On the Perceived Severity of Legal Penalties

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INTRODUCTION

Punishment can be defined as any action that is intended to cause someone discomfort or which has that effect regardless of intention. Since this definition recognizes both perception and intention, a narrower conceptualization of punishment could be realized by recognizing only one. Thus, punishment could be defined as an action that is *intended* by a reactor to cause someone discomfort, whether it does or not. Alternatively, punishment could be defined as an action that is *perceived* by someone other than the reactor as the cause of discomfort or as having that intended result. That "someone" could be an individual who is the immediate object of the action, such an individual and other parties who are not the immediate object of the action, or only other such parties.

The existence of all of these contrasting conceptualizations of punishment may appear confusing. However, one argument of this paper is that various issues pertaining to crime, punishment and penal policy stem in part from divergent conceptions of punishment. Another argument is that theories about punishment and crime (the deterrence doctrine in particular) cannot be assessed empirically in a defensible way unless public perception of the severity of legal reactions to crime or delinquency is a central consideration.

The foregoing arguments prompted the authors here to conduct field surveys in four Arizona cities on public perceptions of the severity of various kinds of legal reactions to crimes and delinquencies. Preliminary to an explication of the survey methodology, this paper will comment on the bearing of such research on a variety of theories and issues pertaining to punishment.

THE DETERRENCE DOCTRINE

Although most theories of punishment deal with the question of justification rather than with empirical generalizations (*i.e.*, assertions that are potentially falsifiable), there is at least one empirical theory—the deterrence doctrine. Recent research reflects a revival of interest in the doctrine;[1] but no purported test of the doctrine has gone beyond the amount of punishments to a consideration of public perception of severity. Surely it is defensible to presume that ten years of imprisonment is more severe than five years; but just as surely it is debatable to presume that it is necessarily perceived by the public as *twice* as severe. Indeed, it is even debatable to assume that the residents of one jurisdiction perceive ten years of imprisonment as more severe than five years of imprisonment perceived by the residents of another jurisdiction. Further, it is interesting to contemplate the possible differences in the perceived severity of one year in prison, ten years on probation, and a $20,000 fine.

The general point is that severity scarcely qualifies as an objective property of punishment. This becomes abundantly clear when investigators attempt to assess the severity of alternative or multiple punishments for a type of crime, as that involved when a criminal statute prescribes a particular term of imprisonment and/or when a particular dollar amount of a fine is prescribed for a particular type of crime. Since the metrics of the two penalties necessarily differ, their magnitudes cannot be added without a transformation. However, if investigators could compute values that represent the *perceived severity* of any kind of penalty (including magnitudes, such as ten years of imprisonment), then there would be a basis for comparing them and/or treating those values as additive.

The use of perceived severity values in deterrence research is not merely a means to the solution of a "technical" problem. Classical versions of the deterrence doctrine clearly assert that a threatened

penalty deters only to the extent that it is perceived as severe. And, while recent tests of the deterrence doctrine cast doubts on the deterrent efficacy of severe penalties, those tests considered only the *presumptive severity* of actual imprisonment.[2] Even had those tests considered prescribed (statutory) as well as actual penalties, the variables would not have reflected public perceptions of severity. The point takes on a special significance when it is recognized that in early studies of the deterrent efficacy of the death penalty, the investigators wittingly or unwittingly *assumed* in comparing abolitionist and retentionist jurisdictions that execution is perceived by the public as more severe than life imprisonment. That is the case because the two penalties cannot be compared as to "amount" other than by their perceived severity.

The argument is not that the inclusion of the perceived severity of punishment in tests would provide evidence in support of the deterrence doctrine. While recent findings clearly cast doubts on the importance of the length of prison sentences *actually served,* perceived severity is another matter. Should those tests indicate that *perceived severity* is also unimportant, then the whole notion of severity might simply be excluded in attempts to restate the deterrence doctrine as a systematic theory. Such a restatement will be difficult perhaps only because there are nine *possibly relevant* properties of punishment[3] and the theorist's task would be facilitated by dismissing some of the properties as irrelevant. However, given the paucity of research on the perceived severity of punishment in tests of the

deterrence doctrine, there is no truly defensible basis for dismissing that property as irrelevant.

THE INDIVIDUALIZATION OF CRIMINAL JUSTICE

On the whole, legislators, jurists and correctional officials have long since abandoned the principles of classical justice, according to which the punishment for a criminal act should depend on the crime rather than the offender. For decades (at least until quite recently), the trend has been toward the "individualization" of criminal justice. The individualization principle does more than emphasize "treatment" over punishment; additionally, insofar as punishment has any role in criminal justice, the argument is that the appropriate punishment should depend on the characteristics of the offender. Consistent with that argument, legislators have given jurists enormous discretion in sentencing, not only as to the kind of punishment (probation, fine, incarceration, etc.), but also as to the amount of each.

Discretion in sentencing has given rise to various issues, the most conspicuous one being the enormous disparities in the length of sentences imposed by judges for what appear to be similar crimes. Both the amount of disparities and the reasons for them are debatable.[4] Truly sophisticated research on the subject virtually requires an assessment of sentences by reference to perceived severity. Briefly illustrating, if one magistrate imposes only short prison sentences on convicted felons, while for the same type of crime another judge imposes very long terms of probation or exemplary fines, the judges do not necessarily differ in the severity of their sentencing. That conclusion could only be defensibly made if the different kinds of sentences are assessed in terms of their aggregate perceived severity.

Retribution Versus Treatment

When the argument for "individualizing" criminal justice extends to a call for "treatment" of convicted defendants rather than punishment, that argument is a tacit rejection of the principle of retribution. Over past decades the retributive principle has given way to the philosophy of individualization, even though the retributive principle remains firmly entrenched in certain circles and individualization commonly receives only lip service. Yet it would be wrong to attribute the decline of the retributive principle solely to an upsurge of

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[2] Presumptive severity is a concept which Gibbs, *supra* note 1, uses to refer to a type of punishment, whether an actual instance or one prescribed in a penal code, which has as one of its characteristics the stipulation of a magnitude in terms of some metric (*e.g.,* days, months, or years of incarceration, or a dollars fine, etc.). Thus defined, presumptive severity is an objective property of a punishment in that it can be utilized by a researcher without soliciting the views of legal officials, the object of the punishment (*i.e.,* the alleged offender) or members of the public at large. When the severity is assessed by soliciting the views of such individuals, the property of the punishment is perceived severity. Therefore, the kinds of analysis to be reported in this paper constitute an examination of the relationship between perceived severity and presumptive severity. To illustrate, the presumptive severity of 30 years imprisonment is three times that of 10 years; and the public undoubtedly perceived the former as more severe than the latter, but the ratio of the two perceived severity values may not be even approximately three to one. For elaboration of the foregoing conceptualizations, see J. GIBBS, *supra* note 1.

