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An Analysis of the Sentencing System

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> Sentencing occupies a central position in the administration of criminal justice. Decisions made at this stage have not only important consequences for offenders, but they also affect the entire criminal justice system. Judges and magistrates are given enormous power over the lives of individuals. The proper exercise of that power is a matter of concern to offenders, to the agencies and individuals responsible for law enforcement and the treatment of offenders, and to the public at large. (Hogarth, 1971, p. 3)

> The sentencing decisions taken by magistrates and judges occupy a central place in the penal process, not only in the obvious chronological sense, but more significantly because of their direct and indirect influences upon the police and pretrial stages which precede them, and upon the subsequent implementation of the penal measures imposed upon convicted offenders. [I]n . . . most . . . jurisdictions . . . , magistrates and judges possess wide discretionary powers in the choice of sentence . . . . (Bottomley, 1973, p. 130)

> There is no decision in the criminal process that is so complicated and so difficult to make as that of the sentencing judge. (President's Commission . . . , 1967, p. 141)

Sentencing is almost universally viewed as the apex of the criminal justice process, the culmination of protracted investigatory, prosecutorial, defense, administrative, and fact-finding efforts. As can be seen from the quotations above, writers agree that sentencing has a central position in the criminal justice system—temporally, administratively, and in the size of its impact on both the preceding and the

subsequent stages. It is commonly thought that sentencing decisions are very complex and difficult to make and that they require much training, experience, and wisdom. (Judges would, of course, be quick to agree with such an opinion, skeptics like Judge Frank [1949] notwithstanding.) Furthermore, all observers readily acknowledge that in most jurisdictions the sentencing judges have extensive and wide-ranging discretionary powers both in the choice of sentence and in the decision rule used in that choice.

Typically, judges have vigorously defended this state of affairs, especially since the advent of the concept of "individualized justice," on the grounds that their discretionary powers in sentencing represent their very *raison d'être* and affirm their alleged independence from political pressures and passing social mores. As Bottomley (1973) has pointed out, sentencing decisions are supposedly more open to public scrutiny than are all other decisions within the criminal justice system.[1] The facts that sentencing decisions are visible, occasionally have an impact on public opinion, and for many people epitomize society's control over its aberrant members make sentencing a highly important social issue.

A great deal has been written about sentencing. The bulk of the nonempirical literature is devoted to discussions of the purpose of sentencing and a formalization of philosophies of sentencing (ranging from simple retribution, to deterrence of the offender and others, to rehabilitation, and to various combinations thereof). More recently, the issue of disparity in sentencing has received a considerable amount of both theoretical and empirical attention (Bottomley, 1973; Carter and Wilkins, 1967; Diamond and Zeisel, 1975; Ebbesen and Konečni, 1981; Green, 1961; Hagan, 1975; Hogarth, 1971; Hood, 1962). Explanations offered for sentencing disparity have been in terms of differences among judges in personality, values, and various types of attitudes (Hogarth, 1971), differences among probation officers along similar lines as among judges (Carter and Wilkins, 1967), and case-load factors, i.e., that different judges get different types of cases assigned to them (see Ebbesen and Konečni, 1981, for a dis-

[1]The visibility of sentencing decisions sometimes has as a corollary that these decisions are used as indicators of a particular judge's character, personality, and even ability to hold public office. Eville Younger's handing down of a relatively mild sentence to a convicted rapist came to haunt him many years later when he ran, in 1978, for the office of Governor of the State of California. The incumbent Governor Edmund G. Brown, Jr., saw fit to focus on this one sentencing decision from Younger's long record as a judge. Presumably in an attempt to exploit politically the public's indignation about rape and to characterize Younger's personality and values as undesirable to both women and law-and-order voters, the sentencing decision in the rape case was described in some detail in a frequently broadcast radio announcement paid for by the Brown reelection committee.

cussion of this issue). The literature is also replete with attempts to minimize disparity by providing guidelines for sentencing judges (Gottfredson, Wilkins, and Hoffman, 1978; American Law Institute, 1962; President's Commission . . . , 1967).

In contrast to the previous work, our objective in the domain of sentencing has been to discover empirically the factors that sentencing judges consider in making their decisions and the relative weights that they assign to these factors. In other words, we have attempted to discover judges' decision strategies and to develop a causal model of sentencing. As we have pointed out elsewhere (Ebbesen and Konečni, 1981), once sentencing is viewed from this perspective, the issue of disparity becomes secondary.

Our work in this area follows the general decision-making orientation and methodological guidelines we described in our earlier chapters in this volume. Many aspects of our work on sentencing have already been described elsewhere (Ebbesen and Konečni, 1981; Konečni and Ebbesen, 1979); a condensed description of the methodology, main findings, and conclusions will suffice for the purposes of this volume.

Before we turn to these matters, however, it is necessary to describe briefly (1) some of the events that precede the actual pronouncement of the sentence in the modal adult felony case in San Diego County (where the research was done), (2) the sentencing hearing itself, and (3) the sentencing options available to the judge. This will also clarify the relationship of the sentencing decision to other decision nodes in the criminal justice system that are dealt with in other chapters of this volume.

In 1976 and 1977, there were more than 24,000 felony arrests in San Diego County (see Figure 2.1 in Chapter 2, this volume, for more details). Of these, only about 20% reached the Superior Court. (The remaining cases were resolved by actions such as release by the police, dismissal in lower-court review, the prosecutor's refusal to file a felony complaint, or a misdemeanor conviction in a lower court.) Of the cases that did reach the Superior Court, 7.44% were dismissed by a judge, 1.22% acquitted by a jury, and 91.17% convicted. The vast majority of convictions were obtained through a plea of guilty (85.54% or a no-contest plea (6.12%); 8.15% were convicted as a result of a trial (by a jury, 6.77%; or by a judge, 1.38%). One consequence of the very high frequency of plea bargaining is that charges for which offenders are convicted often bear little resemblance to charges for which they were arrested. Another consequence is that in a typical case the sentencing judge has a very limited familiarity with the case (as there has been no trial).

The sentencing hearing occurs several weeks after the defendant

has been convicted of a felony. In the meantime, a probation officer investigates the case and presents to the judge an 8–15-page report. The report typically contains a wealth of information, varying from the description of the crime, arrest, charges, and postarrest events (bail, plea-bargaining activity, etc.), to a summary of the interview with the defendant and information obtained from other sources (family members, employers, neighbors, psychologists), to an evaluation by the probation officer of the totality of the facts of the case. The report, significantly, concludes with a detailed recommendation regarding the sentence to be imposed.

Sentencing hearings themselves are typically very brief and consist of an informal discussion among the judge, the prosecutor, and the defense attorney (the defendant and the probation officer are also present, but rarely speak). Judges typically explain the sentence to the defendants, after insuring that the defendants understand their rights (especially when a plea of guilty is involved).

At the time when the research to be discussed later was carried out, California had an indeterminate sentencing system. The three main sentence options available to the judge were:

1. State prison for an indeterminate period of which the minimum and maximum were specified by the California Penal Code.
2. Custody of the sheriff (county jail) for a period of no more than 12 months, almost always followed by a probationary period not longer than 5 years.
3. A probationary period, again not longer than 5 years per conviction, without any confinement.

The sentencing recommendation made in the probation officer's report is phrased with a view to these sentence options available to the judge.

THE SAN DIEGO SENTENCING PROJECT

Because of the importance of sentencing within the criminal justice system, we decided to use a relatively comprehensive multimethod approach that relied on different subject populations and experimental designs. Early in the project, we had considerable hopes of learning a great deal about sentencing through the process of "converging operations" (Webb et al., 1966). Our first studies were simulations, in that real court cases were not involved (even though the subjects were real judges in some of the studies); these simulations

will be discussed first. Subsequently, we will describe our studies of the real-world sentencing process: (1) the observation and coding of sentencing hearings and (2) the coding of the documents available to the judge at the hearing (the archival approach).

Simulation studies

Four different data-collection methods and four subject populations were used in several different studies. (A far more detailed description of these studies is available in Konečni and Ebbesen, 1981.)

Interview In one of these studies, undergraduate students from the University of California at San Diego (UCSD) interviewed eight San Diego County Superior Court judges in their chambers. These students had a considerable amount of prior preparation regarding interviewing techniques and the criminal justice system in California; however, they were unaware of the overall project and the conclusions from our previous work on the criminal justice system. Hopefully, this removed any of our own biases regarding the value of simulations from the conclusions that these students reached on the basis of this data-collection method. Moreover, on the assumption that much of the general public's knowledge about the criminal justice system and sentencing is shaped by the media, which, in turn, largely rely on the interview as a data-gathering method, we thought that it would be appropriate to use journalists as "methodological informants," just as the judges themselves were being used as "content informants." Therefore, on our instructions, the student interviewers spent a great deal of time with newspaper reporters assigned to the courthouse press room, seeking advice about the kinds of questions one should ask of judges in order to be able to write a newspaper article about sentencing in San Diego. Having interviewed the judges, the students summarized their conclusions without any contribution from us and published them as an article in a major San Diego daily (Persky, Sprague, and Lowe, 1975).

Questionnaire In this study, several sociology majors developed an elaborate questionnaire to investigate sentencing. This group's "methodological informants" were UCSD graduate students in sociology, whose help in questionnaire construction and evaluation of the obtained data was solicited by the researchers (on our instructions). As in the interview group, the questionnaire researchers were unaware of our prior work, yet had been thoroughly familiarized with the rules of questionnaire construction and administration, the han-

dling of data, and, more generally, with the criminal justice system in California. The 25-item questionnaire was eventually completed by 16 of the 26 judges on the bench (61%) at the time this study was conducted. Without any help or interpretive suggestions from us, the students then analyzed the data and wrote a detailed report (Frerichs, McKinney, and Tisner, 1975). Since the questionnaire is a frequently used research tool in the social sciences, especially sociology, our objective in this study was to simulate the research procedure that might be used by some sociologists to investigate sentencing.

