# Beyond Crime Seriousness: Fitting the Punishment to the Crime

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This paper presents an exposition of how the factorial survey approach may enhance empirical assessments of the complex judgment principles involved in public views of just punishments for convicted offenders. Ratings of the appropriateness of sentences given across 50 typical crimes obtained from a household sample ($N = 774$) of the Boston SMSA and several special-interest samples in 1982 are examined in three alternative ordinary least-squares (OLS) regression equations. These analyses show there is not a one-to-one direct relationship between public perceptions of the seriousness of criminal acts and desired sanctions. Crime seriousness is modified by the characteristics of the offenders and victims and by the consequences of the crimes. Preferred punishments also vary in severity by demographic, experiential, and attitudinal characteristics of the persons who make the judgments.

**KEY WORDS:** factorial surveys; vignette studies; crime seriousness; just punishments.

## 1. INTRODUCTION

What constitutes criminal behavior is socially defined, a condition that is usually advanced as the critically important reason for studying public perceptions of crime seriousness (Sellin and Wolfgang, 1964; Rossi *et al.*, 1974; Rossi and Henry, 1982). A main task of the criminal justice system is fitting the punishments appropriate to crimes committed by persons convicted by courts (Gross and Von Hirsch, 1981; Blumstein *et al.*, 1983). This process involves, in part, estimating how to maximize the popular sense that justice is being rendered in the giving of punishments to convicted offenders. The principle to be served is seemingly simple: crimes deemed serious by society deserve severe punishments and trivial offenses merit only minor sanctions.

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The sentencing decisions of the courts are made somewhat easier by the existence of criminal codes that specify appropriate ranges of punishment for specific criminal offenses. The codes, in turn, reflect through the state legislature's deliberations and actions some understanding, however dim and remote, of what "the public" deems appropriate for the crimes in question.

Of course, public opinion is not the sole and supreme master of the criminal justice system but only one of the more important ones, the others being our legal traditions, the operational capacities of the criminal justice system, and so on.

What the public views as the appropriate punishment for a given crime is not clear (Blumstein and Cohen, 1980; Hamilton and Rytina, 1980; Stinchcombe et al., 1980; Rose and Prell, 1955; Gibbons, 1969; Boydell and Grindstaff, 1974; Thomas et al., 1976). The principle that punishment should fit the seriousness of the crime may dominate popular reasoning but is often modified by other social principles in specific cases. Although the criminal code defines a criminal act in a general way, punishment has to be accorded to a specific instance of law violation (Hagan and Bumiller, 1983). All instances of a particular crime are not identical in all significant respects: an assault upon a stranger may be regarded as deserving more punishment than an assault upon a friend, because cold-blooded assaults imply more deliberate intent than attacks arising out of the hot blood of loves and friendships gone wrong. Offenders who have prior criminal records may be punished more severely than those convicted of their first offenses. Convicted persons who show signs of contrition for their offenses may be let off with less punishment than those who defiantly defend their criminal acts, and so on, through a list of particulars that might apply to specific cases and which may justify departures from the principle that punishments should match the seriousness of the offense.

The particular features of cases that justify such departures are identified in a mixture of formal rules recognized in the law and informal rules that have standing in public opinion and may be followed informally by the courts. In short, fitting the punishment to the crime involves going beyond crime seriousness to take into account those particular features of specific cases that invoke the secondary principles involved in the assessment of whether justice has been served.

Crime seriousness has been measured conventionally as global ratings of short descriptions of general classes of crime (e.g., burglary, murder, and so on) (Sellin and Wolfgang, 1964; Rossi and Henry, 1982). When averaged over some population, these global seriousness measures have been found to be remarkably stable over time and over subgroups (Rossi and Henry, 1982). Apparently, crimes evoke seriousness assessments from the general

public, even though the specific details of particular instances of the crimes are not included in the descriptions to be rated. This feature of crime seriousness ratings has been interpreted as establishing seriousness as a dimension along which crimes are evaluated with a fairly high degree of consensus. To go beyond crime seriousness, as we do in this paper, is to show that the seriousness of the general crime class does not determine uniquely how much punishment is appropriate. A number of other principles come into play in such judgments, as we indicate.

This paper addresses empirically the issue of how the various principles involved in judging the fairness of punishments are used in combination by the general public. Specifically, we report on research designed to uncover how members of the general public combine some of the particular features of cases of convicted criminals in judging the appropriateness of the punishments for those cases. We consider the joint influences on such judgments of the following characteristics of particular cases: (i) the seriousness of the crime committed as conventionally measured through global ratings of classes of crimes; (ii) the social characteristics of the particular offender, such as prior criminal record, age, sex, socioeconomic level, race, etc.; (iii) the extent of the injuries and/or losses sustained by victims; (iv) the relationship between the offender and the victim; (v) the social characteristics of the victim in terms of age, sex, socioeconomic level, and race; and (vi) potentially mitigating circumstances involved in the cases. This analysis is undertaken separately for four major classes of crime: property crimes, crimes against persons, victimless crimes, and corporate crimes.

In addition, we investigate the extent to which the principles used by members of the general public in making judgments about appropriate punishments for persons convicted of crimes are shared principles or idiosyncratic in character.

Lest our intentions be misunderstood, we want to make it abundantly clear that we do *not* advocate that the criminal codes or the practices of the criminal justice system be altered to conform more closely to the principles used by the public in judging appropriate punishments for crimes. Nor do we claim that the latter are exogenous to the former: the practices of the criminal justice system undoubtedly affect the judgments of the public as well as the other way around.

## 2. RESEARCH DESIGN

Sample surveys are the obvious method of choice for the study of public opinion. We employ a variant of that approach, the factorial survey (Rossi and Anderson, 1982), a melding of principles of experimental design with conventional sample survey methodology. This approach is applicable

generally to uncovering the latent principles used by persons in the judgment of complex social objects.

Although relatively new to research on crime, the factorial survey technique has been used to study formally similar topics in other social science areas, including how housing preference judgments are formed, judgments about whether specific acts directed toward children constitute child abuse, judgments about the social status of households, and judgments about behavior that constitute sexual harassment (Rossi and Nock, 1982). The topics all have in common the judging of complex social objects—housing, behavior sequences, households, etc—all bundles of specific attributes, each of which may contribute to overall judgments about the objects on the criterion used in the research. In addition, the bundles of attributes that make up the salient features of the objects being judged are often found to be loosely coupled one with another. Thus, although households headed by persons with high educational attainment generally have higher average incomes than households with the opposite characteristics, the correlation across households between education and income is a modest +0.4 to +0.5, indicating that there are many households that lie off the regression line. Judging the social status of households, a task that usually takes into account both the income and the education of main household members, means making judgments about objects that have inconsistent attributes. How persons reconcile such inconsistent attributes to come to an overall judgment is at the heart of the problems to which the factorial survey is addressed.

Convicted criminals may also be regarded as complex social objects that vary from one another in many, often contradictory ways—crimes committed, losses or damages inflicted on victims, and social characteristics of both offenders and victims. Hence judgments about appropriate punishments for convicted criminals are a fitting subject for study through the factorial survey approach.

In barest outline, the factorial survey approach involves the systematic construction of vignettes (or short descriptions) of the social objects being assessed and the presentation of such constructed cases to a sample of respondents to be judged accordingly. Although vignettes have been used before in other research (e.g., Berk and Rossi, 1977), the factorial survey vignettes are constructed in a special way, employing principles that result in many of the statistical characteristics of factorial randomized experiments, namely, orthogonality among treatments (or dimensions) and fully crossed dimensions under conditions permitting many dimensions and levels within dimensions to be employed.

The statistical qualities of the resulting data set permit unbiased estimates of the contributions of each of the several dimensions incorporated

into the vignettes to the overall judgment. These features are directly pertinent to the main issue of this research, namely, how does each dimension of a criminal case contribute to the overall judgment whether fair punishment has been given in that case.

The specially constructed vignettes are given to respondents for judgment according to some criterion. In this case, the vignettes are descriptions of convicted criminals who have been sentenced (randomly) to varying lengths of confinement in prison. The respondent is asked to judge the appropriateness (or fairness) of the sentence imposed.

Critical to the factorial survey approach is the manner in which the vignettes are constructed, as follows.

(i) Dimensions of the social objects are identified a priori as relevant to the judgments under study, along with specific levels within each dimension. Thus the crime committed by the convicted offender is a dimension of the vignettes; levels within that dimension are a set of 57 specific offenses, e.g., homicide, robbery, forgery, etc.

