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Perceptions of Crime: A Multidimensional Analysis with Implications for Law and Psychology

Jeremy A. Blumenthal*

I. INTRODUCTION

In the last forty years, empirical study of social perceptions of crime in general, and the seriousness of criminal offenses in particular, has been of substantial interest to policymakers, courts, and social scientists. As a matter of criminal justice policy, consensus about a crime's severity can serve as both a legal and societal foundation for certain criminal justice policy decisions¹ or for the proper punishment for that crime.² From a social psychological perspective, studying individual differences in the perceptions of crime can supply valuable information both for basic knowledge about the thinking of individuals who differ along lines of gender, race, age, education, or political ideology, and also for applied knowledge that can be used in a judicial or legislative arena.³ Moreover, a hierarchy of the perceived seriousness of various criminal offenses can give insight into what is valued in a particular culture.⁴

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1. E.g., Nelson B. Heller & J. Thomas McEwen, *Applications of Crime Seriousness Information in Police Departments*, 12 J. RES. CRIME & DELINQUENCY 44 (1975); Peter B. Hoffman & Patricia L. Hardyman, *Crime Seriousness Scales: Public Perception and Feedback to Criminal Justice Policymakers*, 14 J. CRIM. JUST. 413 (1986).

2. E.g., PAUL H. ROBINSON & JOHN M. DARLEY, *JUSTICE, LIABILITY, AND BLAME: COMMUNITY VIEWS AND THE CRIMINAL LAW* (1995); Peter H. Rossi et al., *Beyond Crime Seriousness: Fitting the Punishment to the Crime*, 1 J. QUANTITATIVE CRIMINOLOGY 59 (1985); Leslie T. Wilkins, *CONSUMERIST CRIMINOLOGY* (1984); Ernest van den Haag, *The Criminal Law as a Threat System*, 73 J. CRIM. LAW & CRIMINOLOGY 769 (1982). For dissenting views, see Peter H. Rossi & J. Patrick Henry, *Seriousness: A Measure for All Purposes?*, in HANDBOOK OF CRIMINAL JUSTICE EVALUATION 489 (Malcolm W. Klein & Katherine S. Teilmann eds., 1980); Deirdre Golash & James P. Lynch, *Public Opinion, Crime Seriousness, and Sentencing Policy*, 22 AM. J. CRIM. L. 703 (1995).

3. E.g., Eleni Apospori & Geoffrey Alpert, *Research Note: The Role of Differential Experience with the Criminal Justice System in Changes in Perceptions of Severity of Legal Sanctions Over Time*, 39 CRIME & DELINQUENCY 184 (1993); Peter Banister & Sara Pordham, *Public Perceptions of Crime Seriousness*, 21 ISSUES CRIMINOLOGICAL & LEGAL PSYCHOL. 4 (1994); J. L. Miller et al., *Perceptions of Justice: Race and Gender Differences in Judgments of Appropriate Prison Sentences*, 20 LAW & SOC'Y REV. 313 (1986); Keith D. Parker & Anne B. Onyekwuluje, *African-Americans' Perceptions of Violent Crime: A Multivariate Analysis*, 15 W. J. BLACK STUD. 138 (1991); Rossi et al., *supra* note 2.

4. Mark Warr, *What is the Perceived Seriousness of Crimes?*, 27 CRIMINOLOGY 795, 795-96 (1989).

Sophisticated empirical study of perceptions of crime seriousness began with Sellin and Wolfgang's *The Measurement of Delinquency*.⁵ The authors selected more than one-hundred and forty criminal offenses and obtained ratings of the seriousness of each from university students and from members of the criminal justice system.⁶ Both in relative ordering and in the absolute scores given to each offense, Sellin and Wolfgang observed a substantial degree of consensus both within and between subgroups.⁷ Numerous replications of the study have been conducted, seeking to extend its findings across wider populations, across cultures, and with refined methodology.⁸ An early replication by Rossi et al. improved upon other replications that used problematic sampling and testing techniques and is still one of the most widely-cited studies in the perceptions of crime.⁹ One-hundred and forty respondents rated eighty criminal offenses, and overall consensus, as well as consensus across racial, gender, and educational groups, was examined.¹⁰ A substantial degree of agreement was observed among those subgroups.¹¹ Most recently, Robinson and Kurzban asked respondents to rank order a set of twenty-four activities that might be criminal.¹² They asked for ratings of blame-worthiness, rather than seriousness, observing a similar high level of agreement in respondents' rankings.¹³

5. THORSTEN SELLIN & MARVIN E. WOLFGANG, *THE MEASUREMENT OF DELINQUENCY* (1964).

6. *Id.* at 242, 255.

7. *Id.* at 268.

8. E.g., Robert M. Figlio, *The Seriousness of Offenses: An Evaluation by Offenders and Nonoffenders*, 66 J. CRIM. LAW & CRIMINOLOGY 189 (1975); Marlene Hsu, *Cultural and Sexual Differences on the Judgment of Criminal Offenses: A Replication Study of the Measurement of Delinquency*, 64 J. CRIM. L. & CRIMINOLOGY 348 (1973); Tarald O. Kvålseth, *Seriousness of Offenses: An Experimental Study Based on a Psychophysical Scaling Technique*, 18 CRIMINOLOGY 237 (1980); Peter H. Rossi et al., *The Seriousness of Crimes: Normative Structure and Individual Differences*, 39 AM. SOC. REV. 224 (1974); Monica A. Walker, *Measuring the Seriousness of Crimes*, 18 BRIT. J. CRIMINOLOGY 348 (1978). For a summary of studies examining consensus about the appropriate punishment for various criminal activities, see Paul H. Robinson & Robert Kurzban, *Concordance & Conflict in Intuitions of Justice*, 91 MINN. L. REV. (forthcoming 2007).

9. Rossi et al., *supra* note 8.

10. *Id.* at 226.

11. *Id.* at 227-31.

12. Robinson & Kurzban, *supra* note 8 (manuscript at 31).

13. *Id.* (manuscript at 30-42).

As with any body of empirical work, various methodological criticisms have been levied.¹⁴ On a more fundamental level, however, researchers have had difficulty in agreeing on exactly what is meant by the term "seriousness."¹⁵ One attempt at replication of the Sellin-Wolfgang findings questioned whether seriousness "is a unidimensional phenomenon."¹⁶ Howe made this point more explicitly:

A fundamental difficulty with the seriousness construct as commonly [used] is that it squeezes the crime stimuli into an assumed unitary dimension, a sort of lowest common denominator of comparison. This constraint leaves some investigators uneasy: It does not identify the particular respects in which two random crimes with comparable seriousness values may in fact be regarded as equivalent, nor does it capture the respects in which they are different. Crimes are obviously multidimensional in nature, but the fact seems not to have been acknowledged and exploited experimentally.¹⁷

In order to untangle the evaluative dimensions on which people discriminate the notion of "seriousness," Howe used multidimensional scaling (MDS) procedures on similarity ratings of eighteen crimes to obtain a "mapping of crime stimuli that approximately preserves an equivalent evaluative ordering while at

14. In general, two approaches have been used in the measurement of perceptions of crime seriousness. James P. Lynch & Mona J. E. Danner, *Offense Seriousness Scaling: An Alternative to Scenario Methods*, 9 J. QUANTITATIVE CRIMINOLOGY 309, 309 (1993). The crime scenario method, developed by Sellin and Wolfgang and used in numerous extensions of their work, presents subjects with brief scenarios describing a criminal offense. SELLIN & WOLFGANG, *supra* note 5, at 253-54. Subjects are asked to rate these offenses on one of two types of scales. *Id.* at 254. The first is a fixed Likert scale ranging from least to most serious. *Id.* The second is an absolute magnitude scale for which no endpoints are given and subjects are free to rate the stimuli with whatever scale they desire, keeping in mind the relative weights they assign to the various crimes. Gideon Fishman et al., *A Multidimensional Approach to the Problem of Crime Seriousness*, 10 INT'L J. COMP. & APP. CRIM. JUST. 177, 179 (1986). A related alternative to the scenario method is the factorial survey design, which systematically varies the different possible combinations of factors that might affect subjects' judgments in order to identify which factors are most influential. *E.g.*, Rossi et al., *supra* note 2, at 62. Robinson and Kurzban used essentially a similar method. *See* Robinson & Kurzban, *supra* note 8 (manuscript at 30).