Rating scales In this series of studies, an attempt was made to obtain direct ratings of the importance of various factors in the sentencing process. Three subject populations that differ sharply in the extent and type of their involvement in the real-world sentencing process were used.

In one rating-scale study, eight San Diego County Superior Court judges rated the following eight factors on 100–mm rating scales: (1) severity of crime, (2) probability of rehabilitation, (3) probation officer's recommendation, (4) prior record, (5) drug/alcohol use, (6) employment status, (7) family situation, and (8) educational level. These factors were chosen for inclusion because they seemed intrinsically interesting and had been frequently mentioned by judges in other studies in the project. The judges were urged to rate each factor in terms of its relative importance (i.e., compared to the other seven factors) in their own sentencing decisions in adult felony cases.

In another rating-scale study, 33 defense attorneys in the San Diego area, who had varying degrees of experience in criminal law (an average of more than 7 years of practice), filled out a long questionnaire that covered many issues regarding their work in the criminal justice system. In one section of the booklet, the attorneys rated various factors in terms of their perceptions of the relative weight assigned to these factors by the judges in sentencing. All factors rated by the judges were also rated by the attorneys, but the attorneys also rated additional factors.

Finally, UCSD students who had attended sentencing hearings rated the relative importance of 17 factors in the sentencing process, on the basis of their impressions in the hearings. The students, who were divided into "naive raters" (who observed no more than 4 sentencing hearings, $n = 27$) and "experienced raters" (who observed at least 25 hearings, $n = 8$), rated all eight factors rated by the judges and some additional ones.

Experimental simulations Three different types of subjects (judges, probation officers, and college students) were presented with brief

descriptions of fictitious felony cases. Different levels of various factors that might be important in the sentencing process were defined by the wording of the descriptions.

In all, 12 judges responded to each of 48 cells of a fully crossed 5-factor experimental design, involving the following factors: (1) severity of crime, (2) prior record, (3) method of conviction, (4) family/employment situation, and (5) probation officer's recommendation. For each factorial combination, the judges wrote out a complete sentence, as they would in real-life cases.

In the second type, 22 probation officers with a considerable amount of experience in felony cases were subjects in a similar 5-factor design (the probation officer's recommendation factor was replaced by one dealing with the extent of the offender's remorse). For each factorial combination, the probation officers wrote out a detailed sentence recommendation exactly as they would in real cases.

Finally, in an experiment with a within-subjects design, 35 UCSD students responded to 24 factorial combinations involving the following 4 variables: (1) severity of crime, (2) prior record, (3) family/employment situation, and (4) remorse. In a between-subjects version of this study, 20 subjects were assigned to each of the identical 24 cells ($N = 480$). In both cases, the dependent measure was the "duration of the prison sentence [the offender should receive] in years"—a measure used very frequently in psycholegal research.

Summary of results The main conclusions reached by Persky, Sprague, and Lowe (1975), authors of the newspaper article based on interviews with the judges, were that sentencing decisions are complex and difficult and that each case is different. In addition, it was noted that judges take many factors into account in deciding on the sentence and—although a lack of consensus among the judges was evident—more than a dozen "important" factors were specifically mentioned.

These conclusions echo to a remarkable degree the opinion expressed by the President's Commission in the quotation at the beginning of this chapter. It must be rather comforting for the judges that such a prestigious body thinks of their work in terms so similar to what they themselves think of it. Moreover, the canonization of the "individualized justice" and the "every case is different" *dicta* would, of course, preclude even the possibility of both a scientific analysis of sentencing (and other legal) decisions and their standardization (for example, by very explicit guidelines).

The results of the questionnaire study were somewhat similar to those obtained by the interview method, in that almost all judges

listed at least four different factors as being highly important, the most frequently mentioned ones being severity of the crime, prior record, family situation, employment status, and drug/alcohol addiction and/or mental disorders. In addition, the importance of probation officers in the sentencing process was consistently played down by the judges, especially with regard to the probation officers' recommendations serving as a direct *causal* factor in the judges' decisions. However, Frerichs, McKinney, and Tisner (1975), in a speculative conclusion that went beyond the judges' responses, suggested that the probation officers' recommendations and judges' sentences may be independently affected by the same set of factors.

The *rating-scale* studies presented a complex and confusing picture. Judges rated severity of the crime, prior record, and family situation as being the most important factors. Whereas these three factors were also among those mentioned frequently in the questionnaire responses, another prominent factor that emerged in the questionnaire study—employment status—was now rated as the least important factor. In addition, whereas defense attorneys, like the judges, rated severity of the crime and prior record as highly important, their ratings of the remaining six factors showed very little similarity to those given by the judges. For example, factors such as family situation and drug/alcohol addiction—which had been given high ratings by the judges—were at the bottom of the defense attorneys' list. In contrast, the defense attorneys rated very highly the importance of the race and income (of the offender) factors, even though, not surprisingly, the judges consistently denied the importance of such factors in both their interview and their questionnaire responses. (However, since the judges did not rate these factors, a direct comparison was not possible.) Finally, "naive" and "experienced" student raters agreed with each other and with judges and defense attorneys regarding the importance of severity of the crime and prior record; however, in comparison to both groups of professionals, both groups of students attached far more importance to the probation officers' sentence recommendations. Beyond this agreement, the two groups of students agreed very little both with each other and with the judges and defense attorneys. As an illustration, whereas the naive raters (like the defense attorneys) considered the race of the defendant to be highly important, experienced students gave it among the lowest importance ratings.

The four *experimental simulations* also presented a confusing pattern. The results indicated that the judges considered severity of the crime and prior record to be the most important factors, and about equally so. Also statistically significant were the effects that showed that the judges would give harsher sentences to offenders who had

been found guilty in a trial (as opposed to those who pleaded guilty) and to those for whom the probation officers' sentencing recommendations were more severe. Only the family/employment factor was not significant. In contrast, the results of the study with probation officers as subjects indicated that prior record was by far the most important factor, followed by severity of the crime, family/employment, and remorse. Only the method-of-conviction factor (trial versus plea of guilty) was not statistically significant. In the between-subjects design with UCSD students as subjects, all factors except the family/employment variable were significant (the latter had an $F-$ value of less than 1.00). In the within-subjects design, all four variables were highly significant.

Conclusions Several different conclusions can be drawn from these four types of simulations, which involved nine separate studies and four different subject populations.

First, each study, each method × subject population combination, produced different results. Had only one study, or a small subset of them, been done, quite misleading conclusions would have almost certainly been reached (and presumably disseminated). Given the area of research and the conventional wisdom and vested interests in it, the danger of such erroneous conclusions being circulated or put into print would probably have been augmented by the fact that each study had produced what seem to be—with the benefit of hindsight, of course—"reasonable" results.

On the other hand, the fact that numerous studies were done, each with different results, serves only the healthy purpose of reducing one's confidence in any one of them. When one compares simulations to each other, there are typically no logical or practical criteria on the basis of which to give preference to one type over another. Even using a real-world subject population—such as the judges—does not necessarily increase the value of a simulation: What one gains in "inside knowledge" and "authenticity" may be more than offset by job-related biases or self-serving responses. Moreover, even real-world subjects may be unaware of the "true" causes of a phenomenon or may mistakenly believe that something about them (e.g., in the case of the judges, their values or the legal doctrines to which they subscribe) causes the phenomenon.

In addition to the differences in the results obtained by the four methodological approaches, considerably different patterns of data were produced by the same methodology (e.g., rating scales) applied to different subject populations. Whereas one could, of course, argue that such differences were only to be expected given the range of populations used, no one could have predicted the extent and type

of disagreement. Even differences as seemingly trivial from a substantive point of view as using a different type of experimental design with the *same* population—within- versus between-subjects experimental simulations with student subjects—resulted in different data patterns. (This difference could not be explained away by the greater sensitivity of within-subjects designs—see footnote 6 of Konečni and Ebbesen, 1981.)

It should be noted that two factors, severity of the crime and prior record, emerged in *all* of the studies, all of the method × subject population combinations. Here, then, would be a perfect example of "triangulation" (in the sense of Webb et al., 1966), a finding to be superconfident about since it survived the rigors of multimethod and multipopulation testing. Yet, if one is to believe the results of the archival real-world study of sentencing discussed in the next section, even this conclusion would be entirely misleading. In a more complete causal model of sentencing decisions, severity of the crime and prior record are only second-order factors.

Real-world studies

Our studies of the real-world sentencing process had been planned from the inception of the project, but they received a great deal of impetus from our growing skepticism about the value of simulations. Analogous to our procedure in the case of bail decisions (Chapter 8, this volume), our strategy was to examine statistically the covariation between a large number of potential "predictors" in the two major information sources that are available to the sentencing judge and the judges' sentencing decisions. One of these sources of information is the sentencing hearing itself—the arguments and discussions that occur and whatever information is provided by the offender's appearance, age, dress, articulateness, etc. The second source of information is a file that the judge presumably reviews prior to the hearing. The file contains documents pertaining to arraignment, formal indictment, change of plea, prior record, and so on. Moreover, it contains the probation officer's report (described earlier), which is typically placed in a file as late as 16–24 hours before the hearing.