In the design of any factorial survey, a critical step is the specification of the dimensions and levels to be included. In this case, the central concern with "fitting the punishment to the crime" immediately specified two dimensions, punishments in the form of prison sentences and crimes, selected to vary in seriousness. In addition, we chose crimes from four major categories of felonies, crimes against the person, crimes involving the appropriation of property, "victimless crimes," and "white-collar crimes"— crimes committed by business organizations (Rossi and Henry, 1982; Cullen *et al.*, 1982). The remaining dimensions were chosen mainly because published literature on sentencing stressed their importance, e.g., socioeconomic characteristics of the offender, previous record, ethnicity, age, gender (Hagen and Bumiller, 1983). Some of the socioeconomic characteristics of crime victims were also included, when appropriate, including many of the same characteristics that were used to describe the offender, as well as statements about the damages inflicted on the victim.

The dimensions and illustrative examples of levels used in this study are shown in Table I. Note that some of the dimensions are nested. For example, characteristics of an offender are included only for crimes in which a person can be the offender and victim characteristics are used only for crimes against the person.

(ii) A computer program constructs each vignette by picking randomly one of the levels within the first dimension—in this case, a specific crime. The program then goes on to select randomly a level within the second dimension (if appropriate to that kind of crime), repeating this selection process through all the dimensions that are relevant to the specific crime that was picked in the first step. The program can skip over dimensions

**Table I.** Dimensions and Levels Used in Vignette Construction

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Dimension 1: Crime of conviction
    Levels: 57 different crimes of which the offenders have been convicted, including crimes
          against property, crimes against persons, victimless crimes, and crimes committed
          by corporate bodies
    Illustrative levels: "Snatching a handbag on the street, stealing..."
                    "Breaking into a neighborhood store and stealing property worth..."
                    "Using a gun to rob someone, stealing..."
                    "Forcibly raping..."
                    etc.

Dimension 2: Size of corporate offender (used only in crimes in which a corporation or formal
organization is the offender)
    Levels: 4 sizes
    Illustrative levels: "A very large nationwide company"
                    "A small company"
                    "A company"

Dimension 3: Dollar amounts stolen (used only for crimes in which money or property were
taken by the offender)
    Levels: 7 dollar amounts
    Illustrative levels: "Under $20"
                    "Around $100"
                    "Over $10,000"

Dimension 4: Injury to the victim (used only in crimes against the person)
    Levels: 7 descriptions of degree of injury suffered by victim
    Illustrative levels: Blank text (i.e., no injury mentioned)
                    "The victim was not injured."
                    "The victim required two weeks' hospitalization."
                    "The victim died as a result."

Dimension 5: Prior record of the corporation (used only in crimes with corporate offenders)
    Levels: 4 degrees of previous violations
    Illustrative levels: "This company has never before been in court on charges like this."
                    "Over the past five years, this company has been in court many times on
                    charges like this."
                    Blank text (i.e., no description of prior record of corporation)

Dimension 6: Corporate mitigating circumstances (used only for corporate crimes)
    Levels: 6 statements that describe mitigating circumstances
    Illustrative levels: "The company claims that all their competitors do the same."
                    "The company claims that it was trying to save jobs for its workers."
                    Blank text (i.e., no statement is included in the vignette)

Dimension 7: Sentence length (used in all crimes)
    Levels: 9 sentences of varying length
    Illustrative levels: "3 months in jail"
                    "5 years in prison"
                    "More than 10 years in prison"

Table I (*cont.*)

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Dimension 8: Sentence suspension (used in all crimes)
  Levels: 3 statements
  Illustrative levels: Blank text (i.e., no statement about suspension given)
              "The sentence was suspended."
              "The sentence was suspended with probation for the duration of the original sentence."

Dimension 9: Gender of offender (used only for crimes in which a person was the offender)
  Levels: 30 first names, consisting of 20 male and 10 female names

Dimension 10: Age of offender (used only for crimes in which a person was the offender)
  Levels: 8 ages ranging from 18 through "over 40" but concentrated in the young adult stage and including one level of "blank text" in which no age is printed

Dimension 11: Ethnicity of offender (used only for crimes with person as offender)
  Levels: 4 ethnic groups including black (25%), white (50%), Hispanic (12.5%), and no ethnicity designated (12.5%) (Percentages shown are the expected proportions of each of the ethnic groups.)

Dimension 12: Offender labor force status (for crimes with persons as offenders)
  Levels: 5 levels including employed, unemployed, housewife, and blank text

Dimension 13: Occupation of offender (for crimes with persons as offenders)
  Levels: 20 occupational titles, weighted with low-status occupations
  Illustrative levels: "Car washer"
              "Bus driver"
              "Teacher"

Dimension 14: Offender–victim relationship (used only for person offender crimes with persons as victims)
  Levels: 5 degrees of relationship
  Illustrative levels: "Spouse"
              "Friend"
              "Stranger"

Dimension 15: Gender of victim (used only for person offender and victim crimes)
  Levels: 35 levels consisting of 14 female and 21 male names

Dimension 16: Age of victim (used only for person offender and victim crimes)
  Levels: 7 levels ranging from 20 to 55 and over

Dimension 17: Employment status of victim (used only from person offender and victim crimes)
  Levels: same as for offender

Dimension 18: Occupation of victim (used only for person offender and victim crimes)
  Levels: same as for offenders

Dimension 19: Prior record of offender (used only for crimes with persons as offenders)
  Levels: 6 prior record statements varying in severity
  Illustrative levels: "The offender has not been arrested or convicted."
              "The offender has been arrested once but not sent to prison."
              "The offender has been convicted twice and sent to prison once."

**Table I** (*cont.*)

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Dimension 20: Person offender mitigating circumstances (used only for crimes in which person
are offenders)

    Levels: 8 statements pertaining to excuses made by offender for committing the crime of
          conviction
    Illustrative levels: "The offender claims to have been taking drugs at the time."
                  "The offender has offered to make up for the crime by paying
                  damages."

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that are not relevant. For example, if crimes are selected that do not have
specific personal victims, as in drug trafficking or illegal possession of
firearms, the dimensions that pertain to the characteristics of a personal
victim are skipped.

Two examples of vignettes produced by the program are shown in Fig.
1. Note that each vignette contains a different set of dimensions; that is,
each contains only those that are relevant to the type of crime committed
by the offender portrayed in the vignette. Figure 1 also shows the rating
scale that the respondent is asked to use to record his or her judgment. The
criterion used is the appropriateness of the punishment shown as given to
the convicted felon described in the vignette. The scale contains 62 intervals,
each of which has been given the value 2. Care is taken in wording the
levels constituting each dimension, with the result that, when different levels
are assembled together in the form of vignettes, the flexibility of the English
language is not overly taxed.

Figure 1 is actually a sample page of the booklet containing 50 vignettes
that is handed to each respondent to read and mark. Each booklet con-
stitutes, in effect, a self-administering questionnaire upon which the respon-
dent is asked to mark his or her judgment of each of 50 vignettes.

(iii) The computer program repeats the process of assembling vignettes
until a sample of 50 vignettes is produced and then prints the vignettes in
booklet form. The program goes on to produce as many booklets as are
needed, using the same process described earlier, for each booklet. Note
that each booklet contains a random and, thus, unbiased sample of all
possible vignettes defined by permissible combinations of levels.

The total number of unique permissible vignettes as defined in this
study is 1,047,259,295,424. This feature means, for all practical purposes,
that each respondent gets essentially a unique combination of vignettes in
his or her booklet. Each respondent's set differs only by sampling variation
from other booklets in the crimes, sentences, and other features of the
vignettes. In other words, the mean seriousness of the crimes (as well as
the central tendencies of other dimensions) in each respondent's vignette

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FRANK F., 20, A BLACK, AN EMPLOYED PARKING LOT ATTENDANT WAS
CONVICTED OF STEALING MERCHANDISE FROM A DEPARTMENT STORE COUNTER
WORTH AROUND $1,000.

IN THE LAST FIVE YEARS, THE OFFENDER HAS BEEN ARRESTED ONCE, BUT NOT
CONVICTED.   THE OFFENDER HAS OFFERED TO MAKE UP FOR THE CRIME BY
PAYING DAMAGES.

FRANK F. WAS SENTENCED TO 7 YEARS IN PRISON.

             THE SENTENCE GIVEN WAS ...

                        ABOUT
                        RIGHT
— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I —— ᴼᴬ
MUCH                                                            MUCH
TOO              LOW                          HIGH              TOO
LOW                                                            HIGH


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JAMES C., 22, A WHITE, AN UNEMPLOYED DRILL PRESS OPERATOR, WAS
CONVICTED OF INTENTIONALLY INJURING A STRANGER, HENRY P. OVER 55, AN
UNEMPLOYED CAR SALESPERSON.   THE VICTIM REQUIRED TWO WEEKS
HOSPITALIZATION.