[3] *See* J. GIBBS *supra* note 1.

[4] *See* R. HOOD & R. SPARKS, KEY ISSUES IN CRIMINOLOGY (1970).

humanitarianism. Actually, the retributivists just have never given a satisfactory answer to the difficult question of whether for any given type of crime, there is a "just" punishment. They commonly argue that the severity of the punishment should be commensurate with the seriousness of the crime and the question can be viewed as an extension of the eighth amendment doctrine that "excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted."[5] But, the eighth amendment poses difficult questions regarding what is excessive and what constitutes cruel and unusual punishment. And, to bring empirical evidence to bear on these issues it is necessary not only to provide an adequate measure of the seriousness of crimes, but also a measure of the severity of penalties. Then, by relating the two measures, perhaps more informed judgments as to what constitutes *"just"* punishment could be made. The issues are general in the sense that they go beyond concern with the death penalty: the principles apply to all possible kinds of illegal behavior and all possible kinds of punishment.

A considerable amount of effort has been devoted to developing measures of the seriousness of offenses,[6] but little has been done in developing measures of the severity of penalties. With the exception of one isolated pilot study, the literature is barren of studies that include both measures of seriousness of crime and severity of penalties.[7]

But even given the potential of developing adequate techniques for measuring offense seriousness and severity of penalties, difficult questions remain regarding which party will make such judgments, and how such judgments will be made. Adult members of the public at large could make the judgment by deciding what the punishment should be for individuals convicted of a certain type of crime. The problem is that in highly urbanized or pluralistic societies, it is unlikely that a consensus in replies could be obtained. In such a case, one can analyze public opinion only in terms of averages; but averages are possible only insofar as various kinds of punishment and their varying magnitudes can be reduced to a common denominator—perceived severity.

The very idea of basing criminal sanctions on public opinion may appear far-fetched, especially if one is convinced that the established authorities would never tolerate it. But social conflict is not the only issue. It could be argued that one essential function of law is to protect individuals from the tyranny of the majority. That argument extends to a plea for the separation of law and morality, and one rationale for the separation is seldom made explicit—the fear that moral indignation will demand Draconian criminal sanctions. Yet that fear is largely conjecture, and a systematic assessment of public opinion about appropriate criminal sanctions requires knowledge as to how the citizenry perceives the severity of various kinds of punishment. Thus, while public outcries about "the leniency of the courts" suggest that American laymen view probation as excessively lenient, we really know little about the way that members of the public assess the severity of, say, a twenty-year probation term. In any case, even if the idea of basing criminal sanctions on public opinion is unrealistic, essentially the same questions are posed in contemplating the rationale of legislators in the enactment of statutory penalties. For that matter, insofar as legislators truly look to public opinion as a guide in those enactments, they have very little systematic information.

The Question of Treatment

The idea that criminals should be "treated" rather than punished has been advocated vociferously for several generations,[8] and until recently numerous legislators have at least given lip service to the idea. However, in the past decade doubts have been raised about the success of treatment programs in criminal justice[9] and a host of critics now question the legality or morality of some treatment programs.[10]

The critics question the claim that so-called treatment programs are not punitive, but in so doing they tacitly reject a conceptualization of punishment that emphasizes "intent" as the criterion. By contrast, if "perception" is admitted into a conceptualization of punishment, it may well be

[5] U.S. CONST. Amend. VIII.

[6] *See* T. SELLIN & M. WOLFGANG, DELINQUENCY: SELECTED STUDIES (1969).

[7] Hamilton & Rotkin, *Interpreting the Eighth Amendment: Perceived Seriousness of Crime and Severity of Punishment,* in CAPITAL PUNISHMENT IN THE UNITED STATES (H. Bedau & C. Pierce eds. 1976).

[8] K. MENNINGER, THE CRIME OF PUNISHMENT (1968).

[9] D. LIPTON, R. MARTINSON & J. WILKS, THE EFFECTIVENESS OF CORRECTIONAL TREATMENT: A SURVEY OF TREATMENT EVALUATION STUDIES, (1975).

[10] J. MITFORD, KIND AND USUAL PUNISHMENT (1973); N. KITTRIE, THE RIGHT TO BE DIFFERENT (1971); Shapiro, *Legislating the Control of Behavior Control: Autonomy and the Coercive Use of Organic Therapies.* 47 S. CAL. L. REV. 237 (1974).

that most so-called "treatment programs" are punitive; but no argument along that line can be assessed systematically without research on the perceived severity of legal reactions to crime or delinquency.

Differential Perception

There is every reason to suppose that individuals differ appreciably in their perceptions of the severity of punishment, and that possibility poses a difficult problem for advocates of the deterrence doctrine. In the classical version of that doctrine[11] punishment is depicted as a necessary evil; hence, the punishment for a particular type of crime should not exceed the magnitude (*e.g.*, the critical value) necessary for deterrence. However, if individuals differ appreciably in their perceptions of the severity of various kinds of punishment, it is difficult to see how a mandatory uniform penalty for a type of crime (*i.e.*, regardless of the offender) could be congruent with a penal policy that aims for deterrence.

Of course, defenders of the deterrence doctrine can abandon one of the cardinal principles of classical justice and commence arguing (with a view to specific deterrence) for the individualization of punishments; that is, making the penalty "fit" the offender rather than the offense. But a proposal to individualize punishments opens a cauldron of ideological issues, especially if the criteria for a particular penalty involve more than previous offenses. No imagination is required to grasp the conflict and constitutional implications if statutory or actual penalties are explicitly contingent on the occupation or income of the offender (let alone race or ethnicity). Yet the more immediate consideration is that rational *rules* for the individualization of punishment (with a view either to deterrence or to retribution) have not been formulated. That will remain the case until divergent perceptions of the severity of penalties are documented and the correlates (occupation, income, etc.) of divergent perceptions are established (assuming that individual differences in perception are not idiosyncratic, in which case a policy of individualization of punishment would be dubious). Furthermore, even if one wanted to *exclude* punishment from criminal justice entirely or reduce it to an absolute minimum, it would still be necessary to know more about the public's perceptions of the severity of penalties.