The only other potential sources of information about a case that a judge may have are (1) the trial (i.e., further details of the case that are revealed in it, arguments, the defendant's behavior, apparent credibility, and so on), and (2) consultations (whether formal or not) with the prosecutor and the defense attorney concerning the plea bargain. With regard to the information from the trial, whereas it is indeed the case that when there is a trial, the trial judge typically also pre-

sides at the sentencing hearing and decides on the sentence, we have already pointed out that 86% of the convictions come about as a result of the guilty plea, and another 6% from the *nolo contendere* plea. Thus, there are no trials in more than 90% of the cases resulting in convictions. On the other hand, plea-bargaining consultations may or may not provide case-relevant information to the judge, but unfortunately, it was impossible for us to gain access to these meetings (held in the judge's chambers instead of the courtroom).

The observation and coding of sentencing hearings More than 400 sentencing hearings were coded by our assistants in 1976 and 1977. The coders rated the offender's articulateness, attractiveness, attentiveness, and several other characteristics on 10-point scales, and used a time-sampling procedure to code the verbal interactions in the hearings. Every 10 seconds the coders noted who was talking, as well as the topic (the coder selected 1 of 70 content categories from a reference sheet). This procedure produced, for each sentencing hearing, and each coder present, a string of codes indicating who talked, about what, and after whom. (See Ebbesen and Konečni, 1981, for information regarding the various indices of reliability of coding that were used; the reliability was quite high. Appendix I of the same article lists the content categories used in the coding.)

Some information about the formal aspects of these sentencing hearings is presented in Tables 11.1 and 11.2. From Table 11.1, it seems that hearings were verbally dominated by judges and defense

Table 11.1
Verbal contribution of participants in sentencing hearing (n = 404)

Measure of extent of participation	*Judge*	*Prosecutor*	*Defense attorney*	*Offender*	*Probation officer*
Average percent of time speaking	42.2	13.0	38.4	2.8	3.2
Percent of cases in which at least one utterance was made	100.0	63.1	93.3	9.2	19.1
Mean length of utterance (in seconds)	15.1	10.2	19.1	25.9	2.2

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

Table 11.2
Probability that a particular participant at sentencing hearing spoke after another participant

Preceding participant	Following participant				
	Judge	Prosecutor	Defense attorney	Offender	Probation officer
Judge		.180	.558	.161	.101
Assistant district attorney	.499		.133	.110	.208
Defense attorney	.459	.337		.071	.133
Offender	.362	.160	.251		.225
Probation officer	.547	.128	.209	.115	

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

attorneys, though offenders spoke for a relatively long time when given a chance to speak. In general, however, both the offenders and the probation officers contributed relatively little to the hearings. From Table 11.2, one can see that the modal verbal-interaction pattern was for the judge to be followed by the defense attorney, who was, in turn, followed either by the judge immediately or first by the prosecutor and then by the judge.

The data in Table 11.3 provide some information about how the participants in the hearings distributed their speaking time across some selected topics and the extent to which their contribution on a particular topic was favorable or unfavorable to the offender. Not surprisingly, defense attorneys and judges addressed each of the topics; but whereas the defense attorneys stressed those aspects of each topic that were favorable to the defendant, the judges—significantly, like the prosecutors—stressed negative aspects of the crime and the offender's prior record. The judges did tend, though, to discuss the family and employment factors in a way that was favorable to the offenders, whereas the prosecutors remained silent about these "soft" issues that supposedly contribute to "individualized justice."

Although these findings may be interesting and convey some of the flavor of the sentencing hearings, none of the predictors we isolated from the content and formal aspects of the hearings was associated (to a statistically significant degree) with the final sentencing deci-

Table 11.3
Percent of time in sentencing hearing that each participant spent discussing various topics favorably or unfavorably to offender

Topic	Relation to offender	Judge	Prosecutor	Defense attorney	Offender	Probation officer
Crime	Favorable	15.4	5.0	37.6	—	—
	Unfavorable	38.2	38.4	8.3	—	—
Prior record	Favorable	34.0	16.3	62.0	—	—
	Unfavorable	53.1	53.1	20.1	—	—
Family	Favorable	90.2	—	89.1	—	—
	Unfavorable	9.6	—	10.9	—	—
Employ-ment	Favorable	91.8	—	94.8	97.1	—
	Unfavorable	8.2	—	5.2	2.9	—
Attitude	Good	58.8	47.5	97.0	95.0	88.9
	Bad	41.2	52.5	3.0	5.0	11.1
Drugs and alcohol	Favorable	29.0	20.8	27.3	29.2	—
	Unfavorable	71.0	79.2	72.7	70.8	—

Note: A dash indicates there were too few observations on which to base meaningful statistics.
SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

sion (defined in terms of the three previously described sentencing options). The one exception was the trivial finding that the judges tended to give somewhat lighter sentences to offenders in whose sentencing hearings both the prosecutor and the defense attorney made more positive than negative comments, but even this effect vanished when we controlled for severity of the crime and prior record.

Further analyses revealed that neither the variables with traditionally accepted social-psychological relevance, such as the offender's physical attractiveness, nor the demographic variables, such as the offender's sex, age, race, education, marital status, and religion, had any statistically significant effect on the sentencing decisions that was independent of prior record and severity of the crime.[2] This lack of effects, especially regarding the race factor, may be surprising to

[2]Some of these negative findings are of interest, such as the lack of an effect on sentencing decisions of the offender's physical attractiveness. Perhaps because the work on the effects of physical attractiveness is mainstream research in *social* psychology, and because attractiveness as a factor is so easy to manipulate *experimentally* (by high school yearbook photos; never mind the *naturally* occurring range of facial beauty in convicted criminals!), this characteristic of fictitious offenders, victims, and witnesses has held the fascination of researchers in simulated legal psychology.

some, but we have confirmed it when analyses were carried out on an even larger number of cases, such as the sample of more than 1,000 discussed in the next section.[3]

All in all, as far as we could tell, nothing about the sentencing hearings seemed to have a direct impact on the judges' sentencing decisions. No piece of information available in the hearings turned out to be an important predictor. A typical sentencing hearing thus seems to function as a ritual—an expensive show for the offender and the public. In fact, the hearings seem to *obscure* the real predictors of the sentencing decisions. Not only was no predictor that was *uniquely* codable in the hearings (i.e., not available elsewhere) significant, but other basic and straightforward case factors—that by all rights should have been brought up in the hearings, such as prior record, jail/bail status after arrest, and probation officer's recommendation, to mention but a few—failed to emerge or were brought up in a laconic or an incomprehensible manner. Yet some of these bits of information were revealed by the archival analysis reported in the next section to be the important predictors of sentencing decisions.

Finally, from the methodological point of view, our observational study of sentencing hearings demonstrates rather well that the mere fact that simulations are replaced by real-world research by no means guarantees success—but, again, this becomes clear only after the research has already been done.

The coding of court files associated with sentencing In the final study in this project, our assistants coded a total of about 1,200 court files in 1976 and 1977. These were the previously mentioned files that contain the probation officer's report and other documents and

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[3]We should point out that the absence of a race effect in our results does not necessarily signify that race is ignored throughout the criminal justice system. For example, the California Penal Code may have been—intentionally or not—written in such a way that relatively longer or harsher sentences are intended for certain types of crimes that some racial groups may be more likely to commit because of their lifestyles, eonomic conditions, or values. Moreover, some crimes may be easier to detect than others (a mugging is more "visible" than computer fraud), and more police investigative effort may be devoted to some crimes than to others—either intentionally, for reasons of political opportunism, administrative expedience, or, indeed, in order to discriminate against certain groups, or unintentionally, because the detection and prosecution of some types of crimes, as opposed to others, are a more "natural" part of police and prosecutorial activities. The defense attorneys of offenders of certain racial groups may be—for any number of reasons—less successful in obtaining a favorable plea bargain, or their threats to go to trial may be taken less seriously by prosecutors. And so on. All that the lack of effect of the race factor mentioned above means is that our data revealed that there was no racial discrimination at the level of Superior Court sentencing. (We have data for several other important decisions in the criminal justice system, though, which also reveal no discrimination on the basis of race. This issue will be discussed in another article.)

that the judges have at their disposal at the time of sentencing. After the sentence has been passed in a case, the file is sent to the County Clerk's office, where, however, the most elaborate and interesting part of the file—the probation officer's report—remains in the public domain for only 30 days. Our assistants coded the files in the County Clerk's office while the probation reports were still in the public domain.

A specifically designed, elaborate coding instrument with several hundred predictors was used in this work. (The entire instrument is available in Appendix II in Ebbesen and Konečni, 1981.) Trained coders (almost a hundred were used over the two-year period) transferred the information from the files to the coding instrument.

A large number of case details were coded, including demographic characteristics of the offender; charges at the time of the arrest; charges at the time of conviction; court-related data concerning bail, custody, and plea bargaining; aspects of the crime (also witness and physical evidence information); the content of the offender's statement; prior record; employment and social history; medical, psychological, and psychiatric information; the probation officer's evaluation of various aspects of the case and prognosis; the details of the probation officer's sentence recommendation; the details of the final sentence; and so on. Charges and prior record were coded in terms of entries in the California Penal Code. Coders used rating scales to estimate such variables as the degree of apparent premeditation, remorse, and admission of guilt—as expressed by the offender in the statement that is part of the probation officer's report. Counts of the number of lines dedicated to various topics served as a reliable technique for coding other, more variable content areas (see Konečni, Mulcahy, and Ebbesen, 1980, for a discussion of this procedure). The reliability of coding was very high (see Ebbesen and Konečni, 1981, for details).

