# The Mythology of Legal Decision Making

Vladimir J. Konečni\* and Ebbe B. Ebbesen\*\*

#### Introduction

In legal and criminological circles, as well as among social commentators and members of the general public, certain assumptions about how legal decisions are made are repeatedly expressed. The most ubiquitous of these are views that (a) each legal case is unique, (b) various decisions made by the different participants in the legal system regarding the processing of cases are highly complex, (c) these decisions are typically a function of numerous factors, and (d) only highly trained experts can make these decisions. Legal decision-making, for example by judges, is viewed as an intricate process of lengthy deliberation by highly trained and experienced decision-makers who carefully take numerous bits of information into account, thus responsibly and thoughtfully exercising the authority which the society has bestowed upon them, to deliver just and equitable decisions in a manner unbiased by numerous factors that are not supposed to be taken into account.

One can think of several reasons for the existence of such assumptions. The first is the obvious fact that the social world is indeed highly complex and that human social behavior – legal and illegal – is governed by a host of genetic, economic, personality, organismic, social, and cultural factors. It is precisely this complexity of antecedents of the more interesting and socially important aspects of human social behavior that makes the detailed understanding and accurate prediction of such actions so difficult. This is probably why the "grand" psychological theories have failed so miserably in the domain of complex social behavior. Modeled after theories in physics, and the corresponding physicalist ideals in the philosophy of science, they have few parameters, are elegantly simple, and their sweeping claims are easily communicable in scientific writings, but they are - precisely because of their simplicity – woefully inadequate at the level of predictive accuracy, a feature that social science must have if it is to be truly useful to society (rather than banal, as is so often the case). Therefore, in disciplines such as social psychology, a recent trend has been to replace the grand theories by small-scale theoretical models dealing with the explanation and prediction of highly circumscribed social behaviors and situations. (The alternative would have been to develop more general theories with dozens of parameters, but these would

Reprints may be obtained from either author.

<sup>\*</sup> Professor, Department of Psychology, University of California at San Diego, LaJolla, 92093, USA. 
\*\* Professor and Chairman, Department of Psychology, University of California at San Diego, LaJolla, 92093, USA

be difficult, if not impossible, to test thoroughly for a variety of logistical reasons, let alone to communicate effectively). In short, we agree with the legal practitioners that the social world is complex and that social behavior is difficult to understand and predict – but this does not mean that the *decisions* regarding the law-related aspects of social behavior are themselves complex and difficult to understand and predict.

An important contributor to the illusion of complexity of legal decisions is what may be called the phenomenology of decision making. The decision makers note that they deliberate long and hard about a case, that their thoughts are overburdened with various aspects of the case, that numerous factors are tossed about in their minds, and that they carefully evaluate all the available evidence and the decision alternatives before announcing the decision in question. It is this staggeringly complex, private world of thought and deliberation, by no means limited to legal decisions and decision makers, which probably makes the decision-complexity myth so intuitively acceptable to the general public and to the decision makers themselves. Yet, one of the main contentions of this paper is that the phenomenological complexity of decision making has very little to do with the factors which actually influence the decisions that get made — "actually made" in the sense that these decisions can be specified with a reasonable degree of objectivity and predictive accuracy by an external observer.

Additional possible reasons for the assumptions noted earlier are incentive-related. To maintain and increase their social power and prestige, it is virtually mandatory for the judges, for example, to claim that their decisions are complex – this makes them and their particular training and guild membership indispensable. To help repel nosy scientists encroaching on their turf, it is useful to maintain that every case is different. If this were true, and if each case were really treated in a substantively different way, scientific model-building would be next to impossible. Finally, in order to satisfy, or appear to satisfy, the generally espoused ideal of "individualized justice", it makes sense to claim that numerous factors (and a different set of factors in each legal case) are taken into account in reaching the decisions. Such incentive-related factors would be particularly likely to influence the legal practitioners' verbal behavior: the things they say in public, the opinions they write in opinions, the responses they give in various scientific studies of simulated legal decision making.

It is therefore possible and useful to distinguish among (a) what the legal decision makers privately think they do, (b) what they publicly say they do, and (c) what they actually do. To give an extreme example (Konečni & Ebbesen, 1982b), a sentencing judge may believe that he is taking, prejudically, a defendant's race into account; he may never publicly admit it, but, in fact, his actual sentencing decisions may not be responsive to race at all. In other words, the closet racist and the public civil libertarian may behaviorally be neither.

