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Predicting Criminality

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**Moderator: James Q. Wilson, Professor of Government,
Harvard University**

**Guests: Peter Greenwood, Rand Corporation
Peter Hoffman, U.S. Parole Commission
John Monahan, University of Virginia Law School**

Your discussion will be assisted by your knowing some of the reasons that have been offered for taking predictions of offenders' future criminality into account in making sentencing and parole decisions, the research evidence that is available concerning the accuracy with which we can predict future crimes, and some of the ethical issues and objections that have been raised regarding the use of such predictions.

Predicting Criminality

Criminal justice officials increasingly use statistical methods to predict whether an individual will commit future crimes. These methods sometimes take the form of sentencing and parole guidelines that classify people into groups on the basis of their likely future behavior. Individuals in high-risk groups generally receive longer prison sentences or are held in prison longer before parole release.

Sentencing and parole decisions generally involve consideration of two matters: the seriousness of the offense, and the characteristics of the offender. Most people believe that both should be taken into account. Just as it is difficult to imagine a system in which the seriousness of the crime is given no weight, it is also difficult to imagine a system in which differences among offenders are totally ignored (for example, a system in which first offenders and habitual offenders are treated identically).

In this context, predicting criminality means attempting to assess the likelihood that a convicted offender will commit another offense when released into the community. Reoffending by a convicted offender is called *recidivism*. Researchers distinguish between the generic definition of recidivism—simply the act of reoffending—and *recidivism rates*, which tell us the percentage of any group of offenders that is likely to commit a new offense within a specified period.

There is no standard approach to calculating recidivism rates. In a given context, the calculation depends on what kind of behavior is to be counted—arrests, violation of parole conditions, convictions, incarcerations—and for how long. Generally, the broader the definition of reoffending or the longer the followup period, the higher the reported rate of recidivism will be. For example, if recidivism is measured by any arrest within 2 years, the frequency of recidivism will be higher than if recidivism is measured by a new conviction for a serious crime within the same time period. Or if reoffending is looked at for 12 months, the recidivism rates will be lower than if the followup were 24 months.

The Salient Factor Score

The experience of the United States Parole Commission illustrates how predictions of recidivism are used in the criminal justice system. In the early 1970's, the U.S. Parole Commission developed an objective scale, based on empirical research, that is used to assess a prisoner's likelihood of recidivism. This scale, called the "Salient Factor Score," is similar to the actuarial tables that insurance companies develop and use. If people in one category of life insurance applicants, nonsmokers for example, are likely to live longer than those in another category, smokers, life insurance companies may require higher premiums from smokers, whose average life expectancy is lower. So it is with the Salient Factor Score: members of groups having a higher likelihood of reoffending are likely to be held in prison longer.

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The U.S. Parole Commission's Salient Factor Score contains six items:

- The offender's prior criminal convictions.
- The offender's prior criminal commitments for longer than 30 days.
- The offender's age at the time of the new offense.
- How long the offender was at liberty since the last commitment.
- Whether the prisoner was on probation, parole, or escape status at the time of the most recent offense.
- Whether the prisoner has a record of heroin dependence.

These items, individually and collectively, have been demonstrated to be associated with the likelihood of recidivism. For each item with a favorable response, the offender receives a fixed number of points. The points scored on each of the six items are added together to produce a total score which can range from 0 to 10. The higher the total score, the lower the predicted likelihood of recidivism. By taking these scores into account when deciding when prisoners are released on parole, the Parole Commission can release low-risk offenders sooner than high-risk prisoners.

The Salient Factor Score and the seriousness of the current offense are combined in a grid to determine a guideline range of total time to be served. The examiner establishes the seriousness of the offense and identifies the horizontal "offense severity" row that applies to the prisoner. Then the examiner calculates the prisoner's Salient Factor Score and finds the vertical column that applies to that category of offenses. The cell where the applicable row and column intersect shows the presumptive time to be served by that prisoner. An example is shown below for an offender who has committed a Category Five seriousness offense:

Guidelines for Decisionmaking				
Customary Total Time To Be Served Before Release (Including Jail Time)				
Offense Characteristics: Severity of Offense Behavior	Offender Characteristics: Parole Prognosis (Salient Factor Score 1981)			
	Very Good (10-8)	Good (7-6)	Fair (5-4)	Poor (3-0)
Category Five	24-36 months	36-48 months	48-60 months	60-72 months
	Guideline Range			

This example shows that an offender with a very low Salient Factor Score may serve two to three times as long for the same offense as an offender with a very high Salient Factor Score.