The statistical analyses used the following four sentence options as the "dependent measures":

1. State prison sentence. This meant an indeterminate period of incarceration, such as "10 years to life," prescribed by law for each offense; the actual period of incarceration was decided by the California Adult Authority (see Chapters 12 and 13, this volume), not by the judge.

2. County jail sentence, almost always followed by a probationary period.

3. Straight probation, i.e., without any incarceration.

4. All others, such as commitment to a mental hospital, a fine without incarceration or a probationary period, and so on.

Of the large number of variables that were coded, only four were significantly associated with the sentencing decisions:

1. Type of crime.
2. Offender's prior record.
3. Offender's status between arrest and conviction (released on own recognizance; released on bail; held in jail, then released on bail; held in jail throughout).
4. Probation officer's sentence recommendation.

Demographic characteristics of offenders, as in the sentencing-hearing study, had no effect; and the same was true for the other predictors, especially when severity of the crime and prior record were controlled for. The data for the four significant effects are presented in Tables 11.4, 11.5, 11.6, and 11.7; the relevant significance tests can be found in the footnotes to the tables.

As severity of the offense increased, the probability that the defendant received a prison sentence increased (from 9% for possession of drugs and 11% for sexual perversion, to 24% for rape, 46% for armed robbery, and 62% for homicide), the probability of straight probation decreased, and the probability of probation with some time in a county jail remained relatively constant (see Table 11.4). One aspect of these data that would perhaps be surprising to the general public is how small the proportion of convicted offenders sent to state prison is, even for violent crimes. When one combines these statistics with the large number of people arrested on a felony charge who are released at the police station, have their charges dismissed, or have their charges reduced to a misdemeanor (which, by definition, does not carry a prison sentence), one concludes that being arrested for a felony has only a small effect on the likelihood that the defendant will go to prison. (Indeed, only about 2.5% of all felony arrests in 1976 and 1977 in San Diego County resulted in prison sentences, and less than 20% of those actually convicted of a felony during the same period were sent to prison.)

More than 60% of our sample had at least one prior felony conviction. From Table 11.5, it can be seen that as the extent of the prior record increased, the harshness of the sentences also increased. Nevertheless, only about 30% of convicted offenders were sent to prison even when they had had 4 or more prior felony convictions;

Table 11.4
Relationship between type of crime (for which offender was convicted) and sentencing decision

Type of crime	No. of cases	Sentence, %			
		State prison	County jail and probation	Probation only	Other
Possession of drugs	112	9	58	28	5
Sexual perversion	18	11	56	33	0
Forgery	97	18	47	35	0
Theft	231	13	62	20	5
Burglary	234	12	64	23	4
Sale of drugs	59	14	54	29	3
Assault and battery	30	13	67	13	7
Robbery	107	29	62	8	1
Possession of deadly weapon	32	30	55	15	0
Rape	17	24	59	6	11
Armed robbery	26	46	54	0	0
Homicide	21	62	29	10	0

Notes: 1. The ordering of crimes is based on average ratings of severity obtained from the same judges who were observed in the sentencing hearing.
2. χ^2 (22) = 102.8, $p < .0001$, ignoring the "Other" category.

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

Table 11.5
Relationship between number of previous felony convictions and sentencing decisions

Number of previous felony convictions	No. of cases	Sentence, %			
		State prison	County jail and probation	Probation only	Other
0	300	7.2	56.0	34.0	2.8
1	140	11.2	63.3	25.5	0
2	91	11.1	69.8	15.9	3.2
3	96	20.9	35.2	14.9	9.0
4	79	31.5	53.7	11.1	3.7
5+	218	29.3	57.3	8.7	4.7

Note: χ^2 (10) = 102.4, $p < .0001$, ignoring the "Other" category.

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

more than 40 people (about 5% of the sample) were given straight probation, even though they had 3 or more prior felony convictions.

From Table 11.6, it is clear that those offenders who were in jail throughout the period between arrest and conviction received considerably harsher sentences than did those who had been initially released on their own recognizance. The sentences of offenders who were free on bail at the time of the sentence hearing fell between these two extremes.

The results presented in Table 11.7 show that neither severity of the crime, nor prior record, nor jail/bail status has an effect on the sentencing decisions merely by being associated with another of the two variables. The probability of being sent to prison increases with increasing severity of the crime even when prior record and bail/jail status are held constant. Offenders with a more extensive prior record are sent to prison more often than those with a less extensive one even when the other two variables are held constant. And offenders kept in jail throughout the period from arrest to conviction are more likely to be given a prison sentence than those released on bail, who, in turn, are more likely to go to prison than those released on their own recognizance, even when the three groups have a highly similar prior record and have been convicted of similar crimes. There were also interactions of the multiplicative form in the data, such that the effect of one variable on sentencing decisions increased with the increasing presence of either of the other two variables. Rough anal-

Table 11.6
Relationship between offender status and sentencing decision

		Sentence, %			
Offender status	*No. of cases*	*State prison*	*County jail and probation*	*Probation only*	*Other*
Release on own recognizance	195	4.5	59.0	35.9	.5
Released on bail	92	13.0	60.9	23.9	2.2
Held in jail, then released on bail	113	9.7	34.9	29.2	6.2
Held in jail	280	27.1	58.6	9.3	5.0

Notes: 1. The sample size is smaller in this table than in the previous ones due to missing data concerning offender status.
2. χ^2 (6) = 81.1, $p < .0001$, ignoring the "Other" category.

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

Table 11.7
Relationship between number of previous felony convictions, severity of crime, and offender status

No. of previous felony convictions	*Severity of crime*[a]	*Offender status*		
		Released on own recognizance	*Released on bail*[b]	*Held in jail*
0–2	Low	1.3 (n = 76)	4.5 (n = 67)	5.9 (n = 51)
	Moderate	6.1 (n = 49)	11.5 (n = 52)	11.5 (n = 52)
	High	0 (n = 19)	25.0 (n = 12)	45.7 (n = 35)
3+	Low	3.2 (n = 31)	13.3 (n = 30)	25.3 (n = 62)
	Moderate	21.4 (n = 14)	31.6 (n = 19)	37.0 (n = 54)
	High	0 (n = 5)	23.1 (n = 13)	63.3 (n = 30)

Note: The percentages represent the proportion of the total in each cell that were sent to prison.

[a]Low = possession of drugs, sexual perversion, forgery, theft. Moderate = burglary, sale of drugs, assault and battery, robbery. High = possession of deadly weapon, rape, armed robbery, homicide.

[b]Includes all defendants who were on bail at the time of the sentence hearing.

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

yses on the basis of the data in Table 11.7 suggest that the three factors are about equally important; if anything, jail/bail status is somewhat more important than the other two (see Ebbesen and Konečni, 1981).

Finally, the data in Table 11.8 demonstrate the extraordinarily strong association between the probation officer's recommendation and the judge's sentencing decision (see also Bottomley, 1973; Carter and Wilkins, 1967). Complete agreement between the two (see the cells on the diagonal in Table 11.8) occurs in 87% of the cases (or 83%, if one ignores the "other" category). When there was disagreement, judges tended to give more lenient sentences than those the probation officers recommended significantly more often ($\chi^2 = 3.3$, $p < .05$) than they gave more severe sentences (see also Carter, 1966; Carter and Wilkins, 1967).

Having obtained the above results, we turned our attention to an evaluation of the various possible *causal models* that could link the four mentioned variables to each other and to the sentencing decisions. Many models were eliminated on logical grounds, taking into account the structure of the criminal justice system, the temporal sequence of events and decisions, and the functions of the various participants and their access (or lack of it) to certain pieces of infor-

Table 11.8
Relationship between probation officer's recommendations and judge's sentencing decision

	Judge's sentencing decision, no. of cases			
Probation officer's recommendation	*State prison*	*County jail and probation*	*Probation only*	*Other*
State prison	103	32	5	2
County jail and probation	15	396	41	4
Probation only	1	34	143	1
Other	4	11	6	23

Note: χ^2 (4) = 806.7, $p < .0001$. There is 87% complete agreement for all cases, and 83% agreement when the "Other" category is ignored.

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

mation at certain points in time in the processing of a case. We worried that the association between any of the four factors and the sentencing decisions might be a spurious one, i.e., mostly due to that factor's strong relationship with some unmeasured factor(s), but were somewhat reassured by the exhaustiveness of the initial coding, which made it unlikely that an important factor had slipped through our net. (We informally asked our students and colleagues to suggest factors that they thought might be *important* in sentencing, and also examined the responses given by the judges, defense attorneys, and probation officers in the simulations. Invariably, the factors thus discovered had indeed been a part of our coding instrument—and did not have an effect on sentencing.)

In Table 11.9 are presented five plausible causal models of sentencing decisions. Models I and III can be thought of as single-tier, Models II, IV, and V as multi-tier, or alternatively, as models in which the variables are related to each other in a causal chain (Heise, 1975). Because of the nature of the data, some models (e.g., Model IV) can be thought of as either single-tier or multi-tier. In fact, given the correlational nature of the data, Models I, IV, and V are mathematically equivalent from the standpoint of the analyses to be described later. They are presented as distinct models in Table 11.9 because they are conceptually and logically different, which implies, among other things, that they can conceivably be supported or challenged by different types of auxiliary data. (By auxiliary data we mean those relevant for only one or a small number of competing models.)