To summarize: an objectively complex social world, a subjectively complex intuitive/phenomenological world of decision making, and various incentives perhaps all contribute to the legal assumptions/myths that we mentioned above. Our contention, based on research results, is that legal decisions are actually very simple, in the sense that very few factors are typically taken into account,

and that the few factors which are taken into account are generally not those which the decision makers claim they are responsive to. Our further contention is that given the objectively complex social world, and the highly diverse and complex behaviors which the legal system is attempting to predict and control, the exceeding simplicity of legal decisions is one of the principal contributing factors to their objectively demonstrable deficiencies in terms of the system's own stated goals and criteria.

In the next section, we will draw on our own data to review a number of decisions by various participants in the legal system in an attempt to substantiate our contentions. In the final section, we will explore additional general legal and social implications of these contentions.

### A Brief Review of Some Legal Decisions

### 1. The Arrest Decision in Rape and Assault Cases

A recent study (Smith, Ebbesen, & Konečni, 1983) examined the factors which affect the decision by the police to arrest a suspect in rape and assault cases. The fact that both are violent crimes against a person but obviously differ in terms of the presence/absence of sexual aspects gives the study a clear focus.

The methodology employed in this study involved a causal analysis of archival data: crime reports and arrest reports for all rape cases handled by the San Diego (California) Police Department from March to September, 1981, and a comparable number of assault cases from the same time period – a total of 286 cases. Each case was coded for a total of 98 evidentiary, situational, demographic, and other variables (some were administrative/processing variables of little substantive interest), with extensive subcategorization of factors, in order to provide as much flexibility and accuracy as possible in coding and analyzing the data.

The data were submitted to  $\chi^2$  and log-linear analyses for significance-testing, after which various causal models of the arrest decision were tested by the application of the statistical, logical, and procedural (rules and temporal aspects of police procedures regarding arrests) criteria. The optimal causal model is presented in Figure 1.

The details of how the various levels of the factors exert causal influence can be gleaned by examining the paper by Smith et al. (1983). For the purpose of the present discussion, it is sufficient to note:

- (1) The number of factors involved in the causal model is quite small (other factors significantly related to arrest were found to be redundant because of their strong association with the factors presented in Figure 1): The probability of arrest is proximally (as opposed to distally) affected to a significant degree by only two factors; this is in contrast to earlier studies which used different methodologies (e.g. Black, 1980; MacNamara & Sagarin, 1977; Williams, 1976), and to Smith's own interviews in the San Diego Police Department.
- (2) Even when the same factors were uncovered, by research or speculation, in the earlier studies, the causal nature of the relationships was not revealed (and could not have been, given the methods employed).

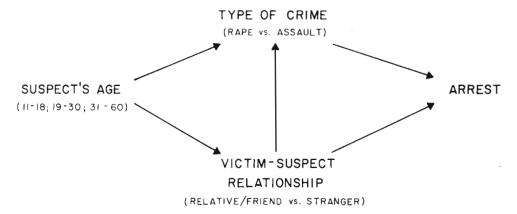


FIGURE 1. Factors Affecting Arrests in Rape and Assault Cases.

The model is a representation (such as may be achieved by an objective outside observer relying on a causal analysis of aggregate data) of the arrest "system," not a representation of the cognitive operations by individual decision makers (police officers) in individual rape/assault cases. However, note that the conclusions based on interviews with these decision makers, in which such aggregate system-, policy-, and practice-related questions had been asked, were quite different from those reached in the present study. Thus, the intuitive (interview- and questionnaire-based) view of the arrest decisions in rape and assault cases is at odds with actual practice.

Furthermore, the nature of the factors in the model presented in Figure 1 is relatively innocuous, so that the police officers, had they been aware of these factors, would have had no particular cause for embarrassment. This would suggest that the reason for the discrepancy is not simply the officers' concealment from researchers of their actual arrest practice. The officers' publicly expressed (and possibly privately held) views of the factors affecting the arrest decisions in these cases appear to be incorrect.

### 2. Prosecutors' Bail Recommendations

In a study by Ebbesen and Konečni (1975; see also Ebbesen & Konečni, 1982), trained observers attended over 100 bail review hearings in San Diego and coded numerous aspects of each case, including the type of crime, the prior record of the accused, the demographic characteristics of the accused, and several factors relating to the "community ties" of the accused (employment, length of time spent in the San Diego area, the presence of relatives in the area). In addition, the amount of bail (in dollars) recommended by the prosecutor to the judge was noted in each case.