The period of confinement set by the guidelines is "presumptive" (i.e., the guidelines have legal authority and a sentence consistent with them must be imposed or an explanation be provided if it is not). The Commission may depart from the guidelines if it finds aggravating or mitigating factors that are not already reflected in the guidelines, but it must provide specific reasons in writing for such a departure. In this way, the Commission can try to be consistent and evenhanded without being forced to ignore unique individual circumstances.

How well does the Salient Factor Score predict recidivism? Using one standard definition of recidivism (any new commitment of 60 days or more including a return to prison for parole violation within a 2-year follow up period), research showed that Federal prisoners with the highest Salient Factor Score (a score of 10) had a recidivism rate of 6 percent. Offenders with the lowest Salient Factor Score (a score of 0) had a recidivism rate of 59 percent, nearly 10 times as high. For the four risk categories defined by the Parole Commission for use in its guidelines, research has shown recidivism rates as follows:

Salient Factor Score Category	Recidivism Rate
Category A (scores of 10-8)	12 percent
Category B (scores of 7-6)	25 percent
Category C (scores of 5-4)	39 percent
Category D (scores of 3-0)	49 percent

As noted, different research studies have used different definitions of recidivism and different followup periods. Regardless of the definition of recidivism or the followup period used, the Salient Factor Score has shown clear differences in recidivism rates between categories. Yet within a given category nothing like perfect prediction is possible.

Other Prediction Efforts

How do these results compare with other efforts to predict recidivism? The Salient Factor Score's predictive power is representative of the imperfect quality of predictions found by others who have conducted research in this area. Considerable effort has been devoted by the criminal justice research community to improving the predictive power of such devices, but the effort has thus far not been notably successful.

"Selective incapacitation," a sentencing strategy also based on prediction, has received substantial attention in recent years. The goal is to learn how to identify high-rate offenders in advance, before they commit many offenses. If these offenders can be accurately identified and incarcerated, the crimes they would have committed will not occur, and other offenders who present less risk of recidivism can be incarcerated for shorter periods or not at all. A recent major research report from the Rand Corporation has given impetus to selective incapacitation efforts.

Rand Corporation researchers found substantial variations in the rates of crime among offenders. The researchers questioned more than 2,000 inmates in State prisons in California, Michigan, and Texas about their past criminal conduct. Some admitted to having committed one or two crimes per year; a small proportion said they had committed hundreds per year. The following factors were associated with the differences between high- and low-rate recidivists:

- Prior conviction for same charge.
- Incarcerated more than 50 percent of preceding 2 years.
- Served time in State juvenile facility.
- Drug use in preceding 2 years.
- Drug use as a juvenile.
- Employed less than 50 percent of preceding 2 years.

The Rand Corporation work is unusual because it is based on prisoners' admissions of the crimes they committed. Most recidivism research, by contrast, is based on arrests or convictions and, because many crimes do not result in arrests and fewer result in convictions, provides a less complete picture of offending.

Although the Rand Corporation demonstrated that offenders' rates of committing crimes vary dramatically, the Rand work cannot yet serve as the basis for actual decisionmaking. First, some of the information required for the predictions is not routinely and reliably available to judges and other officials. Second, because the Rand scale was developed on the basis of information about prisoners, it is not known how it would operate when applied to all convicted persons (many of whom have never been prisoners). Third, the research was based on *past*, not *future*, criminality. Predictions must deal with future behavior. It is yet to be seen whether prediction devices can be developed for operational use that will identify highly active recidivists even with modest accuracy.

The primary alternative to using statistical approaches to predictions relies on the clinical judgments of psychiatrists, psychologists, judges, or parole board members. The research evidence to date indicates that predictions based on statistical devices are usually better than the judgments of clinicians.