THE SEARCH FOR RATIONAL POLICIES

All of the foregoing reduces to two points. First, if punishment is to play any role in criminal justice, existing penalties must be converted into a rational system. Second, a rational system is more unlikely without systematic research on *the perceived severity of penalties by the public at large* as well as legal reactors, public officials, etc. One may object that the very notion of a rational system is entirely relative to the political and economic context and that idea is accepted. Nonetheless, human beings have for centuries sought a rational basis for legal punishment, and that is true for communist, socialist, as well as capitalist societies. To be sure, the ends emphasized in punishment—retribution, deterrence, reformation—are not the same in all legal systems; but there is *no end* that makes a concern with the perceived severity irrelevant.

It just so happens that the American legal system is a classic illustration of a penal policy based on scant knowledge of the perceived severity of penalties. In all United States jurisdictions, judges now have enormous discretion when it comes to passing sentence on convicted felons; but they have no guidelines to follow and this has caused some of them to be genuinely perplexed.[12] Surely it is not difficult to understand why judges are perplexed. If sentencing policy is to be predicated in part on retribution, then judges need systematic knowledge as to how the public is assessing the severity of penalties. Thus, a judge may be reluctant to grant probation, sensing that the public views that sentence as excessively lenient; but, again, who is to say that the public would view fifteen–twenty years on probation as a "slap on the wrist"?

If a jurist views deterrence as one of the ends of criminal justice, the mere fact that he or she can "individualize" punishment provides no answers whatever as to the appropriate sentence in a particular case (with a view to specific deterrence) or cases in general (with a view to general deterrence). Systematic knowledge of the perceived severity of penalties would not entirely resolve the jurist's dilemma but it is a necessary condition for a reasonable resolution. Indeed, if jurists were able to equate various kinds of penalties in terms of their perceived severity (*e.g.*, a $10,000 fine would be made equal to that of six months in jail, at least for certain categories of individuals), then the individualization of punishment could take a form that would not make it incompatible with a penal

[11] J. BENTHAM, in THE WORKS OF JEREMY BENTHAM (Bowry ed. 1 1962).

[12] M. FRANKEL, CRIMINAL SENTENCES: LAW WITHOUT ORDER (1972).

policy of retribution or deterrence; specifically, *a convicted defendant would be allowed to select his or her punishment from a list of alternatives, all of which are approximately equal as to perceived severity.*

DATA COLLECTION AND METHODOLOGY

Over a three year period (from 1974 to 1976) public and police estimates of the severity of a wide variety of kinds of legal reactions to crimes or delinquencies were collected in four Arizona communities. The kinds of legal reactions included not only statutory or substantive penalties (*e.g.*, prison, jail, probation and fines) but also procedural reactions (*e.g.*, arrest, trial) and various other possible legal or extralegal outcomes (*e.g.*, loss of job, divorce, participation in a counseling program, commitment to a mental hospital).

The authors have limited the content of this study to the subset of statutory or substantive penalties shown in Table 1. Such a limited focus is necessary for two reasons. First, the sheer variety of the other possible reactions (legal and extralegal) to delicts precludes an analysis of all of them in one paper. Second, the penalties listed in Table 1 are a special subset since each of them is characterized by a particular temporal or monetary metric (*e.g.*, five *years* in prison, one *year* in county jail, $5,000 *dollar* fine). The metric property of the subset makes it possible to analyze the relation between the amount of a penalty and its perceived severity. To illustrate the distinction, a ten-year prison sentence is exactly twice a five-year prison sentence, but the ratio in the case of perceived severity may not be given by that metric.

THE MEASUREMENT OF PERCEIVED SEVERITY

Data on perceptions of the severity of punishments were gathered using "magnitude estimation" methods.[13] Each respondent was instructed to use "one year in jail" as a standard for comparison and to think of its severity as represented by the number 100. Then the respondent was given a list of other penalties and asked to assign a number to each penalty, thereby indicating how severe the respondent regarded the penalty relative to 100 for one year in the county jail.[14] Questions were care-

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[13] Hamblin, *Social Attitudes: Magnitude Measurement and Theory,* in MEASUREMENT IN SOCIAL SCIENCE 61–120 (H. Blalock ed. 1974).

[14] This method of measurement is referred to as "magnitude estimate" measurement. For a complete description of the techniques and conventions, see Hamblin, *supra* note 13. The method is not new to criminological research. It was first used by T. SELLIN & M. WOLFGANG

TABLE 1
LEGAL PENALTIES INCLUDED AS STIMULI IN ALL SURVEYS IN ALL ARIZONA CITIES

Classes of Penalties	Amount of Penalty (Length of Term or Amount of Fine)
Prison	1 year or 365 days
	5 years or 1825 days
	10 years or 3650 days
	15 years or 5475 days
Jail	1 month or 30 days
	2 months or 60 days
	6 months or 180 days
	1 year or 365 days
Probation	1 year or 365 days
	5 years or 1825 days
	10 years or 3650 days
	15 years or 5475 days
Fines	$100
	$300
	$1,000
	$2,000
	$10,000

fully worded to elicit responses regarding the severity of these penalties with the understanding that values should reflect the severity of *being sentenced to* one year in prison, etc.[15]

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in MEASUREMENT OF DELINQUENCY (1964), and has since been widely used in various ways by their elaborations. The use of the standard (in this case assigning the value of 100 to one year in the county jail) anchors the scale and thereby theoretically standardizes the data across respondents. The choice of the standard was, of course, somewhat arbitrary, but it is in keeping with the convention of the method; namely, selecting a stimuli near the middle of all units being compared. Setting the value does not presume that prior to the interview all respondents evaluate one year in the county jail as equally severe. Instead, the assumption is that (1) each respondent shifts his own scale values to that standard by adjusting whatever value he might give as the severity value for one year in the county jail to 100 and (2) thereafter adjusts the values he gives for other penalties accordingly. If we were vitally concerned about how evaluation vary for one year in the county jail we would have simply picked another type of punishment as the standard and included that one as one of the stimuli to be evaluated. The major point is that a standard is needed, has a fixed value, (*e.g.*, 100) that does not reflect how people would evaluate it if given an opportunity to do so.

[15] It is important to recognize that there are alternative ways of attempting to assess the severity of penalties. We deliberately chose to ask respondents to evaluate the severity of *being sentenced to* various lengths of prison, probation, and jail terms and various amounts of fines. We could have asked respondents to evaluate the severity

Two kinds of surveys were undertaken to obtain severity estimates. In one kind each respondent was asked about only four of the penalties in Table 1 and in the other kind of survey respondents were asked about *all* of the penalties in Table 1. Subsequent analysis has revealed that the differences in the number of penalties evaluated did not affect aggregate measures of perceived severity.

In both kinds of surveys (*e.g.,* four-penalty and comprehensive), the object of the punishment (*i.e.,* the hypothetical offender) was identified as either a juvenile or an adult. Separate random samples were selected for these different surveys. This adult/juvenile distinction was introduced to ascertain the extent to which the characteristics of the offender affects perceptions of the severity of a penalty.