The results (see Table 8.6, p. 217, in Ebbesen & Konečni, 1982) were quite striking. The multiple regression analyses revealed that only one factor – severity of crime – was significantly associated with the prosecutor's bail recommendation. Factors such as prior record and community ties had F-values of 1.00 or so.

In subsequent interviews with the prosecutors, it emerged that they were either unaware of, or would not admit to, the fact that only one factor dominates their bail-recommendation strategy. Invariably, numerous factors that are allegedly taken into account in each case were cited.

### 3. Defense Attorneys' Bail Recommendations

In the study cited above, the coders also noted the defense attorneys' bail recommendations to the judge (in dollars) in each case. In interviews, the defense attorneys – like the prosecutors – claimed that their behavior and strategy at the bail hearing, and especially the amount of bail to be set that they recommend, are governed by a careful consideration of numerous factors in the case. They stressed, in what seems like a particularly appropriate defensive posture, that they reached beyond the alleged crime and considered the past history, community ties, and economic circumstances of the accused. There was a clear implication in these interviews that the defense attorneys were convinced that they took into account different, and more numerous, factors than did the prosecutors.

The multiple regression analyses (see Table 8.6 in Ebbesen & Konečni, 1982) proved them wrong. Like the prosecutors, the defense attorneys used an exceedingly simple strategy in recommending bail amounts – they took into account a single factor. And that factor, as it turns out, was again the severity of the crime the accused had allegedly committed. The prior record and community ties of the accused had F-values of less than 1.00.

## 4. Judges' Bail Decisions

The Ebbesen-Konečni (1975) study examined the behavior of yet another participant at a bail hearing – the judge. In addition to the information available to the prosecutor and the defense attorney, judges also have at their disposal the respective bail recommendations of the two opposing attorneys. As it turns out, the five San Diego judges, who were the unwitting subjects in the study, took into account – as revealed by the multiple-regression analyses – only the two attorneys' recommendations. Basically, they followed the prosecutor's recommendation, except that they reduced it somewhat (by about 9%), thus tipping their hat negligibly in the direction of the defense attorney (whose recommendation was, of course, lower than that of the prosecutor in every case).

The judges' actual bail-setting behavior is thus characterized by a remarkable (almost offensive?) simplicity: they follow the prosecutor's advice. To the extent that the prosecutor's recommendation (like the defense attorney's) is based entirely on the severity of the crime, the judges indirectly respond to that factor too. They do not, however, directly take into account that, or any other, factor in the case (including the prior record, community ties, and socio-economic status of the accused). Nor could the judges possibly know, with any degree of certainty, which – if any – factors the prosecutors take into account in making their recommendations.

When interviewed, the judges, of course, do not display the slightest interest in the factors that govern the prosecutors' bail-recommending strategy. Why should they, when none of them are also aware of, or care to admit to, the fact that the prosecutors' recommendations are so closely followed? Even if they were aware of the factors that govern their bail-setting behavior, the judges would have a vested interest in not making such an admission publicly, in interviews with journalists or researchers. They might be accused of being partial and one-sided, or, perhaps worse, of being expensive redundancies. Furthermore, in most states there are guidelines as to the factors that judges should take into account when setting bail (Ebbesen & Konečni, 1982; Goldkamp, 1977), and these factors are sometimes ranked, thus providing an at least rudimentary recommendation regarding the weights to be given to the different factors. During the period that data for this study were collected, California's bail-setting guidelines stressed several factors. Two of the most important were "dangerousness" and "risk of non-appearance". The factor most often mentioned by judges when asked what determined the amount of bail they set, was one that received emphasis by the Model Penal Code and by the prestigious Vera Institute, namely, the community ties of the defendant - a factor which one might intuitively expect would predict whether a defendent appeared at relevant court hearings, but a factor that was, in fact, entirely ignored by the five judges unobtrusively studied in the Ebbesen-Konečni (1975) work. Thus, although the judges reported being responsive to one aspect of the California guidelines, their actual decisions were directly responsive to an entirely different factor. Furthermore, although they never mentioned it, they were indirectly responsive to dangerousness, the other major aspect of the guidelines, by virtue of following the prosecutors' - severity of crime determined – recommendations. In short, they reported behaving consistently with one aspect of the guidelines, when they in fact were induced into following another.