Although most criminological and social psychological studies have used such designs, they have nevertheless been subjected to some methodological critiques. These have included inappropriate sampling of subjects or crime stimuli, Terance D. Miethe, *Public Consensus on Crime Seriousness: Normative Structure or Methodological Artifact?*, 20 CRIMINOLOGY 515, 518-21 (1982), implausible offenses being used as stimuli, Alexis M. Durham, III, *The Use of Factorial Survey Design in Assessments of Public Judgments of Appropriate Punishment for Crime*, 2 J. QUANT. CRIMINOLOGY 181, 182-84 (1986), or biases stemming from researchers' a priori decisions about which stimuli to include, Lynch & Danner, *supra*, at 310-11.

15. Stephen R. Blum-West, *The Seriousness of Crime: A Study of Popular Morality*, 6 DEVIANT BEHAV. 83, 84 (1985); Rossi & Henry, *supra* note 2, at 392-95; Warr, *supra* note 4, at 976-97.

16. Henry R. Lesieur & Peter M. Lehman, *Remeasuring Delinquency: A Replication and Critique*, 15 BRIT. J. CRIMINOLOGY 69, 80 (1975).

17. Edmund Howe, *Dimensional Structure of Judgments of Crime*, 18 J. APPLIED SOC. PSYCHOL. 1371, 1372 (1988).

the same time explicating some bases of their differences.”¹⁸ MDS is a procedure that helps researchers uncover “hidden structure[s]” in existing data by graphically plotting respondents’ perceptions of perceived similarities (or dissimilarities) among various stimuli.¹⁹ When these stimuli are located on a plot based on such perceptions, underlying dimensions that respondents may have used (consciously or not) can be inferred.²⁰ In that way, Howe’s research expanded the unidimensional perspective on the perception of crime by means of MDS; he inferred that perceptions were in fact comprised of two dimensions: *seriousness* and *potential harm*.²¹

Sebba, another critic of the perception of crime seriousness as monolithic, challenged two decades of investigation into perceptions of crime for ignoring the factor of criminal intent in judgments of seriousness.²² A subsequent study using MDS techniques found evidence for this factor; using a sample of Israeli adults and thirty offenses, researchers identified two dimensions of seriousness: *degree of personal injury* (i.e., damage to person rather than property) and *degree of criminal intent*.²³ Finally, although using open-ended interview techniques rather than MDS, Blum-West argued for recognition of “the multidimensional character of the seriousness of crime.”²⁴ His interviews suggested that when judging crime seriousness, people take into account a number of characteristics about an offender and an offense, including intent, motive, and notions of so-called “fair play.”²⁵

II. CURRENT RESEARCH

Thus, many researchers have called for studies that do not rely on such assumptions of unidimensionality, instead advocating studies that “extract[] distinct dimensions . . . on which people actually base judgments of seriousness. . . .”²⁶ MDS techniques can address such calls for methodological rigor and can

18. *Id.* at 1381.

19. JOSEPH B. KRUSKAL & MYRON WISH, *MULTIDIMENSIONAL SCALING* 5 (1978).

20. *Id.* at 7. For instance, subjects might be asked to rate the similarity of countries in the world and a plot made of those similarity rankings. The resulting plot might look like a map of the world, which could suggest that subjects were, implicitly or explicitly, using dimensions involving distance; in particular, dimensions of north/south and east/west. But the plot might line up the stimuli on a single axis going from largest to smallest, or most to least economically developed, or most to least known, suggesting that subjects used that single dimension in rating the countries. Inferring which dimension is important to respondents helps understand the way in which they see the world (in this example, literally) and what factors are important to them.

21. Howe, *supra* note 17, at 1387.

22. Leslie Sebba, *Crime Seriousness and Criminal Intent*, 30 *CRIME & DELINQUENCY* 227 (1984).

23. Fishman et al., *supra* note 14, at 180, 187-88.

24. Blum-West, *supra* note 15, at 97.

25. *Id.* at 88.

26. Francis T. Cullen et al., *Consensus in Crime Seriousness: Empirical Reality or Methodological Artifact?*, 23 *CRIMINOLOGY* 99, 110 (1985).

give increased insight into lay perceptions of crime seriousness, relative to previous studies that have used unidimensional scales to judge "seriousness" or "blameworthiness." However, only two studies in the last forty years have used such techniques.²⁷ Moreover, neither law, social psychology, nor criminology has made full use of the relevant body of knowledge in the other fields. Accordingly, two goals of the present study are, first, to add to such knowledge, and to the somewhat sparse methodologically rigorous literature investigating the perceptions of crime, and, second, to develop more communication between the legal system and social scientists.²⁸

I have two broader goals here as well. First, as Robinson and colleagues have pointed out, an understanding of citizens' perceptions of crime, blameworthiness, and punishment can have important policy implications.²⁹ They and others identify, for instance, potential dangers in divergence between lay conceptions of justice and blame, on the one hand, and black-letter law on the other.³⁰ The public may lose confidence in a system whose rulings do not comport with their lay notions,³¹ or jurors may nullify in criminal cases where they disagree with the black-letter law involved.³² Identifying the basic sorts of judgments that individuals make in evaluating crimes, consciously or not, can help guide substantive policy,³³ can help the legal system educate citizens about the substantive law,³⁴ and can help educate the legal and political systems as well.³⁵

Another closely related goal, however, is to apply the literature in a new way. In addition to the two areas mentioned above—individual differences in perceptions of crime and criminal justice policy making—there is a third area in which examination of the underlying dimensions of crime perceptions may be useful: moral decision-making. Empirical inquiry into moral decision-making is

27. Fishman et al., *supra* note 14; Howe, *supra* note 17.

28. Jeremy A. Blumenthal, *Law and Social Science in the Twenty-First Century*, 12 S. CAL. INTERDISC. L.J. 1 (2002).

29. I agree with this broad proposition, though in a previous article I questioned the methodology and some inferences Professor Robinson and colleagues made. See Jeremy A. Blumenthal, *Who Decides? Privileging Public Sentiment about Justice and the Substantive Law*, 72 UMKC L. REV. 1, 10-13 (2003).

30. See generally, e.g., NORMAN J. FINKEL, COMMONSENSE JUSTICE: JURORS' NOTIONS OF THE LAW (1995) [hereinafter FINKEL, COMMONSENSE JUSTICE]; Norman J. Finkel, *Commonsense Justice, Culpability, and Punishment*, 28 HOFSTRA L. REV. 669 (2000); Paul H. Robinson & John M. Darley, *The Utility of Desert*, 91 NW. U. L. REV. 453 (1997); ROBINSON & DARLEY, *supra* note 2; Robinson & Kurzban, *supra* note 8. Cf. PAUL H. ROBINSON, WOULD YOU CONVICT? SEVENTEEN CASES THAT CHALLENGED THE LAW (1999) (presenting and discussing to lay readers actual rather than hypothetical cases).

