to be made by administrators or officials of any level which they themselves may not consider to be susceptible to research findings, whereas some of the material which they do use would be considered research by research professionals. Likewise the distinction between freshly created or specifically prescribed research studies and general statistical data is not always made in the same way by the two groups, but it may well be that the term research itself has so many different shades of meaning as well as so many different accompanying, perhaps subconscious, psychological stereotypes, that conversations about the use of research are almost in the category of two people talking to each other in different languages, neither of them being bilingual. This has serious scientific implications, in that if it is not possible to achieve any unified meaning for the term, generalizable theories about the use of research will be that much more difficult to build on empirical data, or, having been built, that much more difficult to test and refine empirically.

The term " decision maker " is one which has become universal and frequent in organizational management and systems study in the last two decades. It is at least ten years since C. West Churchman, a leading American systems philosopher, pointed out that the main difficulty in the analysis of any organization in operational research or systems approach terms, or indeed any other conceptual framework, is often met at the point of identifying the decision maker. Most bureaucracies work by a process of upward flow of information and advice, as described earlier, leading to a decision by the appropriately empowered authority as to what to do subsequently i.e. what alternative to choose. Most of the definitions of decision makers in criminological literature lay emphasis on the fact that these are the people empowered to decide among two or more possibilities. Although they may be empowered to do so, the probability

of their choosing one or the other is not necessarily equal before the case comes under review. The principal reason for this is that those in the position to supply the background data may well have their own preference, realized or unrealized, articulated or unarticulated, for which outcome should be chosen. This may well slant the style, and even the content of the information they pass on, by omission or insertion, and also emphasize certain indicative qualities of the information very distinctly. Thus when the material is collected for the authority formally endowed with the responsibility, all or most of the evidence may point in one way, but this evidence is already highly filtered. In other words, he has had his decision, if not exactly made for him, at least heavily influenced in one direction. This is generally appreciated in bureaucratic organizations, although means of dealing with it are less clear.

Secondly, we are beginning to understand that the style of presentation of information, however dispassionate the provider is trying to be, can subtly influence decision making. To take an example from the field, it has been shown that if a probation officer uses the term " immature " about a client in a pre-sentence report, he is much more likely to receive a custodial sentence than he would be otherwise. Likewise, when there are points for and against an individual, or policy, if some are placed first and then a word such as " but " or " however " is inserted and followed by the opposite indicators, the data in the second group are given much more weight than those in the first. To summarize these points, we may well ask who is the decision maker, the man who makes the formal decision, or those who present him with the information that he uses. This is not a matter of mere verbal quibbling in the field with which we are concerned. Although at least some official organizations favourably disposed towards research attempt to include a research component and to label it as such, the point at which it drops out of the transmission of information

and the style in which it is presented to the ultimate authority may well be the influencing factor in the decision which he duly makes. Thus to talk of the impact of any one piece of information on a decision maker as though this were a clear-cut event is itself to distort the situation. On the other hand this event does sometimes happen; we are left, therefore, with the awkward conclusion that sometimes this question of the impact is as simple as it seems, because research and decision maker are clear-cut terms, and at other times it is a far from clear-cut situation, and possibly a very misleading question if treated as a simple one. We may therefore limit our studies to the clear-cut situations as for absolutely correct reasons the empirical studies have tended to do so far, and realize that we are obtaining information about only part of the field, or attempt to get some reading of the more generalized, diffused influence of research results at a more complex level. As I personally am coming to feel that the latter is the more important it is with this in mind that most of my proposals are made.

Scientific and Empirical Obstacles

The questions of definition which have just been briefly considered lead logically into a look at some of the scientific and methodological problems involved. The tracing problem has already been mentioned, and formal tracing procedures such as described in the Dutch study are extremely valuable for revealing the possible areas where the information was simply not available when it might have been, and probably also for developing typologies of decision making and bureaucratic style. They have two particular pay-offs. First they develop a dialogue with decision makers, which I shall later advocate as our first need for investigating the more complex interactive aspect, and also for actually improving, if indeed this is the appropriate term, the working situation.

Secondly they give us a much clearer idea of how formal channels of information transmission are constructed, and if constructed, how they are utilized; and these two may well be very different.

Apart from the difficulty of tracing policy changes back, as described in the hillside stream analogy earlier, there is also a serious problem in tracing impact forward in that the time scales involved in research, as it has traditionally been practised, on the one hand, and administration or field level operation on the other, differ so much. This is compounded by the extent to which " impact " often ought to be seen ultimately in management and case level decisions, as these are the " actual reality " of criminal justice operations, for which policy decision making is intended to provide the facilitating framework. Hence the importance of the possible different methodologies for different level decisions mentioned above, particularly as the diffusion of impact will be most strong, and therefore least noticeable, at the lower levels. Research workers tend to spend a long time preparing their theoretical background and research instruments, and seemingly always underestimate the length of time that both the fieldwork and the data analysis will take. This means that they have become stereotyped, and one suspects justly, as sharing in common one quality at least, namely unpunctuality. Administrators on the other hand must meet deadlines first. Thus there is a basic conflict of perspectives. The decision makers have to be on time, even if wrong; research workers prefer to be right, or hopefully so, even if very late.

Thus the impact of commissioned research, that is research organized on the consumer-contractor model, is often reduced by the fact that the consumer specifies a time limit which the contractor cannot meet, and if he agrees to, fails; every time this happens, and there must be few people present at this or any other conference to whom it has not happened at some time, the level of mutual confidence drops.

For this reason some government research agencies contract out their longer studies and concentrate on the relatively short term, so that people requiring the information for policy work can have a higher likelihood of obtaining it on time.

Leaving aside the different organizational psychologies involved in these two groups, we must accept that it does give rise to very serious scientific problems. First, the research which is available at the time of a given policy change or the setting up of a new institutional programme or system of personnel training is that which had its origins some years, and perhaps even decades, earlier. The environment in which this new organizational style is to be introduced has changed, perhaps dramatically, from that in which the research was originated. Thus the perceived relevance of the research may well be over or underestimated by the decision maker, because of the different rates of change of the different factors which are brought together is the making of such a decision. I have outlined the problem caused by differing time scales and differing types of thinking operations only briefly, but the scientific difficulties they raise could be fundamental. It may be ironically true that in an area of human activity where current practices are frequently being questioned, and changes in law and procedure are frequent, this discrepancy is particularly significant, so that an area which may be considered most in need of the type of analysis we are considering is least susceptible to it.

The scientific task of evaluation is concerned basically with assessing the costs and benefits of a new or changed procedure, or possibly that of a procedure which is under consideration for change. This may be as relatively simple as the outcome of a treatment programme in terms of reconviction, or as broad as the almost unspecifiable overall performance on the part of a whole sub-component of a criminal justice system. For any evaluation to be at all

rigorous or valid, let alone be the basis of any generalizations, the objectives of any programme subsystem or total system to be evaluated must be clearly known, and in some rough rank order of priority.

To the best of my knowledge, at other than the general level of good intent, objectives of criminal justice systems have never been worked out on a large scale. I suggest as one of my main conclusions that the further refinement and development of the type of operation we are considering is directly dependent upon intensive and careful research into the objectives of criminal justice systems and subsystems. Whether such findings would be of more than national significance, in themselves, is doubtful, but they may form the basis of a model or even a theory of criminal justice in operation within which the impact of research on operations may be more easily and constructively traced and evaluated.

The absence of knowledge of the general objectives in criminal justice is probably one of the chief factors explaining a tendency to favour research projects with relatively limited objectives, such as monitoring the progress of various specific policies, rather than grand designs. It was an administrator and not a research worker at a discussion of these points who pointed out that answering precise questions was only one of the functions of research; another of which could be to change an administrator's perception of a problem.

The third scientific obstacle may turn out to be that of access. All employees in criminal justice systems are busy people; they are also aware of much criticism of their job and therefore for understandable, indeed inevitable, reasons, somewhat defensive. Some consideration of the mutually negative stereotypes has already been given. However, we must face the fact that unless system functionaries of whatever level can be persuaded to accept the activities of research workers, not only going on around them but perhaps

involving them, the contribution to be made by research will remain much more limited than it need be. There is, here, of course, the basis of an amplifying negative process, whereby researchers become more hostile to system operators, and therefore are denied access or co-operation or time, and therefore produce either less worthwhile or more critical if not hostile results, leading to further withdrawal of co-operation and so on. The extent to which the solution to this difficulty is a scientific one is worthy of consideration; it seems certain that unless it is solved, it will be a serious block to any progress based on social science.

Strategies for Advance

The gist of this paper so far has been to argue that while certain fairly rigorous types of conceptual analysis of the problem and practical empirical investigation of it have been extremely valuable, and should certainly be continued (I could hardly argue otherwise, as one of the individuals involved in planning the UNSDRI study), there are good reasons for considering alternative approaches which may be pursued at the same time, perhaps in different countries and through different research organizations. The role of UNSDRI in co-ordinating and facilitating the mutual communication between these seems to require no elaboration.

The first emphasis I suggest is to identify the features which have been more noticeable in those instances where criminological research has been influential, i.e. the success stories. Probably the Dutch study will help considerably in this respect. One feature to be looked for with special attention is the occurrence of advances in more general criminological knowledge (e.g. on the effects of treatment programmes) from specifically focussed studies originally commissioned for a limited objective. Two criteria of potential success suggested have been the reliability of the

information, that is the reason which can be provided to substantiate the claims made by the research, particularly if they go counter to previously perceived opinion; and the precision with which the implications are spelt out. There is no doubt that there is a conflict between the style of presentation appropriate for academic or technical audiences and those for administrators of field workers. There are grounds for thinking that researchers have been less than conscientious in attempting to see the difficulties of others. In particular they have conceived of the demonstration of validity and reliability of their findings as being necessarily done in scientific language or, even worse, jargon, often backed up with extensive numerical data and statistical analysis, which administrators and field workers have neither the training nor the time to examine thoroughly and sympathetically. If this is so, the onus lies at least partly on the research world, if no more than to research into the question of how to present research. Again this is not a difficulty limited to the criminal justice field, but certainly felt very strongly there.

The Dutch study has produced some initial information upon the nature of channels of communication within a Ministry of Justice and of how these relate to the style of acceptance; we should build on this, not only by duplicating the research elsewhere to see if the beginnings of general patterns emerge, but also to pick the brains of the administrators for alternative and more efficient means of bringing the research data not only to their notice but to the front of their consciousness.

The twin processes of attempting to analyse theoretically and investigate empirically the obstacles to the use of research, and to investigate empirically before constructing a theoretical generalization about the nature of successful research interventions so far, should lead into an alternative direction for developing these studies, and this ties in with the emphasis laid earlier upon a clear and detailed analysis

of objectives. The nature of the difference in definition of the research contribution between research and administrative worker has already been emphasized. There is a great need for detailed data on the form that this takes. Whether it will be possible to construct any kind of general category of research definitions, or whether we will have to be satisfied with a somewhat mixed rag-bag of alternative definitions is an empirical question which remains to be answered.

Before building further theories, we as research workers need to know how we are perceived, and how our efforts are interpreted and our messages decoded by our intended consumers. Initial investigation could take the form of asking them why they find our products irrelevant or unsatisfactory, if they do. There is a significant scientific point at stake here. Normally I am a convinced advocate of that style of investigation which emphasizes the asking of "how" questions prior to " why " questions. That is, in order to develop theories to enable us to understand, and perhaps control, a social process, we must first develop models which allow us to see how it functions in considerable detail. This instance, however, I am suggesting a departure from that orthodoxy in that we ask the " why " questions first, not on the assumption that were shall produce total answers, but that the information they produce will allow us to ask the appropriate " how " questions. Thus ultimately we shall ask " how " questions prior to the construction of a more empirically based model which may allow us to develop more incisive " why " questions.

The second spin-off from such an approach is that if we regard this project as an action research project, where the prime objective is to change the situation rather than merely to understand it, the first essential is going to be a much more intensive and frequent dialogue between researchers and administrators, and a greater willingness to understand the questions involved in each other's terms.

To avoid the problem-avoiding bromides which such proposals usually entail, the process must be initiated in terms of potential conflict, both of perspectives and interests, and put to the operatives in a conflict-reduction setting.

A programme of investigating operating personnel's perceptions of the situation is in itself the first step in such a communication-building process. Indeed in the analysis of the place of research in any organization we should consider as a formal question the existence and, if existing, the type of machinery available for maintaining such a dialogue, and particularly for maintaining it under conditions of stress. The crunch question in the use of criminological research comes not when the research findings support decisions which are for reasons of external pressures, political sensitivities or organizational convenience the most convenient ones, but when research provides genuine counter-information; we must consider situations wherein the research contribution will increase the dissonance for the decision makers, and the stress of their job. If research workers wish their profession and their products to be taken seriously in the running of criminal justice, they must be prepared, as most are, to take on the role of devil's advocate, and provide information which is not necessarily comforting to the administrators. But they must assume with that the willingness to enquire how most constructively they can contribute this, so that the decision-making dissonance is reduced to a minimum, and likewise so that the image of the research worker held by others, and indeed perhaps his own self-image, as the somehow superior being who has emerged from a relatively stress-free position which he often occupies to tell them how to do their job properly, is removed. It is and always will be a moot point whether researchers genuinely have more insights on crucial areas than those whose day-to-day job is keeping things going; we should as putative scientists be prepared to think the unthinkable and

consider the question whether the present suspected low level of mutual communication is, even if only a little, our own fault.

Postscript

This paper had been written, and was about to be reproduced, when UNSDRI Publication No. 10, *Criminological Research and Decision Making,* reached me. The overlap of thought, despite the very different style of presentation and development, between the Boalt and Elmhorn paper (" The Interaction Between Criminologists and Potential Customers in the Administration ") and this one in many ways makes me consider this paper redundant. On the other hand, that two research groups should quite independently have arrived at very similar conclusions is not, hopefully, without significance.

SOME ISSUES PERTAINING TO THE DISSEMINATION AND UTILIZATION OF CRIMINOLOGICAL RESEARCH [1]

by SALEEM A. SHAH [2]

I. *Introduction*

The discussion in this paper deals rather broadly with a variety of considerations pertaining to ways in which criminological research could be made more relevant and useful for improving social policies and programmes. This broader set of issues may not readily be indicated by the listed topic for this session, viz., " Impact of Criminological Research on Decision-Making ". But these broader issues need to be understood if the specific concerns are more effectively to be addressed.

An important initial point should be noted. If indeed there is an explicit goal to make criminological research more relevant for and usable by policy-makers and programme administrators (i.e., the potential " users " of the research), then close and continuous planning, dialogue, and collaborative interactions between the researchers and the potential " users " must take place. Yet, for a variety of reasons that will be mentioned later, rather immense gaps and longstanding problems are often to be found in the criminological field with respect to patterns of communication between researchers and " users ".

In addition, it is useful to note that in fields other than criminology, efforts to make mission-oriented research and development (R&D) activities more readily usable by target audiences of administrators and decision-makers, have received considerable discussion. The relevant literature deals with factors influencing the success of applied research, the dissemination, diffusion, and utilization of research and technology, and factors pertaining to the achievement of planned change[3]. The fields covered include not only industry and general research management, but also agriculture, education, health and social services, mental health, and other areas. In contrast to this vast literature, there is at this point, at least to my knowledge, a rather limited literature on these topics in areas of criminological concern. Perhaps it is for this reason that researchers as well as policy-makers in the fields of crime and delinquency are not sufficiently aware of the considerable existing work pertaining to research information dissemination and utilization. Yet, if we are to learn from previous work and developments in related areas, we cannot view such issues in narrow or parochial terms. Most certainly one would not wish to try to rediscover the proverbial wheel, nor to be " creative " largely as a function of being relatively uninformed about an existing literature.

My initial plea, therefore, is that criminological researchers concerned with increasing the relevance and impact of their work on social policies and programmes should broaden their perspectives and develop better understanding of the literature pertaining to knowledge and technology dissemination, diffusion, and utilization. Hopefully, also, policy-makers and administrators in the areas of our concern will develop a similar awareness. For a fundamental need in any area of mission-oriented research that is being supported through public funds is that *both* the researchers and the potential " users " of such information must make diligent efforts to establish effective communication and co-operation.

It is not, I would suggest, solely a question of what the administrators can or should do for the researchers, nor of what the researchers can do for the policy-makers and administrators. Rather, the major issue is how both groups can work together to ensure that scarce research and development resources are most effectively used for the larger public good.

II. *Research and Development (R&D)*

Since the terms research and development (R&D) will appear frequently in this paper they need to be clarified so that the readers understand the particular sense in which these terms will be used. In order for research efforts to lead to socially desirable applications, a variety of steps or stages typically are involved. What is commonly referred to as " basic ", " fundamental ", or " pure " research can be viewed as the first step and is designed to lead to the development, clarification, or improved organization of knowledge about the universe or about some physical, biological, behavioural or social phenomena. The essential purpose of such *basic* or *fundamental research* is to improve knowledge and understanding; no other purposes in terms of likely applications are typically involved, even though basic research provides an essential fund of knowledge upon which applied research and related efforts can draw and build. Basic research is typically accorded very high esteem in most scientific and academic circles and, understandably, there tends to be some inclination on the part of researchers to attach the label of " basic " or " fundamental " research to their efforts — at times even by stretching the essential meaning of these terms.