The 1975 study, as it happens, provided data that documented more precisely (than the official and unofficial interviews perhaps could) which factors the judges were willing to endorse publicly as governing their bail-setting behavior. Eighteen San Diego judges (including the five whose courtroom bail-setting behavior had been unobtrusively studied) participated in a simulated bail-setting experiment. Each judge read numerous fictitious "case histories" in which four bits of information were systematically varied: prior criminal record, community ties, the prosecutor's recommendation, and the defense attorney's recommendation (the severity of the crime was held constant in order to reduce the size of the experimental design which had 36 conditions as it was). After reading a case history, the judges indicated how much bail they would set if they encountered such a case in their courtroom.

An analysis of variance revealed three statistically significant factors (only the defense attorney's recommendation was not significant), of which the community-ties factor accounted for by far the most variance.

Such a decision-making strategy indicates a strict observance to at least one aspect of the official guidelines, and makes both legal sense (given the generally agreed-upon functions of bail and pretrial detention in the American system of justice) and common sense (perhaps to the chagrin of the defense attorneys whose presence the judges' decisions demonstrated was superfluous). The problem is that this is not the strategy judges use in their courtroom, "real-world" bail-setting. The judges' actual strategy – as opposed to the hypothetical or publicly espoused one – is exceedingly simple and takes very few factors into account. Furthermore the factors are different from those that the judges claim they take into account and that they should take into account, given both the State guidelines and those endorsed by the most prestigious judicial and criminological (e.g., the Vera Institute) bodies in the country.

# 5. Psychiatrists' Recommendations in the Processing of "Mentally Disordered Sex Offenders"

In the late 1970s, when the data for the study by Konečni, Mulcahy, and Ebbesen (1980) were collected, the California Mentally Disordered Sex Offender (MDSO) Program was as full-blown an example as any of a "rehabilitation through psychiatric cure" approach to offenders that appear in some way "abnormal" or psychologically "maladjusted" regarding sexual matters. For a person to be suspected of being an MDSO, it was sufficient for him to have engaged in "abnormal sexual activities or offenses" in the course of committing the offense for which he was eventually committed, even though the conviction could be for a nonsexual offense (Dix, 1976).

In San Diego County, if there were reasons to suspect the defendant of being an MDSO, the defendant was first interviewed by three (court-appointed) psychiatrists. This interview always took place after the plea or verdict of guilty and prior to sentencing; it typically resulted in a joint psychiatric report that was filed with the court. The report contained two crucial elements: (a) Psychiatric diagnosis; and (b) MDSO vs non-MDSO classification.

The Konečni et al. (1980) study examined the predictors of the above two criterion decisions made by psychiatrists in 113 cases involving male defendants in San Diego County. An elaborate coding instrument (see Appendix 1 of the paper by Konečni et al. 1980) was used to deal with the information presented in the documents in the defendant's file that was available to the psychiatrists (e.g., the probation officer's report, complaint, information, personal letters about the defendant, the defendant's statement, and so on).

Statistical analyses of these data again revealed a strikingly simple causal model. If the defendant had had no prior sex-related criminal record (not just any prior criminal record), he was extremely likely to be diagnosed as having an "antisocial personality" or to be given no diagnostic label at all. Such a person was almost invariably classified as a non-MDSO. If, on the other hand, the defendant had had a prior sex-related criminal record, he was typically diagnosed as a "sexual deviant" (accompanied by one or more additional, more specific, labels such as "female pedophilia") and given an MDSO classification.

In short, one factor – prior sex-related criminal record – seemed to govern the psychiatrists' diagnostic and classificatory behavior alike. Note also that this information (the nature of prior convictions) would be available immediately upon a person's arrest, many months prior to the psychiatric interview, report, and so on.

### 6. Judges' Decisions in MDSO Cases

After the psychiatric report had been filed, there was a hearing in what was semi-officially known as "psychiatric court". In San Diego County in 1976–77, psychiatric cases were processed within a single department of the 26-department Superior Court, and thus, during the period of the study, a single judge dealt with all persons suspected of being MDSOs. (Since there was only one judge the title of this section is a misnomer and generalizations to other jurisdictions may indeed be problematic. Do note, however, that San Diego is a complex urban/rural county of two million inhabitants and about 12,000-13,000 felony arrests per annum; that judicial specialization, with the consequent caseload skewing, is the rule, rather than the exception, throughout the United States; and, most importantly, that we studied the processing of MDSOs in San Diego as we found it, typical or atypical.)

At the hearing, all three psychiatrists were typically present and available for cross-examination or judicial consultation. In addition to the psychiatric report, the judge had at his disposal the defendant's file that had originally been available to the psychiatrists. After listening to the prosecutor's presentation of the psychiatric diagnosis and classification, and any challenges by the defense or prosecution to the psychiatrists, the judge had two basic options: (a) sending the defendant to Patton State Hospital for indefinite commitment, or (b) remanding the defendant (sending him back to another department of the Superior Court for sentencing under the applicable penal code provisions).