It is plausible to speculate that clinical judgments coupled with statistical predictions may provide better predictions than either alone. This combined approach is used by the U.S. Parole Commission. As noted earlier, its hearing examiners may override the decisions indicated by the Salient Factor Score when they can set forth substantial reasons to believe a prisoner is a better or poorer risk than the statistics indicate. But there is currently no substantial research evidence that documents whether combined clinical and statistical judgments actually improve predictive accuracy over that obtained by statistical approaches alone.

Critics and Justifications

Critics of the use of predictions of future crime as the basis for parole and sentencing decisions have raised a number of ethical objections. They argue that prediction methods are far from perfect and that many of those who are classified as poor risks will not in fact commit additional crimes. Further, they argue that it is unfair to increase a person's current punishment because of what that person might do in the future.

Critics also question the legitimacy of relying on certain kinds of information in making predictions. Most people would agree that neither race nor sex should be used as a basis for increasing sentence lengths even if this information were shown to be statistically related to recidivism rates. Similarly, critics argue, "status items" such as employment, education, and marital status should not be considered in predicting future crime even though they have been shown to have predictive power. Because low-income people are especially likely to score poorly on these status items, critics argue that using them constitutes a form of class and income bias. In addition, these items of information are not related to the offender's prior criminal record, are not "illegal in themselves," and may in some cases not be within the offender's control. For example, even if unemployed or unmarried offenders were found to have higher recidivism rates, would it be fair to punish them with longer sentences than are received by employed or married offenders who have committed the same offense?

Advocates of the use of criminological predictions generally agree that certain items may be ethically inappropriate to use even if they prove to be predictive (just as some law enforcement techniques, such as coerced confessions, are

legally impermissible notwithstanding their effectiveness). But they point out that the best predictive items tend to be those concerning prior criminal record, and that valid prediction devices have been developed that do not use race, education, employment, or marital status.

Advocates also argue that most judges and parole officials in fact do take an offender's "dangerousness" into account, but they do it subjectively and based on their own intuition. Statistical prediction devices, even if imperfect, are more reliable than intuition. In addition, if the prediction device applies to all sentencing or parole decisions, it constitutes a single consistent set of standards and is therefore fairer than a system in which each judge or parole examiner applies his own idiosyncratic or intuitive standards.

Advocates of prediction acknowledge that criminological predictions are far from perfect and that a significant number of offenders who will not commit new offenses will be misclassified. But they argue that the offender has made himself vulnerable by committing the crime for which he has been convicted. They maintain that a balance must be struck between the rights of the offender and the right of the community to be protected from further crimes by the offender.

They point out that the use of prediction is advocated only for those who are convicted and then only within the range of what otherwise would constitute fair punishment for the offense. That is, advocates of prediction generally agree that the seriousness of the offense should set the upper and lower boundaries of what constitutes "just" punishment. Within these outer limits, they argue it is both desirable and ethically appropriate to use predictive considerations to attempt to protect society, at least temporarily, by giving prison terms to those most likely to commit additional offenses.

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Discussion Questions

1. Some people believe that predictions of dangerousness are an entirely legitimate consideration in sentencing. Other people disagree, arguing criminal punishment should be retributive in nature and should be based solely on the offender's current criminal offense. With which belief do you agree? Why?
2. The state of the art in predicting future serious criminality is "one in three," that is, of every three people who are identified as future offenders, only one will in fact commit an offense. Some argue that these predictions are simply insufficiently reliable to be used as the basis for increasing prison terms. Others urge that these predictions, while imperfect, are an improvement over intuitive judgments and that their use therefore serves both crime control objectives and the objective of treating offenders consistently and fairly. With which argument do you agree? Why?
3. Do you approve or disapprove of the U.S. Parole Commission's use of its Salient Factor Score?
4. Imagine that you are a judge and two offenders stand before you who have been convicted of participation in the same burglary. One has a high Salient Factor Score and the other has a low one. Would you feel justified in sending the high-risk offender to prison for several years while releasing the low-risk offender on probation?

This study guide and the videotape, *Predicting Criminality*, is one of 22 in the CRIME FILE series. For information on how to obtain programs on other criminal justice issues in the series, contact CRIME FILE, National Institute of Justice, NCJRS, Box 6000, Rockville, MD 20850 or call 800-851-3420 (301-251-5500 from Metropolitan Washington, D.C., and Maryland).

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