When the purpose is more oriented toward fulfilling and facilitating the mission or goals of social institutions or agencies (e.g., the criminal justice system), we are concerned more typically with so-called *applied research* and *policy-*

oriented research. Such studies may utilize existing basic knowledge and may try to extend and to apply such knowledge to some particular use, develop certain technological applications, evaluate the effectiveness of policy and programmatic changes, etc. It may well be, however, that an applied research effort may raise and may require attention to some basic research questions. Thus, although the classification of research into categories such as *basic, applied,* and *policy-oriented* does have some usefulness, quite often such distinctions tend to be used for invidious rather than descriptive purposes. No sharp dichotomy can be developed, I believe, between basic and applied research.

The results of particular empirical or experimental studies in the areas of applied research, no matter how impressive and significant, do *not* typically allow wide generalization nor ready application. It is at this point in the process that *developmental* activities come into play. The research findings need further to be tested, to be replicated and refined, and to be studied for ways in which they could be made operational within the social settings where they are to be applied. Such testing, refinement, product development, and subsequent evaluation of the research product constitute essential features of the *development* part of Research and Development.

In essence, then, research is only the prelude to development. And, taken together, research and development carry a scientific or technological concept from its initial inception in the minds of the originators to a product or service, or to the actual implementation and evaluation of a policy or programmatic innovation in a particular social or agency setting.

It is my impression that most researchers in the social and behavioural sciences (certainly including those in the field of criminology) do *not* fully appreciate the several necessary and essential phases in the aforementioned *development* process. Rather typically, research findings tend

to be reported without much consideration of the various constraints and limitations with respect to actual social application or implementation. That is, there tends to be serious neglect of the *development* phases of the complex R&D process. Later sections of this paper will address this issue in more detail.

III. *Levels of Analysis and Social Contexts*

The decision-makers or " users " of mission-oriented research are located at various levels in the social system. At a somewhat micro level one might consider the administrator of a particular correctional facility who is concerned with utilization within that setting of a research product which takes the form of an improved educational or rehabilitation programme. At this level one might expect that fairly close communication and dialogue will have existed between the agency administrator and the researcher, especially if the researcher has been working within the facility. Thus, one would not typically expect too great a gulf between the researcher (information producer) and the administrator (information user.)

At another level one might consider the central administrator for a law enforcement or correctional agency for an entire state or province. Clearly, here the issues are more complex, encompass a much larger assortment of researchers and decision-makers, and may require greater sensitivity to various bureaucratic and political pressures. The extent and nature of communications between the researchers and administrator may not be as close and ongoing as in the previous example.

At an even more macro level we might consider the top policy-maker or administrator concerned with a national or federal government agency (e.g., a Department of Justice or Child Welfare.) The research needs here will generally not be limited to a single programme facility or institution,

nor even to several facilities. Rather, the policy considerations may involve a very complex set of social, political, economic and other issues generated by a particular policy or programmatic innovation, e.g., de-criminalization of shoplifting, diversion of petty property offenders from the criminal process, etc. In this broad context the decision to implement a change may depend not so much on the value and desirability of the innovation as upon the political and policy implications of the change. Not only the anticipated benefits, but also the costs and risks, will need carefully to be considered and balanced.

The essential point is that one must always bear in mind the level of analysis and operation at which certain issues are being discussed. There is a danger of talking rather glibly about " decision-making ", or about research information dissemination and utilization, without realizing that decisions and practices at one level of operation may *not* necessarily apply or readily be generalized to a different level or setting.

It is also important to keep in mind the particular social and political context in which R&D efforts are to take place. For example, the nature of the governmental structure (i.e., whether a *federal* or *unitary* system) will undoubtedly affect the manner and the extent to which such research and related activities will be related to decision-making by key policy-makers and programme administrators.

Irving Louis Horowitz has suggested a three-way classification of social science research according to the social and political system in which it operates. As an overall characterization he suggests that:

> 1. In a *command society,* policy dictates both the character and activities of the social sciences. Social science loses control over both the instruments and purposes of research. The operational aspects become so important with respect to what policy dictates that the social sciences can do little but " plug into " the going political system and hope for enlightened outcomes. To the extent that the sciences do so satisfactorily, they survive.

> 2. In a *welfare system,* policy and social sciences interact but without any sense of tension or contradiction between scientific propositions and the therapeutic orientation. The integration is so complete that there is a loss of identity at both the scientific and political poles. Spill-over between scientific propositions and therapeutic prescriptions is tremendous; all functions of social science are funnelled into a social-problems orientation. The result is a decline of interest in the larger analysis of social systems or social forces.
>
> 3. In a *laissez-faire system,* the social sciences tend to be independent and autonomous of political policy. However, to the degree they remain in this pristine condition, they are also weak in power and status. What takes place typically is an exchange system based on a reciprocal transference of information for money. But this reduces the amount of social science autonomy, which leads to a trade-off of high status for maximum power. This in turn creates a source of inner tension within the social sciences as to the appropriate role of the social scientist in the forging of public policy [4].

The above classification is not presented here because it is entirely precise or is generally accepted, but because it does indicate some of the obvious and expected variations associated with the social structural contexts within which the researchers and their audience of " users " operate.

For example, in a somewhat *laissez-faire* system as found in the U.S.A. there tends to be a very definite and clear tension between the values and needs of academically-oriented researchers and those of policy-makers and programme administrators. Thus, researchers often (perhaps even typically) operate within a value system which tends to place the interests and concerns of the academic discipline ahead of the social utility of research. What is often referred to as *basic* or *fundamental* research (i.e., research designed primarily to advance knowledge) is typically given a higher value than so-called *applied* research. Even though it has been suggested that the above is a " lazy " distinction and does not sufficiently consider the continuous gradations and combinations which often exist with regard to various types of research,, such distinctions hold much importance for many researchers and influence their attitudes and activities.

The primary concern of this discussion is with research that is designed or expected to have relevance for the improvement of social policies and programmes in the field of crime and delinquency. Such R&D concerns are primarily focussed on applied and policy-oriented research and researchers who are interested in such mission-oriented studies need more closely to be attuned to the needs and problems of the " users ". For example, addressing the topic of government-supported research and development, the Rothschild report has recommended that

> R & D with a practical application as its objective, must be done on a customer-contractor basis. The costumer says what he wants; the contractor does it (if he can); and the customer pays [5].

The basis and rationale for this recommendation is indicated by the following statement in this significant report:

> However distinguished, intelligent and practical scientists may be, they cannot be so well qualified to decide what the needs of the nation are, and their priorities, as those responsible for ensuring that those needs are met. This is why applied R & D must have a customer, whose role is described immediately below [6].

The above " customer-contractor " basis, or some closely related principle for applied research certainly merits careful consideration. Such a practice would ensure that funds specifically allocated for applied and policy research do not get " robin-hooded " or diverted by researchers for basic or fundamental research. It would also ensure a much closer and truly collaborative relationship between researchers and " users ".

IV. *Research as a Means for Bringing About Planned Change*

Whether we speak in terms of the impact of research on " decision-making " or refer to the utilization of research for influencing and evaluating public policies and programmes, the major concern quite obviously is with bringing about *planned change*. Planned change may be defined as conscious effort to improve a system through the use of scientific knowledge [7]. Thus, research findings are not considered to be *ends* in themselves, but rather *means* for improving the effectiveness of social policies and agency programmes.

There are many other means that can also be used by decision-makers in efforts to bring about desired change. These other means could include: *i*) change brought about as a result of fiat; *ii*) change resulting from special funds and resources available to the decision-maker; *iii*) change ushered in as a result of socio-political exigencies, e.g., a new governmental administration, a key election slogan; *iv*) change resulting from the charisma and influence of a key leader or policy-maker; and *v*) change resulting from some shocking scandals or well-publicized and intolerable problems [8].

One might anticipate that researchers would view their own contributions to change as being more systematic and influential than the various other means mentioned above. However, when we look at the field of social problems more generally, and at the contributions of the social sciences, the available evidence pointing to changes resulting from the utilization of research findings is disappointingly meagre. For example, one pair of investigators who studied innovations that have occurred in the field of mental health services found that the initial stimulation had come from printed materials (communicating research findings) in only 8.7 per cent of the instances [9]. Other investigators have found the same type of situation to also be true in the field of general medicine [10]. Such empirical evidence concerning the impact of research on policy and programmatic changes may be disappointing to researchers and could be used by policy-makers and administrators to confirm their own impressions that research studies have very limited value.

However, one must be cautious about jumping to such conclusions. It has been noted earlier that we need to exercise care in generalizing from experiences in certain socio-political settings and in particular contexts to different settings and contexts. For example, the findings mentioned above with regard to the limited utilization of research in a particular field pertain to the *laissez-faire* system of social science research that has existed in the United States. This situation may not be typical of other countries; moreover some changes have also been evident in the U.S.A. in recent years. Quite possibly, in many of the so-called "developing" countries which have more limited numbers of researchers, and which lack some of the value conflicts and communication gaps that often exist between researchers and policy-makers elsewhere, and countries also which possess more unitary political systems, somewhat different experiences might well obtain.

There is yet another point to be kept in mind. The fact that earlier studies have pointed to the limited use of certain social science research may reflect to a significant extent the absence of close dialogue and collaboration between researchers and their " user " audiences, as well as failure to give sufficient attention to the various dissemination, diffusion, and utilization activities. Lacking such efforts, it is not surprising that research reports prepared in the typical fashion (i.e., for one's scientific colleagues) will usually have limited readability and value for policy-makers and administrators.

The long and difficult process of moving research into practice is not sufficiently articulated in the criminological and social problems field. Studies that have tried to ascertain from mission-oriented researchers the number of persons or agencies that have actually made use of their research findings during the year following completion of the study, have found that less than 20 per cent were able to point to such users [11].

However, there is reason to believe that carefully planned techniques to facilitate the utilization of research *can* help to bridge the gulf between researchers and users. For example, an investigator found that his findings with respect to the improved handling of chronic mental patients had been picked up by only one hospital. By implementing a special programme in aid of research utilization, he succeeded in having 25 other hospitals adopt his innovation or indicate that plans to do so were underway [12].

The essential point is that *if* researchers expect their findings to have both interest as well as utility for policy-makers and administrators, they must display greater sensitivity to dissemination methods and approaches. Most research reporting tends, however, to be communicated primarily to one's colleagues and for the purpose of enhancing one's academic or research status. The style, jargon, and other characteristics of the typical research report are singularly unsuited for the potential " users " of research findings. This does not mean that researchers should not respond to their scientific and professional needs and interests. Rather, that when the research findings are to be communicated to " users " the needs of this particular audience must more suitably be addressed in reports designed to facilitate diffusion and utilization.

All this is designed simply to point out and even to underline the fact that the sequence of tasks and activities necessary to bring about planned change, through user-oriented dissemination and utilization of research, is both complex and involved. It has been found, for example, that on the average research on service delivery requires a full five-year period from inception of the research to the dissemination of results [13]. If one were to add to this period the time needed to facilitate actual utilization of the results by various service agencies, additional years would undoubtedly have to be added.

V. *Value Differences and Conflicts Between Researchers and Programme Administrators*

Reference has already been made to some of the differences that can exist between academically-oriented and mission-oriented researchers, e.g., with respect to the values and status hierarchies expressed in reference to *basic* and *applied* research endeavours. In comparison to such differences, the divergences in values, background and training, and career contingencies between researchers and decision-makers are likely to be even more pronounced.

Without getting into a lengthy discussion of such differences one might note, by way of illustration, the distinctions that Coleman [14] has pointed out between what he refers to as *discipline* and as *policy* research.

Rather fundamental philosophical differences exist between research efforts whose goal is the development and testing of discipline-related theories, and research whose primary purpose is to provide an information basis for social action. Coleman refers to research designed to advance knowledge in a scientific discipline as *discipline research,* and to research designed as a guide to social action as *policy research.* (Coleman distinguishes what he refers to as policy research from research which, though it studies the impact of public policy, is designed principally to implement and to advance knowledge in a discipline.)

Policy research bridges two worlds with very different values and characteristics: the world of the academic discipline and the world of policy and action. In contrast *discipline research* remains within the world of the academic discipline, i.e., the problem originates in the discipline, the research is carried out by members of the discipline, and the results are used primarily within the discipline to extend knowledge, establish laws and generalizations, or to aid in the development of theories. Publications and reports are directed at one's scientific and research colleagues and appear

in scientific and professional journals, books, scientific meetings, and other media of the discipline. Any impact on the world of action is, Coleman points out, a by-product and not of direct interest to researchers in the discipline.

There are two major characteristics of *policy research*: 1) the research problem originates outside the discipline and in the world of action, and 2) the research results are destined for the world of action, outside the discipline. Coleman points out several other essential characteristics of the world of action, e.g., decisions to which research results can contribute are constrained by time, the discourse and the frames of reference are peculiar and specific to the world of action and are couched in different language than those of any discipline. Moreover, the research findings will have implications for interested parties with differing values and interests. Such findings might even change the structure of power and influence within the action system they enter.

Coleman also provides a number of very useful principles governing policy research. Reference to these principles in this paper will take us far afield, but interested readers may well wish to study this very useful report by Coleman and the several principles that he suggests.

VI. *Some Essential Requirements for Problem-Solving Dialogue Between Researchers and Decision-Makers*

The discussion in this section draws heavily on a recent report by Havelock and Lingwood [15], although several elaborations and extensions have been made based on our own programme in the Center for Studies of Crime and Delinquency [16].

The major activities of concern include: research, development, user-oriented dissemination of research findings, and efforts to facilitate research utilization. The goal or end of such activities is the seeking of solutions to problems and needs relevant to improvements of policies and programmes

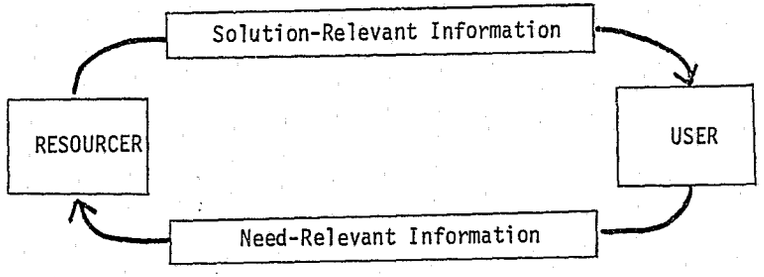
in the field of crime and delinquency. The key participants in such problem-solving activities involve researchers as well as other persons concerned with dissemination, consultation, and related activities designed to facilitate utilization of research information. Since the consultants will include other persons in addition to the researchers (e.g., " change agents "), I shall follow the practice of Havelock and Lingwood in referring to these participants as RESOURCERS — since they may serve as resource persons who provide research expertise and information, or assist in testing, refinement, development, dissemination and research utilization efforts.

Other key participants in the process are *policy-makers* and *programme administrators* who are charged with the responsibility for bringing about necessary improvements in programmes and services. Since these are the potential users of mission-oriented research they may be referred to as USERS.

Figure 1, taken from Havelock and Lingwood [17], illustrates the configurational model of RESOURCER-USER Problem-Solving Dialogue, expressed in its simplest terms.

FIGURE 1

THE PROBLEM-SOLVING DIALOGUE BETWEEN RESOURCER AND USER



As Figure 1 indicates, it is not possible to speak of research that is primarily and specifically designed to have

impact on policy and programmes *unless* there develops regular and ongoing dialogue between the researchers and the related consultants (viz., the " resourcers " and the " users "). The two aspects of information transfer are critically important to successful consummation of the problem-solving dialogue, viz., communication of need information from " users ", and communication of solution-relevant information from " resourcers ". Even though this simple information exchange model does not indicate the sequence of numerous interrelated tasks and activities pertaining to mission-oriented research, the basic dialogue can be conceptualized and applied in fairly similar fashion at both micro and macro levels. The aforementioned information exchange constitutes the vital and continuous linkage between the researchers and the decision-makers. Various specific components of such communication linkage will be described below.

Havelock and Lingwood [18] have also provided a very useful description of a " total " system for societal problem-solving via research, development, and utilization. They suggest that at least eight types of services are needed, each with a separate and special function, but all sharing a general set of goals regarding knowledge-based societal change. It is important, however, that dissemination and utilization activities be carefully planned, organized, and managed as a separate — although closely related — function from the processes of knowledge creation, research and development.

Discussion of the eight types of services suggested by Havelock and Lingwood will take us beyond the scope of this paper, hence these services will simply be listed here to indicate their nature and relationship with one another:

1. A Co-ordinated Mission-Oriented R&D Programme
2. The R&D Product Dissemination Service

3. The Knowledge-Based Problem-Solving Consultation Service
4. The *Instant* Response R&D Retrieval Service
5. The Rapid Response R&D Report Service
6. Continuous Flow Dissemination
7. User-Centered R&D
8. Natural Network Nurture.