THE OFFENDER WAS VERY DRUNK AT THE TIME.

JAMES C. WAS SENTENCED TO 7 YEARS IN PRISON.

             THE SENTENCE GIVEN WAS ...

                        ABOUT                     ·
                        RIGHT
— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I ——————— I —— ᴼᴬ
MUCH                                                            MUCH
TOO              LOW                          HIGH              TOO
LOW                                                            HIGH

ᴼᴬScale coded as 1 to 125 with each of the units counted as 2, ranging
  from 125 coded for "much too low" to "1" for "much too high.
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**Fig. 1.** Examples of computer-generated vignettes.

booklet has the same expected value, a feature that facilitates comparison among individual respondents' judgments. This also means that despite the astronomical number of possible vignettes used, each set of vignettes generated is *not* entirely different from all other vignette sets. For example, about 40% of all the possible vignettes describe property crimes, and about 40% of any respondent's booklets are property crimes; two-thirds of all offenders shown in the vignettes are males, and about two-thirds of the offenders in any respondent's booklet would also be males; and so on, through the entire list of dimensions.

The computer program at the same time also produces a coded tape that contains a record for each of the vignette samples the program has produced. This tape becomes an analysis tape by the addition of the 50

ratings made by the respondent and whatever additional information about the respondent is desired. In this study, an additional 30-min interview was administered to the respondent. This instrument contains several attitude scales that were used to explain some of the individual differences in the ratings.[2]

(iv) Respondents are selected according to the particular variety of sample survey methods one may choose. In the present case, respondents ($N = 774$) were selected through a modified area probability sample of the Boston SMSA. The modifications involved relaxing selection criteria once tracts and blocks within tracts were selected by probability sampling methods. Several samples of convenience were also selected from populations of special interest to this study, including high-school students in a low socioeconomic section of Boston, policemen taking courses in the criminal justice program at Northeastern University, Job Corps members in a residential program in Chicopee, Massachusetts, and advanced law-school students at Indiana University.[3]

## 3. DATA ANALYSIS

Since independently drawn random samples may be pooled to produce larger samples that are also random, pooling vignettes across respondents produces a very large random sample of vignettes. In this case the pooled overall sample of vignettes is certainly large enough—over 53,000—to constitute an adequate basis for stable estimates of the separate and independent contributions of dimensions and levels to the fairness judgments of respondents.

There are several alternative approaches to the analysis of these data, three of which are shown in Table II, defined as ordinary least-squares (OLS) regression equations.[4] The first equation (A) depicts a judgment or rating, $J$, given to vignette $i$ as a simple linear function of the dimensions

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[2]Interviews were collected under subcontract by the Survey Research Center of the University of Massachusetts, Boston.

[3]We are indebted to the following for help in data collection: Geraldine O'Donnell, Assistant Headmaster of Madison Park High School; Timothy Moran, Associate Dean, University College of Northeastern University; Russell Smith, Westover Job Corps Center; and Professor Ilene Nagel, Indiana University.

[4]The use of OLS models in analyzing these data may appear, at first glance, to violate the assumption of fixed effects. However, the effects of violating this assumption are minimal (Kmenta, 1971) and, in any event, affect only the extent to which findings can be generalized. It should also be noted that analyses are not constrained only to an OLS interpretation of the general functional form of the relation between ratings and vignette characteristics. For example, when there is good reason to believe that the rating scale used truncates responses artificially, logistic regression may be employed.

**Table II.** General Models for Analyzing Factorial Surveys

A. OLS Model for Vignette Characteristics Only

$$J_i = b_0 + b_1 C_1 + b_2 C_2 + \cdots + b_j C_j + e,$$

where $J_i$ is the rating given to vignette $i$; $b_0$ is the intercept; $b_1, b_2, \ldots, b_j$ are regression coefficients associated with vignette characteristics, $C_1, C_2, \ldots, C_j$; $C_1, C_2, \ldots, C_j$ are either dimensions of the vignette or levels within dimensions; and $e$ is the usual stochastic error term.

B. Generalized Vignette Analysis Model

$$J_i = b_0 + b_j C_j + b_k R_k + b_m I_m + e,$$

where $J_i$, $b_0$, and $e$ are as defined above in A; $b_j C_j$ is a vector of vignette characteristics and associated regression coefficients; $b_k R_k$ is a vector of respondent variables and associated regression coefficients; and $b_m I_m$ is a vector of interaction terms formed by $C_j$, $R_j$, or combinations.

C. Generalized Respondent Judgment Principles Analysis Model

$$V_k = b_0 + b_y S_y + b_k R_k + e,$$

where $b_0$ and $e$ are as defined in A above; $V_k$ is some summary measure of the $k$th individual's ratings of his/her sample of vignettes; $b_y S_y$ is a vector of summary measures of the respondent's sample of vignettes; and $b_k R_k$ is a vector of respondent characteristics including regression coefficients from analyses of individual respondent vignette sets.

and levels within dimensions that compose the vignette. In broader terms, this equation shows the ratings as being primarily influenced by the content of the vignettes, with the resulting coefficients being the weights applied to those vignette components which best reproduce, in an OLS sense, the ratings given to each vignette. Note that because of the approach used to construct the vignettes, the characteristics of the vignettes are uncorrelated with respondents, each respondent being given a separate random sample of vignettes. Hence the computed coefficients are unbiased estimates of those weights, unaffected by any characteristics of the respondents.

The findings resulting from the application of the OLS model in Table IIA to all of the vignettes rated are shown in Table III. Because some of the dimensions do not apply to all types of crimes, the analysis in Table II is based on only those dimensions which are present in all of the vignettes, i.e., in all types of crimes.

The dependent variable in Table III is composed of the ratings given to vignettes, as shown in Table II, converted to a scale that ranges between 1 and 125. The midpoint, defined as a sentence or punishment that is "about right" in the respondent's judgment, receives the score value of 63. Note that a higher score means an increase in the desired severity of punishment for the convicted person described in the vignette. Hence the dependent variable has been called "severity rating" to reflect that quality. A positive coefficient associated with an independent variable means that high values

**Table III.** Regression of Severity Ratings on Dimensions Present in All Vignettes

| Independent variable | Dependent variable is severity ratings[a] of vignettes | |
| --- | --- | --- |
| | $\beta$ | SE |
| Crime seriousness score[b] | +0.060* | 0.0009 |
| Log of sentence given | −10.072* | 0.095 |
| Suspended sentence dummy | +16.161* | 0.381 |
| Probation given dummy | +16.300* | 0.383 |
| Property loss crime dummy[c] | −0.674 | 0.447 |
| Victimless, nonproperty crime dummy[d] | −11.385* | 0.472 |
| Corporate crime dummy[e] | +5.190* | 0.485 |
| Intercept | 50.927* | 0.561 |
| $R^2$ | 0.315* | |
| $N^e$ | 53,387 | |

[a] A high rating indicates that the sentence shown in the vignette is regarded as too low by the respondent. Hence ratings denote the desired severity for the convicted person described in the vignette.

[b] Computed from ratings of seriousness of the crimes as gathered by Wolfgang (Center for Studies in Criminology and Criminal Law, 1978) from a national probability sample of the United States and Rossi *et al.* (1974) from a sample of Baltimore residents.

[c] Dummy variable for crimes involving specific amounts of property loss by a victim. Omitted category consists of crimes involving personal injury to victims.

[d] Dummy variable for crimes involving corporate entities as offenders. Omitted category same as above.

[e] $N$ is the number of vignettes used in analysis. Vignettes were rated by household sample of Boston SMSA and convenience samples of other populations of special interest.

*$P < 0.001$.

on that characteristic are associated with high severity ratings, indicating that the punishments given tend to be too low in the opinions of the respondents. Stated otherwise, a negative coefficient, say, for female offenders, indicates that respondents tend to be less severe or more lenient toward female convicted offenders, as compared to male offenders.

## 3.1. Overall Judgment Tendencies

An analysis using the OLS model in Table IIA may be viewed as uncovering the most general structure of judgments as affected by the vignette dimensions, thereby representing the "consensus" that exists among respondents taken as a collectivity. The higher the $R^2$ resulting from such an analysis, the greater the amount of agreement among respondents in the use of the dimensions included in the construction of vignettes. Note that the $R^2$ shown in Table III, 0.315, is only modest in size, indicating the potential for much disagreement among respondents, an issue to which we return.