31. E.g., MARC HAUSER, MORAL MINDS: HOW NATURE DESIGNED OUR SENSE OF RIGHT AND WRONG 107 (2006) ("When the public lacks faith, bedrock can turn to sand."); Robinson & Darley, *supra* note 30, at 477.

32. E.g., FINKEL, COMMONSENSE JUSTICE, *supra* note 30, at ch. 2.

33. Robinson & Kurzban, *supra* note 8 (manuscript at 52-53).

34. E.g., Deborah W. Denno, *The Perils of Public Opinion*, 28 HOFSTRA L. REV. 741, 763 (2000); Craig Haney, *Commonsense Justice and Capital Punishment: Problematising the "Will of the People,"* 3 PSYCHOL. PUB. POL'Y & L. 303, 335-36 (1997).

35. Blumenthal, *supra* note 29, at 20-21.

of resurgent interest for the legal system and social scientists,³⁶ and insight into the basic notions or intuitions of crime and justice helps further develop such moral reasoning research, with the goal of application to the legal system.³⁷

Warr, for instance, has suggested that evaluations of seriousness in fact “mask other, distinct cognitive processes,” specifically, that such evaluations involve some composite of evaluations of harmfulness and moral wrongfulness.³⁸ Indeed, a logical connection exists between judgments of criminal offenses and judgments of immorality. A long line of research suggests that lay moral judgments concerning intent, causation, blame, responsibility, and mitigation are closely related both to legal judgments about such standards and to lay notions of those legal judgments.³⁹ Both legal scholars and psychologists suggest that behaviors are made criminal, in large part, because of public perception that they are morally wrong; that is, a criminal offense is defined primarily by its inherent lack of morality.⁴⁰ “Criminal law is merely the codification of the outrage felt by people when actions of deviants violate the commonly held moral principles.”⁴¹ Put another way, “if law were not based in common sense moral reasoning, it would not be possible to identify particular legal practices as incorrect, faulty, or unjust. . . . Law must embody the moral understandings of the society.”⁴²

Thus, immorality is a highly salient aspect of a criminal offense, and a judgment about an offense will capture that aspect. Warr’s findings emphasize this connection in two ways. First, a “substantial minority” of his subjects considered all crimes “equally wrong morally,” equating a transgression against the criminal law with one against a moral code.⁴³ For this group, making a judgment of crime was identical to making a judgment of immorality. Second, even for the remaining subjects, a substantial correlation existed between

36. E.g., Jeremy A. Blumenthal, *Moral Passions or Passionate Morals?: Emotion, Moral Decision-Making, and the Law* Paper presented at the Law and the Emotions: New Directions in Scholarship Conference, Berkeley, CA (Feb. 9, 2007) (unpublished article, on file with author).

37. See generally Jeremy A. Blumenthal, *Does Mood Influence Moral Judgment? An Empirical Test with Legal and Policy Implications*, 29 LAW & PSYCHOL. REV. 1 (2005).

38. Warr, *supra* note 4, at 819.

39. KELLY G. SHAVER, *THE ATTRIBUTION OF BLAME: CAUSALITY, RESPONSIBILITY, AND BLAME-WORTHINESS* (1985); John M. Darley & Thomas R. Shultz, *Moral Rules: Their Content and Acquisition*, 41 ANN. REV. PSYCHOL. 525 (1990); John M. Darley & Mark P. Zanna, *Making Moral Judgments*, 70 AM. SCI. 515 (1982); Thomas R. Shultz & Kevin Wright, *Concepts of Negligence and Intention in the Assignment of Moral Responsibility*, 17 CANADIAN J. BEHAV. SCI. 97 (1985); Marylie Karlovac & John M. Darley, *Attributions of Responsibility for Accidents: A Negligence Law Analogy*, 6 SOC. COGNITION 287 (1988).

40. WAYNE R. LAFAVE & AUSTIN W. SCOTT, JR., *CRIMINAL LAW* 9-10 (1972); Thomas R. Shultz & John M. Darley, *An Information-Processing Model of Retributive Judgments Based on “Legal Reasoning,”* in 2 HANDBOOK OF MORAL BEHAVIOR AND DEVELOPMENT 247, 251 (William M. Kurtines & Jacob L. Gewirtz eds., 1991).

41. DANIEL KATZ & ROBERT L. KAHN, *THE SOCIAL PSYCHOLOGY OF ORGANIZATIONS* 7 (1966).

42. Shultz & Darley, *supra* note 40, at 250-51.

43. Warr, *supra* note 4, at 800.

subjects' judgments of the seriousness of thirty-one criminal offenses and their judgments of the moral wrongfulness of those offenses.⁴⁴

Accordingly, interpretation of the dimensions underlying perceptions of crime can also give insight into the dimensions underlying moral decision-making. Such insight would be valuable as a supplement to moral reasoning research in the Kohlbergian tradition of examining the justification of decisions about moral dilemmas.⁴⁵ Identifying dimensions individuals use in their judgments about morality, as well as identifying potential individual differences in the use of such dimensions, may yield information about the moral decision itself, not only about subjects' explanations of their decisions. This is especially useful in light of Wilson and colleagues' research showing that the very process of introspection—of consciously analyzing the reasons for a decision—not only may not accurately tap an individual's underlying assumptions about that decision, but may also significantly change subsequent decisions and behavior.⁴⁶ Thus, an alternative, supplementary approach of identifying underlying dimensions can yield additional insight into people's moral decision-making, with the consequent implications both for policymaking and for empirical research into moral decision-making.

I thus conducted two empirical multidimensional scaling studies in order to identify the dimensions underlying individuals' perceptions of criminal offenses. As described in detail below, the first study, more exploratory in nature, identified three such dimensions; the second sought to validate the three inferred dimensions by asking respondents to rate the crimes on those particular scales.

44. $r(31) = .95, p < .001$. Calculation by the author based on data from Warr, *supra* note 4, at 801 tbl.1.

45. 1 LAWRENCE KOHLBERG, *ESSAYS ON MORAL DEVELOPMENT: THE PSYCHOLOGY OF MORAL DEVELOPMENT* ch. 4 (1984).

46. Timothy D. Wilson & Dana S. Dunn, *Effects of Introspection on Attitude-Behavior Consistency: Analyzing Reasons Versus Focusing on Feelings*, 22 J. EXPERIMENTAL PSYCHOL. 249, 260 (1986); Timothy D. Wilson et al., *Effects of Introspecting About Reasons: Inferring Attitudes from Accessible Thoughts*, 69 J. PERSONALITY & SOC. PSYCHOL. 16, 24 (1995); Timothy D. Wilson & Suzanne J. LaFleur, *Knowing What You'll Do: Effects of Analyzing Reasons on Self-Prediction*, 68 J. PERSONALITY & SOC. PSYCHOL. 21, 32 (1995); Timothy D. Wilson & Jonathan W. Schooler, *Thinking Too Much: Introspection Can Reduce the Quality of Preferences and Decisions*, 60 J. PERSONALITY & SOC. PSYCHOL. 181, 191 (1995). For the research that sparked such claims, see also RICHARD E. NISBETT & LEE ROSS, *HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT* ch. 9 (1980); Timothy De Camp Wilson & Richard E. Nisbett, *The Accuracy of Verbal Reports about the Effects of Stimuli on Evaluations and Behavior*, 41 SOC. PSYCHOL. 118 (1978). From another perspective, psychometric research has argued that at least one Kohlbergian methodology, the Defining Issues Test, JAMES R. REST, *DEVELOPMENT IN JUDGING MORAL ISSUES* ch. 4 (1979), may not measure moral reasoning, but is, rather, "simply another way of measuring verbal ability." Cheryl E. Sanders et al., *Does the Defining Issues Test Measure Psychological Phenomena Distinct from Verbal Ability? An Examination of Lykken's Query*, 69 J. PERSONALITY & SOC. PSYCHOL. 498, 502 (1995).