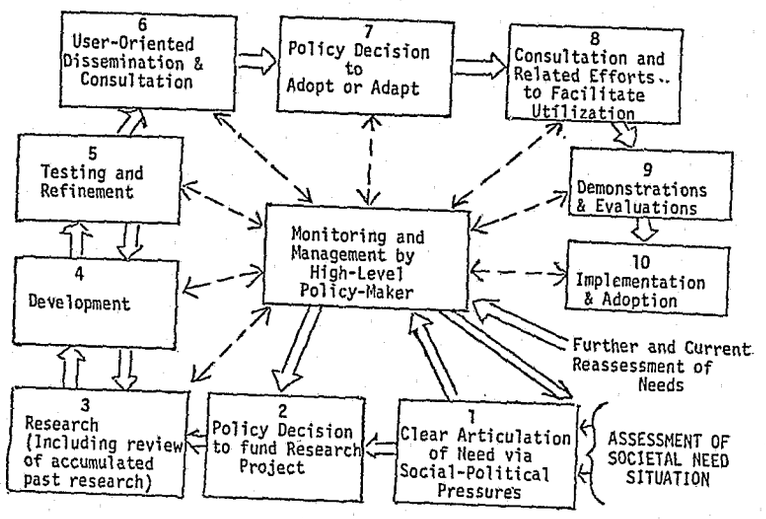
One of the most critical requirements for an effective research dissemination and utilization system is the development of sound linkages between the researchers and the users. This point has already been noted more than once, but its importance is so basic that the need for such ongoing collaboration needs to be reiterated and emphasized. It is also essential to realize that such communication linkage is a two-way process; yet, there is reason to believe, that such ongoing communication linkages are seldom to be found between researchers and the " users ".

A Co-ordinated Mission-Oriented R&D Programme. For purposes of this discussion some time will now be devoted to a description and elaboration of the type of mission-oriented R&D programme discussed by Havelock and Lingwood, but with additional modifications and elaborations to emphasize the related research dissemination and utilization efforts.

Figure 2 provides a schematic depiction of the several interlocking steps in the sequence of ongoing activities and linkages. This figure, which is a modification and elaboration of one provided by Havelock and Lingwood, indicates some of the key dynamics and sequences of the mission-oriented R&D programme. As is indicated by the figure the process is continuous and iterative.

FIGURE 2

IDEAL MODEL OF A CO-ORDINATED MISSION-ORIENTED R&D PROGRAMME AND RELATED DISSEMINATION AND UTILIZATION ACTIVITIES *



The starting point for the mission-oriented R&D efforts is the *need sensing* and *need assessment process.* Understandably, this process tends to be a political one. A variety of public pressures and political needs may cumulatively provide the necessary stimulus for initiating action at macro levels. At micro levels, where political factors may be less salient, a policy-maker or administrator may have much more leeway and discretion. His interest in innovation and openness to ideas, as well as his willingness to subject programmes and policies to empirical assessment, may well provide the main stimuli for initiating research efforts. Also, and at a macro level, the mass media may inform the public about certain developing or anticipated problems and needs,

* This figure is a modified and elaborated version of Figure 1.3 in: Havelock & Lingwood (1973), page 16.

and thereby serve an important and useful role in this process.

Once a policy decision has been made to fund the initial research or experimental project, a basic R&D process is initiated. Of course, it is understood that not *all* research undertakings may require or even need the entire sequence of steps shown in Figure 2. However, several additional and essential steps may be required after the *research* (Step 3) has been completed. Thus, necessary development, testing and refinement of the initial product or findings (or further replications to ascertain the reliability and stability of the results) may need to be undertaken. If the research findings are essentially negative and show no promise, then the sequence may well terminate at this point. Once it is evident, however, that the research findings are significant and hold promise for policy and programmatic applications, special user-oriented dissemination efforts should be undertaken. These activities should be in a form designed to facilitate ready understanding of the results and also indicate information about the likely costs and other requirements for implementing the findings.

However, mere dissemination of results to " users " does not by any means complete the necessary steps to facilitate social utilization and application of research findings. Continued consultation and assistance are also needed, as well as other forms of assistance to the " user ". Moreover, consistent with the principle of accountability, researchers should urge and try to build in a careful evaluation of the innovation. Both " quality control " and outcome evaluation studies should be undertaken in order to ascertain whether the hoped for results from the policy or programmatic innovation are in fact being achieved. Final adoption of an innovation should ideally be based upon careful assessment of an initial demonstration project or more limited pilot testing [19]. Very often, the innovation will raise a new set of

questions or even lead to certain unanticipated effects (e.g., high costs, lack of client or consumer interest, or " political " repercussions), and further co-ordinated mission-oriented R&D efforts may be needed. Thus, the entire process continues as new societal needs and problems are articulated, and as new research requirements are indicated.

This paper has attempted within the limited space of this presentation to point to the considerable literature and information that is available in fields other than criminology with respect to the topic of research information dissemination and utilization. It has strongly been urged that both researchers as well as " users " in the crime and delinquency field should better acquaint themselves with some of this literature. To facilitate this, in addition to the various items listed in the footnote references, a selected bibliography is also appended to this paper. Preference has been given in the bibliography to publications that can more readily be obtained; thus only a few of the numerous reports of particular agencies (both public and private) have been included. Doubtless, much related literature must certainly exist in other countries on the topic of research information dissemination, diffusion, and utilization. However, I regret that my familiarity is primarily with the literature available in the U.S.A. Especially to be recommended to interested readers is the five-volume set of materials developed by the Mental Health Services Development Branch, of the National Institute of Mental Health, under the general title " Planning for Creative Change in Mental Health Services " [20-24]. The various items in this set extend beyond the mental health field, and provide very useful information concerning the principles of research utilization, uses of programme evaluation, and related information in the form of an annotated bibliography, a distillation of principles, and a manual on research utilization. Another very useful item is the comprehensive bibliography prepared by Havelock [25].

Conclusion

This discussion has sought to place within a broader context the topic listed under the workshop title of " Impact of Criminological Research on Decision-Making ". It has been suggested that the above title may tend to focus attention on an overly narrow area of concern. The more essential issue, it has been argued, pertains to the ways in which research can be used, more meaningfully and effectively, as a basis for seeking planned change to improve social policies and programmes. For this, close and collaborative communication between researchers and potential " users " of the research is essential.

It has been indicated that the different training, values, ideologies, and career contingencies of researchers and " users " can lead rather predictably to many differences in perspectives and even to conflicts. However, to the extent that general agreements can be developed as to the major goals and objectives that are to be served, close and ongoing communication should serve greatly to reduce the conflicts.

It has also been suggested that there appears to be a lack of awareness in the criminological field concerning the vast literature that exists on the topic of research information dissemination, the diffusion of innovation, and ways of facilitating research utilization. These issues and problems have been addressed not only by industries of all kinds, but also in the fields of agriculture, business, education, health, mental health and social services. If indeed an important objective is to enhance and to facilitate the social relevance and usefulness of criminological research, then it is essential that persons *not* try to rediscover the proverbial wheel, but learn about experiences and models in other fields.

My concern here has been with mission-oriented, applied and policy-oriented research such as is typically funded by governments. Since the broad field of criminology draws

from a variety of disciplines, and since our topic pertains to the impact of research on decision-makers, discussions of basic or fundamental research have not been very relevant to this paper. This does not in any way argue against basic research nor does it denigrate its importance in any way. However, it seems quite evident that governments spend significant sums on scientific R&D with the expectation that various socially useful applications and benefits will be forthcoming. Certainly, such funds are not expended simply to subsidize scientists in their preferred career-related pursuits, nor for the " cultural enjoyment of descriptions of discoveries " [26]. Thus, researchers who may tend to disdain applied research need to be reminded that it is the *useful* aspects of science that justify most of the financial support received from governments [27-29].

It is evident that the techniques which have been developed for the application of physical science and technology to human needs have been outstandingly successful. It seems important, therefore, to gain much better knowledge and understanding of such techniques in order to facilitate the diffusion and utilization of scientific findings in the field of social problems, including the problems of crime and delinquency. To do this will require that we develop various institutional mechanisms and structures that will bring together policy-makers, programme administrators, and research workers in a manner that encourages their constructive interaction and co-operation.

If scientists and researchers are to make more effective contributions to the solution and alleviation of various social problems, much greater sensitivity also needs to be developed with regard to the values, problems and demands on the various " users " of research. Addressing myself primarily to my research colleagues, let me share in closing some "guideposts " offered to researchers by a " user " — Mr. William Donaldson, city manager of Tacoma, Washington — in ad-

dressing a meeting of the illustrious members of the National Academy of Science.

Guide-Post No. 1

We in local government are not dumb slobs who enjoy failure. In fact, we may even know more about some things than the research community does and may be helpful in using our knowledge to make practical use of some of your ideas.

Guide-Post No. 2

Save your vision of the brave new urban society for your classes and learned journals. Stick to helping us provide better and hopefully more efficient services so that we will have time and resources to look at some of the broader problems of our society along with all the citizens of our cities....

Guide-Post No. 3

Studies may be the safe academic way, but they only add to our waste paper problems...

Guide-Post No. 4

If you start with simple problems and solve them, maybe we will trust you when you get to the complicated ones. Managing cities is an exceedingly tricky, complicated and risky business where mistakes cause not only immediate disasters, but contribute to the fear of any sort of change....

Guide-Post No. 5

It does not have to be perfect to be better than what we have...

Guide-Post No. 6

You have to know enough of our language so that we can read your instructions. To expect people who work in cities to learn the language of the technologist is not only unrealistic, but it just will not happen. We do not have the time. Unless you are willing to be able to talk in the way we understand, and with an understanding of our environment, we will be inclined to treat you as some peculiar foreigner passing through our land who had better get out of town before the sun goes down for both your and our good.

Once you have used these guide-posts to form a map, there are many problems you can help us with by applying the skills that you have[30].

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EVALUATING PROGRAMMES FOR CRIME PREVENTION AND CONTROL

by Ahmad M. Khalifa

I

A marked but recent trend in criminological thought has been to put more emphasis on the dysfunction or the malfunction of the system of the administration of criminal justice which deals with the broad spectre of organizations set up for crime-prevention and enforcement such as the police, courts, correctional institutions, community services for the prevention of delinquency and the like. It goes without saying that failures and imperfections in the functioning of the various components of the administration of justice constitute a criminogenic factor that deserves such a greater emphasis.

With perhaps some exceptions and indications to the contrary, the current penal systems do not seem to correspond to present and expected social change and development, being generally inefficient, manifestly inconsistent and even conducive to more complications and injustices. Criminal justice, in spite of frequent attempts at reform, does not essentially differ from what it was several decades ago.

As it struck one author regarding one aspect of criminal justice administration: " there is a great ignorance about the results of putting people in institutions and, further, there

is little being done to reverse a hopeless record of failures. A case for criminal negligence on the part of penologists, judges, and those involved in the administration of juvenile justice could be made for failing to know the result of programmes that involve thousands of men "[1].

This strongly felt need for a better kind of justice gave birth to a modified research strategy aiming at the intensive study of the instruments of criminal justice, evaluation of their efficiency and cost and measurement of the attitudes of the public as regards current and projected laws of incrimination and procedure.

To have a better knowledge of what policies to pursue and what plans to follow, it is only necessary to know what prevention strategies, what sanctions, what types and programmes of treatment have worked and how in relation to different types of crime and juvenile delinquency and with different categories of offenders. The expectation is that better understanding will lead to practical and important results: it should aid legislatures in modifying constructively the penal law; it should help create a police better suited to achieving its purposes; and it should help the courts to select the most effective methods to be applied to individual criminals and it should inspire improved methods of corrections.

Among the areas in respect of which research was thought to be urgent and important from the point of view of policy formulation are: structure of the existing police services, arrest procedures, sentencing practices, parole and after-care, overcrowding in prisons, the large numbers of unconvicted persons held in custody pending their trial or held in prison for a short term or for non-payment of fines and delays in trial and appelate process.

In this connection studies on the effectiveness or otherwise of non-institutional forms of treatment such as probation as compared with treatment in institutions have taken prominence. Studies on the effectiveness of treatment in open

institutions as well as the impact of long terms of imprisonment on rehabilitation are also gaining popularity.

Much correctional research was motivated by strongly-held convictions on the part of criminologists or administrators about existing imperfections of the system. It is, however, one thing to spot such weak points and to set out repairing them piecemeal and another thing to approach a complex of a system in a spirit of analysis and synthesis to develop a model of what the correctional system should look like and how it should be restructured and how it should function.

It is to be noted, however, that of all the types of reforms at present in use, it does not appear that too many were introduced because research had indicated that they would be likely to be successful. Over the past century at least, new sentences and types of treatment have generally been introduced for humanitarian reasons, for economic reasons, or because of the belief based on pure insight that a new form of treatment, such as probation or open-door policy, might prove more effective than old forms. It is possible to say, however, that the chain of events which has taken place over the last few decades would certainly have been quite different had it not been for such research[2].

In order to shed more light on the actual interaction between research and policy, a researcher assembled 38 reports from 23 countries[3]. The influence of research on social policy was regarded as more favourable by the respondents from countries where the initiative for research comes primarily from the decision-making bodies or from foundations than from countries where the initiative for the subject to be researched stems primarily from the research workers. The areas of social policy on which research has had a considerable influence were found to be: the treatment of juveniles and young adult offenders, legislation on the treatment of adult prisoners, alcoholics and others. The results of research were found to be communicated to the policy-makers

through influencing the public opinion, administrative communication, the participation of field workers in research and vice versa, the education of staff, the participation of research workers in the legislative bodies, and participation of research workers in councils and committees.

The concept of incrimination and penalization could not have escaped for much longer the evaluative research movement. Interest became clearly directed towards a scientific analytic study of the codes of criminal law to demonstrate the measure of fitness of the legal judgment in fulfilling its rôle in social reality. Along these lines interest in the notion of deviance has been generated along with preoccupation with measurement of trends of public opinion concerning rules of incrimination, their relative severity and tolerance as well as the kinds of penalties, the degree of their severity and the extent of the general preventive effect of the various kinds of penalties. In fact — as laws should follow changes undergone constantly, sometimes swiftly, by society — a pending question should be whether law is still protecting values adopted by the majority of citizens or whether it is upholding values which, under the influence of new conditions, have become obsolete or even prejudicial to collective interests.

In this respect, the importance of " dark figures " is stressed even more since statistics — particularly concerning certain kinds of criminal activities — are not in the least expressive of reality. The study of dark figures could lead to a more realistic decision as to the reflection of actual social conditions and attitudes in the codes of the law.

II.

Evaluative research could be defined as the application of scientific research methods and techniques to test the results of a process, technique or system against such criteria

as: (*a*) its purpose, objectives or original plan; (*b*) the efficiency of its operation; (*c*) its unintended effects; (*d*) its significance in its context [4].

Hence, social defence programmes, in order to be liable to evaluation, should, at the outset, have their purposes and the rationale behind them set out in clear terms. Mere description of the programme with its administrative, fiscal and operational elements is not sufficient for any effective conclusions helping social defence planning and policy making. However, descriptive evaluative research is not devoid of all value, particularly in developing countries, even if it provides little comparative value with other existing or alternative programmes, and almost no insight into the processes that brought about any changes or results. But rarely is research by this inventory method an end in itself. Ideally it is simply the first stage of a research operation which should ordinarily lead to further stages. The objective of the researcher here is to assess the problem area by undertaking a description and inventory of the data with which he must deal. The methods vary widely. Library research is coupled with other methods of data gathering, including questionnaires, interviews and survey techniques.

In those cases where it is desirable to move beyond descriptive evaluation to process evaluation and efficiency assessment, more sophisticated research methodologies are necessary. Control groups adequately selected, and base-line data and base expectancy tables concerning existing programmes may be required.

Further stages in the sequence of research activities assume that hypotheses have been adequately formulated and that they are now ready to be tested under carefully controlled conditions which will permit the researcher to choose between alternative hypotheses and to test their relative validity. At this stage methods must be employed which yield a higher standard of proof of the accuracy of the theory or hypotheses being tested. Many of the studies, therefore,

require the organization of experimental and control groups. This category includes those types of research programmes which are designed primarily to evaluate the effectiveness, objectiveness, objectives and assumptions of action programmes [5].

Process evaluation answers the question "*why* did it work ? ", efficiency assessment answers the question " did it work ? " If a programme for job placement of ex-offenders is evaluated descriptively, it still does not answer these two questions. We need either a control group or realiable base-line data against which to measure our programme and ascertain how many would have had jobs regardless of it. It is even more complicated as, even with a control group or with reliable base-line data, we do not know the wider social effects of our programme on employment opportunties in the community at large [6].

But, going back to the definition of purposes, evaluation of social defence programmes is often rendered peculiarly difficult because of the multiplicity of purposes, and sometimes the ambiguity of purposes, being served by such programmes.

The legal sanction is multi-purposive, looking to security and stability, to a set of social values, at the same time as it looks to the effects of the sanction on the individual criminal and on other potential criminals. Even if the programme is favourably evaluated as regards one value, it might be counter-indicated in relation to another, say the general deterrent effects.