Let us, in fact, first examine some such auxiliary data. (Our strategy

Table 11.9
Causal models of sentencing decisions

Model	*Description*
I	Severity of crime, prior record, jail/bail status, and probation officer's recommendation are *all* direct causes of sentencing decision, i.e., judge evaluates and is influenced by these four bits of information separately.
II	Severity of crime, prior record, and jail/bail status are direct causes of probation officer's recommendation, which *alone* is a direct cause of sentencing decision; the other three factors have only *indirect* effects on sentencing decision.
III	Severity of crime, prior record, and jail/bail status are direct causes of probation officer's recommendation, and they are *also* direct causes of sentencing decisions. The association between probation officer's recommendation and sentencing decision is spurious; it can be fully explained by the fact that both decision-makers respond, independently, to the three variables in a similar way.
IV	Severity of crime, prior record, and jail/bail status are direct causes of sentencing decisions. Judge's decision, in turn, is a direct causes of sentencing decisions. The association between come about because probation officer *correctly anticipates* judge's decision on basis of the judge's *past performance* or reputation.
V	Severity of crime, prior record, and jail/bail status are direct causes of plea-bargaining agreement (with judge's opinion as another possible causal factor, which operates during plea-bargaining consultations that attorneys have with judge); plea-bargaining agreement is a direct cause of sentencing decision, which, in turn, cause probation officer's recommendation, by virtue of the fact that probation officer has full knowledge of bargains and correctly anticipates that judge will follow the agreements.

in the remainder of this section will be to attempt to eliminate some of the models by means of the auxiliary data, and then to compare the fits of the remaining models.) A total of 245 cases was found in which no plea agreement had been reached by the relevant parties (at least, the section of the file in which this information is ordinarily provided had been left blank). If, in fact, there had been no plea bargain, the judge could not be influenced by it, and thus there would be nothing for the probation officer to be influenced by, through correct anticipation. In short, if Model IV is viable, the percent of agreement between probation officers and judges should be drastically reduced in this subsample. Yet, as can be seen from Table 11.10, the

Table 11.10
Relationship between probation officer's recommendation and judge's sentencing decision when no plea bargain was made (n = 245)

	Judge's sentencing decisions, no. of cases		
Probation officer's recommendation	*State prison*	*County jail and probation*	*Probation only*
State prison	46	13	1
County jail and probation	3	112	14
Probation only	0	8	48

Note: There is 84% complete agreement.

percent of cases in which the probation officer and the judge agree completely (the cells on the diagonal) remains virtually unchanged, and very high, 84%. These data seriously question the validity of Model V (essentially a 3-tier model), but have nothing to say about the mathematically equivalent Models I and IV.

Additional auxiliary data, which also address the important issue of disparity in sentencing decisions across judges, as well as the extent of the judges' awareness of the determinants (or, at least, correlates) of their decisions, are presented in Tables 11.11 and 11.12.

From Table 11.11, it can be seen that probation officers' recommendations and sentencing decisions are in very high agreement for *all* of the eight judges whose sentencing decisions provided most of the data for the study (across judges, the percent of cases with complete agreement ranged from 75% to 93%). If, as we will argue later,

Table 11.11
Relationship between judge's sentence and probation officer's recommendation, and judge's rating of importance of recommendation for sentencing decisions

Judge (n = 8)	*Percent of cases in which sentence and recommendations were identical*	*Judge's rating on scale of 0–10 of importance of recommendation in sentencing decisions*
E	*93*	*3*
A	*88*	*6*
G	*88*	*7*
F	*83*	*7*
D	*79*	*3*
B	*77*	*5*
H	*75*	*8*
C	*75*	*7*

Table 11.12
Relationship between state-prison and straight-probation sentences recommended by probation officer and imposed by judges

Judge (n = 8)	Percent of state-prison sentences		Percent of straight-probation sentences	
	Recommended by probation officer	Imposed by judge	Recommended by probation officer	Imposed by judge
A	33.3	33.3	4.8	9.5
B	37.7	28.1	22.8	16.7
C	16.7	25.0	16.7	27.7
D	16.0	22.0	18.0	22.0
E	21.7	21.7	17.4	15.9
F	12.5	16.7	16.4	12.9
G	9.4	11.9	23.9	29.2
H	5.9	8.8	44.0	29.4

SOURCE: E. B. Ebbesen and V. J. Konečni, 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, 1981.

the results indeed favor Model II over Model IV (judges' sentences are caused by probation officers' recommendations rather than vice versa), the small variability in the extent to which different judges agree with probation officers' recommendations implies that whatever disparity in sentencing there is across judges, it is due to what probation officers do, i.e., to the disparity in recommendations that probation officers make to different judges (see also Bottomley, 1973; Carter and Wilkins, 1967).

Before pursuing this question further, we should note another aspect of Table 11.11; namely, the complete lack of a relationship between the percent of cases in which judges' sentencing decisions were identical to probation officers' recommendations and these same judges' numerical estimates (obtained by our assistants as part of the simulations) of the importance of probation officers' recommendations for the judges' sentencing decisions (the correlation is very low, nonsignificant, and, in fact, negative). The judges either were unaware of how high the percent of cases with complete agreement was, or did not believe that the recommendations were *causes* of sentencing decisions, or did not wish to publicly acknowledge this possibility.

Returning to the issue of disparity, we suggested that whatever sentencing disparity there is may be due to the disparity in recommendations made by probation officers to different judges. Indeed, in Table 11.12, it can be seen that although judges do differ consid-

erably from one another in terms of the percent of sentences that involve prison (from 8.8% to 33%), and also in terms of the percent of sentences that involve straight probation (from 9.5% to 29.4%), this disparity in very large part mirrored the way probation officers varied the rate of prison and straight-probation recommendations across judges. (The rank-order correlation between the sentence recommendation and imposition columns involving prison in Table 11.12 was .91, $z = 2.39$, $p < .01$; for columns involving straight probation, the correlation was .83, $z = 2.05$, $p < .02$.) To the extent that judges are indeed causally influenced by probation officers' recommendations (as we will argue later), "hanging judges" and "softies" (A and H respectively, in Table 11.12, are good candidates) apparently obtain their reputations through the "services" of probation officers.

Another way of interpreting the data in Table 11.12 is that they support Model IV: Because probation officers are guided by the past decisions of the judges and the judges' respective reputations, they can often correctly anticipate what the judges will do, which results in high agreement with each judge.[4] However, this interpretation is challenged by two types of evidence. First, as we will show later, most of the variance in probation officers' recommendations can be explained in terms of case factors (severity of the crime, prior record, and jail/bail status). Second, we have obtained some data suggesting that different judges in our sample are consistently assigned different kinds of cases, and the pattern of these differences is such that it could easily explain the differential recommendation rates across judges.[5] Thus, rather than trying to anticipate and match what judges will do, probation officers seem to respond to case factors, but these case factors tend to be systematically different for different judges.

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[4]This argument also assumes that probation officers are *motivated* to have a high percent of agreement with judges. Such an assumption is probably correct, given the organizational and incentive structure within a typical county probation department. Probation officers are presumably likely to want to please their superiors (who inspect and approve the reports and recommendations), and the latter must be at least somewhat keen to have the department thought of as "competent" and "reasonable" by judges—which is probably interpreted as high agreement.

[5]The next question, of course, concerns the reasons why different judges are assigned different types of cases. Part of the answer probably lies in specialization on the part of judges (e.g., in white-collar crime cases), and another part in "judge shopping" by defense attorneys. The latter point begs yet another question: What are the attorneys guided by in judge shopping? The answer is undoubtedly that they are looking for the lenient judge, given the type of case they have, and their search (as we have found out from our interviews with defense attorneys) is invariably based on the judges' reputations, gossip among attorneys, "gut feelings," personal sympathies and antipathies, and perhaps one or two cases, at best, that an attorney has had with a particular judge. In other words, the search is based on the mythology that surrounds judges and courtrooms, and not on hard data or base rates.

There is also the question of why judges begin to be assigned serious crime cases that eventually earn them the reputation of being "hanging" judges (even though they

In other words, the data in Table 11.12 cannot be used in support of Model IV and against Model II.[6]

Now that we have examined several types of auxiliary data (and rejected Model V), we can turn to the main analyses regarding the remaining models in Table 11.9. Each of the three causal models (Models I and IV make identical predictions[7]) implies that the observed cell frequencies in the 5-factor contingency table (severity of the crime × prior record × jail/bail status × probation officer's recommendation × sentence) should be due to a particular set of main and interaction effects (analogous to what these terms mean in the analysis of variance). For example, Model III assumes (1) an association between the three case factors and the probation officer's recommendation, (2) an association between the three case factors and the sentence, and (3) that any association between the recommendations and the sentence can be fully explained in terms of (1) and (2). Thus, for example, in the 3-way classification table of prior record × recommendation × sentence, the pattern of observed frequencies should be completely predictable from only two 2-way tables, prior record × recommendation and prior record × sentence. When the same logic is extended to the whole model, it is evident that, according to Model III, the observed frequencies in the 5-way

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are merely responding to probation officers' recommendations, who, in turn, respond to case factors). This turns the issue into a veritable chicken-and-egg problem. Although we are pursuing some of these questions, the problem can be resolved satisfactorily only by a random assignment of cases to judges.

In the meantime, we have discovered from interviews with defense attorneys and courtroom observation studies that the characteristics about judges that predict *best* what defense attorneys think of them on the leniency/harshness dimension are, in fact, not the characteristics of cases they get, but presumably entirely irrelevant (though highly salient and arousal-raising) traits, such as courtroom demeanor—frowning, smiling, tone of voice. Such data question the reasonableness of defense attorneys' "gut feelings."