The crime described in each vignette is represented by a crime serious-
ness score. Most of the scores were directly derived from Wolfgang's national
study (Center for Studies in Criminology and Criminal Law, 1978) of crime
seriousness. Interpolations for crimes not included in Wolfgang's study
were estimated from the regression of Wolfgang scores on scores obtained
in a 1974 Baltimore study conducted by Rossi *et al.* (1974).[5] Clearly, crime
seriousness is a strong influence on the judgments.[6] The higher the crime
seriousness score, the more severe the respondent is inclined to be, net of
the other characteristics of the vignette, in judging the appropriateness of
the sentence given to the offender described in the vignette. Thus the most
serious crime used in the study, with a seriousness score of 990, received
an increment to the severity score solely on the basis of crime seriousness
of 59, and the least serious crime, with a seriousness score of 14, resulted
in an increase in the severity score of 1.

Obviously, the sentence randomly given to the convicted offender also
affected the severity score but, equally obviously, in the direction opposite
to that of crime seriousness. The longer the sentence shown in the vignette,
the less severe was the respondent's rating. The sentences used ran from 3
months in jail to more than 10 years in prison, represented as natural logs—a
transformation that raised significantly the correlation between the sentence
and the severity rating. In other words, respondents were more sensitive to
differences among the shorter as compared to the longer sentences given
in the vignettes. The difference between a 3-month and a 6-month sentence
was seen as much larger by the respondents than the difference between 8
and 9 years, at least as far as the severity ratings were concerned.

Suspending a sentence or giving probation to the offender increased
the respondent's desire for more severity by about the same amount in
either case, 16 points on the rating scale. The remaining variables in the
equation are dummies that mark out special types of crimes and compare
each to crimes in which there is the possibility of personal injury to a specific
victim. These results indicate that corporate crimes, net of their seriousness,
were regarded as deserving more severity (about 5 points' worth on the

[5]We are indebted to Marvin E. Wolfgang and Robert E. Figlio for providing scores from their
national survey. The Baltimore and Wolfgang scores were integrated in the following way:
The regression of Wolfgang scores on Baltimore scores for comparable crimes was computed.
The resulting regression equation was then used to estimate Wolfgang scores for crimes
included in the Baltimore study but not in the Wolfgang study. The metric for the Wolfgang
crime seriousness scores was generated by a magnitude estimation task given to a national
sample as a supplement to the Current Population Survey in 1978.

[6]The zero-order correlation between the crime seriousness scores and the leniency ratings was
0.40, indicating that about 16% of the explained variance in leniency ratings was accounted
for by that feature of the vignettes.

scale) and that victimless nonproperty crimes deserved, on the average, about 11 points less severity. Property crimes were given neither more severity nor less in comparison to personal injury crimes.

These last findings indicate that crime seriousness scores do *not* fully exhaust the effects of crime on judgments of appropriate punishments. The significant coefficients for corporate "white-collar" crimes and victimless crimes indicate that in the respondents' minds, at least, a different conversion scale was needed to translate the perceived seriousness of these crimes into appropriate punishments; *different processes appear to be at work in the judgment of the several classes of law violation.*

The $R^2$ for this equation, 0.32, indicates that the dimensions involved accounted for about a third of the variance in the ratings. Of course, some unexplained variance in this equation is to be expected, since other dimensions that appeared in the vignettes and respondent characteristics were not included in the OLS equation. In addition, the unexplained variance represents "error," that is, the "mistakes" respondents make in their ratings as a consequence of improperly processing the information in the vignettes or mistakes made in using the rating scale.

One of the more important conclusions that can be drawn from Table III is that crime seriousness was not the sole determinant of the appropriate sentence given to a convicted offender. Other aspects of the crime were taken into account in judging specific cases, as indexed by the modest $R^2$ for this equation and by the fact that other characteristics of the crime played some role.

### 3.2. Crime Type and Respondent Effects

The OLS model shown in Table IIB conceptualizes the ratings given to vignettes as a linear function of the vignette characteristics and of respondent characteristics as well as interactions either within one group of variables or between groups, allowing respondent characteristics to enter the analysis in a limited way (i.e., additively), and provides for nonlinear effects of dimensions.

Using the model in Table IIB, Table IV presents regressions of severity ratings on vignette characteristics, run separately for crimes against property, crimes against persons, crimes without specific victims and not involving the appropriation of property, and white-collar crimes committed by corporations, the four main classes of crimes covered by the vignettes.[7] This

[7]Examples of crimes included in each class are as follows: property crimes—breaking and entry, burglary, handbag snatching, using stolen credit cards; crimes against persons— intentional stabbing, intentional shooting, reckless driving accident causing injury, forcible rape; victimless crimes—lying under oath, being drunk in public, smoking marijuana; and white-collar corporate crimes—fixing prices, knowingly selling defective products, overcharging for credit.

separation allows the regressions to include all the information for each type of crime used in the construction of the vignettes.

At the bottom of each column of regression coefficients are descriptive statistics pertaining to crime seriousness scores and severity ratings. Clearly the crime types varied in their seriousness and, correspondingly, in the average severity ratings given to them by respondents. It is no surprise that crimes against the person were regarded as the most serious and accorded the most severity. At the opposite ends of both seriousness and severity were victimless crimes that involve neither specific persons as victims nor property theft. The other two classes of crime studied lay between the first two in terms of both crime seriousness and severity ratings.

The four regression equations each involve blocks of independent variables specific, by intention, to the crime class involved and blocks that are common to all crime categories. The first block, "legal variables," is comprised of dimensions that pertain directly to the legal aspects of the crimes, e.g., the seriousness of the crime, the sentence given upon conviction, and, in the case of property theft, the dollar amount of property stolen.

Perhaps the most notable feature of the regression coefficients for this block of variables is the wide variation in the coefficient for crime seriousness, ranging from +0.101 for corporation crimes to +0.038 for crimes against persons, a range of almost 3 magnitudes. Nor is this finding an artifact of the range of seriousness in which variables with restricted variances are characterized by smaller regression coefficients, since it is the crime class with the highest seriousness variance that has the smallest coefficient. The severity ratings given to crimes against the person are not as sensitive to differences in crime seriousness scores compared to other crimes. Perhaps the other features of crimes used in the vignettes for crimes against persons incorporated elements of seriousness in concrete ways that took away some of the influence of global seriousness scores. In other words, the injuries suffered by the victim of crimes against the person were specific manifestations of seriousness that override the global score.[8]

The second block of independent variables pertains to the characteristics of the offender, defined for three of the crime types but undefined for crimes in which corporations are shown as the offenders. Here several

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[8]Recall that the seriousness scores are derived from the survey by the Center for Studies in Criminology and Criminal Law (1978), in which descriptions of crimes were given to a national sample of respondents to rate using a magnitude estimation approach. The scores used in this study were derived from those scores by averaging across all the instances of a particular type of crime. Thus there were several versions of assaults, each using slightly different formulations (e.g., amounts of injury, relationship between offender and victim, etc.), in the study by Wolfgang *et al.* Averaging across those several versions to obtain a global score for the crime undoubtedly introduced error, some of which is recovered by the additional dimensions included in the vignettes describing crimes against persons.