In this context, continuous study of the interrelationship of the concepts of criminal justice, criminal policy, criminal law and social defence should be pursued. Criminal policy does not exclusively correspond to value-judgements of absolute justice, but usually discloses a sense of pragmatism behind social reaction to crime thought to be adequate to the idea of justice. There are no really absolute theories in this sphere since it is a recognized fact that criminal policy and laws serve the fight against criminality. Yet

absolute values of justice are never absent. A penalization which focuses on prevention rather than retribution would require an ethical motivation since expediency alone could not serve the purpose. Thus, the new social defence accepts humaneness as a basis of a modern criminal policy together with the necessity principle which should be applied in a restricted sense. In this respect social defence adopts the idea of resocialization which demands reconciliation with society, rather than retribution by society while trying to reconciliate it with the idea of atonement. The basic principle of a criminal law so designed, is the reciprocal natural responsibility of individual and community. The concept of free-will is not used metaphysically as motivation for repression but humanistically to justify the objectives underlying all measures taken by society in criminal justice administration.

Such conceptual thinking as mentioned above, dealing with ultimate purposes and value priorities is bound to linger on enriching our philosophical outlook, our insight and enlarging our frame of reference. But the practical issues keep filtering down to exercise their impact on actual experience. The sentencer's task became complex as soon as the concept of treatment was superimposed on the objectives of retribution and deterrence. Thus, research has sought to help the sentencer, no less than the legislator and those who plan and carry out the various forms of sentence to attain this purpose of individualized treatment.

Individualization in treatment is an achievement of the latter half of the 19th century. It arose from the desire to ensure more effective prevention of recidivism, a higher degree of resocialization and a fairer administration of justice. Individualization is reflected in legislation which gives the bench various possibilities, in sentences which make use of these possibilities, and particularly in sentence execution.

Naturally, if an offender is to be given an individualized penalty, his physical and mental characteristics should be

well-understood. All this is difficult, time-consuming and expensive. It is also expensive to run a wide range of different institutions where the differentiated sentences can be executed.

It has been often suggested that the type of offence itself and the criminal history of the offender are better predictors of the likelihood of relapse than anything relative to the sentence given. It seems logical to assume, however, that penal treatment has some effect, good or bad, on most offenders.

The emerging central research problem is the definition of the types of treatment among sentences, types of offenders and analysis of the interactions between offenders and various types of treatment. Most countries report on research, current or planned, into particular types of sentence in the hope of gaining knowledge to be later used in matching the treatment to the offender [7]. It is to be noted that both prevention and treatment imply some rationale to the effect that the criminal behaviour stems from some particular set of factors or conditions and the steps which are taken to change or rehabilitate the offender are designed to alter some or all of these factors and conditions.

A close scrutiny of modern criminological literature [8] reveals a marked shift to a search for different patterns or types of deviated behaviour which replaced, to a considerable extent, the traditional and long-cherished etiological research haunted by the quest for the causes or factors underlying delinquency. All these typology investigations, however, illustrate a central difficulty, that of locating a conceptual formula amidst the hum-bug of etiologic data, thus enabling it to yield suggestive clues to preventive or therapeutic approaches and techniques.

Until recently, the assessment of any form of treatment, was usually left to a later date when much of the comprehensive information essential as a basis for accurate conclusions could no longer be assembled. The so-called action research

with built-in system of evaluation designed to check intended or unexpected results is now more often used. One of the more common applications of this type of research is the testing of the effectiveness of small pilot demonstration projects [9].

Hope lies ahead that every new method of treatment carries from its inception a built-in research component, so that its operation may be fully observed and accurately assessed.

Action research has actually paved the way for the more ambitious pattern called " Saturation projects " which appeared in the United States as exploratory projects aimed at demonstrating the effectiveness of plans for providing social service programmes with elements that help in the prevention of crime.

Without, however, dismissing the present trend towards evaluative research in corrections, it should be borne in mind that this type of research cannot indicate with certainty what sentence will succeed with which offender. Each individual remains unique in the combination of complex factors that constitute his make-up, whereas inquiry is based on classification in order to be able to draw conclusions applicable to all persons in any particular group. It is quite improbable that any practicable system of classification will take care of all the individual differences that may make a particular offender respond adversely to a sentence that succeeds with others in his group. Research can hope to do no more than assist the sentencer in the estimation of which of the sentences he could mete out is most likely to be successful in any particular case.

Even this relatively limited aim is not easily achieved. There is a formidable complexity in the task of analysing the characteristics of offenders, their past history and their offences, and identifying combinations giving a clear indication in favour of one sentence rather than another.

An established desire, probably too optimistic, on the part of many criminologists, is to indicate, using scientific methods, the most suitable treatment for each individual offender, using " models " or " types " that correlate traits to needs. We know, so far, that even simple classificatory schemes have been attempted time and time again to no avail or at least without significant precision. It was equally impossible to derive a set of types and assign a corresponding set of treatment schemes.

Diagnosis and prognosis — even if based on precise scientific enquiry and reporting, involving diversified disciplines pertaining to human behaviour, calling for sufficient numbers of qualified technicians, working in close contact and in co-ordination with other criminal justice agents so much different in background, interest, frame of mind and philosophy, undertaken frequently under unsuitable conditions and in a community atmosphere of misunderstanding or antagonism — is leaving too many open issues to achieve any level of significance; this is particularly evident in less-developed countries, where levels of operation tend to be quite low [10].

Another doubt arises here from a human rights' perspective. It is argued by some that prisoners are not entirely free agents, and that they might take risks in the hope of reward which they would not take if they were free persons. The issues are usually more clearcut if the risks present a possibility of damage to the individual's personal health. The problem becomes less clear if the possible effects on the experimental subject are just educational, emotional or social.

III.

Attempts are sometimes made to assess the accomplishments and limitations of evaluative research, especially as they are applied to correctional procedures and programmes.

The objectives include a presentation of a range of concrete examples of the most recent evaluative research in order to indicate what is possible, how it is accomplished, what resources are required, and what problems arise in implementation. The hope is that this will give non-research personnel some understanding of what is meant by evaluative research of a reasonably sophisticated but reachable sort; also to present some of the more important and reasonably validated findings and implications gained by evaluation research that have some applications or implications for those who administer correctional systems, agencies or programmes; and to consider the problems attendant upon getting the findings of evaluative research used as a guide to programme change and development [11].

It is quite obvious that evaluative research requires communication and co-operation between those who do the work and those who evaluate it. This ideal is seldom attained. Those who operate penal services usually feel that a research programme is only an additional burden. Besides, they feel more secure with the *status quo* and usually do not look forward with excitement to any eventual change.

On the other hand, researchers often feel frustrated in dealing with staff in spite of their knowledge that staff is indispensable in carrying out experiments and that their views and experience can be invaluable in planning and developing research projects.

Much attention should therefore be directed to create this atmosphere of understanding, to promote research attitudes and to achieve a synthesis of research and administration positions which would eventually have a fundamental effect on policy.

The important idea is that both sides should undertake research planning as a joint enterprise. Each side should give genuine interest to the points and points of view raised by the other side which might seem at one time irrelevant or insignificant. Polarization of views could also affect the

list of priorities apart from over-riding considerations of politics and cost; but out of such an atmosphere of understanding, tolerance and good faith a gradually developing and adequate framework for research policy could grow out. This atmosphere will clearly also be needed at the final stage when findings are reached and a joint decision would be called for as to whether or not the findings justify recommendations to policy-makers for action.

But even such good relationships could not overshadow some other serious situations. Impartiality is not always there on the side of the administration or those who are responsible for launching a programme. Government research could be open to criticism based on this consideration.

Another argument deserves attention. The administrator would not be expected to show interest in a complex study, when the probation services, for example, are completely inadequate and the needs and shortcomings are perfectly obvious without recourse to research of any kind. Again, we could not expect much enthusiasm from administrators towards promising experiments in treatment, if they know that the structures of the existing institutions are hard to change.

Again, a major difficulty lies in the fact that most research, not excluding the social defence areas, must make use of relevant statistics. Therefore, any criminal justice agency which intends to carry out a significant programme of problem-solving by research methods should not only necessarily do just more data-collecting, but should develop a system for the routine reporting, classifying and analysing of basic factual information using more refinement in data gathering, compilation and interpretation.

Generally, statistics in the crime and delinquency field are not only extraordinarily sparse but often so contaminated and inaccurate as to be misleading rather than helpful. Safeguards should be provided to ensure the accuracy and the integrity of the reporting. This is particularly true in

developing countries where the basic demographic data against which crime control programmes can be tested are often lacking, and where resources and trained research personnel for evaluative research are short of the least required level.

However, reliable criminal statistics could not alone fill the gap, as evaluating might necessitate a wider perspective. It has appeared for a long time that spending on improving health services, education, housing, insurance and social insurance is everything that is needed and that it could render needless any serious interest in a minority with behavioural problems such as delinquents and deviants. However, when it appeared that delinquency was a problem that does not disappear with an increase of services, only then did the planner start to go beyond the usual circle in which he gravitated. Now it seems that there are two trends: the first is the planning of the social defence sector (police, prisons, direct preventive programmes, etc.) with particular interest towards making its investments worthwhile and of maximum effectiveness. The second is that social defence planning should be within the wider frame of economic and social planning.

The question facing the planner has then become: how to plan for development in order to reach the economic goal and raise the standard of living while at the same time protecting society from an increase of crime, delinquency and other side-effects ?

The conclusion that could be derived from these considerations is that evaluative research is not that which only bears directly on criminal behaviour and administration of justice, that is, sectorial research; but research that cuts across all the socio-economic aspects that have some relation to the field of social defence.

Most social defence programmes are usually of small scope in relation to social policy-making and planning generally, and the costs involved in social defence programmes

are slight compared to the vast resources allocated to housing, education, transport, employment, family welfare and similar macro-societal programmes. It would seem only natural that any close economic arguments of the cost-benefit ratio of particular social defence programmes should not be allowed to distract attention from the necessity of primary social purposes of the allocation of a greater proportion of national resources to services promoting social justice and equality of opportunity.

A heavy emphasis on law enforcement to the neglect of socio-economic conditions could have the effect of worsening social attitudes in the form of a resentment of law enforcement and a general attitude of antagonism among levels of society. The penal and correctional system is a social institution. To improve the system all social values will have to change.

Therefore, the problems which plague the criminal justice system will not be solved by correctional improvements alone. The escalation of crime and violence cannot be stopped unless people commit themselves to the immediate eradication of racism and poverty. Institutions and governments must take notice of the gross inequities in the country, and respond to these by working for massive change [12].

This could illustrate the inherent difficulty in evaluating social defence programmes as a result of the multiplicity or ambiguity of purposes being served by them. The effectiveness of a health or housing programme can be ascertained and quantified as can the cost in terms of personnel, facilities and supplies. Social defence measures are less liable to such clearcut assessment due to their multi-purpose character, looking for community cohesion and stability, to social values and a sense of security, at the same time as they look to their effect on the individual criminal and on other potential criminals [13].

Economic analysis, systems of input/output analysis have been attempted with a view to defining the resources

and production of various social defence programmes which could help develop optimal public and private policies to combat illegal behavior. Needless to say that this course of action could have been unimaginable in a time when the inherent philosophy of the traditional justice system was one of punishment only. There was, in such a case, no point in evaluating the cost of crime since alternative solutions in policy were unacceptable.

With regard to the courts, their function was, until very recently, surrounded by an aura of mystery and sacredness demanding that the image of their ultimate and final authority be maintained at all costs. The new philosophy of rehabilitation and treatment requires that the mystery be taken out of the judicial area by considering it as a process on the basis of facts substantiating the motivation behind sentencing.

To reduce the total cost of crime, we need to minimize the need to commit crimes, as well as reducing the cost involved in the repression and prevention of crime by making these functions more efficient. A further task is to try to reduce the costs involved in the operation of the penal justice system.

Estimation of cost was usually defined in a necessarily plural way. To some authors it would include: (1) the cost of crime to the public finances (expenses of repression and specific prevention plus the cost of offences committed directly against the public finances, e.g. tax fraud) minus various financial recoveries (i.e. fines); (2) the cost of crime to business and individuals (cost resulting from attacks against life and against goods plus the expenses of protection); (3) the immediate cost of crime for the society (which is equal to the costs in (1) plus the costs mentioned in (2) minus forced transfers of property and private protection costs); (4) the profits of crime (the values transferred plus the product of offences bringing neither destruction nor forced transfer, e.g. drug traffic) [14].

From a strictly theoretical point of view, formal studies on the cost of crime could not be undertaken until such time as the science of economics had developed sufficiently to make studies of this kind possible. Nevertheless, it is not easy to make a case against cost/benefit analysis in social defence. Obviously the policy-maker or planner will guide social policy more wisely and plan more effectively if he knows the costs of allocating resources to one or another programme and the benefits which are likely to grow out of it. But there are dangers in any simplistic economic allocation of resources. There are social values which are hard to measure in fiscal terms. The interest in convicting the guilty is limited by the interest in protecting the innocent. The freedom of the citizen from subjection to arbitrary force at the hands of the authorities is a highly-prized value. Equally cherished is the individual's right to privacy. The protection of confidence in justice will in some situations be of more importance than reducing the crime rate which is a judgement that goes beyond any purely economic cost/benefit analysis.

The problem which confronts the justice administration in most of the countries of the world is the pressure put on these organizations which forces it to try to meet these unlimited requests with limited resources, and it is impossible without research and study to find a solution to this situation whether to make changes to increase the effect or to make just reallocations of the items of the budget. To direct the importance to the economic considerations does not necessarily mean sacrifice or negligence of the human factor. What should be attempted is to make the necessary changes in directing the resources in order to fulfill the best results and, through this change in tactics or strategy, increase the effects of justice administration without increase in expenditure.

Examples of Research Impact: Juvenile Justice

The juvenile court is perhaps the first legal tribunal where law and science work side by side. The court must be ready to act in a spirit of experimentation and with flexibility according to the fresh experience rather than a traditional court law with final legal decisions. Therefore, a case study of the juvenile court in Egypt was undertaken to measure the efficiency of the services rendered by the court bearing in mind that the effectiveness of a system should be measured through a study of actual operation rather than the study of the laws that are supposed to govern it [15].

To start with, the study has pointed out that existing juvenile courts cannot be exactly considered juvenile courts since the judges are not specialized in juvenile cases and are usually serving simultaneously in other courts. The specialization of a juvenile judge has often been considered necessary for the proper functioning of court services for minors since these courts are based on a philosophy that is quite different from ordinary criminal courts.

As the Egyptian penal system does not know " probation " by name but as it is practised " de facto " in juvenile cases, the juvenile court does not mention probation in its decisions but it comes into force as a consequence to the decision of the court to hand over the young offender to his parents. Article 7 of the Juvenile Act 124/1949 states that " The assignment of the minor to his parents or to a tutor or a reliable person entails a supervision by a specific body for juvenile welfare acknowledged by the Ministry of Social Welfare ". The Social Multi-Service Centre was approved by the ministry to take over this assignment through two offices, one in Cairo and the other in Alexandria, attached to the juvenile court.

The Multi-Service Centre is composed of four sections:

(a) *The Reception Centre* which serves as a place of custody for children. Children who come to the Centre are

delinquents or vagrants or pre-delinquents who are admitted through the assistance of various social agencies in cases of neglect or homelessness, or who choose to come in voluntarily.

(b) *The Detention Home* which receives children referred to it by the Reception Centre. The Detention Home provides detention for those awaiting trial or houses the child if his environment is considered unfit apart from giving medical treatment if need be.

(c) *The Probation Bureau*: Every Bureau is equipped to investigate and give a follow-up to approximately 1,000 children yearly referred to it from the detention home or from other juvenile social agencies. Pre-sentence investigation covers medical, psychological and social aspects. A final report is then drawn up and submitted to the court. This report usually ends with recommendations, suggesting the most convenient treatment for the child.

If the family is unfit, committal to an institution for a period of time is suggested. If the child is fit to be treated in his family, the judge hands the child over to his father or guardian under the supervision of the Probation Bureau. The probation period is usually one year. The worker has to do his utmost to help the child adjust himself to his natural environment.

(d) *The Hostel*: It is an open institution where juveniles can live, go out to work, come back to play and attend night classes under the supervision of social workers. Boys should share the expenses in order to feel dignity and independence.

The study has revealed that pre-sentence reports are only submitted to the court if the juvenile was placed in an institution pending trial. On the other hand if the juvenile was free, no report is submitted. The judges complain that the reports are not usually prepared with efficiency. It

was noticed that these reports do not usually offer more than general information about the juvenile.

The law empowers the juvenile court judge to reconsider the sentences he has passed against juveniles. However, the study revealed that no cases were ever brought before the court for reconsideration.

The study concluded that radical legislative change is less urgently needed than the need for a new and serious outlook on the problems which face the implementation of these services.

It also concluded that:

1. The juvenile court judge must be specialized in the field of juvenile care and protection. He must be able to give all his time to the adjudication of juvenile cases, and to the reconsideration of sentences.

2. Appropriate case studies must be presented to the court, and this can only be achieved through the provision of additional technical facilities and better control of the system.