[6]This illustrates the fact that whereas various types of auxiliary data can sometimes be very helpful, complete reliance on them does not allow an adequate test of the competing models. In their valuable article, Carter and Wilkins (1967, p. 508) describe various possible explanations for the high agreement between probation officers' recommendations and judges' sentencing decisions. Some of the explanations are similar to Models II, III, and IV in Table 11.9, the important difference being that whereas our models explicitly incorporate specific case factors that might affect one or both decision-makers, as well as deal with the direction of the causal influence between probation officers and judges, Carter and Wilkins deal only with the latter issue. Moreover, mainly because they relied only on auxiliary data, Carter and Wilkins found some support for *all* of the three or four explanations they offered for the high agreement between probation officers and judges, and never seriously pitted these explanations against each other.

[7]It should now be clear why Models I and IV are mathematically equivalent. In both cases, the implication is that the 5-way contingency table can be predicted from 5 main effects and the following 4 two-way interactions: severity of the crime × sentence, prior record × sentence, jail/bail status × sentence, and sentence × recommendation.

contingency table can be predicted from five main effects and six 2-way interactions (severity of crime × recommendation, prior record × recommendation, jail/bail status × recommendation, severity of crime × sentence, prior record × sentence, and jail/bail status × sentence).

To evaluate quantitatively predictions based on Model III, as well as the analogously derived predictions from other models in Table 11.9, we relied on the log-linear method used by Goodman (1972, 1973). Each effect predicted by a model becomes a part of a log-linear equation in which the parameters for the main and interaction effects added to (or subtracted from) the odds, in logarithms, that an observation (a case, in our work) would fall in a particular cell of the 5-way table. Equations were written for each model, estimates of parameter values obtained with the help of a computer program available from Goodman (described in Goodman, 1972), and the fit of the different models to the data assessed by a χ^2 likelihood-ratio statistic. The models could be contrasted with each other by comparing the χ^2 values that resulted from each. As in multiple regression, one could determine whether the inclusion, in a simpler, less general model, of additional hypothesized causal pathways between the variables provided significantly more explanatory power. The least general model is one that assumes that all 5 factors are independent, unassociated with each other (5-factors-independent model). The most general model assumes that all factors are associated with each other (full-causality model). The five models in Table 11.9 fall between these extremes in terms of the number of hypothesized causal pathways.

In Table 11.13 are presented the results of fitting the various models to a 5-way 3 × 2 × 4 × 3 × 3 (216 cells) contingency table in which severity of the crime (3 levels) and prior record (2 levels) were defined as in Table 11.7, jail/bail status (4 levels) as in Table 11.6, and recommendation and sentence (3 levels each) as in Table 11.8 (minus the "other" category).

Part A of Table 11.13 shows the fit between the patterns predicted by various models and the data actually obtained. The larger the χ^2 value, the poorer the fit; i.e., the greater the difference between the predicted and the obtained pattern. As can be seen, the 5-factors-independent model and Model III (judges and probation officers are independently influenced by the same case factors) fared quite poorly; whereas the other models did quite well. With the exception of the full-causality model—which is presented here for the purpose of comparison only, in that it is conceptually quite uninteresting, because of its overconstraining assumption that each of the 5 variables is significantly associated with each of the other variables—the best fit was provided by Model II, according to which probation offi-

Table 11.13
Log-linear analysis of sentencing decisions

A. Fit			
Model[a]	χ^2	*df*	*p*
5-factors-independent	669.11	205	$< .0001$
I and IV	146.02	189	$> .5$
II	136.44	189	$> .5$
III	410.52	181	$< .0001$
Full-causality	90.86	177	$> .5$
B. Improvement over 5-factors-independent model			
I and IV	523.09	16	$< .0001$
II	532.67	16	$< .0001$
III	258.59	24	$< .0001$
Full-causality	578.25	28	$< .0001$
C. Unexplained "variance"			
I and IV	55.16	12	$<.01$
II	45.58	12	$<.01$

[a]Models I–IV are defined in Table 11.9.

cers' recommendations (themselves influenced by three case factors) cause judges' sentencing decisions. This model provided a very good fit of the data ($p > .5$ indicates that the predicted cell frequencies are not significantly different from the obtained ones) with far fewer parameters than the full-causality model; in fact, it uses exactly the same number of parameters as do Models I and IV, the latter of which also provided a very good fit. However, since the number of parameters is identical in the two cases, the model providing a better fit (smaller χ^2 value) is to be preferred no matter how small the difference.

Parts B and C lead to the same conclusion. In Part B it can be seen that all models accounted for a significant amount of *additional* "variance" over that accounted by the 5-factors-independent model (the χ^2 values in Part B were obtained by subtracting the χ^2 values associated with the various models in Part A from the χ^2 value for the 5-factors-independent model). In this analysis, the question was how well the models could handle the "residual" of the 5-factors-independent model: The larger the χ^2 value, the greater the portion of that residual that is accounted by a particular model. Model II accounted for a greater amount of *additional* variance than *did* Models I, III, and IV, and is therefore to be preferred to these other models.

Finally, in Part C, significance tests were performed on the residuals of the major competing models (the χ^2 values were obtained by subtracting the χ^2 values associated with the models from the χ^2 value for the full-causality model in Part B). The question here was how much worse were the competing models than the highly constraining full-causality model; the higher the χ^2 value, the greater the amount of variance *left unexplained* by the models, in comparison to the full-causality model. The χ^2 values were significant for both models, but the one for Model II was smaller.

The above analyses revealed the superiority of the model that argues that judges' sentencing decisions are caused by probation officers' recommendations, which are, in turn, caused by the three case factors. Before examining whether this basic model can be further improved, we used some straightforward χ^2 analyses to test the relative fit of Model II and of Models I and IV. First, we examined about 460 cases in which probation officers' recommendations had been incarceration in county jail, followed by a probationary period; these 460 cases were the only cases in the sample in which this particular recommendation had been made. We divided the cases in terms of severity of the crime and prior record—two of the variables that had been found to be highly important in the analyses reported above—as well as by whether or not the judge imposed a prison sentence. The χ^2 value associated with this 3-way table was not significant. This suggests that within a particular type of probation officers' recommendation (i.e., when the recommendations are kept constant), case factors do not influence sentencing decisions, or, put differently, their effects are not "getting through" to the judges. Table 11.14 presents the 2 × 3 contingency table involving severity of the crime and prior record. Each entry in the table represents the percent of cases falling into that cell in which judges imposed prison sentences.

Next, we reversed the procedure and looked at about 480 cases in which judges' sentencing decisions were county jail and probation.

Table 11.14
Percent of cases in which judge imposed prison sentence, following probation recommendation for county jail, as function of number of previous felony convictions and severity of crime

No. of previous felony convictions	*Severity of crime*		
	Low	*Moderate*	*High*
0–2	0	5.88	4.76
3+	2.38	6.56	3.45

Note: Based on 460 cases in each of which probation officer recommended county jail followed by probation.

These cases were divided in terms of severity of the crime, prior record, and whether or not probation officers had recommended prison. For this 3-way table, $\chi^2 = 17.81$, $df = 4$, $p < .001$. Each entry in Table 11.15 represents the percent of cases falling into that cell in which probation officers recommended prison sentences. Thus, the case factors seem to influence the recommendations and are "getting through" to probation officers, even within a particular type of sentence, i.e., when the judges' sentences are kept constant. This analysis offers further support for Model II.[8]

We now turn to the question of whether this model can be further improved. One possibility was that one or more of the three case factors (severity of the crime, prior record, and jail/bail status) had a direct effect on judges' sentencing decisions over and above their *in*direct effects through their influence on probation officers' recommendations. Indeed, the appropriate modeling procedures revealed that jail/bail status had such a direct—small, but significant—effect on sentencing decisions (see Table 11.11 in Ebbesen and Konečni, 1981) and that the other two factors did not.

To summarize, probation officers' recommendations seem to be the major direct cause of judges' sentencing decisions. Whereas the recommendations themselves are causally affected by severity of the crime, prior record, and jail/bail status, judges are not directly influenced by these factors. The only exception is jail/bail-status, which influences both probation officers (directly) and judges (indirectly through the recommendations, as well as directly).

The final question that is of interest concerns the causes of probation officers' recommendations. To deal with this issue, we used the log-linear procedure described earlier and applied it to the same data base, except that the 5-way contingency table was turned into a 4-way table by collapsing the sentence factor. Not surprisingly, given the high agreement between probation officers and judges

[8]We considered the idea of obtaining some additional auxiliary evidence in order to examine the validity of Model IV in yet another way. Recall that one of the assumptions of this model is that high agreement between probation officers' recommendations and judges' sentencing decisions is a result of probation officers' being influenced by (i.e., correctly anticipating) judges' past performance or reputation with regard to sentencing decisions. It follows, therefore, that considerably smaller agreement would be found in a subsample of cases involving probation officers, or judges, or both who were new on the job. Unfortunately, regarding judges, the San Diego bench is too small and seldom has a large proportion of new judges. The problem regarding probation officers is that they work under a lot of supervision, especially the new ones, which contributes to uniformity. Indeed, Carter and Wilkins (1967, p. 512) interpreted some of the data from the San Francisco project in the early 1960s as indicating that "the differences . . . [in the rates of recommendations for probation as opposed to imprisonment] tend to diminish with the period of employment; . . . officers with different backgrounds are far more dissimilar upon entering the probation service than after exposure to the agency."

Table 11.15
Percent of cases in which probation officers recommended prison sentence, as function of number of previous felony convictions and severity of crime

No. of previous felony convictions	*Severity of crime*		
	Low	*Moderate*	*High*
0–2	1.06	3.66	0
3+	14.43	6.78	10.34

Note: Based on 480 cases in each of which judge imposed county jail followed by probation.

noted earlier, probation officers' recommendations appeared to be strongly influenced by severity of the crime, prior record, and jail/bail status. However, additional analyses revealed that the explanatory power of the model could be significantly improved (leaving a nonsignificant residual) by including two 2-way interactions in the model: prior record × crime and prior record × jail/bail status. (These were the interactions of the multiplicative form that were discussed in connection with the results presented in Table 11.7.)