So, in effect, four kinds of surveys were conducted: one in which respondents were asked to estimate the severity of each of four penalties as applied to juveniles; another in which respondents were asked to estimate the severity of each of four penalties as applied to adults; another in which respondents were asked to estimate the severity of *all* penalties (Table 1) as applied to juveniles; and still another in which respondents were asked to estimate the severity of *all* penalties as applied to adults.

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of *actually serving* a given length of sentence or *actually paying* certain amounts of fines. The point is, of course, that we expect people to evaluate *actually serving* a sentence as more severe than *being sentenced to* in recognition that many people discount a certain amount of the term (and therefore a certain amount of severity) from the sentences given in court. Said another way, it is our presumption that most people know that if a person is sentenced to ten years in prison, he or she will likely not spend all ten years in prison. Instead, the offender is likely to spend less than that length of time in incarceration. Both kinds of data are important and future research should attempt to gather both kinds. In fact, we would suggest that additional research might also attempt to assess the discounting or inflation process directly—by simply asking respondents to answer the following question: "If a person were sentenced to a (given length of term) how long do you think the person would actually serve?" By having empirical data regarding the discounting procedure, it would then be possible to extrapolate values for one variable from the other. We have already conducted a pilot study along these lines and have found (1) that data concerning *being sentenced to* are highly correlated to actually serving, though, indeed there is a discounting process in most people's minds and (2) obtaining direct evidence regarding the amount of discounting shows the amount of discounting to be nearly identical with the scale differences between the data obtained for *being sentenced to* and *actually serving.*

The surveys were part of a much larger study conducted from 1974 to 1976 in four Arizona cities, one a central city of a standard metropolitan statistical area (SMSA) and the other three being small towns outside the SMSA. One series of surveys was conducted in 1974 and another in 1976. Both series included responses from adults drawn randomly from households in each of the four cities and from policemen in each city. Random samples of policemen were drawn in the central city, and in the smaller cities all policemen were interviewed.

In Table 2 the number of respondents interviewed and the number of magnitude estimates obtained for *each* penalty are shown by year of survey, kind of survey, and category of respondent (citizen or policeman). As can be seen in Table 2, twenty-two distinct surveys were conducted, twelve during 1974 and ten during 1976. There was virtually no overlap in any of the surveys, except that most policemen in the small towns were interviewed both in 1974 and 1976. With that exception, the surveys can be rightly construed as independent. Therefore, a median perceived severity value for each penalty (Table 1) was computed for each survey (each cell with entries in Table 2).

The major goal of the analysis is to describe and explain the variance *at the aggregate level* in the perceived severity of penalties; that is, variation in median values. The initial concern for each class of penalties (*e.g.,* prison) is with the relation between the perceived severity of specific penalties in that class and the magnitude of those specific penalties (length of incarceration, length of probation, or number of dollars). The central question for each of the class of penalties (prison, jail, probation, fine) concerns the amount of variance in the perceived severity of a type of penalty that can be explained by variation in the magnitude of the specific penalty. To illustrate by references to prison as a class of penalties, there are four specific penalties in the class (one year, five years, ten years, and fifteen years), and with twenty-two surveys there is a total of eighty-eight median perceived severity values (*i.e.,* twenty-two for each of the specific penalties). For each of those eighty-eight median values there is a corresponding magnitude value (*e.g.,* five years), and the central question considers the nature of the relation between those two sets of values.

In regression terminology the model for analyzing the relation in question is:

$$\log \hat{Y} = a + b \log X + e \quad \text{(Model 1)}$$

where $\hat{Y}$ = median perceived severity of a specific

TABLE 2

NUMBER OF RESPONDENTS AND NUMBER OF MAGNITUDE ESTIMATES FOR EACH SPECIFIC PUNISHMENT IN FOUR ARIZONA CITIES BY YEAR OF SURVEY, KIND OF SURVEY, AND KIND OF RESPONDENTS*

City	Kind of Survey	1974 Surveys				1976 Surveys			
		Hypothetical Offender a Juvenile		Hypothetical Offender an Adult		Hypothetical Offender a Juvenile		Hypothetical Offender an Adult	
		Citizen Respondents	Police Respondents	Citizen Respondents	Police Respondents	Citizen Respondents	Police Respondents	Citizen Respondents	Police Respondents
SMSA Central City	Four penalties	1,000 (160)	200 (32)	200 (32)		600 (96)		600 (96)	
	Comprehensive	254 (254)		183 (183)		50 (50)		50 (50)	
A Nonmetropolitan City	Four penalties	200 (32)		200 (32)		200 (32)			
	Comprehensive		19 (19)				22 (22)		
A Smaller Nonmetropolitan City	Four penalties	200 (32)				200 (32)			
	Comprehensive		9 (9)				10 (10)		
A Still Smaller Nonmetropolitan City	Four penalties	200 (32)				200 (32)			
	Comprehensive		5 (5)				3 (3)		

* The number of respondents are shown first in each cell and the number of magnitude estimates for each specific penalty are shown second (in parentheses).

penalty and X = amount of the penalty in number of days (for prison, jail, and probation) or dollars for fines.

The model employs log transformations[16] because the bivariate plots indicated some curvilinearity. That is, perceived severity did not increase in linear proportion to the increase in the amount of punishment. The results of the four regression analyses (one for each class of penalties) are shown in Table 3.

Because twenty-two surveys were included in the analysis, the amount of explained variance (R^2) is indicative of reliability. In other words, the R^2's are best interpreted as indicators of inter-survey stability of the slopes. In that context the relationship between perceived severity and amount of time in prison is most reliable (R^2 = .93) followed by time in jail (R^2 = .69) and amount of fine (R^2 = .68). The least reliable results are obtained for

[16] For more detailed information regarding the simple log transformations that we performed, see K. SCHUESSLER, ANALYZING SOCIAL DATA: A STATISTICAL ORIENTATION, 405-06 (1971).

TABLE 3

RESULTS OF REGRESSION ANALYSES PREDICTING MEDIAN PERCEIVED SEVERITY MAGNITUDE ESTIMATES FROM LENGTH OF SENTENCE OR DOLLARS FINE (ALL SURVEYS INCLUDED)

Types of Penalties	Explained Variance R^2	Intercept (a)	Slope (b)	Standard Error of b
Prison	.93	.24	.77*	.02
Jail	.69	.16	.70*	.06
Probation	.48	−.14	.62*	.07
Fines	.68	−.15	.62*	.04

* Statistically significant beyond .001 level.

probation (R^2 = .48). In essence, it is concluded that if another survey were to be conducted, it is much more likely that the slope and intercept for prison would be the same as reported in Table 3 than for the other types of penalties—especially probation (e.g., probation results are the least reliable).