3. Full co-ordination must be established among various services rendered by the different agencies responsible for child care and protection.

It is worth mentioning that the new Draft of the Children's Act now in preparation has adopted explicitly the probation system for juveniles. The system is introduced for adults too by the Draft Penal Code of Egypt.

It seems that there is wide discontentment with pre-sentence reporting. With the increase in the use of social inquiry reports have come a few studies on the effect of the provision of such information on sentencing decisions. Although these studies do not give a wholly discouraging picture, they do suggest that social inquiry reports do not have the full effect hoped for them, and that the manner in

which they affect sentencing decisions was not anticipated in full [16].

In this respect, a further study in Egypt [17] tried to evaluate procedures of diagnosing juvenile delinquent personality. The files in one of the Juvenile Social Units in Cairo were used as a source of data. A schedule was designed to investigate procedures of diagnosis, contents of the files and the degree of agreement between diagnostic reports and the juvenile court decisions.

The files of vagrants more often contained physical, psychological and sociological reports, whereas those of delinquents contained only 27.2% (physical reports), 36.4% (psychological reports) and 59.3% (social reports).

Some obstacles were found to make the diagnosis process incomplete:

1. The limited number of social workers and psychologists made it impossible to examine all the cases in custody and probation offices.

2. The juvenile court did not take into consideration about 40% of the recommendations of pre-sentence reports.

3. Running away from juvenile institutions is a major reason for failing to diagnose delinquents adequately.

A special research was concerned with the running-away from juvenile institutions in Egypt [18]. The study considered the high rate of run-aways as an indicator of the ineffectiveness of treatment programmes in these institutions.

The first part of the study is a statistical study aiming to determine the volume of the problem. The second is a field study. Two samples were selected, the experimental group (200 run-aways) and the control group (200 non-run-aways).

The major findings and conclusions were:

There is a positive correlation between the high rate of running-away and the size and type of the institution.

Standard of education is negatively correlated to the running-away.

Running-away leads to occupational instability.

Interest in movie-going is an important motive for running-away.

There is no correlation between the family income and the running-away behaviour.

Moreover, a research is presently conducted in the National Centre for Social and Criminological Research in Cairo to evaluate an open-door policy in juvenile delinquent institutions. The project plans to evaluate the services in these institutions from the moment of detention to the stage of after-care. The open-door policy of treatment gives the juveniles the opportunity for education, vocational training and employment outside the institutions. Furthemore, they have the chance to visit their parents and relatives in the week-ends.

Several techniques will be used. One of these will be that of group interviews in which directors, ex-directors, heads and seniors of all the institutions' departments will be invited to group discussions.

This method seems to be gaining popularity. In addition to analysis of responses from questionnaires, a content analysis is undertaken based on numerous personal interviews with individuals involved in or knowledgeable about correctional processes [19].

In Cairo, there are several juvenile institutions the capacity of which ranges from 50 - 300. They are either for boys or for girls, but admit indiscriminately cases of delinquency and vagrancy. There is one institution, however, which is confined to vagrant and pre-delinquent girls whose condition is related to prostitution or other sexual problems.

There is a classification centre where social and psychological investigations are carried out to assign juveniles to the suitable institutions according to individual cases.

Two large institutions exist in Cairo. The one at El-Marg which is the colony type totalling more than fifty hectares with a capacity for 5000 boys. The other, the oldest juvenile institution, is located in Giza and has a capacity for 1200 boys.

A survey of Juvenile Institutions in Egypt showed that juvenile institutional treatment faces many material and technical difficulties [20]. Buildings and physical conditions are inappropriate. Necessary facilities like playgrounds, classrooms, musical instruments and sports equipment are sometimes lacking or insufficient. Vocational training is occasionally hampered by shortage of tools, gadgets and raw materials. Training in some institutions is limited to traditional manual work which does not prepare the juvenile to jobs in advanced industries upon his release.

On the other hand, due to over-crowding, social workers are over-worked. In-service training is markedly affected by the relatively small number of social workers and other technical staff. Diagnosis is therefore conducted in a hurry and usually without giving sufficient time or attention to the process of observation. The high incidence of escaping inmates is a disturbing phenomenon that adds to these technical difficulties.

A major research project was carried out in Egypt to show the importance of after-care in getting juveniles released from institutions adapted to their natural environment. It is a follow-up study on a sample of juvenile delinquents released from the Giza Educational Home for Boys, one of the largest specialized educational institutions in Cairo to which young offenders are committed [21]. The reason for choosing this institution in particular was that it is the best organized of its kind having very efficient and well-trained staff, detailed records and all the possible facilities required for the research in addition to a comparatively very few number of escapees. A fixed after-care programme in the form of educational orientation, psychological guidance and

financial assistance not only upon release but after that until such time they are settled at home and work was administered to the members of the experimental group (200 released) while the control group was left without any assistance except for the follow-up interviews carried every three months.

Conclusions of this research point out that after-care programmes had positive effects on the behaviour of released juveniles with respect to family, school, job, friends and companions and police.

Adult Corrections

In the field of adult corrections too, several evaluative studies were undertaken in Egypt.

The problem of the unification of the different types of deprivation of liberty is connected with most problems of modern penology, especially with the purpose of punishment, the philosophy and organization of prison labour and the classification of prisoners. Labour in Egyptian prisons has only recently started to influence the penal policy. For a long time it was the penal policy that has influenced prison labour by giving it its punitive outlook, using it as an instrument to harsher punishments.

A research has been conducted to measure the attitudes of five categories of specialists towards this problem and connected questions [22]. These five categories were:

Members of the judicial corps — Lawyers — Police officers — University teaching staff (Law, Sociology, Psychology).

Research findings show majorities in favour of:

— Rejection of any aggravation of suffering added to the deprivation of liberty. (76.47%)

— Abolition of " Penal Servitude " and preservation of " detention " and " imprisonment ". (58.1%)

— The abolition of " penal servitude " would not diminish the deterring effect of punishment. (58.1%)

— Rejection of a complete unification of the different types of deprivation of liberty. (63.39%)

— The unification of such types of punishment contradicts the necessary differentiation between offenders committing different crimes. (60.1%)

The general attitude indicated by the research was found to be in favour of the abolition of " penal servitude " as a type of deprivation of liberty. This abolition would decrease the number of such types and is in itself a practical step towards complete unification. Moreover, it would result in mixing those previously sentenced to penal servitude with other prisoners. Such a situation would accentuate the need for classification which cannot be practically applied under the dual system of detention-imprisonment. This would eventually prove the futility of such a system and bring forth the need for a complete unification.

The categories directly involved in crime prevention showed some significant attitudes: prison officers showed a more favourable attitude towards the unification than the general percentage. Among police officers the percentage showing confidence that the abolition of penal servitude would not diminish the deterring effect of punishment was higher than the general percentage indicated by the total results.

A current study is carried out in view of the evaluation of treatment in the Egyptian penal institutions from the point of view of the prisoners themselves [23]. A questionnaire has been designed including the different aspects of correctional treatment to measure the opinion of prisoners thereon. A sample of 2200 prisoners was chosen according to the geographical distribution of prisons in Egypt and the criminal history of prisoners.

The questionnaire deals, among other things, with the following: reception - classification - prison buildings and cell food - medical services - recreation - visits and correspondence - religious and educational services - labour and vocational training - discipline and pre-release treatment and final release.

The issue of sentencing as related to corrections has enjoyed the concern of researchers. Judges selectively interpret the facts, the law and the expectations of others in ways compatible with their own attitudes which means that while they may be inconsistent with each other, they are highly consistent within themselves, which has often raised the problem of disparity. One of the particularly interesting points in this respect is that judges impose short-term imprisonment while they have the chance to replace it by some other penal measures such as fines, suspended sentences or probation. In Egypt, for example, around 82% of prison inmates in the course of 1964 were serving short-term sentences not exceeding six months. 68% of these were serving a sentence of one month or less.

A questionnaire has been designed and sent by mail to all judges in Egypt inquiring about the considerations they have in mind when determining penalities and in particular their opinions towards short-term imprisonment [24].

It seems that there are two basic obstacles to gaining more equality in sentencing practices. One lies in the differences in the attitudes of the justices themselves; the other, in the difficulty of reaching more consistent decisions.

The first difficulty is due to variations in the philosophy of punishment held by justices and their belief in the abilities of particular methods of treatment or punishment to achieve the results desired.

On the other hand, only if more is known about the offenders will it be possible to devise some kind of scheme whereby sentencing decisions could be made more consistent. The difference between receiving a sentence of imprisonment

and being fined or placed on probation is so great for the offender both in its immediate, and probably in its later consequences, that it is important that the choice should not be haphazard. There is not so far any evidence to show that short-term imprisonment meets with more or less success than does fining or probation for the majority of offenders. The short sentence as such cannot be completely condemned and there may be cases where it appears inevitable [25].

In the absence of any theoretical framework or empirical evidence to suggest that any other method of dealing with particular types of offenders is just as successful as imprisonment, there are no general recommendations. In England, the suspended sentence was included in the Criminal Justice Act 1967 because it was intended to do good. Now it is being said, and said with some vehemence, that just the opposite to what was intended is taking place. The only available source of evidence about the functioning of suspended sentences — their use and development in the countries which originated or adopted them — was never examined in detail and still remains largely unknown in England. The suspended sentence has been, in a sense, a poor relation of probation, more limited in the circumstances of its birth and confined during its early years — and to some extent still — by a more rigid legal system. Criminological assessment of the effectiveness of this measure is still rudimentary and inconclusive [26].

As for probation, the little use made of it suggests that more experiments could be tried. One author studied several international reports on the effectiveness of probation. He outlines some consequences of the findings for penal policy and research programmes in France [27]. The author cautions that it is extremely difficult to compare probation results in France with those of other countries, because France has different kinds of probationary sentences, and up till now there has been no proper research on probation results. However, the author is able to conclude that institutional

treatment has not been more successful, judging from the rates of recidivism, than probation. Therefore, inasmuch as institutional treatment is 5 to 10 times as costly to the State, the author pleads for more extensive use for probation. Experiments with some variations in the use of probation should be made, accompanied by research.

Some of the difficulties in doing research on the effectiveness of probation are pointed out, e.g. how many years must elapse before one can assess the effectiveness of a probationary sentence and how can one match groups of probationers and institutionally treated offenders.

A group of researchers present an analysis of 300 cases of probation dealt with in the Brussels district in 1964-1969 (legislation on probation was introduced in Belgium in 1964). No evaluation of data is presented because there is no past history and no follow-up to assist in this respect. Of the 300 delinquents, 164 were granted suspended sentences and 136 were granted conditional sentences (postponement of punishment). The authors describe the sample and the procedure used in the investigation of the possibility of granting probation. The social worker (probation officer), provided for in the law of 1964, plays a very important rôle in this process. The authors analyse the general and special conditions imposed by the court, and the duration of supervision. The tendency is to reduce the legal term of supervision from 1 - 5 years to a maximum of 3 years. It is felt that the court should not stipulate too many special conditions since the probation officer will consequently be greatly restricted in his activities. The crucial point is that the client's main problems (which have led to his criminal behaviour) be solved, the means used to achieve this are of course very important also. Most abortive attempts at probation can be ascribed to serious mental disorders in the client. The authors hold that delinquent behaviour is a form of sociopathy. With this view in mind, they set forth specific and in part new

requirements to be met by the judge, social worker and psychiatrist, independent of each other or together. Lawyers, too, should prepare their clients for probation more carefully than they have done so far [28].

Conclusion

In dealing with human behaviour one must always be conscious that there are no instant miracles. We should therefore expect no quick or miraculous results from evaluative research in criminal justice.

It could be said that in the present situation in scientific research and the administration of justice, there appears to be little possibility of applying scientific knowledge to improve the field of administration. Nevertheless, evaluative research wisely carried out in the light of each country's resources and penal philosophy could help avoid repeating of many errors and could help reduce our uncertainties.

There are some research possibilities that could emanate from considerations outlined above:

First, the effect of deviant behaviour on social development. The literature on development does not at present take into account criminality and deviant behaviour. Indeed one can say that many planners seem to assume a " crime-free " environment or at least that traditional methods of the criminal law can handle the problem. Research into the effect of deviant behaviour on development would therefore appear to have significant potential. It would not only look at the costs of crime, but its other non-pecuniary effects on the development process. Among the major problems faced by such research is, of course, the elaboration of an accepted model or definition of development within the particular society under study.

Secondly, the relationship between the administration of justice and the social development process. Such a project

is vast in scope, and a more manageable study might concentrate on the court system alone. To what extent does the population have confidence in the existing system ? What is the real effect upon development of a faulty system of justice ? The economic planner might plausibly argue that the effect is negligible. Here again one must elaborate an acceptable model of development. Such research might call upon operations research methods and probe into questions of court management. One might also examine the educational and mobilizing rôles of the court in national development.

In the end, there is a note of caution. In spite of the impressive investment in this field in advanced countries, it is evident, when we consider the totality of untested hypotheses, assumptions, rules and propositions in their systems of criminal justice that only a mere beginning has been made. In other countries, it is clear that even the beginning is still hard to notice and even harder to expect.

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SUMMARY OF GENEVA COLLOQUIUM 10-11 SEPTEMBER 1975

by LAWRENCE CHRISTY and SATYANSHU K. MUKHERJEE
of the UNSDRI Staff

The principal point made in the discussion was that issues regarding the data base, methodology, cost and impact of evaluative research could not in practice be separated. There were general propositions concerning each of these issues independently. For a given problem of evaluation, however, the question had to be put in integrated and yet very specific terms: what methodology would be most likely to produce research having the desired impact, given the type of data and resources actually available ?

The data base of evaluative research was the first topic of discussion. Throughout the meeting this was seen if not as the limiting, so as the defining factor of the type and sometimes the quality of evaluative research. The distinction between " hard " and " soft " data was by itself ambiguous. While admitting this, Biles' paper proposed a working definition equating hard with quantitative data. Brenner, on the other hand, suggested a distinction between the hardness of data and that of research conclusions (the hardest conclusions might in a given case be based on soft — i.e. qualitative — data). These working definitions were not discussed, but specific opinions concerning the strength, limitations and possibilities of various types of data were advanced throughout the meeting. In fact, quantitative and

qualitative data and their analysis were considered as complementary by most speakers.

Reliance on hard data was seen as characteristic of modern social research. There were two basic points of view expressed on this. One, while accepting that there were valid soft-data methods and that adequate hard data were not always available, argued that in the best of all worlds evaluative research would develop increasingly precise, valid and generalizable information and equally precise — generally mathematical — methods and theoretical models to explain and use these data. The other general view did not dispute the usefulness of measuring that which could be measured, but tended to see greater practical obstacles to the actual development and analysis of the data presupposed by the hard-data model. Some speakers went on to argue that many of the most important phenomena on which evaluative research had to focus were precisely those that were the least susceptible to precise measurement.

One participant crystallized the difference by pointing out that the discussion was really about two types of evaluation, one akin to management studies and the other what he called " humanistic assessment ". He suggested that the former could be used to measure the extent to which narrowly stated goals were being achieved, but not to evaluate the goals themselves. " Humanistic assessment " on the other hand was a norm-defining process, but because the nature of what was humanistic (or desirable) was constantly changing, it could establish no once-and-for-all definitions. On the basis of the discussion one could accept this division but not of course resolve the issue of which approach was " better ".

The proposition that a hard-data approach might be preferable appeared implicit in statements regretting the impossibility of using the approach in certain situations, especially where hard data of even the most elementary sort were lacking. Advocacy of soft-data methods came from

two different but complementary directions. One emphasized the inadequacy of hard-data evaluation to assess goals, or to place short-term goals in a larger perspective. Speaking generally from the perspective of developed countries — in which hard-data evaluation seemed most feasible — these speakers argued that measurement of treatment effects (generally they were quite insignificant) was not so important as understanding the ideology underlying social defence interventions — e.g. the law enforcement, courts or prisons. This reflected a serious concern with the effect of such interventions on general social values — i.e. not only in terms of stated system goals such as reducing recidivism, but in more descriptive terms of their human and social consequences.

The other main critique of hard-data methods was most clearly articulated by speakers from the developing countries, who pointed out that the criminological tradition they had received from the industrialized world had evolved in a particular set of circumstances. Developed-country (usually Western) criminology reflected a highly individualistic view that might be neither appropriate as a goal, nor accurate as a description of developing societies. It was pointed out that developing countries were not simply in the position of Great Britain or the United States some decades ago, but were experiencing unique historical circumstances, for which there was certainly no *a priori* reason to take Western social theory as an explanatory paradigm. Epistemologically secondary to this, but practically perhaps more important, was the fact that developed-country evaluative research had evolved in societies that seemed inundated with hard data (census, economic, public opinion, etc.) on one hand and money on the other. This had made possible (and perhaps led to) a style of research based upon statistical data and computer analysis. Even researchers from the developed countries gave examples suggesting that certain methods had

been adopted not because they were essential or even better, but because the money was available.

In the absence of adequate hard data, soft data research methods and their improvement (e.g. informed opinion surveys and participant observation) would be desirable.