III. STUDY ONE

A. Method

Forty-two respondents (twenty-three men, nineteen women) completed questionnaires "about moral psychology," participating in one hour sessions in groups of one to eight people. Respondents gave demographic information (gender, age, and highest year of education completed) and answered questions about their beliefs about crime and morality. Respondents were asked to agree or disagree (1=strongly disagree; 5=strongly agree) with the following statements: (1) "Crime is the most serious problem faced by today's society;" (2) "It is better for ten guilty people to go free than for one innocent person to suffer;" and (3) "Assume you are on a jury to determine the sentence of a defendant already convicted of a very serious crime. 'I could not vote for the death penalty regardless of the facts and circumstances of the case.'" Respondents were also asked to rate their political attitudes on a 9-point scale (1=very liberal; 5=moderate; 9=very conservative) and to choose from the following four options what they thought the primary goal of legal punishment should be: retribution, deterrence, incapacitation, and rehabilitation.⁴⁷ These four penal philosophies were considered to range from most to least conservative in ideology, respectively.

The next section of the questionnaire listed word pairs naming two criminal offenses. Respondents were asked to rate the similarity of the pairs on a 9-point scale (1=completely dissimilar; 9=completely similar). Twenty-five offenses were used as stimuli.⁴⁸ The majority of offenses were chosen from those used by previous researchers using MDS to compare seriousness ratings,⁴⁹ supplemented by offenses chosen from the original Sellin and Wolfgang study⁵⁰ and from Battig and Montague's study on category norms.⁵¹ Using twenty-five offenses yielded a

47. Cf. 18 U.S.C. § 3553(a)(2) (2000) ("Factors to be considered in imposing a sentence.—The court, in determining the particular sentence to be imposed, shall consider— (2) the need for the sentence imposed—(A) to reflect the seriousness of the offense, to promote respect for the law, and to provide just punishment for the offense; (B) to afford adequate deterrence to criminal conduct; (C) to protect the public from further crimes of the defendant; and (D) to provide the defendant with needed educational or vocational training, medical care, or other correctional treatment in the most effective manner.").

48. Scholars suggest that twenty-five stimuli is an upper limit for subjects to rank. James B. Rounds Jr. et al., *Comparability of Multiple Rank Order and Paired Comparison Methods*, 2 APPLIED PSYCHOL. MEASUREMENT 412, 416 (1978).

49. Fishman et al., *supra* note 14, at app. 1; Howe, *supra* note 17, at 1374 tbl.1.

50. SELLIN & WOLFGANG, *supra* note 5, at 381 app. d.

51. See James P. Van Overschelde et al., *Category Norms: An Updated and Expanded Version of the Battig and Montague (1969) Norms*, 50 J. MEMORY & LANGUAGE 289, 306 (2004) (listing Battig and Montague category norms for "a crime"). In their update, Overschelde and colleagues found that there was virtually no change in such norms from 1969 to 2004. *Id.* Twenty-four offenses were chosen directly from these lists. A twenty-fifth offense, civil disobedience, was chosen as an action that, by definition criminal, can also involve a variety of moral implications. At least two specific instances of civil disobedience were presented in the list of crimes from SELLIN & WOLFGANG, *supra* note 5, at 381 app. d.

total of 300 pair-wise judgment combinations. All subjects judged all combinations of items. To guard against spurious order effects, all offenses appeared an equal number of times in the first or second position. Five separate randomized lists of the 300 judgments were distributed to respondents to further guard against order effects and fatigue effects.

Finally, for corroboration, respondents were asked to rate the absolute seriousness of each of the twenty-five offenses on a 9-point scale (1=not serious; 9=very serious).

B. Results

1. Dimensionality

The first step in interpreting participants' responses was to determine the number of dimensions that could be inferred from them. That is, based on their ratings of the crimes' similarities, stimuli are plotted in n -dimensional space; MDS analysis allows the statistical determination of how many dimensions best capture that spatial plot. This facilitates inference as to what those dimensions represent.

Thus, in order to determine the most meaningful solution for the present data, values for *stress* and R^2 were plotted against dimensionality. "Stress" is a measure of the *badness* of fit of a particular n -dimensional solution; the lower the stress value the more accurately the solution fits the observed data.⁵² The stress values for 1 to 6 dimensions respectively were .263, .161, .104, .073, .058, and .051, comparable to the stress values reported by Howe for 1 to 4 dimensional solutions,⁵³ and slightly higher than the index of alienation reported by Fishman et al. for two dimensions.⁵⁴ Similarly, for 1 to 6 dimensions, the R^2 values (the proportion of variance in the scaled data accounted for by their distances) were .799, .875, .927, .954, .966, and .970. These results suggested that the optimal solution was a 3-dimensional one, as increasing dimensionality after three dimensions resulted in substantially less reduction in stress and less increase in R^2 . Inspecting these plots helps to identify the dimensions underlying subjects' judgments about the stimuli (as in any MDS analysis, interpretation of these dimensions is inductive and stems from inspection of the relative positions of the items in the plot). To facilitate interpretation, this solution is displayed in two-dimensional representations in Figures 1 through 3.

52. KRUSKAL & WISH, *supra* note, 19, at 49.

53. Howe, *supra* note 17, at 1383-84.

54. Fishman et al., *supra* note 14, at 184.

Figure 1. Two-Dimensional Plot of Dimension 1 and Dimension 2

1 adultery	10 drunk driving	19 prostitution
2 arson	11 drug dealing	20 rape
3 assault	12 drug possession	21 robbery
4 battery	13 embezzlement	22 shoplifting
5 blackmail	14 extortion	23 speeding
6 burglary	15 jaywalking	24 tax evasion
7 child abuse	16 kidnapping	25 vandalism
8 child molestations	17 manslaughter	
9 civil disobedience	18 murder	

Figure 2. Two-Dimensional Plot of Dimension 1 and Dimension 3

1 adultery	10 drunk driving	19 prostitution
2 arson	11 drug dealing	20 rape
3 assault	12 drug possession	21 robbery
4 battery	13 embezzlement	22 shoplifting
5 blackmail	14 extortion	23 speeding
6 burglary	15 jaywalking	24 tax evasion
7 child abuse	16 kidnapping	25 vandalism
8 child molestations	17 manslaughter	
9 civil disobedience	18 murder	

Figure 3. Two-Dimensional Plot of Dimension 2 and Dimension 3

1 adultery	10 drunk driving	19 prostitution
2 arson	11 drug dealing	20 rape
3 assault	12 drug possession	21 robbery
4 battery	13 embezzlement	22 shoplifting
5 blackmail	14 extortion	23 speeding
6 burglary	15 jaywalking	24 tax evasion
7 child abuse	16 kidnapping	25 vandalism
8 child molestations	17 manslaughter	
9 civil disobedience	18 murder	

Dimension 1 (Figs. 1, 2) reflects the amount of harm that results from the perpetration of an offense. Crimes that inflict substantial direct harm are clustered at one end of this dimension: rape, murder, child abuse or molestation, and manslaughter. Similar offenses against person or property that cause significant but less serious direct harm, such as assault, battery, kidnapping, or arson, rank moderately high on this dimension. Crimes that do not actually inflict serious harm appear low on this dimension: shoplifting, income tax evasion, jaywalking, and civil disobedience. This dimension evidently captures, in substantial part, subjects' ratings of the absolute seriousness of the crimes, as

outlined in Table 1.⁵⁵ Other crimes causing varying degrees of harm along this dimension can be seen in Figures 1 and 2.