In the Konečni et al. (1980) study, an attempt was made to isolate the predictors of the judge's decision by coding extensively the contents of the psychiatrists' report (see Appendix 2 of the 1980 study), as well as the defendant's file. As it turned out, the judge's decision-making strategy was very simple – to follow the psychiatrists' recommendation. If the psychiatric classification was non-MDSO, 100% of the cases were remanded. If the classification was MDSO, 26 of 36 defendants were sent to Patton State Hospital, and only one was remanded (9 cases were continued).

The above results amount to almost 100% rubber-stamping by the judge of the psychiatric diagnosis/classification. In summary, one factor – prior sexrelated convictions – determines the bifurcation of defendants suspected of being MDSOs in terms of both psychiatric and judicial decision making. A very simple causal model indeed.

# 7. Judges' Sentencing Decisions

An extensive research project (Konečni & Ebbesen, 1982b) examined the sentencing decisions made by the San Diego County Superior Court judges in over 1000 adult felony cases. In the late 1970s, when the study was carried out, California still had an indeterminate sentencing system. The judges had three basic sentencing options: (a) state prison (the exact length of the term to be decided subsequently by parole boards on the basis of the penal code provisions and the convicted individual's behavior in prison); (b) probation, with time to be served in the County jail; and (c) probation without jail. A judge announced the sentence at a sentencing hearing attended by the prosecutor, the defense attorney, the probation officer, and the convicted individual. The

various documents in the case file included an elaborate probation report which would typically conclude with a specific sentencing recommendation.

In the archival portion of the project, each case file (including the probation report) was coded by means of an elaborate coding instrument with over 350 predictors (see Appendix 1 of the paper by Ebbesen & Konečni, 1981). Multiple-regression and causal analyses revealed that in almost 90% of the cases the judge was responding directly to only one factor – the probation officer's recommendation. Alternative models, such as one which maintained that the high agreement between the probation officers' recommendations and the judges' sentencing decisions was due to the probation officers' correct anticipation of what the judges would do anyway, were eliminated by the causal analyses. The 10% of cases in which the judges did not follow the probation officers recommendations were not statistically associated with any identifiable set of predictors; these decisions appeared to be just "noise" in the sentencing decision-making system.

The judges' exceedingly simple decision strategy – to follow the probation officers' recommendations – was in sharp contrast with the results from the various simulations that were also carried out as part of our sentencing project (using interviews, questionnaires, rating scales, and experiments as methodological techniques, and judges, probation officers, defense attorneys, and students as subjects), as well as from the analyses based on the coding of over 400 actual sentencing hearings. Whereas the various studies produced dramatically different outcomes (each method  $\times$  sample  $\times$  type of experimental design combination basically produced a different set of results), they all implied that many factors influenced the sentencing decision and that each case was different. Also, the judges systematically played down the importance of the input from the probation report, especially of the sentence recommendation itself.

# 8. Probation Officers' Sentencing Recommendations

The archival study briefly described in section 7 also uncovered three factors which causally influence the probation officers' recommendations: the severity of the crime; the prior criminal record of the convicted individual; and the bail status (being-in-jail vs. released-on-bail) prior to sentencing (more severe crimes, more extensive prior records, and being in jail prior to sentencing were significantly associated with the probation officers' harsher sentencing recommendations).

It is important to stress that these three case factors did not directly influence the judges' sentencing decisions, but only indirectly, via the probation officers' recommendations. Neither the simulations, nor the coding of the sentencing hearings, uncovered this simple, and rather brief list of factors which are influential in sentencing, or the causal model which related the factors to each other and to the criterion decision.

# 9. Decisions in Civil Cases: Personal Injury

In a study of non-criminal decision making in personal injury cases, Ebbesen and Konečni (1984) observed over 100 pre-trial settlement conferences in

which the plaintiff was suing the defendant for damages arising from an accident (most often involving automobiles). In much the same fashion as in the bail study described earlier, trained coders attended these conferences and recorded a wide variety of factors associated with each case. For example, plaintiff and defendant characteristics were noted along with the plaintiff's initial dollar demand and the defendant's original counteroffer. In addition, aspects of the antecedents and consequences of the accidents were coded as were the plaintiff's claims regarding medical and other costs that were incurred as a result of the accident. The extent and nature of the plaintiff's injuries were also recorded. Finally, an attempt was made to code case factors that related to the degree of negligence demonstrated by both parties and thus to codify the cases both in terms of the possibility of contributory negligence and the extent of the defendant's liability.