The main concern in the discussion of soft data was to find methods that could be applied in developing countries, which for the purposes of the discussion were characterized as lacking data, expensive equipment and in many (though not all) instances trained research manpower. It was the limited numbers in the research ranks that raised the real perplexity. An army of anthropologists could no doubt provide a good account of a country's criminal justice system and even generate some reasonable hard data in the process. But a single anthropologist works slowly. One participant from a developing country pointed out two specific limitations to increasing the scale of the soft-data researcher's activities in his country. One was that the use of students to make observations tended to produce reports of what the professor was thought to want to hear rather than of what the students had observed. The second was that in developing countries trained researchers could not concentrate exclusively on research because they had to fulfill the many other functions for which their training was appropriate (teaching, administration). The methodology (observation and interrogation) that characterized empirical soft research was also a limiting factor, in that it was frequently viewed with distrust. This limited the reliability of such research whether performed directly or through students and other primary data gatherers.

Several participants from both developed and developing countries suggested that a means for both producing data and extending the resources of trained researchers was to utilize criminal justice line operators in research. One participant related an effort to impart basic social science training to magistrates, and described specific research he had

been able to carry out with such para-scientific staff. A further advantage of this was that involvement of line operators in basic data gathering tended to sensitize them to the nature and significance of the data they recorded.

Some tentative conclusions from the foregoing were supported by several other points made in the discussion. Evaluative research of a type that proved possible in developing countries should at least aspire to an honest description of what the system was doing. This would involve the gathering of fairly elementary data through the participation of system operators, and careful attention by the researcher to the larger social goals to which system activity related. The results of research should include basic management data; this did not necessarily mean complex computer simulations of system operations, but simple " flow " and descriptive information (e.g. with regard to the correctional system how many persons were in custody, what proportion of prison space was occupied by those awaiting trial, by those convicted of which crimes, who wrote pre-sentence reports, what training they had, etc.). This should serve a basic accounting function which was the most humble, but frequently the most useful purpose of evaluative research. If the researcher maintained a clear idea of *why* he sought data, he could be expected to use it where it was useful — without being so fascinated by data and their manipulation that he lost sight of his essentially critical function,, the humanistic element of humanistic assessment.

This restricted use of basic data was not simply seen as the only choice for developing countries. It was necessary in any setting, in the terms of Christie's paper, to " think before one counted ". Management data had a well worked out rationale, but the more complex efforts of system evaluation often lost sight of the main purpose of the evaluation, namely to guide or effect change. From a related perspective, evaluation that was both simple and rooted in a sense of society was often (*how* often depended on many

factors) the best. As one participant said, when there are 1,500 to 2,000 inmates in a prison with 300 places which was in any case built 400 years ago as a convent, no further evaluation is needed to know that a new prison is needed immediately. What is required is not methodological sophistication but " intelligent, rational suggestions ". And it is no use to say that perhaps there are too many prisoners, or that one should re-structure the legal and judicial system. While fundamental policy changes may of course be necessary, the solution of immediate and obvious problems cannot await such efforts.

There was general agreement that whatever type of evaluative research seemed appropriate in particular circumstances, its ability to effect change, or to have an " impact ", was far from assured. A series of reasons for this lack of impact, and methods of enhancing impact were advanced. In the first place, impact or non-impact related to the characteristics of evaluative research itself. Though it may be offered as scientific, much evaluative research is scientifically unsound, or not addressed to policy-relevant problems, or its result come in too late, or they are written and distributed in a way that discourages impact. Another series of factors related to the nature of decision-making processes, to the attitudes of decision makers and to the relationship between them and researchers.

In contrast to the discussion of data and methodology, the discussion of impact concentrated less on analysing difficulties and more on concrete suggestions for overcoming them. One approach that seemed to solve several problems at once was to establish research committees including both governmental officials and researchers; such efforts were reported from Canada, Denmark, the German Democratic Republic and the United Kingdom. Essentially such bodies served to apprise the administration of ongoing and recently completed research that seemed relevant to policy or administrative needs, and to inform the research community of

areas in which research might be relevant to policy decisions. It appeared from the discussion that research committees did not require a great investment of time on the part of either administrators or researchers. They did not in themselves reduce the amount of time required to conduct evaluative research, but by forewarning researchers of areas of future concern they could encourage the evaluative process to begin sooner than it otherwise might. Similarly, the intervention of a research committee did not ensure the relevance of research, but it did give researchers a better idea of the purposes for which results might be used. Those who spoke on the subject seemed convinced that the existence of a forum where researchers and administrators could meet contributed to a lessening of distrust and an increase of mutual understanding, which in itself should enhance the possibilities of research impact.

A related but more ambitious form of contact between research and administration would be to employ researchers directly in the criminal justice system. Some fears were expressed that such direct employment could endanger the researchers' independence; it was pointed out, however, that in practice this problem could be overcome by appropriate safeguards.

It was stressed throughout the discussion that direct or contract research, as well as effective research committees, presupposed a basic receptiveness to research on the part of administrators. Some specific obstacles were emphasized in this connection. In the first place, evaluative research was a critical function, which would naturally place operators of the system to be evaluated in a defensive position. Secondly, research results were often presented in a form (and with a technical jargon), which not only made them inaccessible to administrators, but did little to reduce their suspicion of research.

As a first step it was suggested that research reports should whenever possible be written in an understandable

form. One researcher objected that by " understandable " administrators often meant a report so brief that an intelligible account of results and the necessary qualifications could not be given. Another participant suggested that a fundamentally " looser " research design might produce more influential results. If so, that would tend to resolve some of the methodological issues in favour of simpler research. Several other participants suggested a pattern of detailed scientific reports accompanied by a simple and concise summary. It was recalled that commissions of inquiry typically presented an overall (and generally intelligible) report with technical appendices.

The issue of what form research reports should take was not resolved, but a number of participants suggested to use research committees or in-house researchers as intermediaries or conduits to decision-makers. It was also suggested that mass media could, whenever appropriate, publicize and explain research results, thus creating a better climate of receptivity. The strategic position of professional training as a conduit for research (e.g. the regional UN institutes) was also stressed.

One suggestion about which there was considerable discussion was that researchers should " sell " their product. Perhaps most of the objections refer to the terminology, since some of the factors of successful " selling " (persuasion, intelligible style, attention to publicity and distribution, choice of relevant subjects) were generally agreed to be desirable for any research.

A final point concerned with impact was that since not all research was scientifically sound, decision makers and administrators should either have the requisite skills, or access to impartial (internal or external) experts to evaluate the quality of evaluative research.

There was general agreement that evaluative functions should be built into operational programmes, even though

there might be some danger of disturbing an experimental setting if early evaluative results were fed back prematurely into the programme. The close familiarity of researchers with the development of a programme and some level of involvement of operators (self-evaluation) would be likely to increase mutual understanding. Built-in evaluation would also have the advantage that data needed for evaluation could be generated at the source, instead of having to be reconstructed after the fact. Persuading administrators to provide for evaluation as an integral part of programmes was a problem, but resistence could be expected to be less marked where it could be shown that operations would benefit directly from the evaluation.

A frequently stated hope was that the meeting would produce some useful guidelines for evaluative research in developing countries. Since one of the principal points made in the discussion was that models of research could not be uncritically transplanted from one setting to another, it was not surprising that no standard formulae for successful evaluative research emerged from the discussion. But what was said did seem to support the following conclusions about the optimal rôle and form of evaluative efforts in developing countries:

1) *Basic accounting*

It was pointed out by several participants that evaluative research was not merely a method whereby scientists could judge activities in scientific terms and for scientific purposes. It was also a means of determining what an administrative unit was doing, and therefore a tool of administrative and policy control. The gathering and ordering of elementary data was essential for rational, common-sense planning and administration of any large system or subsystem in the criminal justice area.

2) *Ideological (soft) research*

It was repeatelly stressed that mathematically sophisticated, costly hard-data research was not necessary — or even advisable as a first step — for the evaluation of the goals of a criminal justice system. It was in fact stated that many of the institutions of developing countries had been rather uncritically transplanted from dissimilar settings in developed countries: what appeared to be the peculiar strength of soft-data research, namely to describe and assess in human terms, was necessary for a proper evaluation of such imported institutions, as well as of existing local ones and new approaches that might be proposed. Development of theories appropriate for the particular society would be complementary to this.

3) *Avoidance of expensive (generally " hard ") research*

The obvious reason for this was the general lack of financial resources to support the more lavish kinds of research. Secondly, the doubts expressed in the discussion about the validity, relevance and timeliness of some hard-data methods suggested that it was an area to approach with some caution. Thirdly, methodologies based upon the analysis of copious data were plainly inoperative where such data is lacking. Fourthly, there might be possible theoretical deficiencies in such work (greater than could be expected in the developed countries) because of the largely foreign derivation of research models and the largely foreign training of the researchers that would apply them. The final point was a dual one. Some of the evidence on impact suggested that " hardness " and impact were not correlated, and might even have a negative relationship. And there were plently of less expensive, less data-hungry evaluative

projects that need doing. This was said to be true in both developed and developing countries. Where problems were really pressing, as they were everywhere, it was suggested that one would do better to look at the quality of solutions proposed than at the sophistication of the research behind them:

LIST OF PARTICIPANTS [1]

S. Adams	(USA)
A.A. Adeyemi	(Nigeria)
T. Asuni	(Nigeria)
J.C.G. Basalo	(Argentina)
A. Bergamini Miotto	(Brazil)
D. Biles *	(Australia)
S.V. Borodin	(USSR)
M. Bouyom	(Cameroon)
M.H. Brenner *	(USA)
H.H. Brydensholt *	(Denmark)
E. Buchholz	(GDR)
W. Buikhuisen *	(Netherlands)
R.W. Burnham *	(U.K.)
R. Carr-Hill	(OECD)
K.O. Christiansen	(Denmark)
N. Christie *	(Norway)
R.V.G. Clarke *	(U.K.)
C.J. Cosmo	(Sweden)
I.J. Croft	(U.K.)
G. Deimling	(FRG)
B. Delio	(Italy)

[1] This list was compiled from registration forms handed to the Secretariat, and may not be complete.

* Rapporteurs.

M. Diaz	(Colombia)
L.F. Doblado	(Mexico)
M. El Augi	(Lebanon)
K. Elmhorn	(Sweden)
E.E. Flynn	(USA)
J.C. Freeman	(U.K.)
S. Garcia Ramirez	(Mexico)
K.H. Gemmer	(FRG)
A.F. Gomez	(Spain)
M. Gonzales Berendique	(Chile)
A. Gupta	(India)
M. Gustavo	(Mexico)
B. Hasenpusch	(FRG)
B. Hofley	(Canada)
L.H.C. Hulsman	(Netherlands)
J. Hogarth	(Canada)
J. Jasinski	(Poland)
D. Kalogeropoulos	(France)
A.N. Kayiirm	(Uganda)
G. Kellens	(Belgium)
P.W. Keve	(USA)
E. Kibuka	(Uganda)
N. Kittrie	(USA)
L. Kos-Rabcewicz-Zubkowski	(Canada)
A. LaMont Smith	(USA)
K.J. Lang	(Finland)
P.P. Lejins	(USA)
J.V. Lindholm	(Finland)
M. Lopez-Rey	(Bolivia)
J. Martin-Canivell	(Spain)
F.H. McClintock	(U.K.)

R. Mitchell	(Australia)
M. Moerings	(Netherlands)
L.C. Mora	(Spain)
M.J. Moriarty	(U.K.)
K.A. Naqvi	(India)
D. Nelson	(USA)
A. Nelson	(Sweden)
J.G. Nezkusil	(Czechoslovakia)
O. Nyquist	(Sweden)
M. Paleologo	(Greece)
J.J. Pjescak	(Czechoslovakia)
A.R. Poole	(U.K.)
A. Quiroz Cuaron	(Mexico)
K.R. Ramachandaran	(India)
G.M. Ramirez	(Venezuela)
G.B. Rangel	(Mexico)
V. Rao	(India)
J.A. Rios **	(Brazil)
C.N. Robert	(Switzerland)
P. Robert	(France)
W. Roth	(FRG)
S. Rozes	(France)
R. Ruiz-Harrell	(Mexico)
F.T. Sanchez	(Venezuela)
G. Schüsseler	(GDR)
A. Selih	(Yugoslavia)
T. Sellin	(USA)
M. Selosse	(France)

** Chairmen of the three sessions.

S. Shah *	(USA)
M. Shikita	(Japan)
V.P. Shoupilov	(USSR)
H. Singh	(India)
G. Sliwowski	(Poland)
M.C. Smith	(USA)
R.A. Solomon	(USA)
K. Sveri	(Sweden)
M.M. Suarez	(Mexico)
D. Szabo	(Canada)
R. Tasse	(Canada)
J.J. Tobias	(U.K.)
C.C. Vermeer	(Netherlands)
S. Versele	(Belgium)
P. Victor	(Austria)
A. Yotopoulos-Marangopoulos	(Greece)
M. Zagari **	(Italy)
M. Zerrouki **	(Algeria)

UNSDRI

P. Könz
G. di Gennaro
L.C. Christy
S.K. Mukherjee
E. Verere

---

* Rapporteurs.
** Chairmen of the three sessions.

INDIVIDUAL STATEMENTS SUBMITTED BY CONFERENCE PARTICIPANTS

CONTINUED

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SOME ASPECTS OF THE ORGANIZATION OF RESEARCH IN CRIMINOLOGY

by S.V. Borodin (USSR)

Various questions regarding methods and organization of research in criminology attracted the attention of the participants of this scientific conference. The reports I have listened to are of interest for me and one should admit that they are a contribution to the development of the criminological evaluative research.

A series of interesting considerations concerning not only problems of criminology but penal law, correctio_s and re-education of the offenders as well are considered in the reports. It goes without saying that the reports want a deeper and more thorough study, but I would like to make some remarks and then proceed to some aspects of the organization of evaluative research in criminology in the Soviet Union, and in our Institute in particular.

I would like to begin with the report concerning evaluative research without hard data. In the author's opinion it is impossible to obtain hard data for evaluative research, and he believes that the more statistical material is used the less probability that these criteria are satisfactory. Even the data that seem to be hard at first sight may prove the opposite at a closer consideration. Thus the author doubts the essential validity of the findings of any research. It is difficult to agree with this viewpoint. First of all it is hardly advisable to doubt the findings of any research, if

the latter was accomplished by means of the tested methods and on the initial material meeting the requirements of representativeness and reliability.

And furthermore I am not fully convinced that there is a necessity to distinguish a research as confirmed and nonconfirmed. Such differentiation might be reasonable, but its significance for the assessment of criminological studies can be fully defined only on condition that the precise criteria for such differentiation are not specified in the paper.

Another report deals with the correlations of the qualitative and quantitative data and their utilization in criminological research. The author rightly gives preference to qualitative indices in the criminological research assessment, though it seems that the author is of the opinion that it will be possible to abandon quantitative indices completely in the future research. It is difficult to agree with this conclusion: as long as there exists a need for it in criminological research, one can hardly abstain from counting. One should bear in mind that the assessment of any qualitative data is impossible unless the rate of their expansion is known, and this already means getting a quantitative characteristic. Furthermore it is often hardly possible to draw a borderline between qualitative and quantitative characteristics, since the latter often reflect a certain qualitative state of a phenomenon. It can also be said that any qualitative state can be expressed in a quantitative way. Well-known Soviet philosophers A.G. Aganbekian and V.N. Shubkin write: " We do not know any phenomena that could not be expressed in quantitative form for the solution of a practically important task " [1]. Quantitative data often testify to the existence of some definite qualitative indices of the phenomena under research.

This is especially true with the object of our interest — criminality — which present the whole complex of the illegal behaviour of certain individuals.

It is of great importance that criminology attempts to study regularities, and in this connection it should operate by large quantities; and only quantitative phenomena are liable for statistical processing. We believe that in criminology quantitative and qualitative data should not oppose each other, but on the contrary both should be studied.

Allow me now to dwell upon some aspects of the organization of criminological research in our country.

The organization of research attracts major attention in our country. Science in our days has turned into, as it is called now, a direct productive force, and its role in all the aspects of human activity is growing steadily. At present we count 1,200 thousand scientific workers. The state and the public are deeply interested in the results of the scientific work, and that explains the fact that the principles of Party guidance and the state sponsoring form the foundation for the Soviet science.

In accordance with Article 126 of the Constitution of the USSR, the Communist Party forms the nucleus of all the organizations, both state and public. Proceeding from this the CPSU provides the ideological guidance over science, and cares for its promotion. In the report on the 50th Anniversary of the USSR L.I. Brezhnev pointed out " the Party has always supported and will support the innovating Leninist approach to the study of the complex social phenomena, the efforts of our theoreticians directed to the development of social life and creative analysis of the reality " [2].

In accordance with the Statement of the 24th CPSU Congress the primary Party organizations of research and educational institutes, as stipulated by the CPSU statutes, exercise control over administration activities. This right of control does not imply an unjustified interference in the process of scientific research, or direction of the latter. Party guidance serves as a guarantee that research is being conducted for the benefit of the communist construction.