Table IV. Regression of Severity Ratings on All Vignette Dimensions

| Independent variable | Property loss crimes[a] | | Crimes against the person | | Personal crimes without specific victims[b] | | White-collar crimes of corporations | |
|---|---|---|---|---|---|---|---|---|
| | β | SE | β | SE | β | SE | β | SE |
| 1. "Legal" variables | | | | | | | | |
| Crime seriousness scores | +0.062‡ | 0.002 | +0.038‡ | 0.001 | +0.086‡ | 0.002 | +0.101‡ | 0.003 |
| Log of sentence given | −10.98‡ | 0.145 | −9.664‡ | 0.226 | −9.481‡ | 0.171 | −9.545‡ | 0.205 |
| Probation dummy | +15.75‡ | 0.585 | +13.554‡ | 0.909 | +19.037‡ | 0.678 | +15.156‡ | 0.831 |
| Suspended sentence dummy | +15.837‡ | 0.579 | +15.269‡ | 0.897 | +17.581‡ | 0.685 | +16.870‡ | 0.831 |
| Dollar property loss | +0.002‡ | 0.000 | — | — | — | — | — | — |
| 2. Offender characteristics | | | | | | | | |
| Black dummy | −1.081† | 0.436 | +0.239 | 0.682 | −0.454 | 0.516 | — | — |
| Female dummy | −3.970‡ | 0.729 | −3.264† | 1.196 | −3.381‡ | 0.852 | — | — |
| Age (years) | +0.066‡ | 0.017 | +0.042 | 0.027 | −0.022 | 0.019 | — | — |
| Unemployed dummy | +0.092 | 0.458 | +0.631 | 0.702 | −0.938 | 0.541 | — | — |
| Housewife dummy | +4.226† | 1.425 | −0.513 | 2.201 | −1.770 | 1.712 | — | — |
| Occupational prestige[c] | −0.017* | 0.007 | −0.009 | 0.012 | +0.001 | 0.009 | — | — |
| No previous arrests | −2.848‡ | 0.647 | −6.741‡ | 1.036 | −3.007‡ | 0.757 | — | — |
| 1 arrest or 1 conviction | +3.569‡ | 0.555 | −0.849 | 0.891 | +2.720‡ | 0.640 | — | — |
| 2 convictions | +11.835‡ | 0.646 | +4.809‡ | 1.029 | +11.079‡ | 0.761 | — | — |
| More than 2 previous convictions | +14.558‡ | 0.647 | +7.246‡ | 1.023 | +13.134‡ | 0.750 | — | — |
| 3. Victim Characteristics | | | | | | | | |
| Female dummy | — | — | +3.577‡ | 0.834 | — | — | — | — |
| Age in years | — | — | −0.037 | 0.027 | — | — | — | — |
| Unemployed dummy | — | — | +1.234 | 0.995 | — | — | — | — |
| Occupational prestige[c] | — | — | +0.013 | 0.017 | — | — | — | — |
| Housewife dummy | — | — | +2.603 | 1.353 | — | — | — | — |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **4. Victim–offender relationship** | | | | | | | | | |
| Strangers | — | — | +0.174 | 1.083 | — | — | — | — | — |
| Acquaintances | — | — | -3.504‡ | 1.067 | — | — | — | — | — |
| Friends | — | — | -5.312‡ | 1.049 | — | — | — | — | — |
| Spouses | — | — | -5.329‡ | 1.200 | — | — | — | — | — |
| **5. Injury to victim** | | | | | | | | | |
| Some hurt with medical care | — | — | +8.108‡ | 0.729 | — | — | — | — | — |
| Injury with permanent effects | — | — | +18.962‡ | 0.878 | — | — | — | — | — |
| Victim killed | — | — | +33.700‡ | 0.894 | — | — | — | — | — |
| **6. Mitigating circumstances** | | | | | | | | | |
| "Family needs" | -1.923† | 0.750 | -0.900 | 1.177 | +2.766† | 0.892 | — | — | — |
| "Offender sorry" | -1.199 | 0.755 | -0.259 | 1.186 | +0.328 | 0.890 | — | — | — |
| "Under influence of drugs" | +1.735* | 0.756 | +1.751 | 1.192 | +5.182‡ | 0.884 | — | — | — |
| "Under influence of alcohol" | -1.124 | 0.749 | -1.546 | 1.179 | +2.147* | 0.885 | — | — | — |
| "Seeing counselor since crime" | -3.962‡ | 0.755 | -4.053‡ | 1.189 | -2.013* | 0.896 | — | — | — |
| "Claims worry over money for family" | -2.624‡ | 0.760 | -3.264† | 1.188 | -0.205 | 0.888 | — | — | — |
| "Desires to pay damages to victim" | -4.322‡ | 0.766 | -2.794* | 1.180 | +1.396 | 0.885 | — | — | — |
| **7. Corporation characteristics** | | | | | | | | | |
| Very large national company | — | — | — | — | — | — | — | +2.249* | 0.775 |
| Large company | — | — | — | — | — | — | — | +0.602 | 0.766 |
| Small company | — | — | — | — | — | — | — | -0.192 | 0.768 |
| First offense | — | — | — | — | — | — | — | -4.930‡ | 0.776 |
| First conviction (other charges) | — | — | — | — | — | — | — | +1.320 | 0.772 |
| Many previous charges | — | — | — | — | — | — | — | +8.319‡ | 0.770 |
| Competition as mitigating claim[d] | — | — | — | — | — | — | — | +3.410‡ | 0.821 |
| Hardship for workers[d] | — | — | — | — | — | — | — | +1.530 | 0.822 |
| Law is unconstitutional[d] | — | — | — | — | — | — | — | +0.565 | 0.945 |

**Table IV** (*cont.*)

| Independent variable | Property loss crimes[a] | | Crimes against the person | | Personal crimes without specific victims[b] | | White-collar crimes of corporations | |
|---|---|---|---|---|---|---|---|---|
| | β | SE | β | SE | β | SE | β | SE |
| 8. Respondent characteristics | | | | | | | | |
| Male respondent | -1.910‡ | 0.401 | -2.256‡ | 0.624 | -2.754‡ | 0.472 | -3.315‡ | 0.575 |
| Black respondent | +2.418‡ | 0.591 | -3.227‡ | 0.912 | +2.884‡ | 0.690 | +5.306‡ | 0.845 |
| Age (years) | -0.013 | 0.014 | -0.084‡ | 0.021 | +0.077‡ | 0.016 | -0.082‡ | 0.019 |
| Education (years) | -0.630‡ | 0.088 | -0.179 | 0.137 | -1.122‡ | 0.104 | -0.290* | 0.126 |
| Household income (000's) | -0.016 | 0.014 | +0.007 | 0.022 | -0.013 | 0.017 | -0.086‡ | 0.020 |
| NA on income | +2.083* | 1.071 | -0.570 | 1.690 | +0.500 | 1.221 | -1.075 | 1.508 |
| Job Corps sample | -5.948‡ | 0.980 | -4.005† | 1.526 | -2.272* | 1.124 | -3.811† | 1.381 |
| State prisoner sample | -9.820‡ | 1.172 | -19.102‡ | 1.888 | +0.728 | 1.397 | -16.277‡ | 1.719 |
| Roxbury High School sample | -0.245 | 0.863 | -1.873 | 1.345 | +2.746† | 1.000 | -0.612 | 1.214 |
| Police sample | -0.908 | 0.631 | -1.207 | 0.974 | -2.940‡ | 0.746 | -4.311‡ | 0.900 |
| Intercept | +52.213‡ | 1.750 | +58.927‡ | 2.778 | +39.431‡ | 1.986 | +49.537‡ | 2.410 |
| $R^2$ | 0.345‡ | | 0.392‡ | | 0.351‡ | | 0.315‡ | |
| N | 20,410 | | 8552 | | 14,689 | | 10,113 | |
| Mean seriousness score | 247 | | 464 | | 227 | | 260 | |
| Min, Max seriousness | 114, 537 | | 252, 993 | | 13, 552 | | 140, 468 | |
| SD | 99.7 | | 251.7 | | 130.9 | | 94.3 | |
| Mean severity rating | 60.0 | | 74.8 | | 48.0 | | 66.7 | |
| SD | 33.6 | | 35.5 | | 33.6 | | 32.9 | |

[a] Vignettes with crimes involving the appropriation of property and committed by an individual offender.

[b] Vignettes with crimes committed by an individual but without specific victims (e.g., parking violations, income tax evasion).

[c] Occupational prestige scores as derived from Duncan SEI scores (National Opinion Research Center, 1983).

[d] These are statements presumably made by the convicted company concerning why they committed the crime and offered as mitigating excuses, e.g., "Claimed that all competing companies do it."

* $P < 0.05$.

† $P < 0.01$.

‡ $P < 0.001$.

findings stand out. First, the race of the offender significantly affected only the severity ratings of property crimes. Property crimes committed by blacks were regarded slightly more leniently than those commited by either "whites" or Hispanics. No ethnicity differences existed for either crimes against persons or victimless crimes. Perhaps respondents were saying that blacks, because of their poverty, can be excused to some small extent for committing property crimes. Second, offender sex did make a difference, with women consistently regarded with less severity than males. The coefficient for gender is about the same size in each of the three crime classes. Since most research on the actual sentencing of offenders also finds a similar gender effect, respondents may have been simply reflecting the practice of the courts, or vice versa.

Third, an offender's age made a significant difference only for property crimes: older property-crime offenders were assessed more severely, but age made no difference in crimes against the person or victimless crimes. Youthful indiscretions with other persons' property were apparently more easily forgiven.

Fourth, social status made a difference in the judgment of appropriate punishment only for property crimes. Higher-status (as measured by SES scores) property-crime offenders were judged slightly less severely than lower-status offenders. No simple or easy explanation for this socio-economic tendency comes to mind. Note also that housewives are judged with slightly increased severity. However, social status, employment status, and being a housewife do not affect the leniency ratings of the other two crime classes.