Furthermore, the differences in the amount of explained variance for the different types of pen-

alties suggest the need to specify the relationships—especially those with low reliability. In short, two questions remain for further analysis: (1) will adding additional variables to Model 1 (*i.e.*, city, kind of survey, kind of respondents surveyed, etc.) significantly change the slope; and (2) will the addition of variables increase the explained variance (*e.g.*, in order to have high reliability in the regression coefficients is it necessary to have additional information about the kind of survey, respondent, hypothetical offender, etc.)?

To return to Table 3, note that for two types of penalties (viz., prison and jail) the intercepts (a's) are positive (.24 and .16) and the slopes (b's) are similar (.77 and .70). However, for probation and fines the intercepts are negative (−.14 and −.15) and the slopes are identical (.62). All of the slopes (b's) are highly statistically significant (>.001) and the standard error of the b's is quite low (the range is between .02 and .07). As one would expect the highest standard error occurs for probation (.07) because it also has the lowest explained variance.

In summary, the results of the regression analysis presented in Table 3 suggest a reasonable level of inter-survey reliability. While explained variance is higher for prison than for the other types of penalties, the results for all four are sufficiently high—coupled with low standard errors—to warrant the exploration and description of differences and similarities among the types of penalties at a general level (*e.g.*, without or before conducting analyses aimed at specifying these relationships).
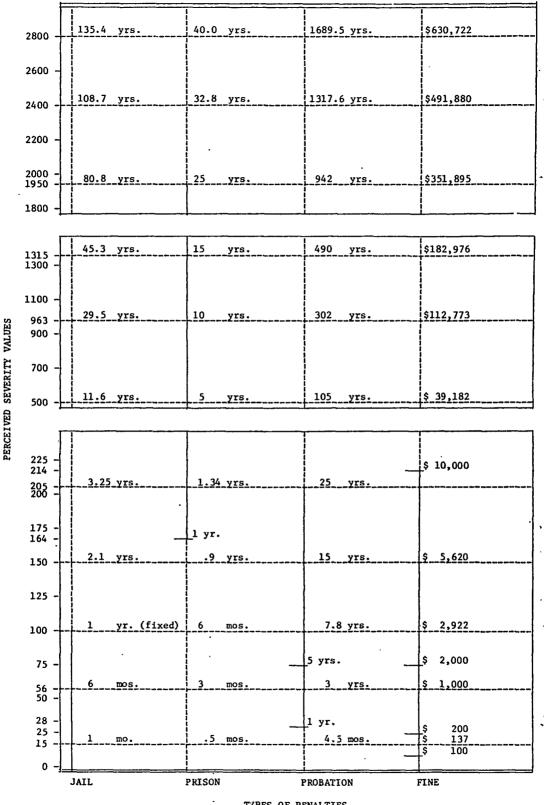
Although a variety of methods would be appropriate for illustrating relative differences in perceived severity of different types of penalties, a graphic method was chosen for several reasons. For one, a graphic method makes it possible not only to display the differences among types of penalties actually included in the data collection, but by extrapolating the regression slopes, it is also possible to display differences among types of penalties beyond the scope of data collection (*e.g.*, amount of sentences or fines not asked of respondents). Similarly, it makes it possible to display the four types of penalties at the same time even though the scale values for amount of penalty vary considerably. Finally, a graphic presentation makes it possible to display the relative amounts of different types of penalties that equal each other in terms of perceived severity. In other words, for specified levels of perceived severity, the graphic method makes it possible to consider how much time in prison it represents; how much time in jail it equals; how much time on probation is contemplated; and how much of a fine would be comparable.

In Figure 1 the results of the regression analysis are displayed graphically. Perceived severity, of course, provides the basis for comparisons among kinds of penalties. The perceived severity scale is broken in two places, so that the data points for all prison terms (one, five, ten and fifteen) could be displayed, and of course to keep the figure at a manageable size.

The solid lines for each kind of penalty represent the range of actual data points used in data collection. The dotted lines are extrapolations according to the regression equations. In brief, the data points displayed represented the X values in the regression equations (see model 1). To illustrate, in order to obtain a predicted severity value of 200, the X value would have to be 3.25 years of jail, 1.34 years in prison, 25 years on probation or a $10,000 fine. With these comparisons in mind, note that in terms of perceived severity these X values are equal (viz., they all equal 200). From this single comparison, one can begin to see the relative differences in the perceived severity of the four kinds of penalties.

There are really two distinctive ways of making comparisons among types of penalties. The first is illustrated above and involves examining the amounts of each type of penalty equal to a specific point on the perceived severity scale. A second approach involves examining the differences in perceived severity for equal amounts of time in jail, or in prison, or on probation. This method excludes fines since dollars are the unit rather than time (*e.g.*, days, months or years).

Using the second approach, note that for one year of jail perceived severity was fixed at 100 and was thus the standard for comparison in obtaining perceived severity magnitude estimates for all penalties. The perceived severity of one year in prison however is 164 and the value for one year on probation is only 28. For five years in jail the perceived value is 277.26, for prison it is 564, and for five years on probation the value is 76. For ten years in jail the perceived severity value is 450.41, while for ten years in prison the value is 963, and for ten years on probation the value is 116. For fifteen years in jail the perceived severity value is 598.41, whereas the value of fifteen years in prison is 1,315, and the value for fifteen years on probation is only 150. And, finally, for twenty-five years in jail the perceived severity value is 855.39, while the value for twenty-five years in prison is 1,950, and the value for twenty-five years on probation is 205.