The organization of scientific research by the state is conditioned by the needs of science itself, its complexity and the necessity of rational research planning, staff education and training, the financing of material supplies, scientific and technical information, etc. It is conditioned by the necessity of a consistent state policy in the promotion of science[3]. The very existence of state sponsorship in our country renders academic the fears expressed by some speakers at the Geneva conference that some research could not be conducted because of the shortage of financing allocated for the purpose.

Scientific research in the field of crime combatting in the USSR is organized by the scientific research institutes of the Academy of Sciences of the USSR, and by special research departments of state organs engaged in crime combatting - the Procuracy of the USSR, the Supreme Court of the USSR, the Ministry of Justice and the Ministry of Interior of the USSR. Among those studies a definite place is allocated to research in criminology; its exact organization on the part of the state organs is a necessary condition for obtaining findings important for both science and practice.

In the reports that we have listened to, in my opinion, not enough attention is paid to the process of the organization of research in criminology. Appropriate organization can to a large extent ensure the actuality of the selected theme, the application of the optimal methods, the multilateral analysis of the received data and thus lead to scientifically well-grounded findings.

Proceeding from these considerations our Institute pays much attention to the organization of research processes.

First of all it is necessary to emphasize the fact that research in criminology is envisaged under the annual scientific plans as well as under the perspective of five-year plans of research activities. The five-year plan serves as the foundation for the inclusion of particular themes into

an annual plan, alongside with demands of practical workers and suggestions of scholars. Each theme included in the plan is submitted for consideration and approval to the scientific board of the Institute before the research is initiated.

During the elaboration of the research plan in criminology we try to provide evaluative research for each homogeneous group of problems significant to crime combatting. In our opinion, a correct conclusion about the most effective way to ensure that criminological research has an impact is for the research to embrace the whole process from the exposure of causes and conditions contributing to crime, to the commission of criminal acts and the assurance that recidivism it excluded. From the initial moment of the criminal procedure our efforts are directed toward providing conditions for correction and re-educational treatment of the offender certified by the sentence. The practice of criminological research shows that research is most effective when it is of a complex nature, when not only criminological data and the data of other juridical sciences (penal law, procedure, corrective-labour law, etc.) are used but also those of psychology, pedagogics, logic, sociology, mathematics, statistics, etc.

It seems that evaluative research should be especially concise in terms. This is conditioned not only by the necessity of examining indices under identical conditions, but by the necessity to complete the research in an appropriate period of time.

Evaluative research in criminology is more effective if it is done by a group of researchers. This is confirmed by the practice of the organizing of collectives of research workers (and authors) in our Institute. In fact we abandoned the idea of a single researcher for problems included in the plan. That resulted in faster work, higher efficiency, acceleration of the practical implementation of the research finding.

From our viewpoint the majority of the evaluative research would benefit from the participation of practical workers in it; they can be especially valuable to collect the necessary materials called for by the research plan. This work is done under the control of the researchers participating in the particular research groups. The practitioners' participation allows, on the one hand, to attract many of them to the research work and on the other hand, it helps the researchers to study the problem in greater depth and more thoroughly. Our research groups are formed with the abovementioned considerations. Specialists in different profiles of the work are included in such groups; the direction is entrusted to a scientist, as a rule an outstanding specialist in the field with experience in criminology. The scientific director organizes the material preparation. We usually structure it in the form of a working programme, which for criminological research consists of the following steps: *a*) research hypothesis; *b*) definition of the subject under research, and the volume of material studied; *c*) the state of the problem according to the data at the disposal of the researcher (state-of-the-art survey); *d*) description of the research methods and modes of data analysis; *e*) the hypothesis of the research findings; *f*) the terms of the research, with the definition of its main stages.

If a practical worker is supposed to be included in the research, such participation must be indicated in the work programme. The elaboration of the working programme of a research in criminology allows not only to draw the work schedule of the research group, but also to study the state of the problem by the materials available in the country and abroad.

The research process is organized directly by the scientific director. At this stage the definition of each researcher's task is the director's responsibility in accordance with the working programme, as well as the theoretical and methodical level of the research. The director takes part in the research.

Drawing of the criminological research conclusions is a very important stage of the theme elaboration. The research ends in a scientific report which includes: the aims of the research, the volume of the work done, the methods used, research findings, conclusions and recommendations. In cases when concrete proposals are made, the research group prepares the necessary documents (draft bills and other normative acts, methodical recommendations, etc.).

Findings of each research are subjected to evaluation, considering specifically the observance of terms, the scientific value and practical significance of the findings, as well as the economic advisability of their implementation into practice.

Practical implementation of criminological research findings may begin during the work, but as a rule this question arises only upon its completion.

Forms of the research findings implementation may vary extensively. They are conditioned to a considerable extent by nature of the findings. But that brings us to the next item of the agenda.

In conclusion I would like to repeat that the reports delivered at the Conference want an additional study both for the reasons given by Mr. Könz, and in view of the limited time allocated for their reading.

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IMPACT OF RESEARCH ON DECISION MAKING

by CARL-JOHAN COSMO (Sweden)

The question of the impact of research on decision making in the field of criminal policy is an interesting and I believe, a constant subject of discussion. Our knowledge in the matter is limited. This might lead us to draw the conclusion that more research is required before we have sufficient background material to enable us to discuss the question. But naturally we cannot leave the matter there. The following considerations are not based on research but they do reflect experiences from the field of Swedish criminal policy.

Most decisions in the penology field are taken without research having affected the decision to any considerable extent. This first contention of mine might appear provocative, but I believe, at the same time, that it might give rise to reflection and self-scrutiny. The usual basis for decisions within the field of criminal policy seems to me to be a general human commonsense reasoning and general political evaluations on the part of the decision maker. As I see it, it can very rarely be said that research results have had direct and immediate consequences so far as criminal policy is concerned. Naturally it has frequently happened that researchers through their participation in the general criminal policy debate have affected developments. But in these cases it is the researcher himself rather than his research results that has made an impression.

I am at the same time eager to point out that I think I can foresee a development whereby research becomes increasingly important to the decision makers. Such a development, furthermore, seems extremely urgent and necessary. Within other fields of society — particularly connected with natural science, for instance the medical field — it is today absolutely taken for granted that the decision makers base their conclusions on research results. It is imperative that we in the criminal field also make research an integrated part of the decision process. The question remains how this goal shall be attained.

A vital issue in this connexion is that of the form of organization. The greater part of research within the field of criminal policy has been carried out at the universities. These have remained more or less independent of the political decision makers, but this freedom has implied limited possibilities or possibly also lack of interest in establishing channels of communication to the decision makers. As important as freedom is for university researchers, it is equally important that we establish channels of communication between the universities and the decision makers.

In this connexion I look upon the increased number of researchers and research units attached to government or other official deciding bodies in the past few years as a positive development. I believe that the daily and close contact between decision makers and researchers might create a mutually better understanding of working conditions. At the same time I am conscious of the fact that this development comprises many dangerous factors.

It is therefore necessary that free university research be given working possibilities critically to examine questions of a basic research nature in particular. The universities appear also to be best suited to carry on social-critical research. It is also essential that research more closely attached to the decision makers be given such freedom that it does not permit itself to be used merely to confirm the accuracy

of decisions previously taken. This calls for, among other things, special rules regarding the right to publish research results. Only in this way do I consider it possible for the government and other deciding authorities to attract researchers of such capacity that they can be of real value to the decision makers.

The choice of subjects for research would also appear to explain in part the lack of communication between researchers and decision makers. Research results are not always submitted at such a time that they can be applied in decision. Research directed towards a certain problem ought actually to start at least five years before the field becomes of current interest in connexion with political decisions. This puts a great demand on the researcher's feeling for what is going on in the field of criminal policy.

The fact that at least the research directed towards criminal law has so concentrated on questions of the theoretical system has contributed to the faint interest of the decision makers. It is consequently necessary that research also include areas that can throw light upon current political issues. There is, for instance, a tendency today among certain researchers to disclaim or reject — on the basis of general political evaluations and with motivations of principle — research regarding general deterrence. At the same time it is quite evident that decision makers in all countries have to take this question into consideration in connexion with various political decisions. The researchers consequently voluntarily exclude themselves from the process of decision. If this tendency becomes more general, it can greatly disturb relations between research and decision making. A great responsibility lies upon those who for ethical reasons reject a field of problems which is considered of the greatest interest by the chosen representatives of the people.

It is not due to lack of interest on the part of the decision makers that research results do not get through. At the same time we must be aware that the vast amount of

information received by decision makers is a hard problem to tackle. I see as necessities a better selection of material and improved self-criticism in the research field. It is also imperative that some attempt be made to differenciate between research results and general political evaluations. The researcher must not count on being put in a special position in relation to other citizens so far as his general political attitude is concerned. In general political questions the researcher must be referred to the channels for expressing an opinion that in a democratic country are available to all citizens.

Regarding then the medium for the transfer of information between researchers and decision makers, I consider it necessary to have an intermediary. A single research product is hardly ever of such importance that we may expect the decision maker to read the research product in its original version. It is necessary that some persons dealing with research also take on the duty of intermediary. It is of importance that we grant increased resources to this information service. It must consequently not be assigned to persons that have dropped out or failed to be accepted in the research world. Furthermore, this exchange of information must be carried out in a language that can be understood even by those who are not experts. I believe we have a long way to go before we have attained a satisfactory information link. But I see a positive trend in the fact that research participates in decision making to an increased extent.

Finally I wish to point out that I look upon it as imperative that research increasingly affect the decision process. It is exclusively with this background that I have wished to submit my views as to the reasons why we today appear to have a long way to go before we dare to say that the decision makers in arriving at their decisions have access to and take into consideration all research results that are of importance to the decisions in question.

EXPERIMENTAL ACTIVITIES AND THEIR EVALUATION AN OUTLINE OF RULES FOR CO-ORDINATING EVALUATION AND AN EXPERIMENTAL ACTIVITY

by Eckart Kühlhorn (Sweden)

Theory of Scientific Evaluation versus Practice of Experimental Activity

Ever since experimental activities in the social field have been subjected to scientific evaluation, experience — particulary experience acquired abroad — has shown that there is an urgent need for formalized co-ordination between those conducting the experimental activities and those conducting the evaluation. The evidence indicates that there are at least two reasons for the problems encountered in this area. First, the loyalty of the evaluator is usually scientifically oriented, regardless of whether the experiment appears to be having positive or negative effects. But for those engaged in the experiment, a positive result will no doubt be preferable. Secondly, there are fundamental differences in the scientific method and practical method of making decisions. Scientific decision making processes regarding the effects of an experimental activity emphasize comparison. The activity must be compared with something, either in accordance with the before/after model or the experimental-group/control-group model. With regard to the practical aspects of decision making, it should be noted that an experimental activity can

very seldom be delayed to make possible before/after measurements. As a rule, experimental activities are initiated and carried out on the basis of the special participation of one or more people within a particular organization. Where can one find a comparable organization with similarly engaged people?

These differences in scientific and practical decision making processes concern not only the comparison problem but also the entire activity — for example, the evaluator's desire to maintain constant objectives and means during the experimental activity, and the practical experimenter's desire to change objectives and means during the experiment in accordance with day-to-day experience or common sense.

Every scientific evaluation of experimental activity demands a compromise between the reference frames of the researcher doing the evaluation and the practical person conducting the experiment. Before evaluation, this compromise should be formalized in terms of both the selection of the evaluation method and the conditions under which the scientific evaluator and practical experimenter will work. The following paragraphs will thus discuss certain criteria which are essential to the selection of the evaluation method. These criteria are important with regard to (*a*) resource allocation within the research programme, (*b*) the expectations of the practical experimenters regarding the range of the evaluation and (*c*) the prevention of co-ordination problems between the practical experimenters and scientific evaluators. This discussion should not imply the taking of any position for or against certain types of experimental activities or for or against certain types of evaluation efforts. Neither does it involve questions about specific methods in social science, such as " participant observation ", "hard data " or problems associated with attitude measurements. It is the inter-relationship between the scientific evaluator and the practical experimenter that is of primary interest.

Levels of Objectives for Experimental Activities

In connexion with the evaluation of an experimental activity, particularly against the background of co-ordination between the scientific evaluator and the practical experimenter, it is of prime importance to specify accurately the levels of the experiment's objectives. In general, experimental activities are said to have three levels of objectives, namely the feasibility level, the attitude level and the behaviour level. On the feasibility level the question whether an experimental activity can be carried out is of central interest. For example, can a contributory-influence system be introduced into a prison or not? Can the police recruit young people for recreational activities or not? On the attitude level, the formation of attitudes is the subject of the experimental activities. For example, does the introduction of a contributory-influence system have any effect on the prisoner's attitude to the prison, to society as a whole? Do young people that participate in recreational activities conducted by the police acquire more positive attitudes toward the police? On the behaviour level, behavioural control is the subject of the experimental activities. For example, does the introduction of a contributory-influence system in prisons lead to a reduction in the number of relapses into crime? Do the probabilities of criminal activity diminish for young people that participate in recreational activities conducted by the police? Even if the objective of an experimental activity seldom lies on one level alone, the different types of experimental activities nonetheless emphasize different levels.

In general, it can be said that conflicts between the scientific evaluators and the practical experimenters can be prevented if the evaluation embraces and specifies all levels of objectives. From the practical experimenter's perspective, the highest objectives (those that are the most difficult to achieve) should be of major importance to the status of the

experimental activity, both in the mass media and in connexion with political decisions. But all experience indicates that an acceptance of this in scientific evaluation, i.e. a concentration of research resources on the highest objectives, leads to major conflicts in connexion with the reporting of research results. On the other hand, one cannot accept the concentration of research resources on the lowest-level objective, feasibility. Quite often, " positive " results on this level just comprise obvious facts. Such results are deemed better and more satisfactory by those responsible for the experimental activity. There are thus differences between the following hypothetical conclusions resulting from an evaluation:

1. Contributory-influence systems in prisons lack significance with regard to recidivism.

2. Contributory-influence systems in prisons are significant with regard to the atmosphere among the prisoners, but not with regard to relapses into crime.

3. Contributory-influence systems are possible in prisons.

Conclusion 2 is the most interesting. Conclusion 1 would probably lead to a conflict between the practical experimenter and the scientific evaluator. For conclusion 3, a scientific evaluation report should be more or less necessary to supplement the evaluations of those engaged in the experimental activity.

Evaluation Procedures

Three basic types of evaluation procedure can be distinguished. I call the first *mapping*. This comprises a descriptive study of the source material provided by the experimental activity for evaluation. The second type I call *comparative mapping*. Here, a comparison is made between a descriptive study of the experimental activity and a similar study involving a control area or control group. I call the

third type *follow-up*. Here, data from at least two points in time must be available — before and after the experimental activity. Follow-ups embrace numerous variations — before/after measurements, in both an experimental and a control field, etc.

Different evaluation procedures must be viewed against the background of the possibilities of drawing conclusions. If one limits oneself to mapping, evaluation will permit virtually no scientifically based conclusions about the results of the experimental activity. Certain conclusion-drawing options permit comparative mapping, although by no means in a reliable manner. Follow-ups, on the other hand, provide far better source material for conclusions. The levels of objectives of the experimental activity should therefore comprise an essential factor in the selection of an evaluation procedure. As mentioned previously, scientific evaluation on the feasibility level comprises, in the most favourable situation, a supplementing of the experiences of the practical experimenter. As a rule, mapping can be deemed sufficient here. On the other hand, the evaluation possibilities of the practical experimenter are highly limited on the attitude and behaviour levels, and the evaluation procedures should comprise comparative mapping and follow-up.

It seems reasonable to expect that co-ordination between the practical experimenter and scientific evaluator will be facilitated if an agreement is made in advance about the evaluation procedure that is called for, depending on the levels of the objectives of the experimental activities and the need for drawing conclusions.

Publication

Another problem that arises in connexion with evaluation concerns the question of when research results are to be published. At one end of the scale we have the classic experiment, in which the results are published only after the

experimental activity has been completed. Among the advantages offered by this model is the fact that one does not measure the effects of both the experimental activity and the scientific evaluation. Instead, only the effects of the experimental activity are measured. At the other end of the scale, we find action-type evaluation where the results of the evaluation are fed back continuously to the practical experimenters. The advantage of this model is that the practical experimenters can take advantage of the results of the evaluation while the experiment is still in progress in order to improve the experimental activities. It should be pointed out that this type of feedback can have different effects on the practical experimenters' activities, both stimulating and inhibiting.

I shall call the variants of the classic experiment *investigative models,* and the variants of the feedback type *development models.* Even if efforts should be made to obtain development models insofar as possible, many situations arise in which only investigative models can be used. General recommendations on the selection of the model cannot be provided here. However, it is important that the scientific evaluator and the practical experimenter agree in advance on a model and define the questions associated with it. For investigative models, the experimental conditions must be kept constant throughout the evaluation period. Examples of such experimental conditions include the number of personnel involved and the working procedures. Within the scope of development models, there must be a supervisory group consisting of scientific evaluators and practical experimenters. This group must be assigned definite decision making functions.