Thus, probation officers' recommendations—the key cause of judges' sentencing decisions—were influenced by severity of the crime, prior record, jail/bail status, and two interactions according to which the effect of prior record was substantially augmented by the higher levels of severity of the crime and jail/bail status.

Conclusions The picture of the cause of sentencing that emerged from the archival study involving the coding and analysis of court files is entirely different from the conclusions that one would be forced to reach on the basis of our other studies that were described earlier in the chapter. In addition to the various differences among the studies that we have already pointed out, it is important to note that none of the studies other than the archival one highlighted the key causal function of probation officers' recommendations, nor revealed the importance of jail/bail status. Severity of the crime and prior record, which were emphasized so strongly in all of the simulations, were shown in the archival study to have only an indirect causal influence on judges.[9]

[9]Ironically, in the simulations, laymen (students) seemed to come closer to the truth than did the professionals. Recall that in the rating study both naive and experienced student raters attached more importance to the role of probation officers than did judges and defense attorneys. Also, in the questionnaire study, the student researchers suggested the rudiments of a causal model of sentencing, in which both judges and probation officers are influenced by the same set of factors (severity of crime, prior record, family situation, and employment); however, neither the factors listed nor the model was supported by the causal analysis of the archival data.

In another article (Konečni and Ebbesen, 1981), as well as in our chapter on methodology in this volume (Chapter 2), we discuss at length the issue of external validity of the research in legal psychology. Our contention is that if one is truly interested in a real-world process or in the functioning of an existing social system (such as the criminal justice system), there are many logical and practical reasons why preference should be given to real-world studies over simulations. The *only* way to validate the results of a simulation is to test its conclusions on real-world data. Thus, to the extent that no studies in a field exist and that a real-world study is feasible, why not begin with a real-world study? Furthermore, if the results from both simulations and real-world studies are already available, the conclusions of the latter can generally be considered more trustworthy, provided the study meets certain requirements. Regarding our studies of sentencing in particular, such requirements and the reasons for preferring the archival study have already been outlined in detail elsewhere (Chapter 2, this volume; Konečni and Ebbesen, 1981; the latter article also discusses the lessons to be learned from our uninformative real-world study dealing with sentencing hearings).

The conclusion we wish to draw is that at least for the time being we accept the results and conclusions of the archival study as providing a reasonably accurate representation of the causal aspects of sentencing adult felons in San Diego County:

1. Once a person's guilt of a felony offense has been determined (usually through a plea of guilty), the severity of that felony, the offender's prior record (in terms of felony convictions), jail versus bail status in the period between the arrest and the sentencing hearing, and two 2-way interactions between these three factors (both involving prior record), fully determine, with a nonsignificant amount of residual variance, probation officers' recommendations.

2. These recommendations and, to a much smaller extent, the offender's jail/bail status jointly cause judges' sentencing decisions, such that a nonsignificant amount of residual variance is left.

The content of sentencing hearings seems to have no influence on sentencing decisions. These hearings seem to be a show for the public (that the operation of the criminal justice system is "open to public scrutiny") and perhaps for the offenders (that their attorneys are "doing something," especially since in a modal case there would have been no trial). Insofar as the results of the simulations do not match the results of the archival study, they are worthless—as far as under-

standing the real-world sentencing process is concerned (although what our subjects—judges, defense attorneys, and so on—had to say may be interesting in its own right). Had only these simulations been done, however, entirely misleading conclusions about the sentencing process would have been reached and, presumably, disseminated. The publication by our students of the results of the interview study in a major San Diego daily newspaper demonstrates—and was meant to demonstrate—the ease with which erroneous conclusions about the functioning of an important social institution can be brought to the attention of the general public from a position of authority.[10]

When the model of sentencing described above is examined together with the results of our study of bail setting in mind (Ebbesen and Konečni, 1975; Chapter 8, this volume), an even more complete, though also more tentative, account of sentencing emerges. Recall that our bail study found that judges' bail decisions were influenced primarily by prosecutors' recommendations, and that these were, in turn, influenced mostly by severity of the crime (i.e., arrest charges). Recall also that jail/bail status had a strong effect on probation officers' recommendations and that it was the only case factor that also had some—though fairly minor—direct effect on judges. On the reasonable assumption that the higher the amount of bail set, the greater the number of defendants who cannot afford to pay it (or even pay the percent charged by bail-bondsmen), it follows that the charges at the time of arrest—mediated by prosecutors' bail recommendations, judges' bail decisions, defendants' jail/bail status, and probation officers' recommendations—have an indirect effect on judges' sentencing decisions.

For what it is worth, the above analysis at least emphasizes the potential usefulness of looking at legal decisions as being part of a network of decisions and decision-makers. This idea has guided our work and influenced, of course, the organization of this whole volume.

DISCUSSION

Our data and the proposed causal model run counter to several widely held contentions about the nature of the sentencing process and the operation of the criminal justice system.

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[10]Of course, the same basic methodology and data base (interviewing, self-report) are habitually used not only by the media, but also in many other situations, involving all sorts of decision-makers (including congressional and senate hearings).

Myth 1: The complexity of legal decisions

One popular belief, expressed strongly in the quotation from the report of the President's Commission at the beginning of this chapter, is that sentencing decisions are "complicated and . . . difficult to make." Some of the things that are almost certainly meant by this statement is that judges take many factors into account and that they carefully examine them in a lengthy process of deliberation. Yet we have shown that very few factors influence sentencing decisions, and so in this sense the decisions appear to be quite simple. Moreover, we have been able to account for other legal decisions, such as the setting of bail and the disposition of mentally disordered sex offenders (Chapter 8, this volume; Konečni, Mulcahy, and Ebbesen, 1980), by similarly simple models. The fact that judges *talk* about numerous factors (as in the simulations) may have nothing to do with the causal factors that control their decisions. One must not confuse their possibly quite complex thought processes with the quite simple causes of their behavior (see Ebbesen and Konečni, 1981, and Konečni, Mulcahy, and Ebbesen, 1980).

As for the careful deliberation, this turns out to be another myth, believed more by the general public than by the people within the system. In San Diego, judges receive case files (containing probation reports, etc.) in batches of 10–15, with as many hearings held the very next day. Since an average hearing lasts about 5 minutes, there definitely is not much time for deliberation.

Myth 2: Individualized justice

Another frequently espoused view is that current sentencing practices incorporate the concept of individualized justice. Yet, the offender's employment history, family status, social background, and numerous other personal and psychological characteristics were not causally related to the sentencing decision. As we have pointed out elsewhere (Ebbesen and Konečni, 1981), the fact that sentencing guidelines typically suggest that such factors should be taken into account, that much of a modal probation report is devoted to them, and that defense attorneys discussed these factors in the sentencing hearings that we coded means either that the myth of individualized justice is being perpetuated on purpose by a variety of participants in the criminal justice system or that the participants are not aware that these factors have no effect.

The possibility that the wide-ranging support for the notion of individualized justice in the legal community may be at least in part

self-serving should not be lightly dismissed. Individualized justice implies discretionary powers and numerous options on the part of decision-makers. Having a lot of discretion and possessing options have always been important goals for judges in their struggle against "being reduced to a formula" (as they like to put it). Hence the dogma so widely held in the legal community that "every case is different." As for defense attorneys, they, too, can only benefit from their clients' belief that the punishment is made to fit the offender, not the crime, for that presumably leaves more room for legal maneuvers and increases the dependence on attorneys.

Myth 3: Sentencing hearings as decision-making occasions

Our data and analyses also suggest that sentencing hearings may have nothing to do with their stated purpose. The existence of such legal rituals (see also Konečni, Mulcahy, and Ebbesen, 1980) is rather bothersome. They are costly and present a false impression of the functioning of the criminal justice system. As we have pointed out elsewhere (Ebbesen and Konečni, 1981), the behavior of the participants in these hearings, including the judges, appears to be "staged," apparently again for self-serving purposes. Some like to think that the rituals in the courtroom (including the judge's presumed unbiased attention to the attorneys and the offender, apparent concern for the offender's rights, dignified demeanor, robe, elevated overstuffed chair on a pedestal flanked by flags, etc.) instill respect for the law in the offenders. This is almost certainly nonsense. Recall that in our sample—by no means an atypical one—more than 60% of the offenders had prior felony convictions. Consider that together with the data presented at the beginning of the chapter showing how few people arrested for felony get convicted at all, especially of a felony. Realistically, one is dealing here with a group that has been in repeated contact with the criminal justice system. The failure of this system and the society as a whole to instill respect for the law in this population is clearly not going to be offset by the decorum and paraphernalia of a 5-minute sentencing hearing. The time and the money would probably be better spent on judges' collecting and analyzing data on their own performance and on the factors that really influence their decisions.

Myth 4: Disparity in judges' sentencing decisions

Another firmly entrenched notion that has not been supported by our work is the disparity in judges' sentencing decisions. Whereas the judges in our sample indeed differed from one another in terms of,

for example, the proportion of prison sentences they imposed, disparity presumably means more than that; namely, that judges' decision-making strategies differ and that they therefore impose widely different sentences in similar cases. We found, in contrast, that all judges used the same strategy: they closely followed probation officers' recommendations. The differences across judges in the proportion of prison sentences merely reflected the differences in recommendations, which, in turn, took into account a small number of characteristics of cases in the widely different case loads assigned to the different judges.