Several features of the results of this study are of interest for the present paper. First, whether a settlement was reached during the conference seemed to be a function of a small number of factors, the most important of which was the "marginal benefit" that the plaintiff and defendant could expect by going to trial. In particular, as the size of the subjective value of the added amount that might be won or lost at a trial increased, the likelihood of a settlement decreased. Thus, cases involving small absolute amounts of money in which the gap between the initial demand and offer was large (relative to the amounts involved) were less likely to settle than cases in which the gap may have been much larger in absolute terms but in which the amounts of the demand and of the offer were also very large. Second, contributory negligence seemed to play little, if any, role in whether a case was settled and in the amount of the settlement when one was reached. Third, the amount of the settlement in those cases in which one was reached was a simple function of the amount that the conference judge recommended as a "fair" and likely settlement, were the case to go to trial. Finally, the settlement amounts recommended by the judges were a simple function of the initial demand and the initial offer in which the size of the defendant's offer had a greater impact on the final recommendation than the size of the plaintiff's demand.

When taken together and contrasted to the legal issues often raised in discussion of proposals for guidelines in tort cases, these results are quite consistent with our other findings from decisions in the criminal justice component of the legal system. The factors that seem to account for most of the explicable variation in the decisions of the participants are few and do not correspond to those that are said to be important. In the present research, the failure of contributory negligence and factors related to the defendant's liability to predict outcomes is another example of decision makers' unresponsiveness to legal guidelines. The fact that the judges' recommendations were a relatively simple joint function of the sizes of the demand and offer reminds one of the way in which judges set bail.

### Discussion

It is, of course, impossible to estimate the extent to which beliefs held privately by judges, prosecutors, psychiatrists and other decision makers about the factors that influence their decisions match what they publicly espouse in interviews, questionnaires, experiments, and so on. It is certain, however, that what these decision makers claim they do has very little resemblance to what they actually do. Extremely simple decision strategies are the rule rather than the exception, and the factors that are taken into account are quite different from those suggested by the simulations. To the extent that the various decision makers are truthful in their responses (that is, their private beliefs and intentions are similar to what they publicly espouse), one may wonder why they have so little insight into the causes of their behavior. If they are not truthful, one again wonders why. In either case, the various results we have obtained imply a major failure of the speculative/phenomenological analyses, and of the simulation methodologies which rely on such analyses, to reveal the factors which influence important decisions in the legal system and, even more importantly, to specify causal models which pinpoint how the factors are related to each other and to the criterion decision.

It seems to us that there are several separable, though related, groups of reasons for the decision makers' failure to match behaviorally (in terms of actual decisions) either what they are supposed to do (as defined by the guidelines they are given, for example, in the case of bail setting) or what they claim they do (and – to give them the maximum benefit of the doubt from an ethical point of view – what they would perhaps honestly like to do).

In the first group are various types of cognitive and processing-capacity limitations (Broadbent, 1958; Broadbent, 1971; Carroll & Payne, 1976; Konečni & Sargent-Pollock, 1976; Posner, 1975). People may be poor collators of input/output (case characteristics/decisions made) data over time. They may find it very difficult to respond to more than one or two factors simultaneously, especially when the factors have many levels each; in other words, they may have problems mentally constructing, or appropriately responding to (in the cases where they are given detailed guidelines), multifactor matrices relating case characteristics to decisions. They may further find it difficult to make complex causal inferences and to organize causal factors hierarchically, into tiers of proximal and distal factors. All of the above are different types of cognitive limitations related to encoding, processing, retrieval, updating of old data storages with new information, computation of weights that are given to different bits of information, causal organization of input information, and so on (Hastie, Ostrom, Ebbesen, Wyer, Hamilton & Carlston, 1980).

It is interesting to note that a limited-capacity decision system which is functioning in a complex social world and being asked (by "society") to take into account a large number of highly interactive and multilevel factors may be precisely the sort of system likely to embody the social psychological conditions that lead to both (a) complex phenomenology and (b) simple decision rules. Judges, prosecutors and other decision makers are expected to provide individualized justice and to deliver sanctions that are perfectly responsive to all of the peculiarities of each case. Faced with the need to make these decisions, but lacking the necessary cognitive capacities, it seems reasonable that decision makers would be aware of the complexity of the task and often "think about" all types of case-relevant facts, but be capable of using only

the simplest of decision strategies when actually choosing a particular decision alternative.