PERCEIVED SEVERITY VALUES

	JAIL	PRISON	PROBATION	FINE
2800	135.4 yrs.	40.0 yrs.	1689.5 yrs.	$630,722
2400	108.7 yrs.	32.8 yrs.	1317.6 yrs.	$491,880
2000 / 1950	80.8 yrs.	25 yrs.	942 yrs.	$351,895

	JAIL	PRISON	PROBATION	FINE
1315 / 1300	45.3 yrs.	15 yrs.	490 yrs.	$182,976
963	29.5 yrs.	10 yrs.	302 yrs.	$112,773
500	11.6 yrs.	5 yrs.	105 yrs.	$ 39,182

	JAIL	PRISON	PROBATION	FINE
225 / 214				$ 10,000
205 / 200	3.25 yrs.	1.34 yrs.	25 yrs.	
175 / 164		1 yr.		
150	2.1 yrs.	.9 yrs.	15 yrs.	$ 5,620
100	1 yr. (fixed)	6 mos.	7.8 yrs.	$ 2,922
75			5 yrs.	$ 2,000
56	6 mos.	3 mos.	3 yrs.	$ 1,000
28			1 yr.	$ 200
25				$ 137
15	1 mo.	.5 mos.	4.3 mos.	$ 100
0				

TYPES OF PENALTIES

FIGURE 1

PERCEIVED SEVERITY VALUES AMONG DIFFERENT TYPES OF LEGAL PENALTIES BASED ON ALL SURVEYS

Using the first method, comparing differences in X's values that generate the same predicted perceived severity value, it can generally be observed that time in jail is viewed as about half as severe as time in prison. It can be observed from Figure 1 that six months in jail equals 56 on the severity scale, and that three months in prison (exactly half as long) is comparable in terms of perceived severity. At the same level of severity it takes three years on probation and a little more than a $1,000 fine. Obviously, time on probation is not viewed as a very severe outcome of adjudication. This should not really be surprising to anyone, but the amount of difference between jail, prison and probation is of such enormous magnitude that it is dramatic, if not surprising. To illustrate further these differences, note that five years in prison equals 564 on the severity scale. A comparable level of severity results in 11.5 years in jail, 105 years on probation and a $39,182 fine.

It must be remembered that the regression equations used in calculating predicted severity values for each of the types of penalties are log transform models. Bivariable plots revealed a non-linear relationship; that is, the difference (in perceived severity) between one and five years is greater than the difference between ten and fifteen years, even though the time span is the same. The fact that this is true for all four types of penalties (although it varies among them) means that the relative differences between types of penalties vary, depending on where along the perceived severity scale comparisons are made.

Thus far it has been shown generally that, at the lower end of the severity scale, the ratio of prison to jail is approximately one to two and roughly one to fifteen for the difference between prison and probation; and for prison and fines the ratio is one year to approximately $10,000 fine.

It is interesting to note that *in aggregate* the amount of fine that would equal one year of prison or jail comes relatively close to matching average annual income in the United States. It is likewise interesting to speculate about the possibility of relating the amount of fines for criminal offenses to the average annual income when writing revisions of criminal statutes. For instance, Arizona's criminal code provides an example of what can happen when revisions do not occur very often. The maximum fine in Arizona for a criminal felony is $300 and undoubtedly this simply reflects the fact that Arizona criminal code has not been revised for a considerable length of time. Of course, it is debatable as to whether or not the $300 fine was ever a meaningful penalty, but presuming that

at an earlier date a $300 fine was considered severe, it has ceased to be so given economic change over the last few decades. Other alternatives are of course plausible. For example, one might contemplate making fines a fixed *proportion* of offenders annual income in the name of justice across income levels.

However, as perceived severity values increase the ratios between the different penalties increase. This is dramatically illustrated in Table 4. Note that for 150 on severity scale, the ratio of one year in prison is 2.43 and 18.66 for jail and probation, respectively and $7,463 in fines. However, at the top of the severity scale (viz., 2,800) the ratios are much larger. Again using one year in prison as the basis for calculating the ratios, the ratio of one year in prison to jail is 3.39, for probation the ratio has jumped to 42.24 and for fines the ratio is one year in prison to $15,768 dollars.

In summary, the findings presented thus far demonstrate some rather important possibilities, not the least of which is the feasability of converting a wide variety of legal (and extralegal) penalties into a common quantitative variable namely, *relative perceived severity*. Inherent in that possibility is the potential of converting a wide range of types of data concerning penalties into perceived severity values for analytical and policy purposes. For example, by using the results of analysis presented above (or replication thereof) through the same methods employed, it would be feasible to convert statutory penalties, sentences given in court, sentences actually served, etc., into perceived severity values thereby making possible a wide range of comparative analyses (*e.g.*, across jurisdictions, judges, time, etc.). The methods also point the way to converting a wide range of survey data regarding penalties into a common variable. For example, survey data gathered from selected samples (viz., community residents, legislators, lawyers, etc.) concerning what they think *ought to be* the penalty or penalties for a given offense, could be converted into perceived severity values for comparative purposes.

In brief, inherent in the methods used and findings produced by their use is the possibility of simplifying many important kinds of research on or about the criminal justice system. Obviously, one study does not establish the claims made above, but given the importance—perhaps even the fundamental indispensability—of the concept of severity in thinking and research concerning the effects of the law, the approach illustrated above deserves serious consideration.

In addition to the potential analytical utility of

TABLE 4

RATIOS BETWEEN YEARS IN PRISON TO YEARS IN JAIL, ON PROBATION OR DOLLARS FINE FOR SELECTED POINTS ON THE
PERCEIVED SEVERITY SCALE

Selected Points on the Severity Scale		Ratios per 1 Year in Prison		
Years in Prison	Perceived Severity	1 Year in Prison to Years in Jail	1 Year in Prison to Years on Probation	1 Year in Prison to Dollars Fine
1.34 years in Prison	150	2.43	18.66	7,463
10 years in Prison	963	2.95	30.20	11,277
25 years in Prison	1950	3.23	37.68	14,076
40 years in Prison	2800	3.39	42.24	15,768

the methods and findings, there is a host of potential policy applications. Take, for example, the common place assertion that judge A is more punitive than judge B because he or she sentences more convicted offenders to penalty X. Using the methods outlined above it would be feasible to convert all sentences (penalty X, Y, Z, etc.) of judge A and judge B into perceived severity values and comparing the summated perceived severity values of both judges to make a direct test of the assertion. The point, of course, is that judge B may be found to be more punitive because even though he or she does not use penalty X as much as judge A, the severity of the sentences given is higher than the severity of the sentences given by judge A.

Another example is the statutory provision that if the maximum prison term for an act is stipulated as one year in prison, the maximum term of probation (should a judge suspend the prison sentence and place the offender on probation) may also be set at one year. This is true in Arizona and is fairly common in other states as well. Note however, from the figures in Figure 1, that should an offender be placed on probation for one year rather than sent to prison for one year, there is a difference of 136 in perceived severity of the two judicial outcomes (e.g., 164 for one year in prison but only 28 for one year on probation). If one wanted to argue, in the name of justice and system legitimacy, that the two outcomes ought to be comparable in terms of severity, then the length of time on probation would be set at approximately sixteen years. Obviously, such conversions from any one type of penalty to any other can be accomplished using the methods outlined above.

The potential uses of perceived severity measures, of course, rests on the generality of findings of the present study and other studies conducted along these lines. No doubt, the exact equations will vary across jurisdictions and a host of other potentially relevant dimensions; but even if separate sets of equations result from different studies,

the approach can solve many thorny analytical problems within each study. Eventually, when a sufficient number of different studies have been conducted it may be possible to answer the question about the generality of the equations.