Perhaps the most outstanding feature of these findings concerning social characteristics of offenders was how slight were their effects. The largest and most consistent effect was that of gender. Less severity consistently was accorded to female offenders in all four types of crimes, but the gender effect was also uniformly small. The other effects were all inconsistent and small, when significant. By and large, Boston area residents were not notably inclined to discriminate in the severity of appropriate punishments for offenders of different ages, races, genders, and socioeconomic levels.

In contrast, the last set of offender characteristics, record of previous arrests and convictions, was fairly powerful in affecting severity judgments. Vignettes that contain statements about previous records were consistently rated differently from those that contained no statements on that characteristic (the omitted category in the dummy variable analysis). An offender's previous record counted about the same in all crime classes, with leniency accorded to first offenders and severity to persons with records involving several previous convictions.

For each of the crime categories, persons with no record were accorded about 14 to 17 lower severity points, compared to those with many previous convictions, about as far a distance as separated those who were sentenced to serve out their sentences and those who were given probation.

Note, however, that respondents were less severe in judging a first offender when the crime was against a person than in judging property or victimless crimes. Indeed, the penalties accorded to those having previous records for crimes against persons appeared shifted downward compared to judgments about property or victimless crimes. Perhaps Americans can be a bit more forgiving to a first offender of a crime of passion than to those who commit crimes for economic gain.

The next three blocks of variables, pertaining only to crimes against persons, are concerned with the characteristics of the victims of the crimes in question.

The third block of variables consists of the demographic characteristics of victims. A victim's age, occupation, or employment status apparently did not affect leniency ratings one way or the other. However, the gender of a victim counted. Violence to a female victim was regarded as deserving a more severe sentence. Although not shown in these data, other analyses indicate that this judgment tendency was shared by both genders of respondents.

The fourth block contains measures of the degree of relationship between the victim and the offender. Crimes against strangers apparently deserved more severe punishment than crimes against more closely related persons. The extremes, strangers and spouses, were separated by almost seven points on the severity scale. It also appears that crimes against persons whose relationship to the offender was not described (the omitted category in the dummy variable analysis) were interpreted by the respondents to involve strangers. The coefficient for "stranger" was not significantly different from the coefficient for the omitted category. These findings are consistent with an interpretation that respondents viewed responsibility as shared with the victim in crimes involving violence against persons known to the offender. Hitting a friend or spouse may have been viewed as likely to have been provoked. Hence offenders in such internecine quarrels may have been excused to some degree from full responsibility. In contrast, an assault upon a stranger appeared arbitrary and therefore more reprehensible. At the least, respondent may have found the circumstances ambiguous in which violence occurs between people who know each other, while violence against strangers was seen as more likely to have been the full responsibility of the offender.

The fifth block contains a very powerful set of variables, pertaining to the injuries sustained by the victim. Almost 34 severity points on the rating scale separated those acts in which the victim was killed from those in which no injury was sustained. Although the extent of injury to a victim is not given much standing in the usual criminal code, except for the case of murder, respondents were attentive to this aspect of crimes against persons. Offenders convicted of such crimes were deemed to be deserving of harsher punishments the greater the injuries to victims. Clearly, the seriousness of a crime, as designated in the criminal code, is modified by the consequences of the crime for the victim.

The sixth block relates to statements about potentially mitigating circumstances claimed by the offender. Note that the patterning of coefficients tended to vary across the type of crime, with different statements constituting mitigating (or aggravating) circumstances in each type of crime. Being contrite (sorry) about having committed the crime had no effect on severity in any of the three classes of crime. Seeing a counselor since the crime was committed tended to decrease the severity toward the convicted criminal. Apparently contrition counts for little nowadays (if ever), but the public showed faith in counseling. In the minds of the public, rehabilitation was still alive and well.

In property crimes, financial needs, as well as the expressed desire to pay back the victim for his/her losses, mitigated severity. Being under the influence of drugs aggravated the severity of punishment to be given to property crimes. In short, respondents were willing to be somewhat forgiving to persons who committed their property crimes under financial stress and who desired to pay back victims and who were seeing counselors. An almost identical pattern obtained for crimes against the person, except for the aggravating influence of drug abuse.

Victimless crimes were mitigated by seeing a counselor but aggravated by drug and alcohol use. Oddly enough those who committed such crimes "for the sake of their families" (whatever that meant to the respondents) also increased the severity of judgments given by respondents.

Note that for none of the crime types did substance abuse mitigate severity, and in three of the four it actually increased the severity of judgments.

It should also be noted that the mitigating and/or aggravating effects of these statements did not affect the severity judgments by very much. Thus, seeing a counselor apparently lowered the severity rating for a person committing a violent crime against some individual by a little more than four severity points, or about a third of the distance between two of the scale markers in Fig. 1.

The seventh block pertains to corporate offenders, whose responsible managers were the persons to whom the penalties shown in the vignettes were applied. Large national corporations were looked upon with more severity than their smaller counterparts. First-time offenders were judged less severely. In contrast to individual felons, the corporate offenders' excuses consistently aggravated the severity judgments made by respondents. Claiming that "every competitor breaks the law in the same way" led respondents to add about 3.4 severity points, with other excuses not significantly affecting the ratings at all.

The last block is composed of respondent variables and measures the extent to which the social and demographic characteristics of respondents additively affected the ways in which they judged the convicted person or corporation described in the vignette.

Only gender uniformly affected judgments, women respondents being more severe in their judgments than men, a difference that was consistent but not very large, lying between two and three severity points in each crime class. Blacks were more severe in their judgments of property, victimless, and white-collar crimes but more lenient toward persons convicted of crimes against persons. Whether this last finding means that blacks were more tolerant of violence than whites is a matter of speculation.[9]

Older persons were more lenient than younger persons in their ratings of crimes against the person and corporate crimes but more severe in their judgment of victimless crimes. Age groups showed no significant differences in their judgments of property crimes.

The educational attainment of respondents showed an inconsistent pattern of effects across crime types: the higher the educational attainment, the more lenient persons were in their judgments of property crimes, victimless crimes, and white-collar crimes, but they assessed crimes against persons no differently than persons of lower educational attainment.

Finally, household income played only a minor role. Higher-income households were more tolerant of white-collar crimes, perhaps because higher-income households were more sympathetic to business managers. Those respondents who did not provide the interviewers with income information (NA on income) were more severe about property crimes.

The remaining coefficients in this last block are ones which test for differences between our special convenience samples and the general Boston SMSA sample. Job Corps members were slightly more tolerant in their judgment of all four crimes types but not as lenient as Massachusetts state prisoners, who were more lenient about every type of crime, except victimless

[9]In an earlier study of the perceived seriousness of crimes (Rossi *et al.*, 1974), the researchers found that blacks in general did not rate crimes against the person as seriously as other segments of the Baltimore population studied.

crimes. Roxbury high-school students were not different from the general household sample except on victimless crimes, which they judged more harshly. Finally, the sample of police was less severe toward victimless and white-collar crimes.

It should be noted that the linear effects of respondent characteristics noted above, although statistically significant, were not very large. By and large, respondents of all sorts were close to each other in the ways in which they rated vignettes higher or lower in severity. In each of the four equations, respondent characteristics accounted for under 5% of the total variance, the remaining 30-35% being accounted for by the dimensions and levels included in the vignettes.

## 3.3. Individual Differences in Rating Principles

Of course, linear effects may not be the only way to represent respondent effects. For example, respondents may have varied in the ways in which they took particular dimensions into account in forming their judgments: some may have been concerned mainly with the global seriousness of the crime committed, while others gave greater attention to the losses suffered by victims.

In order to uncover individual differences in the ways in which dimensions were used by respondents, we turn to the analysis model shown in Table IIC. This analysis approach focuses upon individual respondents, characterizing each person by summary measures of the ratings that each respondent gave to the particular sample of vignettes he/she was asked to evaluate.

The 50 ratings made by each respondent are regarded in this approach in much the same way as answers to 50 items in an attitude test battery or an IQ test. Thus, the average of the ratings given by a respondent can be regarded as the severity proclivities of that person. Similarly if we compute separately for each respondent the regression of his/her ratings on the characteristics of the vignettes rated by that respondent, the resultant $\beta$ coefficients represent the rating principles used by that respondent. Thus a respondent's $\beta$ coefficient for crime seriousness represents the estimated weight given by that respondent to crime seriousness. Since there are 50 observations on each respondent (50 ratings), these coefficients can be regarded as computed with sufficient degrees of freedom.

Of course, the vignette samples differ from respondent to respondent according to the vagaries of sampling and the ratings given by the respondent may vary accordingly. Hence in any such analysis it is necessary to take the vignette sample characteristics into account, since at least part of the interrespondent variation in response to the particular vignette set can be

accounted for by the fact that (by design) each respondent's vignette set is a random sample of all possible vignettes.