In the second group of possible explanations for our findings are systemic factors. One of these is the fact that most decision makers (including judges) are not given any feedback, once the decision has been made. Most decision makers do not keep a running tally of cases (decisions made as a function of case characteristics). Nor are they given periodic reports summarizing their decision behavior (this would require coding of many characteristics of each case by clerks and subsequent computer analyses). Finally, they are not given feedback in another sense - information about the long-term effects of their decisions (e.g., the relationship between the amount of bail set and the probability of "jumping" bail, the commission of additional crimes by the defendant, etc.). Our private, somewhat cynical, belief is that most legal decision makers, especially the judges, do not wish to have any sort of feedback. Such feedback would be based on methodological and computational procedures they neither trust nor understand, and it could become an objective basis for greater accountability – a highly undesirable state of affairs, from the point of view of most legal decision makers we have encountered (Konečni & Ebbesen, 1982a).

A related systemic factor has to do with the structure of the legal system and its relationship with the rest of the society. The system as a whole, and different parts within it (the police, the courts, the probation department, and so on) have sufficient independence, power, and economic incentives to maintain the status quo – and whether their unjustified claims about decision making are dishonest and selfish, or merely the product of ignorant wishful thinking, is immaterial. Various parts of the system support each other by creating endless rules of procedure, rituals, and the reciprocal need for services (Konečni & Ebbesen, 1982a), and the same is the case when the system interacts with the psychiatric profession, the American Medical Association, and so on.

In short, the participants in the legal system have wrested from society the financial incentives, largely unaccountable power, and the luxury of an unchecked Alice-in-Wonderland attitude regarding the consequences of their decisions. Such systemic/economic factors, in combination with the cognitive limitations that are perhaps inherent in human decision-making (when not supplemented by computers or similar aids), presumably contribute to the fact that what the decision-makers claim they do is not what they actually do.

Let us summarize: on the one hand, there are the decision makers in the legal system – with their myths about the complexity of their decision making, their complex phenomenology, cognitive limitations, financial incentives and social power, and incorrect claims about what they do. On the other hand, there are these decision makers' simple (we believe simplistic) actual decisions – all they have to show to a highly complex social world whose amazing variety of law-related behaviors they are supposed to control. The gap seems formidable. The complex phenomenology of decision making, complex legal rules, procedures, and technicalities, and complex public pronouncements and wishful thinking, are poor replacements for complex actual decisions in dealing with a complex social world.

If we are correct, what are the implications? With regard to the legal system, they are obvious: if one wants better decisions, changes in the system are

necessary. Changes in the system's structure, accountability, and incentives are too complicated to ponder here, and it is, frankly, unrealistic to do so, given the system's entrenched vested interests. The best one can hope for is a greater acceptance of (a) systematic and continuous data-collection on decision making, (b) sophisticated computer analyses, and (c) feedback to the decision makers. Project PROMIS for prosecutorial decision making is a step in the right direction (Gelman, 1982).

The methodological implications of our data are also quite clear. The results from the different studies represent a strong indictment of the use of interviews, questionnaires, rating-scales, and experimental simulations - all of which rely on the phenomenology of the decision makers. The failure of the study in which sentencing hearings were coded to unravel any predictors of the sentencing decision shows that merely shunning simulations and doing the research in the "real-world" settings does not automatically produce dividends; yet, coding the bail hearings was quite productive. It seems that even when one sidesteps simulations and does more ecologically valid research, some methodologies are better suited for certain problems than others – and it is often impossible to tell on a priori grounds whether the coding of live hearings, or archival analysis, or some other methodology is optimal for the circumstances. More generally, this points to a serious weakness in the approach suggested by Webb, Campbell, Schwartz, & Sechrest (1966), – a book that is close to being the Bible of social-science methodological sophistication. These authors have nothing to say about what to do and how to "triangulate" when different methods all produce different results, at least when the methods are all simulations. (When a simulation disagrees with the results of a "real-world" study, everything else equal, it is easy to decide which of the two to disregard.) More generally still, social scientists should seriously rethink their methodological habits and the sort of advice they have been giving to the society on the basis of dubious methodologies.