Myth 5: Judges as mainstays of the sentencing process

Finally, our data and analyses contradict the traditional view of the judge as the chief decision-maker in the sentencing process. A more correct view apparently is that the judge is merely the main "broadcaster" of sentencing decisions reached by probation officers.

One logical implication of the very high agreement between judges and probation officers is that one of these two categories of participants in the sentencing process is redundant. Since it is the probation officers who make the decisions and the judges who are paid far more, it would seem that the judges are better candidates if the redundancy is to be eliminated. We say this tongue-in-cheek; however, the hesitation in making the proposal with dead seriousness is probably due less to facts than to the many years in which judges have done a thorough public-relations job to establish themselves in the "collective consciousness" as indispensable.

There are several possible reasons for keeping judges in the sentencing process even if it is conceded that probation officers actually make the decisions, but none of these seems to us very convincing. One possible reason—that judges promote respect for the law—has already been discussed. Whatever effect judges may have in this regard in general, it is unlikely to be anything but negligible in the process of sentencing felons, given the very high proportion of recidivists and "career criminals" in this population.

Another possible reason for keeping judges is that there are, after all, 15% or so cases in which judges' sentences do not match probation officers' recommendations. However, we are not aware of any evidence to the effect that the sentences in these cases are of a higher quality—by whatever criterion—than are the recommendations. A sizable proportion of disagreements is probably due to "noise" in the system.

Nor are we aware—with one possible exception—of a case characteristic that is a reliable predictor of judges' "independence." The

one possible exception, which, however, does not necessarily make judges' independence look very good, is the amount of publicity a case receives. We have some evidence that our models of sentencing and other legal decisions do not predict well in front-page cases, and they cannot be expected to, as they are by definition meant to deal with the modal, run-of-the-mill case that does not reach even the back page. In high-publicity cases, those involving famous defendants or multiple murders, the behavior of all participants in the system—not just the judges' sentencing behavior—tends to be different. Prosecutors, defense attorneys, judges, and hired experts all seem to jockey for position in the limelight. The case usually goes to trial—an unusual thing in itself—supposedly because of its legal aspects, but probably more because prosecutors find it politically expedient to try such cases, defense attorneys can charge higher fees, increase their reputation, or at least write a book about the trial, and the public has been made both indignant and expectant by the media. (Exceptional cases and the media can be held principally responsible for the totally skewed, unrealistic, Perry Mason picture of the criminal justice system that the public tends to have.)

After Patricia Hearst's trial in San Francisco, the first sentencing hearing, which our assistants coded, lasted for almost an hour instead of the customary 5 minutes, and the judge spent a great deal of time thanking people who had sent letters on the offender's behalf. The sentence Patricia Hearst eventually received was probably harsher than a less well-known offender would have received in similar circumstances, which may well have been influenced by the public's attitude that "the rich should not be able to get off." On the other hand, her release on parole may well have been influenced by a nationwide campaign to free her, the public's attitude having changed in the meantime.

In Roman Polanski's "unlawful sexual intercourse" (statutory rape) case in Los Angeles, to which we devoted a lot of attention in connection with our work on the processing of mentally disordered sex offenders (see Konečni, Mulcahy, and Ebbesen, 1980, for further details), the judge gave a press conference in his chambers, an interview to *People* magazine, and generally seemed to respond to such an extent to the publicity aspects of the case and to the "hate mail" concerning Polanski he was receiving that both the defense attorney and the prosecutor requested that the case be taken away from this judge (the prosecutor was presumably motivated by the desire to avoid grounds for a successful appeal).

In sum, there is little evidence that judges' behavior in cases in which their sentences disagree with probation officers' recommendations by itself justifies keeping them in the sentencing process. Perhaps the best argument for judges remaining in the sentencing

system is that even though they are causally influenced by probation officers, the latter may recommend what they do because others with high authority (judges) are also part of the system. According to this argument, if judges were removed, probation officers would change their decision-making—rely on different cues, combine them differently, or both. However, this argument is reasonable only to the extent that one accepts as reasonable the legal system's traditional reluctance to change for the purposes of experimentation and true innovation (as opposed to politically expedient innovation), especially when the change may mean less authority for the most powerful people in the system, the judges. (In this sense, the legal system is, of course, no different from other bureaucracies.) Otherwise, an experimental period without judges' participation in the sentencing process would easily reveal whether or not probation officers' decision strategy would change. Subsequent periodic checks could insure that the strategy does not change over time.

Probation officers versus computers Thus, the arguments for keeping judges in the sentencing process seem weak. Some of the counterarguments we used emphasize the importance of keeping solid data within the legal system, and—when the implications of these counterarguments are explored in full—suggest that the sentencing process could be considerably improved by computerization. Computer-based decisions, especially sentences, are of course, anathema to judges and other people in legal circles—which is not surprising. Their considerable vested interests in the present system and their lack of familiarity with the tools and logic of behavioral science—data collection, statistical procedures, causal analysis, computers, and, above all, the *actual functioning of the system* (including current base rates, etc.)—elicit a variety of predictable comments from most legal practitioners, ranging from the "every case is different" defense to the pseudohumanistic counterattacks revolving around the "human touch" versus the Orwellian *1984*.

The fact of the matter is that the causal model of sentencing is so simple and straightforward that not just judges but also probation officers could be replaced by a very simple computer program that would take severity of the crime, prior record, and jail/bail status into account—if the objective were simply to mimic what is presently being done. After all, severity of the crime, prior record, and what appears to be the major cause of variation in jail/bail status—the arrest charges—are all straightforward bits of information, known long before the conviction; in fact, they are known immediately after the arrest! (See Konečni, Mulcahy, and Ebbesen, 1980, for analogous arguments regarding the processing of mentally disordered sex offenders.) Computer-based sentencing would insure fairness, elim-

inate disparity, increase the speed of decision-making, reduce costs, and eliminate "noise," i.e., result in the certainty that a particular sentence would be meted out, given the conviction for a certain offense.[11] Moreover, to the extent that there is dissatisfaction in the system or outside it with the present determinants of sentencing or their weights, different weights and additional or different variables could be easily included in the model. (Thus, behavioral science and computerization do not *impose* values on the legal system.)

In light of all this, it does not seem entirely unreasonable to conclude that only the disproportionate amount of power and self-serving independence successfully claimed and held by the legal system enables judges and other legal Luddites to keep computers and behavioral science out.

Because entrenched bureaucracies view change with deep suspicion and have the power to resist it, a question of perhaps greater practical value is whether or not something can be done to improve the sentencing process, given its present general outlines. One's attention immediately turns to probation officers. Are they well qualified? Are they doing a good job? A number of studies—both simulations and those based on data from the courts—have examined probation officers' recommendations (e.g., Carter, 1966; Curry, 1975; Papandreou, McDonald, and Landauer, in press; Wilkins and Chandler, 1965), but have not been concerned with probation officers' qualifications. On the basis of interview and questionnaire data, Carter and Wilkins (1967) and Hood (1966) report that judges think of probation officers as being quite competent. In contrast, in a more recent article in the Los Angeles *Times*, one reads:

> The county Probation Department has not been able to maintain even "a minimum standard of service" to the courts, a Superior Court Judge told a hearing on the firing of Chief Probation Officer. . . . The department's deficiencies, [the judge] . . . testified, have existed for years and embrace such basic skills as the insufficient ability of many probation officers to read and write at an acceptable court level (Kistler, 1975)

Thus, at least some people in the legal system believe that probation officers are incompetent and need more schooling. (The irony in the above quotation lies in the very real possibility that the judge so

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[11]This last point—the certainty that a particular sentence would be the result of being convicted for a particular offense—may be important from the offenders' point of view. It is, in fact, the argument made by the few proponents of *sentence* bargaining as opposed to *plea* bargaining. At the present time, in accordance with Section 1192.5 of the California Penal Code, the plea-bargaining agreement is not binding on the sentencing judge. The defendant typically pleads guilty in order to get a more serious charge dropped or reduced and in exchange for certain actions on the part of the prosecutor, such as not demanding a prison sentence.

critical of probation officers nevertheless followed their—illiterate—recommendations about 85% of the time.)

It seems to us that probation officers are by definition doing a very good job if the factors that they presently take into account in making their recommendations are considered reasonable or satisfactory by whoever it is that should decide whether or not probation officers are doing a good job. If, on the other hand, the objective is individualized justice or some other model with additional or different variables, then probation officers are not doing a good job. To improve their performance in the latter case, probation officers would need not vague guidelines (so common in the legal system), but a complete and specific list of variables and weights to be assigned to each. They would also have to be taught how to take into account 5 or 6 variables at the same time, how to combine the information, how to evaluate whether or not they are following the model, and so on. The obvious conclusion is that if one wants probation officers to do something different in making their recommendations from what they are now doing and to insure that they do the new thing precisely, it would be far easier to write a simple computer program to take care of all that.

Despite our criticisms, we would like to end on an optimistic note regarding the sentencing process. Few would deny that severity of the crime and prior record are reasonable and desirable determinants of sentencing. Jail/bail status appears extralegal and discriminatory against the indigent defendants at first, but its influence seems less arbitrary and unjust if it is indeed the case that it indirectly reflects the arrest charges. Furthermore, no other potentially embarrassing extralegal determinants of sentencing—such as the race of offenders—emerged. Finally, whatever sentencing disparity there is across judges, it does not seem to be due to judges' capriciousness. Thus, judges may be redundant and the probation officers' job may be done more efficiently by a computer program, but one could easily think of a far worse system, with malevolent—or more irrational—decision-makers.

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