Because of the fairly large number of surveys conducted in Arizona over the last few years and the fact that these surveys were different in a variety of fundamental ways (e.g., types of respondents, methods used in collecting data, etc.) a considerable amount of additional analysis was conducted to assess the generality of the equation in Table 3 for the present study.

ELABORATING AND SPECIFYING MODEL 1

The findings presented thus far are based on the application of Model 1 without the addition of other variables that could logically produce significant differences in regression coefficients (e.g., intercepts (a's) and slopes (b's)). A fundamental question thus remains to be answered, namely, do any of the *characteristics of the surveys* (e.g., year of survey, city in which surveys were conducted, method used to gather data and type of hypothetical offender—juvenile or adult) or characteristics of respondents (viz., adult citizens in the communities surveyed or police in the same communities) produce significant effects either directly or in interaction with each other?

In order to test for the possible effects of any of these variables, individually or in interaction, a series of additional regression models were developed. However, in general the same approach was followed for testing for these possible effects. First, a series of "dummy variables" was developed to represent the characteristics of the surveys (see Table 2).

For example, a string of four dummy variables were defined for city (a 1 is placed in the appropriate variable—the city when a given survey was conducted—and 0's in the other three). The same logic and accompanying method of scoring was

used for all of the characteristics of the surveys (viz., see Table 2). Thus, each of the twenty-two surveys was coded in terms of (1) city, (2) rural or urban characteristic of the city, (3) the year of the survey—1974 or 1976, (4) hypothetical offender—juvenile or adult, (5) method of data collection—four penalty or comprehensive, and (6) type of respondents—police or juvenile.

Then, using these binary characteristics of the surveys (1 meant that the survey had the characteristic, or 0 meant that it did not), regression models were defined which essentially involved adding these additional variables to Model 1. The new models thus include Model 1 and the dummy variable(s) for characteristics of the surveys. A second type of model added interaction dummy variable(s)—interactions between survey characteristics and the amount of a penalty (viz., 5 years in prison, etc.).

Two major types of models were used for elaborating and specifying Model 1. The first of these models is a direct effects model, in the sense that it adds to Model 1 a single dummy variable (or a series of them) for a given characteristic of the studies. This model expressed in regression terminology is as follows:

$$\log Y = a + b \log X + bAv + e \quad \text{(Model 1A)}$$

where Y = the median severity values, X = the amount of penalty of a given type (days in jail, prison or probation or dollars fined) and, Av = a single dummy or string of dummy variables representing the characteristic being used to specify the model.

The second model is like 1A except that it tests for the interaction between levels of punishment and the dummy variable(s). In regression terminology it is of the following form:

$$\log Y = a + b \log X + bIAv + e \quad \text{(Model 1B)}$$

where Y = median severity values, X = the amount of penalty, and IAv = the interaction dummy variables — the interaction between amount of penalty and the dummy variables used in Model 1A.

The regression models were then applied for each of the four types of penalties (jail, prison, probation and fine). In examining the results of these analyses primary interest was given to whether the b for amount of penalty changed significantly, whether the b's for any or all of the additional variables were statistically significant and whether anything is gained in explained variance.

Interestingly, with few exceptions, none of the additional variables produced any significant differences on the regression equations reported in Table 3. In brief, the equations presented early are not significantly different when controls are made for (1) city and interactions between city and amount of penalties, (2) rural and urban (a characterization of the cities—SMSA = urban and the other three cities were combined into rural) and interactions between types of city and amount of penalty, (3) time (year of survey) and interactions between time and amount of penalty, (4) hypothetical offender (juvenile or adult) and interactions between type of hypothetical offender and amount of penalty, (5) the method of obtaining perceived severity data (four-penalty and comprehensive) and interactions between method of data collection and amount of penalty and (6) type of respondent-police and citizens and interaction between amount of penalty and type of respondent.

The most important finding that emerges from these specification analyses is that the slope for the amount of penalty (the slopes produced in using Model 1 and presented in Table 3) are not changed by the addition of other variables. That is, slopes presented in Table 3 for the four kinds of penalties remain unaffected by the addition of characteristics of the survey or types of respondents. Additionally, with very few exceptions, the b's of the dummy variables added to Model 1 are characterized by high standard errors and a failure to be statistically significant. Finally, the increase in explained variance (R^2) is minimal for all four kinds of penalties, regardless of what characteristics of the surveys were added. In summary, the equations presented in Table 3 for the four kinds of punishment describe the data adequately. Adding to those equations characteristics of the survey, or type of respondents, *does not improve the reliability nor the stability of the models.*

However, even given the conclusions reached above regarding the slopes between the amount of penalty and perceived severity, there may still be interesting differences among types of respondents in the perceived severity scale among and between the types of respondents. There may be intercept differences that are worthier of description and interpretation, even though the slopes among surveys are not significantly different. Explorations along these lines produced a number of rather interesting differences between types of respondents—in terms of relative perceived severity among kinds of penalties. Space limitations preclude a comprehensive treatment of these findings,

but the differences between citizens and police perceptions of severity do warrant some presentation and discussion.

In displaying the differences between citizen surveys and police surveys, we first conducted separate regression analysis for the two types of surveys; that is, we applied Model 1 to each of the four kinds of penalties for police surveys, and for citizens surveys. The results of these regression analyses are presented in Table 5.

Before turning to a graphic display of the results of these regression analyses, note first that there are real differences in the intercepts of the citizen and police surveys for all four types of penalties. In every case the intercepts for citizen surveys are positive (.45 for prison, .40 for jail, .24 for probation, and .12 for fines), whereas all of the slopes for the police surveys are negative ($-.05$ for prison, $-.18$ for jail, $-.69$ for probation, and $-.54$ for fines). Note also that all of these slopes are statistically significant, but recall from earlier analysis that *the differences in the slopes* between citizen and police surveys are not statistically significant. Furthermore, the standard errors are higher for police surveys than for citizen surveys for each of the kinds of penalties, and finally the explained variances are somewhat different between citizen and police surveys. For prison there is little difference between citizen surveys and police surveys ($R^2 =$ .94 and .93 respectively), while for jail the R^2's are identical (.72 in both cases). There is considerable variation, however, in the remaining two types of penalties—the R^2 is .78 for citizen surveys on pro-

bation but only .43 for police surveys. Similarly, for fines, the R^2's for citizen surveys is .83, whereas for police surveys it is .68.