Finally, our results, especially with regard to points of methodology, have some broader social implications, just two of which we mention here, and not entirely tongue-in-cheek. All sorts of hearings (which are essentially group interviews), including the ones in the House of Representatives and the Senate of the United States, are highly suspect as accurate fact-finding procedures. They rely respectively on the phenomenologies of the people called to testify and of the Congressmen and Senators who ask the questions. At best, they may be useless public rituals. At worst, the self-serving motives of the participants, and the pitfalls of relying on phenomenological accounts to reach crucial decisions, potentially makes them seriously misleading. Journalistic uses of the interview are equally suspect, misleading, and possibly socially detrimental, especially when they are – as in the case, for example, of 60 Minutes, the TV program – weekly paraded as serious, informed, and socially responsible fact-finding efforts to audiences of millions.

### References

Black, D. (1980). Production of crime rates. In R. J. Lundman (Ed.), *Police behavior: A sociological perspective*. New York: Oxford University Press.

- Broadbent, D. E. (1958). Perception and communication. London: Pergamon Press.
- Broadbent, D. E. (1971). Decision and stress. London: Academic Press.
- Carroll, J. S. & Payne, J. W. (1976). Cognition and social behavior. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Dix, G. E. (1976). Differential processing of abnormal sex offenders: Utilization of California's mentally disordered sex offender program. *Journal of Criminal Law and Criminology*, 67, 233-243.
- Ebbesen, E. B. & Konečni, V. J. (1975). Decision making and information integration in the courts: The setting of bail. *Journal of Personality and Social Psychology*, 32, 805-821.
- Ebbesen, E. B. & Konečni, V. J. (1981). The process of sentencing adult felons: A causal analysis of judicial decisions. In B. D. Sales (Ed.), *Perspectives in law and psychology*. Vol 2: *The jury, judicial, and trial process*. New York: Plenum.
- Ebbesen, E. B. & Konečni, V. J. (1982). An analysis of the bail system. In V. J. Konečni & E. B. Ebbesen (Eds.), *The criminal justice system: A social-psychological analysis*. San Francisco: W. H. Freeman.
- Ebbesen, E. B. & Konečni, V. J. (1984). A causal analysis of decision making in pretrial personal injury settlement conferences. Unpublished manuscript, University of California at San Diego.
- Gelman, A. M. (1982). Prosecutorial decision making: The screening process. In V. J. Konečni & E. B. Ebbesen (Eds.), *The criminal justice system: A social-psychological analysis*. San Francisco: W. H. Freeman.
- Goldkamp, J. S. (1977). Bail decision making and the role of pretrial detention in American justice. Unpublished Ph.D. dissertation, SUNY at Albany.
- Hastie, R., Ostrom, T., Ebbesen, E. B., Wyer, R., Hamilton, D. & Carlston, D. (1980). Person-memory: The cognitive basis of social perception. Hillsdale, N.J.: Lawrence Erlbaum Associates. 1980.
- Konečni, V. J. & Ebbesen, E. B. Epilogue. (1982a). In V. J. Konečni & E. B. Ebbesen (Eds.), The criminal justice system: A social-psychological analysis. San Francisco: W. H. Freeman.
- Konečni, V. J. & Ebbesen, E. B. (1982b). An analysis of the sentencing system. In V. J. Konečni & E. B. Ebbesen (Eds.), The criminal justice system: A social-psychological analysis. San Francisco: W. H. Freeman.
- Konečni, V. J., Mulcahy, E. M. & Ebbesen, E. B. (1980). Prison or mental hospital: Factors affecting the processing of persons suspected of being "mentally disordered sex offenders". In P. D. Lipsitt & B. D. Sales (Eds.), New directions in psycholegal research. New York: Van Nostrand Reinhold.
- Konečni, V. J. & Sargent-Pollock, D. (1976). Choice between melodies of differing complexity under divided-attention conditions. *Journal of Experimental Psychology: Human Perception and Performance*, 2, 347-356.
- MacNamara, D. E. & Sagarin, E. (1977). Sex, crime, and the law. New York: Macmillan.
- Posner, M. I. (1975). Psychobiology of attention. In M. S. Gassaniga and E. C. Blakemore (Eds.), Handbook of psychobiology. New York: Academic Press.
- Smith, V., Ebbesen, E. B. & Konečni, V. J. (1983). Factors affecting the arrest decision in rape and assault cases. Unpublished munuscript, University of California at San Diego.
- Webb, E. J., Campbell, D. T., Schwartz, R. D. & Sechrest, L. (1966). *Unobtrusive measures: Nonreactive research in the social sciences*. Chicago, Illinois: Rand McNally.
- Williams, K. E. (1976). The effects of victim characteristics on the disposition of violent crimes. In W. F. McDonald (Ed.), Criminal justice and the victim. Beverley Hills, California: Sage.