Dimension 2 (Figs. 1, 3) reflects the deprivation of another's property or person, consistent with a libertarian ideal that wrongness involves infringing on another and his autonomy. Offenses that clearly involve financial deprivation are at one extreme of this dimension, such as extortion, burglary, robbery, blackmail, and embezzlement. Moderately high on this dimension are similar crimes against person or property, such as kidnapping, income tax evasion, or arson. Low on this dimension are crimes that clearly do not directly infringe on another's rights or property, such as jaywalking, speeding, civil disobedience, and prostitution. These can be seen as so-called "victimless crimes" that a libertarian may in fact not consider criminal at all. To a lesser extent than Dimension 1, this dimension also reflects subjects' ratings of the absolute seriousness of the crimes, as outlined in Table 1.⁵⁶ Other crimes varying along this dimension can be seen in Figures 1 and 3.

Finally, inspection of the plots suggests that Dimension 3 (Figs. 2, 3) reflects recklessness, i.e., the potential for a criminal action to have unforeseen, serious physical consequences. At the most extreme of this dimension is arson, a crime that not only can cause more property damage than intended, but can cause unintended loss of life as well. Similarly high on this dimension are speeding, drunk driving, assault, and vandalism, offenses that may have consequences causing significant harm over and above that which was intended. On the other extreme are prostitution and adultery, offenses that are not only seen as producing low to moderate amounts of harm,⁵⁷ but also have less potential to produce additional, direct physical harm. Other crimes with varying potentials for causing unforeseen physical harm can be seen in Figures 2 and 3.⁵⁸

When all three dimensions were entered into a regression analysis, together they accounted for an extremely high proportion of the variance in the ratings of absolute seriousness.⁵⁹ The majority of the predictive power comes from Dimensions 1 and 2, as shown in the regression table displayed in Table 2.

55. $r(25) = .94, p < .01$.

56. $r(25) = .44, p < .05$.

57. See tbl.1.

58. There was an inverse correlation between scores on Dimensions 1 and 3; as one was weighted more heavily, the other was weighted less heavily. $r(42) = -.32, p = .042$.

59. Multiple $r = .974$.

Table 1
Descriptive Statistics for Dependent Measures

	<u>Mean</u>	<u>Std. Dev.</u>
Age	18.48	0.89
Political Orientation ^a	4.31	1.70
Attitude Toward Crime ^b	3.19	0.92
Ten Guilty vs. One Innocent ^b	3.31	1.20
Oppose Death Penalty ^b	2.55	1.52
Offense ^c		
murder	9.00	0.00
rape	8.50	0.67
manslaughter	8.32	0.84
child molestation	8.31	0.72
child abuse	8.14	0.87
kidnapping	7.45	0.86
battery	6.74	1.27
assault	6.46	1.28
arson	6.40	1.33
drug dealing	6.25	2.14
drunk driving	6.19	1.89
robbery	5.81	1.04
burglary	5.62	1.21
extortion	5.26	1.25
blackmail	5.02	1.30
embezzlement	4.79	1.54
income tax evasion	4.33	1.44
adultery	3.88	2.29
drug possession	3.83	2.14
prostitution	3.48	1.86
vandalism	3.48	1.60
shoplifting	3.10	1.43
civil disobedience	1.96	1.10
speeding	1.95	1.56
jaywalking	1.07	0.26

^aSelf-reported (1=very liberal; 9=very conservative).

^bSee text for wording of question (1=disagree; 5=agree).

^cMean seriousness rating (1=not serious; 9=very serious).

Table 2
Regression Coefficients in Equation Predicting Seriousness Ratings

Variable	B	Se b	Beta	T	p
Dimension 1	-1.47	.08	-.89	-17.64	< .001
Dimension 2	-.63	.12	-.26	-5.11	< .001
Dimension 3	-.15	.16	-.05	-.95	.35
Constant	5.41	.11	50.61		

Note: b = unstandardized regression coefficient; se b = standard error of b; Beta = standardized regression coefficient; t = t-value of b; p = level of significance of t-value.

Table 3
Correlations Among Demographic and Attitudinal Measures

	1	2	3	4	5	6	7	8	9
1. Gender	—								
2. Age	-.22	—							
3. Year	-.23	.91**	—						
4. Political Orientation	-.11	.13	.21	—					
5. Penal Philosophy	-.01	-.09	-.09	-.39	—				
6. Attitude toward Crime	.28	-.08	-.17	-.09	-.11	—			
7. Ten Guilty	-.28	-.07	-.01	.00	.08	-.41*	—		
8. Oppose Death Penalty	.08	-.11	-.15	-.56**	.54**	.13	.21	—	
9. Death Qualification	-.28	.12	.08	-.31#	.34#	.12	.21	.73**	—

Note. All df=42 except for Penal philosophy (df=40).

$p \leq .05$;

* $p \leq .01$;

** $p \leq .001$.

2. Demographics and Attitudes

The relationships among demographic and attitudinal variables, and the ratings of absolute seriousness given to each offense, were examined through correlational analysis. Descriptive statistics for the dependent variables appear in Table 1. Correlations among important dependent variables are shown in Table 3. The stimuli chosen were successful in eliciting a range of seriousness judgments, as seen in Table 1. Some unsurprising correlations appeared, such as between offenses involving money (e.g., embezzlement and robbery)⁶⁰ and between offenses involving children (e.g., child abuse and child molestation).⁶¹ More interesting were two gender differences. Women were more likely to agree with Statement 1, that "[c]rime is the most serious problem in today's society,"⁶² and less likely to agree with Statement 2, that "[i]t is better for ten guilty people to go free than for one innocent person to suffer."⁶³ Although this pattern ostensibly reflects conservative ideals, the results also showed no significant relationship between gender and self-reported conservatism⁶⁴ or between gender and crime seriousness. The only gender difference in such ratings was for drunk driving; women considered it more serious than did men.⁶⁵

Conservatism did, however, play a role both in adherence to a particular penal philosophy and in opposition to the death penalty. Unsurprisingly, those respondents considering themselves more conservative tended to have significantly less liberal penal philosophies (as defined *a priori*),⁶⁶ and were significantly less likely to oppose the death penalty.⁶⁷ Similarly, those who had more liberal penal philosophies tended to more strongly oppose the death penalty.⁶⁸ Further analysis reveals a significant tendency for those who agreed with Statement 1 to disagree with Statement 2.⁶⁹

Did subjects perceive the dimensions differently? Correlational analysis suggested that gender was not an important variable in making such differentiations, as men and women did not differ at conventionally significant levels on any of the dimension coordinates.⁷⁰ Significant differences at the .05 level existed, however, between subjects' scores on coordinates for Dimension 1 and several background variables. As Dimension 1 was weighted more heavily

60. $r(42) = .57, p < .001$.