Table V presents three OLS regression analyses using the model in Table IIC. The first has as its dependent variable the mean of the ratings given by respondents. Since the mean rating may be regarded as a measure of the respondent's general tendency to be more or less severe in his/her ratings of appropriate punishment, this equation may be regarded as an analysis of individual differences in severity. The second equation uses as its dependent variable the standard deviation of each individual's ratings. Since the standard deviation may be regarded as a measure of the extent to which an individual discriminates among vignettes in making judgments, this equation is an analysis of individual differences in willingness to fit the punishment to the crime.

The last equation uses as its dependent variable the regression coefficient for crime seriousness computed over the 50 judgments made by each individual.[10] Since crime seriousness is positively related to severity, the higher (i.e., more positive) the regression coefficient, the more heavily did a respondent weigh seriousness in his/her judgments. This equation is therefore an analysis of individual differences in using seriousness as the basis for judgments and, hence, addresses the issue whether all respondents are using the same information in the same way in coming to their judgments.

The bottom of Table V presents descriptive statistics for each of the dependent variables. Note that there is considerable variation to be explained. Mean vignette severity ratings ranged widely, from a minimum of 6.6 to a maximum of 100.7; standard deviations ranged from 1.0 to 57.8; and the $\beta$ coefficient for crime seriousness ranged from $+0.210$ to $-0.070$.

Of course, some of this variation is generated by sampling differences among respondent vignette sets. Therefore, the first block of variables in each of the equations is measures of sampling variability in vignette sets, as indexed by a few measures of salient dimensions, the average seriousness scores of the crimes depicted in those vignettes, the average log of sentences given, and the proportion of vignettes in which the offenders were given suspended sentences. These features were chosen primarily because they can appear on all vignettes and also because, as we saw in Table III, these are important overall in explaining the judgments given.

Interpretations of the findings in the first block are not substantively important, since these variables were used primarily as controls for sampling variations in the vignettes used. Even so, there are some interesting findings. First, the mean seriousness of the crimes shown in the vignettes affected

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[10]In these computations, the $\beta$ coefficients were multiplied by 1000 in order to avoid carrying many decimal places: the mean, range, and standard deviation shown in the last three rows in Table V are *not* weighted, however.

all three dependent variables. Understandably, the higher the mean serious-ness, the higher the average severity score given. Not so understandably, the higher the mean seriousness score in a respondent's vignette sample, the greater the variability of the ratings and the more lightly was seriousness weighted in coming to judgments. What these last two findings may mean is that vignette samples with high mean seriousness scores tended to have a higher proportion of crimes against persons. Such vignettes have more information on the consequences of the crimes, a feature, as we have seen from the analysis shown in Table III, that tends to detract from the influence of seriousness on the judgments made.

Second, the average log of the sentence shown as given in the vignette sample tends to lower the mean severity ratings of respondents and lower standard deviations and has no discernible effect on the $\beta$ coefficient for seriousness. Finally, the proportion of sentences shown as suspended in the vignettes raises (understandably) the standard deviation of the ratings but not the mean leniency ratings or the $\beta$ coefficients for seriousness.

The second block of variables represents rating principles used by respondents. Thus the first variable in that block, the mean rating given to vignettes, represents the general severity tendencies of respondents.[11] The higher the average rating given, the larger the standard deviation of the ratings and the more heavily seriousness was weighted. Reciprocally, we may also note that the larger the standard deviation, the lower the mean rating given. What this means is that respondents who discriminated in rating vignettes (i.e., varied their judgments from vignette to vignette) tended to be less severe.[12] Conversely, those who did not vary their ratings tended to give higher severity ratings, suggesting a kind of general punitiveness toward persons who were convicted of any crime.

The remaining variables in the second block are all measures of how respondents used information in the vignettes in their rating judgments. Thus the log sentence $\beta$ coefficient lowered severity on the average. That is, the more heavily a respondent weighted the sentence shown, the more likely he or she was to be lenient in her judgments. These appear to be persons who were generally opposed to long sentences and hence paid greater attention to the sentences given. The $\beta$ coefficient for log sentence also affected the standard deviation of ratings, lowering the variability of the judgments.

The next finding is that some of the dimensions of the vignettes tended to substitute for each other. Thus, the higher the $\beta$ coefficient for log

[11]Note that since some of the sampling variation in vignettes is taken care of by the first block of variables, these coefficients are *net* of sampling variation.

[12]Since the variability of ratings is partially a consequence of the rating principles used, we did not use the standard deviation of ratings to predict the size of the seriousness $\beta$ coefficient.

**Table V.** Regression of Respondent Rating Set Measures on Vignette Sample Parameters and Respondent Characteristics

| | Dependent variable is | | | | | |
|---|---|---|---|---|---|---|
| Independent variable | Respondent's mean severity rating | | Respondent's SD of rating | | Respondent β value (×1000) for seriousness | |
| | β | SE | β | SE | β | SE |
| 1. Vignette sample measures[a] | | | | | | |
| Mean seriousness scores | +0.033* | 0.016 | +0.060‡ | 0.006 | −0.243‡ | 0.052 |
| Mean log of sentences given | −11.623‡ | 2.055 | −1.830* | 0.765 | +0.091 | 6.836 |
| Proportion vignettes with suspended sentences | +5.587 | 6.136 | +5.804† | 2.249 | +30.193 | 19.983 |
| 2. Respondent rating principles[b] | | | | | | |
| Mean respondent severity rating | — | — | −0.061‡ | 0.014 | +0.492‡ | 0.121 |
| SD of R's ratings | −0.204† | 0.076 | — | — | — | — |
| β coefficient for log sentence | −0.149 | 0.149 | −0.148‡ | 0.042 | −1.732‡ | 0.096 |
| β coefficient for seriousness (×1000) | +0.030* | 0.013 | −0.117‡ | 0.005 | — | — |
| β coefficient for suspended sentence | +0.022 | 0.029 | −0.203‡ | 0.011 | −0.219* | 0.089 |
| Total $R^2$ for respondent | — | — | −0.299‡ | 0.012 | — | — |
| 3. Respondent characteristics | | | | | | |
| Male | −1.576* | 0.864 | −0.455 | −0.315 | −8.360† | 2.800 |
| Age (years) | +0.028 | 0.056 | +0.014 | 0.021 | −0.450* | 0.182 |
| Catholic | +0.085 | 0.800 | +0.097 | 0.292 | −6.238* | 2.595 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Household income ($000's) | +0.012 | 0.027 | +0.014 | 0.010 | +0.253† | 0.087 |
| White | −0.996 | 1.406 | −0.807 | 0.512 | +17.095‡ | 4.531 |
| Education (years) | −0.073 | 0.169 | +0.047 | 0.062 | +0.764 | 0.549 |
| Probability of victimization[c] | +0.001 | 0.015 | +0.008 | 0.005 | −0.052 | 0.049 |
| Institutional fairness scale[d] | −0.209† | 0.061 | −0.050* | 0.022 | −0.172 | 0.199 |
| Defective criminal scale[e] | +0.315‡ | 0.098 | −0.015 | 0.036 | +0.658* | 0.322 |
| Worry over crime scale[f] | +0.513* | 0.172 | +0.168† | 0.065 | −0.061 | 0.578 |
| Recent negative events scale[g] | +0.947† | 0.349 | −0.041 | 0.128 | −0.948 | 1.142 |
| Punitiveness Scale[h] | +0.622‡ | 0.075 | +0.014 | 0.029 | +0.487 | 0.255 |
| Intercept | 57.792‡ | 7.752 | −1.220 | 2.983 | +47.406 | 26.499 |
| $R^2$ | 0.263‡ | | 0.734 | | 0.233 | |
| $N$ | 720[i] | | 711 | | 720 | |
| Mean | 61.7 | | 32.3 | | 0.072 | |
| SD | 11.5 | | 7.0 | | 0.037 | |
| Min, max | 6.6, 100.7 | | 1.0, 57.8 | | 0.210, −0.070 | |

[a] Summary measures that describe the vignette sample rated by the respondent.

[b] Measures that characterize the ratings given by the respondent. Regression coefficients computed for each respondent by regressing respondent's ratings on vignette characteristics.

[c] For each sex, race, and age group probabilities of being victimized by crime were computed from the national victimization surveys (Bureau of Justice Statistics, 1980).

[d] Attitude scale measuring respondent's beliefs about the fair treatment meted out by American institutions such as business enterprises, government agencies, etc.

[e] Scale measuring respondent belief in defectiveness of criminals.