In Figure 2 the regression coefficients were utilized to plot the scale differences between citizen and police surveys for each of the four types of penalties. This figure is comparable to Figure 1, which displays scale differences among penalties for all surveys combined. Figure 2 however makes it possible to examine the relative differences between citizen and police perceptions of severity among and between the different types of penalties.

Figure 2 shows not only a divergence in the perceptions of severity by the police and citizens, but also a *pattern* in that divergence. Briefly, for all four types of penalties, there is a pronounced tendency for the police to perceive any magnitude of the penalty (*e.g.,* five years of imprisonment) as more severe than the citizens perceive it. To illustrate, whereas for the police a severity value of 540.61 corresponds to about six years of jail, the corresponding number of years for citizens is 34. Observe also that the divergence tends to increase with the magnitude of the penalty (*i.e.,* with its presumptive severity). Thus, as just indicated, for a perceived severity value of 540.61, the police/citizen ratio of corresponding years in jail is nearly 1:6 (*i.e.,* 6.1/34.0); but for a perceived severity value of 2,317.64, the ratio is more than ten (*i.e.,* 32.6/436.6).

Another way of examining the findings presented in Figure 2 is to look at the differences and perceived severity for equal amounts of different

TABLE 5

RESULTS OF REGRESSION ANALYSES UTILIZING MODEL 1 WHEN APPLIED TO ALL SURVEYS AND SEPARATELY FOR CITIZEN AND POLICE SURVEYS

Type of Penalty	Surveys Included	Explained Variance[a]	Regression Coefficients		
			Intercept a	Slope b	Standard Error of b'
Prison	All Surveys	.93	.24	.77*	.02
	Citizen Surveys	.94	.45	.70*	.03
	Police Surveys	.93	−.05	.86*	.04
Jail	All Surveys	.69	.16	.70*	.06
	Citizen Surveys	.72	.40	.57*	.06
	Police Surveys	.72	−.18	.87*	.11
Probation	All Surveys	.48	−.14	.62*	.07
	Citizen Surveys	.78	.24	.50*	.04
	Police Surveys	.43	−.69	.80*	.16
Fine	All Surveys	.68	−.15	.62*	.04
	Citizen Surveys	.83	.12	.50*	.03
	Police Surveys	.68	−.54	.78*	.08

[a] To be interpreted as inter-survey reliability.

* Statistically significant beyond .001 level.

PERCEIVED SEVERITY VALUES

	Police	Citizens	Police	Citizens	Police	Citizens	Police	Citizens
2500								
2317.64	32.6 yrs.	436.6 yrs.	25.7 yrs.	40 yrs.	329.4 yrs.	4860.7 yrs.	$100,785	$3,082,791
2300			25 yrs.					
2110.83	29.3 yrs.	370.6 yrs.	23.0 yrs.	35 yrs.	293.1 yrs.	4032.0 yrs.	$ 89,403	$2,557,164
2100								
1900								
1700								
1667.87	22.3 yrs.	245.2 yrs.	17.5 yrs.	25 yrs.	218.3 yrs.	2517.3 yrs.	$ 66,101	$1,596,528
1500								
1300								
1166.46	14.8 yrs.	130.9 yrs.	11.6 yrs.	15 yrs.	139.6 yrs.	1231.3 yrs.	$ 41,794	$ 780,894
1100								
900								
878.22	10.7 yrs.	79.6 yrs.	8.3 yrs.	10 yrs.	98.0 yrs.	697.9 yrs.	$ 29,046	$ 442,648
700								
540.61	6.1 yrs.	34.0 yrs.	4.7 yrs.	5 yrs.	53.4 yrs.	264.5 yrs.	$ 15,593	$ 167,734
500								

	Police	Citizens	Police	Citizens	Police	Citizens	Police	Citizens
200								
175.23 / 175	1.7 yrs.	4.7 yrs.	1.3 yrs.	1 yr.	13.1 yrs.	27.8 yrs.	$ 3,678	$ 17,623
						25 yrs.		
150			1 yr.					$ 10,000
125	1 yr.							
107.85 / 100	11.5 mos.	2.0 yrs.	8.6 mos.	6 mos.	7.1 yrs.	10.5 yrs.	$ 1,974	$ 6,676
75 / 65.75	6.5 mos.	1 yr. 10.2 mos.	4.9 mos.	3 mos.	3.8 yrs.	3.9 yrs.	$ 1,047	$ 2,481
50								
25					1 yr.	1 yr.		
0								
	Police	Citizens	Police	Citizens	Police	Citizens	Police	Citizens
	JAIL		PRISON		PROBATION		FINE	

TYPES OF PENALTIES

FIGURE 2

PERCEIVED SEVERITY VALUES AMONG DIFFERENT TYPES OF LEGAL PENALTIES ACCORDING TO POLICE AND CITIZENS SURVEY

kinds of punishment. Note, for example, that the perceived severity value for one year in jail is 107.85 for police, whereas, it is only 75 for citizens. With regard to prison, for one year in prison the perceived severity value for the police is approximately 140; whereas, for citizens it is 175.23. There is not much disagreement about one year on probation between citizens and police as both view it to be trivial. Police data place one year on probation at 25 on the perceived severity scale; whereas, the value for citizens is approximately 35. A $10,000 fine for police would be approximately 400

on the severity scale, whereas, it would only equal 135 for citizens.

There are numerous other comparisons that can be made from the data presented in Figure 2, but they all lead to the same conclusion, namely, that the police view conventional criminal sanctions as more severe than do citizens. The difference may reflect much more extensive and direct experience by the police with the conditions of incarceration, meaning that they are less inclined to accept the widespread belief — a popular one among advocates of "law and order" — that prisoners are "coddled." Yet, that interpretation is suspect in contemplating the police-citizen differential perception of the severity of probation, and it becomes even more questionable in contemplating fines (after all, the typical police officer's salary is not so much below that of the typical citizen that he or she necessarily values money more). The alternative interpretation is less questionable. Police officers are much more likely to realize that any kind of punishment is a remote possibility in cases of crime, and hence from their point of view any punishment is "exemplary." That interpretation fits each of the four types of punishments and is consistent with the pattern of divergence (*i.e.*, a really long prison sentence is even more severe from the perspective of the police because it is truly rare). The most important implication is the possibility that the perception of the certainty of punishment and the perception of the severity of that punishment are logically distinct, but fused in the minds of the perceivers.

An interesting way of attempting to get closer to answers to these questions would, of course, be to examine differences between police and citizens as regards *preferred punishments* for different kinds of offenses. In that light, as we speculated earlier, such analysis may be more feasible using some of the methods suggested earlier (*e.g.*, converting preferred punishments of police, citizens, or other categories of individuals into perceived severity) so that comparison could be made more simple and straight forward.