61. $r(42) = .79, p < .001$.

62. $r(42) = .28, p = .068$.

63. $r(42) = -.28, p = .075$.

64. $r(42) = -.11, p = .487$.

65. $t(40) = -2.51, p = .016, r = .37$.

66. $r(40) = -.39, p = .014$. Two respondents did not answer the question on penal philosophy.

67. $r(40) = -.56, p < .001$.

68. $r(40) = -.54, p < .001$.

69. $r(42) = -.41, p = .007$.

70. r values ranged from $-.26$ to $.04$.

by subjects, their opposition to the death penalty increased,⁷¹ as did their tendency to self-report a liberal penal philosophy.⁷² Also, their scores on self-reported conservatism decreased,⁷³ as did their tendency to agree with Statement 1 regarding the problem of crime in society.⁷⁴

IV. STUDY TWO

Although the dimensions illustrated in Figures 1-3 implied the labels identified in Study 1, the labels were nevertheless still inferences. These inferences were consistent with existing research, but it was still not clear that the dimensions identified in fact reflected the way subjects perceived the crimes used as stimuli. In short, it was not yet certain that these dimensions underlay subjects' thinking. The most direct way to evaluate the validity of these inferences was to examine whether subjects' explicit ratings of the offenses along the objective dimensions identified (e.g., *amount of harm*) in fact correlated with the location of the offenses along those dimensions. If so, then additional faith could be placed in the inferences about the nature of the dimensions observed—especially if the original subjects could be used as repeat participants.

A. Method

Thirty-eight of the forty-two respondents from Study 1 were contacted by mail and were invited to take part in a follow-up study to the study on moral psychology in which they had previously participated. Fifteen of those contacted agreed to participate. Those who completed the follow-up questionnaire were paid for their participation.

As in Study 1, respondents rated each of the twenty-five offenses on a 9-point scale. In order to directly test the inferences made in Study 1, these scales were phrased as they are above: the first asked participants to rate "the *amount of harm* that results from the perpetration of each offense" (1=least amount of harm; 9=most amount of harm). The second asked them to rate "the extent to which each offense listed below reflects the *deprivation* of another's property or person" (1=least amount of deprivation; 9=most amount of deprivation). The third asked them to rate "the extent to which each offense listed below reflects *recklessness*, i.e., the potential for a criminal action to have unforeseen, serious physical consequences" (1=least amount of recklessness; 9=most amount of recklessness).

71. $r(42) = .43, p = .005$.

72. $r(40) = .34, p = .030$.

73. $r(42) = -.33, p = .031$.

74. $r(42) = -.40, p = .008$.

B. Results

Several correlations address the relationship between each hypothesized dimension and the explicit ratings made by subjects when instructed to use those dimensions. First, the correlation between Dimension 1 coordinates and ratings of “amount of harm” was extremely high,⁷⁵ even higher than the relation between Dimension 1 and the ratings of seriousness noted above. Second, the correlation between Dimension 2 coordinates and ratings of “amount of deprivation” was also considerable.⁷⁶ Finally, the correlation between Dimension 3 coordinates and “amount of recklessness” was lower, but not insubstantial.⁷⁷

V. GENERAL DISCUSSION

The study identified three dimensions that explained subjects’ judgments of the seriousness of criminal and immoral behaviors: *amount of harm*, *deprivation of other*, and *recklessness*, or potential for additional physical harm. Previous studies identify comparable, if not identical dimensions. Howe,⁷⁸ Fishman, Kraus, and Cohen,⁷⁹ and Blum-West demonstrated the first dimension, amount of harm;⁸⁰ Blum-West’s study noted the second, deprivation of other’s person or property;⁸¹ and Howe’s⁸² and Blum-West’s revealed the third dimension, recklessness.⁸³ As multidimensional scaling (MDS) is designed to give insight into the factors entering into a stimulus judgment, these three dimensions illustrate the factors underlying judgments of the behaviors used as stimuli here. These findings extend the three studies above regarding the dimensional structure of the

75. $r = .958, p < .001$.

76. $r = .605, p = .001$.

77. $r = .182, p = .384$. The lower correlation between ratings of “recklessness” and Dimension 3 coordinates has two alternative explanations. First, the dimension may have been misidentified, and *recklessness* may not have been the third dimension used by respondents in making their judgments about stimuli. Second, the identification may have been correct, but subjects may not have used the dimension in their explicit ratings, only in the original implicit ratings. That is, subjects may have misunderstood or misapplied the definition of “recklessness” given when they made their explicit ratings. Although it is always facile to “blame” subjects for findings that do not match predictions, there are at least three factors that support this alternative explanation. First, the correlation, although not significant, was hardly negligible. Second, as detailed below, the *recklessness* dimension is consistent with existing literature in both MDS analyses of crimes and in moral judgments of criminal activities. Third, based on informal written responses on the returned questionnaires, at least one subject experienced confusion about the instructions on the third dimension ratings. Others may also have experienced this misunderstanding. Accordingly, there is justification for at least tentatively accepting the interpretation of the third dimension as *recklessness*, and subsequent research using or reflecting a multidimensional framework can shed additional light on the question.

78. Howe, *supra* note 17, at 1387.

79. Fishman et al., *supra* note 14, at 182.

80. Blum-West, *supra* note 15, at 88.

81. *Id.*

82. Howe, *supra* note 17, at 1378.

83. Blum-West, *supra* note 15, at 88.

perception of criminal offenses and offer additional evidence for the importance of examining the multidimensional structure of crime perceptions (and, by extension, judgments of immorality, as discussed below). As Howe asserted, using similarity ratings rather than a single unidimensional evaluative scale allows a clearer picture of those features and attributes that subjects find important in making their judgments about criminal offenses.⁸⁴ That is, a unidimensional approach may fail to reveal aspects of seriousness or morality that individuals differentially find important, just as here a multidimensional approach clarified what aspect of a crime those with a conservative ideology found more important than did those with a liberal view.

Both confirmation that perceptions of crime and crime seriousness are multidimensional, as well as evidence about individual scaling and correlational data, have important consequences for social psychological and criminological research. Discussion of each of the three topics described above (individual differences, criminal justice policy making, and moral decision-making) is served by insight into such perceptions' multidimensional nature.

A. Individual Differences

Information about differences on demographic and attitudinal variables is useful in furthering research into individual differences in judgments about and perceptions of crime and morality. In the present case, only one gender difference was found in ratings of offense seriousness (drunk driving), and individual dimensional analysis did not suggest that males and females weight dimensions of crime seriousness very differently. The previous studies using MDS to investigate perceptions of crime did not address gender differences, so the stability of this null finding is unclear. It is likely, however, that gender differences do not exist in the criteria underlying perceptions of crime but do exist in individuals' susceptibility to biases in the subsequent processing of those perceptions.⁸⁵ Additional research involving, for example, implicit social cognition methodologies, reaction time paradigms, or similar attempts to examine non-conscious decision criteria may address this issue.⁸⁶

However, consistent with evidence about the thinking of individuals with conservative as opposed to liberal ideologies,⁸⁷ the data suggested that such

84. Howe, *supra* note 17, at 1388.

85. See, e.g., Blumenthal, *supra* note 37, at 9 & n.53 (noting empirical evidence showing lack of basic sex differences in moral reasoning, despite conventional views).

86. E.g., *id.* at 24-25; Anthony G. Greenwald & Mahzarin R. Banaji, *Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes*, 102 PSYCHOL. REV. 4, 20 (1995).