[f] Scale of respondent amount of personal worry about crime.

[g] Scale of negative events happening to respondent recently (e.g., unemployment, quarrels, death in family, etc.).

[h] Scale of respondent's desire for punitive treatment of criminals.

[i] Units of analysis are respondents in Boston SMSA household sample. (Samples of convenience do not have full questionnaires and hence do not contain some of the variables used above.)

* $P < 0.05$.

† $P < 0.01$.

‡ $P < 0.001$.

sentence, the less weight was given to crime seriousness. This may mean that respondents tended to fasten upon one dimension, using it more heavily in making judgments and at the same time tending to ignore other dimensions. In this instance, if one paid more attention to the sentence given, there was also a tendency to disregard the seriousness of the crime committed, additional evidence for an interpretation of a generalized dislike of long sentences as penalties.

The seriousness $\beta$ coefficient also affects both the standard deviation and the mean rating. The more heavily seriousness was weighted, the more severe was the average judgment and the greater was the variability of the judgments. Respondents who had high positive crime seriousness coefficients were persons who stressed the seriousness of the crimes shown and varied their judgments from vignette to vignette.

The final variable in this block was used only in relation to the standard deviation of the rating. This variable is the amount of variance in the judgments of an individual that was accounted for by the main dimensions of the vignettes rated by that individual. The higher the $R^2$ for an individual, the greater was the variability of his/her ratings. In short the interpretation of the standard deviation as a measure of respondent discrimination given earlier is confirmed. Note that this predictor variable accounted for more variation (over half) than any other variable in this equation.

The average $R^2$ for individual respondents was 0.44 (SD = 0.17), higher than that of any of the equations in Table III, indicating that each individual's judgments tended to be more structured than were the pooled ratings of all the respondents, indicating that rating principles had some idiosyncratic qualities. Respondents' ratings were internally more consistent than were the pooled ratings (as shown in Table III).[13] This finding also suggests that at least some of the unexplained variance shown in Tables III and IV reflected idiosyncrasies in the judgment processes employed by individual respondents.

The final block of independent variables pertains to characteristics of the individual respondents. As we saw earlier, females were more severe in their ratings than males, not any more variable than males, and more likely to weight crime seriousness higher. Severity neither increased nor decreased

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[13]Although the analysis is not shown in this paper, we found that there were some small but significant systematic differences among respondents in the extent to which their ratings were structure (as indexed by the size of the individual $R^2$ computed for their ratings). Higher $R^2$ values were found for whites and for persons who showed a high degree of worry about crime. We had expected that the higher the educational levels (and hence the greater the ability to process information), the more structured the judgments, but the coefficient for education, although positive (and hence in the predicted direction), was not statistically significant ($P = 0.06$).

with age, nor did the variability of the ratings. But older persons were less likely to weight crime seriousness as heavily as younger persons.

The remaining social and demographic respondent characteristics apparently affected rating tendencies little or not at all. Catholics weighted crime seriousness less than other religious groups but all religious groups were alike as far as mean ratings and ratings variability were concerned. The higher a household's income, the more likely they were to weight seriousness higher. Whites apparently weighed crime seriousness more highly than other groups (mainly blacks and Hispanics). Surprisingly, educational attainment, usually an influence on everything, counted for nil in this context. The final personal variable is the probability of being victimized by crime, as shown in a recent victimization survey.[14] Persons in age, sex, and ethnic groups more subject to victimization were not different from those with low probabilities. Note, as we found in Table III, that the social and demographic characteristics included in these analyses were not very strong influences on rating tendencies.

The last five variables are all scores on attitude scales, administered to respondents in a short interview after they finished the ratings of vignettes.[15] The Institutional Fairness Scale measured how fairly the respondent believed that major American institutions (businessess, public agencies, banks, etc.) treated their clients (workers, customers, etc.). The more fair these institutions were seen to be, the less severe were respondents. Apparently, respondents who trust the major institutional structures of our society were more inclined to be lenient in preferred punishments for convicted felons. Such persons were also likely to be less variable in their ratings of leniency.

The next scale measures the extent to which the respondent believes that criminals are defective persons (i.e., incapable of making moral judgments or of being reformed). Persons who subscribe to the viewpoint that criminals are defective are more severe in their judgments and weigh the seriousness of the crimes more heavily. Apparently, a belief that criminals are different in some fundamental way from others led one to believe in harsher punishment and to give greater importance to the seriousness of the crime in question.

Respondents who worried more about crime were less lenient and more variable in their judgments. Oddly enough, a scale of their experiences with

[14]Probabilities of victimization by violent crimes and by property crimes were obtained for 28 demographic groups formed by the cross classification of sex, race, and seven age brackets from the National Victimization Surveys (Bureau of Justice Statistics, 1980). The probability of victimization shown in the analysis is simply the sum of the two separate probabilities.

[15]Scale items were written by the authors and subjected to factor analysis to improve their structures. Copies of the interview schedules used may be obtained from the authors.

crime—as measured either by risk or by actual victimizations—was not related to leniency, but worry about the risk apparently was.

A fourth scale measured the extent to which a person has had recent negative personal experiences (e.g., a death in the family, a bout of unemployment, serious illness, etc.). Persons who had such negative experiences were more severe in their judgments. Hard treatment at the hands of fate apparently led to harsh views about convicted felons.

Finally, the last scale deals directly with the issue of punishment for criminals. Those who tended to believe in the deterrent effect of punishment, or a just deserts theory of criminal justice, were less lenient in their judgments. Note that this scale has the most powerful effect (as measured by standardized $\beta$ coefficients) of all the scales on the judgments.

All told, in the first equation, the independent variables account for 26% of the variance in the mean leniency ratings, indicating that a modest amount of the interindividual variability in leniency ratings can be accounted for by measures of generalized response sets of respondents toward the issue of appropriate punishment for convicted offenders. About the same amount (23%) of the variance in the individual seriousness $\beta$ coefficients is also explained. Of course, a much larger amount of the variance (73%) in the variability of the ratings can be accounted for, mainly because of the heavy effect of the degree to which an individual's ratings are internally consistent.

We can conclude that a large portion of the unexplained variance shown in earlier tables is composed of structured interindividual differences that relate to their personal experiences, their general attitudes toward society and punishment for criminals, and other attitudes that are reflected in their severity judgments about sentences handed out to convicted criminals.

Of course, the respondent variables were entered into the analysis in Table V without regard to their complex causal interrelationships. Any one of the respondent characteristics that were shown in that table to have no direct effects may have strong indirect effects operating through one or more of the attitude scales. Further analyses are currently underway that postulate more complicated underlying structures for respondent variables.

The findings in Table V also provide some hint about how changes may come about in the desired punishments for convicted criminals. Crime seriousness scores may not change over time, but changes in the existential conditions of citizens may affect the way in which seriousness is translated into desired punishments. Thus, the greater the worry over crime, the less confidence in central institutions, and the greater the personal trouble afflicting citizens, the more severe citizens may become in the kinds of punishment they see as appropriate to various crimes. Punishment may always be proportionate to seriousness but the fit may differ according to

these additional factors. Of course, longitudinal inferences from cross-sectional data are hazardous and these inferences must await appropriate longitudinal data for better empirical support.

## 4. CONCLUSIONS

We have attempted to accomplish two tasks in this paper. First, we presented an exposition of a new technical device—factorial surveys—to demonstrate the richness of the data provided by the use of this approach and how flexibly the data may be analyzed. Within the scope of this article, we could give only illustrations of the types of analyses possible. Of course, we did not present random samples of possible analytical approaches but some of the more interesting analyses attempted so far. But we hope that these illustrations support strongly the general points we have made about the technique. Fuller expositions can be found in subsequent publications from our project.

Second, we have gone beyond measuring the seriousness values of crime to show how that aspect of crimes is related to popular views of appropriate punishments. We have shown that there is not a one-to-one direct relationship between the seriousness measures of crimes and desired sanctions but rather that seriousness is modified by the characteristics of offenders and victims and by the consequences of the crimes in question. We have also shown that the desired punishments for crimes vary in severity by the characteristics of the persons who make judgments, whose past experiences, attitudinal sets toward punishments, and general views on criminality all make differences in what they may regard as a fair sentence for criminals convicted.

Finally, we offered some hints about how criteria for sentences for convicted felons can change over time without accompanying changes in the assessments of crime seriousness. Attitudinal sets concerning worry over crime, confidence in central social institutions, and opinions on such issues as deterrence all affect the way in which crime seriousness is converted into opinions about appropriate sentences for convicted felons. Going beyond crime seriousness has meant an understanding that desired punishment is determined by a multiplicity of considerations.

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