Staff and Subjects

When it comes to experimental activities in which the prevention or treatment of deviant behaviour are of prime

importance, the social distance between those carrying out the experimental activities (*staff*) and those on whom the experiments are being conducted (*subjects*) involves special problems. It should first be mentioned that most probably the hypotheses of the staff members regarding the results of the experimental activity will be based on their own experiences, primarily in situations in which the subjects must play a dependent role vis-à-vis the staff. Under such conditions, the opinions of the staff can be strongly influenced by selective perception, and as a result, they will lack solid basis in reality. It is therefore important that the scientific evaluator, in connexion with the analysis of the levels of objectives, refer to the results obtained from other evaluation studies. The situation-bound experience of the staff is particularly troublesome when criteria for evaluation are discussed. Changes at the staff level — in work procedures, resources, etc. — comprise the means by which the experimental activities are conducted. They are not the objectives of the experiment, even for mapping on the feasibility level. Changes at the subject level are the objectives of experimental activities of this type. It is essential that this distinction between the means and ends of an experiment be clearly defined and documented before evaluation commences.

The social distance between the staff and subjects is also highly relevant with regard to the position of the scientific evaluator. When an investigative model is used, the scientific evaluator is a neutral observer. When development models are used, the scientific evaluator collaborates closely with the staff carrying out the experimental activities. In this connexion, it should be noted that any collaboration between the scientific evaluator and staff that is noticed by the subjects can have negative consequences on the quality of the observation and interview data and can even make it difficult or impossible to obtain such data. Obviously, in-

vestigative models do not preclude all forms of co-ordination between the scientific evaluator and staff, nor do they require intensive co-ordination in all areas. One possible strategy would be for the scientific evaluator to be denied decision making power on any level of the experimental activity while being permitted to indicate his independence from the staff conducting the experimental activity. With experimental activities concerning the prevention and treatment of deviant behaviour there is a more rigid requirement that the evaluator not reveal to the staff any data obtained about identifiable individuals.

The publication of data on the group level for perusal by outsiders can also have certain consequences. If, for example, one publishes the first mapping of opinion about a probation hostel, discussions in the mass media about these results can make follow-up impossible. Moreover, the publication of a study about the prisoners in a probation hostel can lead to prejudicial opinions about the prisoners among certain persons or groups.

When it comes to development models, less extreme variants can be utilized, and information about certain data can be withdrawn from the continuous exchange of information and saved until the conclusion of the evaluation. However, the problem will still have to be dealt with when the evaluation is concluded, regardless of whether an investigative model or development model was used. Particularly against the background of publicity principles, one must expect that all published results may be taken up in public discussions and can thus entail consequences for the subjects of the experiment, to the extent that they can be identified by outsiders. As a result, the identifiability of the subjects as a result of publicity plays a certain role in decisions affecting the experiments, both with regard to the experimental acitivities that can be evaluated and to the data that can be published.

Rules for the Agreement on Evaluation of an Experimental Activity

1. Define the different levels of objectives of the experimental activity.
2. Decide which levels are to be embraced by the evaluation.
3. Decide which type of conclusions are relevant to the different levels of objectives.
4. Decide upon the evaluation methodology.
5. Decide on the probable relationships between the experimental activity staff and the subjects.
6. Decide on the criteria for evaluation to be used on the staff level and on the subject level.
7. Form an opinion about the neutrality of the evaluators vis-à-vis the subjects of the experimental activity and about co-ordination between the evaluators and the staff conducting the experimental activity.
8. Decide which particular factors in the experimental activity can be changed and which cannot.
9. Decide on the particular type of research data that can be published and when it should be published.
10. Decide on the forms of continuous co-ordination between the evaluation and the experimental activity.
11. Calculate the time frame for evaluation and itemize the evaluation costs.
12. Permit the subjects to state their opinions on the memorandum before evaluation commences.

IMPACT OF CRIMINOLOGICAL RESEARCH ON DECISION MAKING

by V.P. Shupilov (USSR)

The effectiveness of scientific research in the field of crime combatting (the papers submitted for the Workshop on Evaluative Research show that the notion of research is treated by the authors in a broad sense of the term, embracing all the spheres of crime combatting) constitutes an actual problem in many countries of the world. This seems to be quite natural, since the intensified practical outcome of any science is one of the regularities of social development under the conditions of revolution in science and technique. UNSDRI's efforts to initiate the discussion of the problems of scientific research efficiency should by all means be approved and supported.

In the USSR the problems in question were formulated in a decision on " The Measures of Further Improvement of Juridical Science and Bettering of Law Education " [1] enacted in 1964. Naturally, the period of more than 10 years that followed the enactment allowed us to accumulate a wide range of experience in improving the connection between juridical science and practical organs (law enforcement agencies) concerned with crime combatting.

This accumulated experience, and a review of the results of the work already accomplished, make it possible

[1] " Communist ", M., 1964, No. 12, p. 70.

to formulate some comments on the papers submitted for discussion, and thus to fulfil the function of a panelist, which seems to be (in view of the high scientific level of papers) rather a pleasant than a burdensome task.

In the opening remarks concerning the second item of the agenda, the Director of UNSDRI attempted to define more exactly the content of the notions considered. The attempt is, to my mind, well founded; the way in which the problem is treated in the papers may produce the impression that the authors mean the impact of the whole of criminological science on the practice of crime combatting. Moreover, this impact is treated mainly as spontaneous and almost unmanageable.

The classification of scientific research was done by the Workshop participants mainly according to methodological techniques related to the collection and interpretation of data. In considering the problems arising from the analysis of evaluation methods in criminology such an approach may be reasonable enough. It seems evident that different principles may form a foundation of scientific research classification, as well as a foundation of any other scientific classification. To consider the questions of the impact of criminological research on decision making, however, it seems preferable to follow the accepted subdivision into theoretical research and pilot studies on the one hand, and applied resarch and efforts on the other.

Theoretical studies may be concerned with either developing the social interaction and regularities unknown before, and revealing of causal (or any other) relationship of certain phenomena, or they may attempt to explain phenomena, facts, processes, etc.

Pilot studies based on the developed theoretical interventions and ideas may be concerned with the search for principally new ways of research and hypotheses for their further scientific elaboration and testing.

At this point one might wish to explore directly the impact of such research on the process of decision making. Will it result in an underestimation of theoretical research and conclude as to their practical ineffectiveness? And consequently, won't it lead to its curtailment, reduction of its volume, etc.? It seemed to me that in one of the papers there appeared some apprehension of this kind.

The effectiveness of theoretical research work and pilot studies will very likely differ from the notion of effectiveness that might be attributed to applied studies.

The effectiveness of theoretical research and pilot studies lies essentially in the widening of knowledge regarding the objective laws of development of nature and society.

Applied studies are nothing else but the use of the theoretical research findings with reference to specific tasks. The degree to which this is achieved is one of the criteria of effectiveness. It is evident that any assessment of the effectiveness of a scientific study must depend upon the purposes underlying the research and upon the results obtained. In some cases the criteria for applied studies may relate to the economic effect of the implementation of their results into the practice of crime combatting. This is particularly characteristic for studies in the field of organizational management and scientific organization of the labour process. A quantitative evaluation, however, can't produce more objective reasons than may occur in case of qualitative research, as convincingly demonstrated by N. Christie's paper. Besides it is far from being always possible to assess applied studies quantitatively, in which case they can only be evaluated in qualitative terms.

The impact of criminological research on decision making could be understood better if the decision itself were taken into consideration. In fact, the decision (treated in the papers as a matter of management) cannot be taken at will. It is guided by an oriented choice, that is by a choice based on particular criteria and theoretical knowledge of

regularities which allow with this or that degree of exactness to predict the direction in the development of events and their possible outcome.

The notion of " decision " may evidently be formulated in different ways. The fact that UNSDRI has focussed international attention on decision-making processes will perhaps stimulate improved theoretical research in that particular field. Meanwhile, without pretending that our definition is universal, we would submit that a " decision " is essentially *a choice among a number of possible alternatives, implying the diminution of vagueness with regard to a group of phenomena, or a concrete choice, which falls into the frame of reference of a person authorized to make decisions.*

Decision-making is based on particular principles resulting from the intellectual activity of a decision-maker and the summarizing by him of the concrete totality of empirical facts and knowledge.

There are very interesting examples of the " researcher-decision maker " interrelations given in the papers. These examples are of doubtless interest. But it seems to me that their analysis is in most instances undertaken at the level of the singular instance, while the conclusions are raised to the power of the particular or even general.

It should be said in all fairness that the analysis of regularities in decision-making at the level of the singular case is far more difficult.

The point is not only that at the level of singularity analysis personal peculiarities of the decision-maker occupy a particularly important place. That is, of course, a very important point. To my mind, however, another consideration is even more important. The decision-maker is in reality acting within the context of a legal organ, which represents by itself a concrete system with a regulated principle of functioning. This system is an element of the more complex systems in the structure of which it serves both the

subject and the object of management, connected with the outside world and with the higher levels in the hierarchy by direct and feed-back channels.

Can it be expected, in such a context, that the process of decision-making will be based directly on a given research (even of an applied nature) ? And can one say that the research has " produced an impact " only if " something was done " under its effect ? To our mind this line of inquiry is not particularly fruitful. Instead, the analysis of scientific research impact on decision-making at the level of the general may provide us with more relevant conclusions. Analysis at the level of the general presupposes the study of the decision with all its linkages and mediations in the whole system of social relations, taking into account the fact that under modern conditions of scientific and technological progress the interconnection of science and society has become quite strong.

This regularity was very correctly stressed by the General Secretary of the Central Committee of the Communist Party of the USSR, L. I. Brezhnev, who underlined in the report " On the 50th Anniversary of the Union of Soviet Socialist Republics ": " Just as in industry or agriculture we can't now make a step forward without the help of the latest achievements of science, so in our social life the development of science is the necessary base for decision-making, for the everyday practice " [2].

At the level of society as a whole the development of science is the necessary base for decision-making. In the practice of crime-combatting this role is played primarily by criminology and sociology of law. While it is not my intention to discuss at this point the co-ordination of these branches of science, it is evident that theoretical generalizations accumulated by these branches of science on the basis of concrete research permits scientific institutions to put

[2] " Communist ", 1972, No. 18, p. 39.

(directly or indirectly) questions asking for solution at the level of the state. This sometimes entails the enactment of appropriate legislation. In the practical life of the USSR, there are many instances when direct tasks of legislative organs demand that special research be conducted in order to obtain an optimal variant to be embodied in the law.

This can be illustrated with an example taken from the work of V. V. Klotchkov " The Development of the Research Methods in Soviet Criminal Law ", published in French in the collection of articles prepared by Soviet scientists for the XIth International Congress of Criminal Law [3]. A number of studies conducted by the All-Union Institute for the Study of the Causes and Elaboration of Measures for the Prevention of Crime and some other scientific institutions of the USSR showed the desirability of reconsidering the concept of dangerous recidivism, as well as the advisability of unifying this notion in federal legislation in order to narrow the range of persons recognized as recidivists by the court, thus contributing to the further humanization of Soviet criminal law.

Later on, commenting upon the law adopted on the basis of these studies, the Vice-President of the Presidium of the Supreme Soviet of the USSR wrote in the newspaper " Izvestia " that at the time of the elaboration of the law there were " used modern methods of sociological research, statistical data, the findings of surveys and studies. In particular, the norms and rules were elaborated and formulated on the ground of scientifically based research and not of occasional factors ".

If the impact of the initial studies (which finally resulted in a change of the law) were considered at the level of the single-instance analysis, one might come to the conclusion that the impact of these studies was nil, as despite their findings judges went on applying the law until the amendments were enacted; if a particular judge refused to follow the law in force, the sentence in such case could be revised and cancelled by the supervisory organ of the judicial system. As it was, these studies helped to accumulate knowledge and promoted the formation of an "attitude " toward the norm in force — first in the midst of researchers and then in a wider circle of persons. Finally this led to concrete results.

The implementation of research findings into practice has ceased to be a spontaneous (or unstructured) process at the present stage of societal development. On the one hand there are visible signs of impact of society on the direction and pace of scientific development; on the other hand, the strength of science and its dynamic rôle (including criminology, as a social science) imply that specific scientific findings are effective and systematically translated into practice.

In line with criminological science we think it possible to define this as a comprehensive and regular activity based on the knowledge of the fundamental concepts of organizational management, systems approach and theory of information; it means that practitioners (" decision-makers ") will receive research results (recommendations) worked out and tested with a view to the practical needs of crime combatting, including scientific projections of the tasks with which practitioners will be faced in the future.

Research on subjects related to practice is of course more effective where the relevant organs have worked out direct and feed-back connections with science. Such coordinated connections make science more efficient, and enhance the quality of operational activities (in our case crime combatting). There follows the need of organizing science itself; senseless and chaotic duplication in research work should be avoided: such duplication would only mean the waste of the means assigned by society at this or that period of its development to scientific research.

[3] V. Klotchkov, Le développement des méthodes de recherche dans le droit pénal soviétique. " Rapport de la délégation soviétique ", Budapest, 9-15 September 1974, p. 10-12.

This need for scientifically rigorous management of the research system in terms of feed-back into crime combatting practice has led, in the context of the All-Union Institute for the Study of the Causes and Elaboration of Measures for the Prevention of Crime, to the establishment of a new section focussing on the impact of scientific research in the area of crime combatting. This section is concerned with the conceptual implications of specific or complex practical problems, their nature and effectiveness; with the scientific definition of forms and methods of implementing research findings; with the application of such findings by practitioners or executive organs; with informational work aimed at the implementation of the scientific achievements into practice [4].

It is characteristic of our country that the general tendency focussing on the intensification of productivity, on improved planning and on organizational management provided a very important stimulus for their study in the context of law enforcement agencies. In that sense science helped to elaborate appropriate evaluative criteria for the activities of investigatory, judicial and supervisory organs in the field of crime combatting, taking into account the internal and external conditions which could determine the outcome. This has led to a new orientation in science; one of the main concerns is to raise the standard of organizational management in investigatory, judicial and supervisory organs. The first publications in the field have already appeared; one might for example refer to " Scientific organization of investigator's activity " and " Organization of the local (or of the city) procurator's office activity " published in 1974 by Moscow Publishing House " Juriditcheskaya Literatura " (Juridical Literature). Recommendations elaborated by the

[4] V.N. KUDRIAVTZEV, " 10 years anniversary of the All-Union Institute for the study of the causes of crime and elaboration of measures for the prevention of crime ". Issues on Crime Combatting, No. 20, Moscow, 1974, p. 12.

research workers are translated into reality in widest sense, in line with the specific objectives of the research itself.

One might thus conclude that the problem of increasing the responsiveness of scientific research to policy needs, and the assessment of the practical contribution made by research institutions to crime combatting, requires first of all the strengthening of ties of research institutions with practical organs; this presupposes a further improvement of research planning, a more complete identification of the needs of practical organs, and their consideration at the stage of research planning and implementation. This should, of course, not downgrade the importance of further theoretical development in the area of crime combatting; in the absence of properly elaborated theoretical generalizations evaluative research itself might come to a standstill, and operational bodies might rapidly lose interest in the contribution which science could make to the accomplishment of their tasks.

LIST OF CONTRIBUTORS

L. J. M. d'Anjou
Research and Documentation Centre
Ministry of Justice
The Hague
The Netherlands

David Biles
Assistant Director (Research)
Australian Institute of Criminology
P. O. Box 28
Woden, ACT 2606
Australia

S. V. Borodin
Director, Research Institute
Ministry of Interior
Moscow
U.S.S.R.

M. Harvey Brenner
Director
Center for Metropolitan Planning and Research
The Johns Hopkins University
Baltimore, Md. 21218
U.S.A.

H. H. Brydensholt
Director General of Prison and Probation
Administration
Copenhagen
Denmark

W. Buikhuisen
Research and Documentation Centre
Ministry of Justice
The Hague
The Netherlands

R. W. Burnham
Senior Lecturer in Criminology
Department of Law
University of Keele
Keele, Staffordshire ST5 5BG
U. K.

Deborah Carrow
Department of Behavioral Sciences
The Johns Hopkins University
Baltimore, Md. 21218
U.S.A.

Nils Christie
Professor, Institute of Criminology and Criminal Law
University of Oslo
Oslo
Norway

R. V. G. Clarke
Research Unit
Home Office
Romney House
Marsham Street
London SW1P 3DY
U. K.

C. J. Cosmo
The Swedish Council for Crime Prevention
Stockholm
Sweden

A. Khalifa
Chairman
The National Centre of Social and Criminological Research
Awkaf City, Gezira P. O.
Cairo
Arab Republic of Egypt

Eckart Kühlhorn
The Swedish Council for Crime Prevention
Stockholm
Sweden

Saleem A. Shah
Chief, Center for Studies of Crime and Delinquency
National Institute of Mental Health
5600 Fishers Lane
Rockville, Md. 20852
U.S.A.

V. P. Shupilov
Head, Foreign Information Section
All Union Institute for the Study of Causes and Elaboration of Measures for the Prevention of Crime
Moscow
U.S.S.R.

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