87. E.g., Philip E. Tetlock, *Cognitive Style and Political Ideology*, 45 J. PERSONALITY & SOC. PSYCHOL. 118, 123 (1983); Philip E. Tetlock et al., *Supreme Court Decisionmaking: Cognitive Style as a Predictor of Ideological Consistency of Voting*, 48 J. PERSONALITY & SOC. PSYCHOL. 1227, 1234 (1985); William C. Thompson et al., *Death Penalty Attitudes and Conviction Proneness: The Translation of Attitudes into Verdicts*, 8 LAW & HUM. BEHAV. 95, 111 (1984).

individuals weight certain dimensions differently. These studies and others have suggested that conservatives have cognitive styles that are less integratively complex than liberals, especially in the context of political issues⁸⁸ and thus, perhaps, legal, philosophical, or moral issues.⁸⁹ Although the present study did not directly address this question of complexity, the results did suggest qualitatively different decision criteria for individuals who professed different political orientations. Such results do indirectly support the complexity distinction, by presenting evidence for fundamentally different evaluative criteria. Conservatives tended to focus less on the amount of harm caused by an offense than did liberals and to focus more on an offense's potential for subsequent physical harm than did liberals. When members of either group weighted one of the two dimensions more heavily than the other, they weighted the second dimension somewhat less heavily. Subsequent research can further identify the actual mechanisms of this weighting process and, perhaps, what additional factors may influence it.⁹⁰ However, such findings are clearly relevant to research in the first area described in the introduction, individual differences in legislative and jury decision-making, in the psychology of morality, and in psychological attributions of blame or responsibility.

Such differences—based both on political orientation and on penal philosophy, for instance—are also important when juxtaposed with, for instance, Robinson and Kurzban's findings.⁹¹ Those authors found few demographic or attitudinal differences and based their legal and policy inferences heavily on a general concordance of subject rankings.⁹² To the extent that such differences do exist, however, both research and policy inferences might change.

B. Policy Implications

Regarding the second area described in the Introduction, the usefulness of information about social perceptions of crime for setting policy is unclear. Several authors and a Congressional committee on sentencing have suggested that information about such perceptions can profitably be used in developing criminal justice policies such as allocation of police resources or, more commonly, the structuring of sentencing guidelines.⁹³ Others, however, have noted that the importance of public perceptions of crime depends heavily on what legislators consider the primary purpose of punishment; they argue that “public

88. Philip E. Tetlock et al., *Stability and Change in the Complexity of Senatorial Debate: Testing the Cognitive Versus Rhetorical Style Hypotheses*, 46 J. PERSONALITY & SOC. PSYCHOL. 979, 988 (1984).

89. For related research in the context of right-wing authoritarianism, see N. T. Feather, *Reactions to Penalties for an Offense in Relation to Authoritarianism, Values, Perceived Responsibility, Perceived Seriousness, and Deservingness*, 71 J. PERSONALITY & SOC. PSYCHOL. 571 (1996).

90. *E.g.*, *id.* at 585.

91. See Robinson & Kurzban, *supra* note 8 (manuscript at 35-36, 42).

92. *Id.*

93. U.S. SENT'G COMM'N, JUST PUNISHMENT NATIONAL SURVEY (1993-94). See *supra* note 2.

opinion data [about crime and sentencing] are of little relevance” for the purpose of legislating punishment.⁹⁴ Rather than seeking to resolve this debate, I aim here simply to supply information for it. The present results show that consensus as to perceptions of crime or morality may not be quite as universal as Robinson and Kurzban suggest. Although individuals may perceive certain criminal offenses as equally serious, they may in fact focus on very different evaluative dimensions in reaching such agreement. That is, people may agree about how serious a crime may be, but not why it is so serious. To the extent that the use of different dimensions is related to different penal philosophies, Golph and Lynch’s arguments about the difficulty of basing legislation on public consensus gain support.⁹⁵ Further research will be useful to determine whether penal philosophy is an integrated perspective or outlook on social interactions (similar to “conservatism” or “liberalism”) and if so, the extent to which it might guide other decisions, or whether it is more of a derivative perspective that stems from a more integrated one, such as political orientation.⁹⁶

94. Golph & Lynch, *supra* note 2, at 706.

95. *Id.*

96. Empirical research into legal and moral decision-making is burgeoning, and such research is quite relevant to policy both in and out of the courtroom. With that in mind, I add a few notes on these studies’ significance for empirical research in moral decision-making and its relevance for the law.

Few studies have examined the dimensional structure of moral thinking, none asking the questions raised herein. Robin A. Quinn et al., *Naturalistic Conceptions of Morality: A Question-Answering Approach*, 62 J. PERSONALITY 239, 244 (1994); Sharon Lawner Weinberg et al., *Care and Justice Moral Reasoning: A Multidimensional Scaling Approach*, 28 MULTIVARIATE BEHAV. RES. 435, 439 (1993). Nonetheless, the link between perceptions of crime and judgments about morality, and the correspondence between legal standards and individuals’ moral judgments, illustrates a connection that, although utilized in the social psychological literature on attribution processes, has not yet been widely applied to the study of moral judgment. *E.g.*, Frank D. Fincham & Joseph M. Jaspars, *Attribution of Responsibility: From Man the Scientist to Man as Lawyer*, 13 ADV. EXPERIMENTAL SOC. PSYCHOL. 81 (1980).

Accordingly, the multiple dimensions identified in this study can be seen not only as reflecting perceptions of crime and crime seriousness, but also as identifying factors that may underlie individuals’ moral judgments. Nor are the dimensions identified surprising when viewed in this light. Numerous studies have shown that the amount of harm (physical or financial) that follows observed behavior matters when subjects make morally-charged judgments about blame, responsibility, or punishment. *E.g.*, Richard L. Wiener & Christine C. Pritchard, *Negligence Law and Mental Mutation: A Social Inference Model of Apportioning Fault*, in APPLICATIONS OF HEURISTICS AND BIASES TO SOCIAL ISSUES 177, 123 (L. Heath et al eds., 1994); Danièle Hermand et al., *Moral Judgment and Consequences Integration: An Information Integration Approach*, 7 J. SOC. BEHAV. & PERSONALITY 587, 595 (1992); Hope D. Horan & Martin F. Kaplan, *Criminal Intent and Consequence Severity: Effects of Moral Reasoning on Punishment*, 9 PERSONALITY & SOC. PSYCHOL. BULL. 638, 644 (1983); Nathalie Przygotski & Etienne Mullet, *Relationships Between Punishment, Damage, and Intent to Harm in the Incarcerated: An Information Integration Approach*, 21 SOC. BEHAV. & PERSONALITY 93, 102 (1993); Christy Taylor & Chris L. Kleinke, *Effects of Severity of Accident, History of Drunk Driving, Intent, and Remorse on Judgments of a Drunk Driver*, 22 J. APPLIED SOC. PSYCHOL. 1641, 1651-52 (1992); Marguerite Van der Keilen & Rashmi Garg, *Moral Realism in Adults’ Judgment of Responsibility*, 128 J. PSYCHOL. 149, 154 (1994). Recklessness, or the potential for further harm to come from an action, as well as the closely connected notion of negligence, have also been identified as factors influencing such moral judgments. Michael E. Enzle & Wendy L. Hawkins, *A Priori Actor Negligence Mediates a Posteriori Outcome Effects on Moral Judgment*, 28 J. EXPERIMENTAL SOC. PSYCHOL. 169, 184 (1992); Valerie P. Hans & M. David Hermann, *Responses to Corporate Versus Individual Wrongdoing*, 13 LAW & HUM. BEHAV. 151, 159 (1989); Karlovac & Darley, *supra* note 39, at 313; Shultz & Wright, *supra* note 39, at 104-05; Thomas R. Shultz et al., *Assignment of Moral Responsibility and Punishment*, 57 CHILD DEV. 177, 183 (1986). Moreover, each of the dimensions concerns what are often seen as fundamental moral principles: committing harm is often what gives

VI. SUMMARY AND CONCLUSION

The empirical research reported here makes at least five contributions to the legal and social scientific literature. First, it highlights a methodological approach, multidimensional scaling, that is relatively new to the empirical legal literature. Few legal scholars have made use of this approach to date, but it is a useful methodology for uncovering both conscious and unconscious perceptions of various stimuli.⁹⁷ Second, it extends analysis of the multidimensional nature of perceptions of crime. Only three previous empirical studies have explicitly addressed the assumption that such perceptions are unidimensional; only two of

an action moral weight, both from a legal perspective and from a psychological one. Maintaining an individual's right to her property or person is likewise a fundamental principle of legal and moral philosophies. And the degree to which an action or outcome was intended or foreseen serves as one basis for evaluating whether and to what extent that action was criminal.

The judgments people make about immoral and criminal behaviors thus offer insight into the criteria by which they make moral decisions. Although Howe believed that his MDS results were insufficient to demonstrate "an underlying dimension of . . . moral judgment," Howe, *supra* note 17, at 1387, the perspective developed here suggests that this view is perhaps too modest. To co-opt Howe's own words for the present discussion, the structures underlying people's judgments of immoral behaviors—as suggested by the MDS used here—may in fact be interpreted as "[m]ental structures [that] reflect the ways in which people categorize, mentally represent, and spontaneously think about" not only crimes, but also about immoral incidents in general. *Id.* at 1388. To the extent that the process of analyzing the reasons for one's decision about a moral dilemma might lead to the inaccurate identification of attitudes or beliefs, Wilson et al., *supra* note 46, at 24; Wilson & Schooler, *supra* note 46, at 191, a methodology that examines underlying structures of such judgments can complement findings that are based on such analysis of reasons. See Blumenthal, *supra* note 37, at 12.

Thus, the present study illustrates the possibility for a view of moral decision-making that adds to the current paradigm of the analysis of narratives in investigating moral reasoning. See also Shultz & Darley, *supra* note 40, at 247. It also emphasizes a role for social cognition in studying moral decision-making and illustrates the importance of attributions and the inferences we make from them in making moral judgments. A working hypothesis herein is that looking for implicit factors or criteria underlying decision-making can complement research that investigates explicit explanations for such decisions—research that can then apply to real-world policy issues. In this way, the present study also demonstrates the usefulness of current conceptions of social cognition for devising a language in which to speak about moral decision-making. In order to evaluate a particular event or action, an individual must identify the cause of the event, the intentionality of the actor, and any situational constraints that may mitigate initial moral judgments about that actor. SHAVER, *supra* note 39, at 63-64. Social cognitive research indicates that cultural, motivational, personal, situational, and affective influences may each play a part in shaping an individual's perception of social events, as well as in the attributions and inferences made about those events. Nancy E. Bell & Philip E. Tetlock, *The Intuitive Politician and the Assignment of Blame in Organizations*, in IMPRESSION MANAGEMENT IN THE ORGANIZATION (Robert A. Giacalone & Paul Rosenfeld eds., 1989); Blumenthal, *supra* note 37; Feather, *supra* note 89, at 583, 585; Joseph P. Forgas, *Mood and Judgment: The Affect Infusion Model (AIM)*, 117 PSYCHOL. BULL. 39, 60-61 (1995); Daniel T. Gilbert et al., *On Cognitive Busyness: When Person Perceivers Meet Persons Perceived*, 54 J. PERSONALITY & SOC. PSYCHOL. 733 (1988); Douglas S. Krull, *Does the Grist Change the Mill? The Effect of the Perceiver's Inferential Goal on the Process of Social Inference*, 19 PERSONALITY & SOC. PSYCHOL. BULL. 340, 345-47 (1993); Hazel Rose Markus & Shinobu Kitayama, *Culture and the Self: Implications for Cognition, Emotion, and Motivation*, 98 PSYCHOL. REV. 224, 245-48 (1991); Joan G. Miller & David M. Bersoff, *Culture and Moral Judgment: How are Conflicts Between Justice and Interpersonal Responsibilities Resolved?*, 62 J. PERSONALITY & SOC. PSYCHOL. 541, 551-53 (1992); Tetlock, *supra* note 87, at 123-25. To the extent that the dimensions identified here underlie some individuals' perceptions of social and moral events, they can give some insight into exactly what these influences are shaping.

97. See Jeremy A. Blumenthal et al., *The Multiple Dimensions of Privacy: Testing Lay "Expectations of Privacy"* (July 2007) (manuscript submitted for review) (applying MDS to understandings of the concept of "privacy").

those actually used a methodology specifically designed to identify multiple dimensions.⁹⁸ Moreover, the solution here amplifies the findings of those two twenty-year-old studies from two dimensions to three, suggesting that a more extensive framework may underlie such judgments than was previously identified. The present findings also suggest that different aspects of this framework are used differently by individuals with different social perspectives (conservative versus liberal orientations), and indicates a potential connection to existing research on such individuals. Where such differences were not found but might be expected by some, such as gender differences, I suggested specific ways of resolving the issue.

Third, these studies connect the dimensional nature of such perceptions to the literature on moral decision-making. The dimensions identified here reflect previous findings regarding the ways in which individuals make judgments with moral implications. In assessing blame, responsibility, mitigation, and other outcomes that involve moral issues, individuals make use of criteria such as those described here in their decisions.⁹⁹ However, previous studies have not emphasized the possibility that these criteria reflect underlying structures that serve as a basis for morality-based decision-making. Identifying the present dimensions in additional multidimensional scaling studies with different stimuli and different samples will support this claim even more strongly.

This alternate means of analysis emphasizes the fourth contribution of the present paper. A paradigm in which inferences are made only from narrative explanations of subjects' decisions may not give a complete picture of such decisions.¹⁰⁰ Thus, in addition to asking subjects about their reasons for making a particular moral decision, a perspective that identifies the criteria underlying those decisions in another way, and then manipulates those criteria in subsequent research, can only help in gaining insight into how we think about morality. The current study is one step in developing such a perspective.

Finally, these studies contribute to the legal and policy discussion over the implications of lay intuitions of justice. Identifying underlying dimensions of perceptions of crime provides new information in the discussion over the extent to which substantive law should match or reflect lay intuitions, and why. Understanding what such intuitions might be, and then developing further research as to whether those intuitions are malleable or affected by information and education,¹⁰¹ will bring into sharper focus the appropriate interaction between citizens' intuitions and the law.

98. Fishman et al., *supra* note 14, at 180-82; Howe, *supra* note 17, at 1372-73.

99. SHAVER, *supra* note 39.

100. Blumenthal, *supra* note 37; Shultz & Darley, *supra* note 40, at 248-49; Wilson & Schooler, *supra* note 46, at 190-91.

101. Compare Blumenthal, *supra* note 29, at 18 (discussing possibility of educating citizens), with Robinson & Kurzban, *supra* note 8 (manuscript at 52-53) (questioning whether such education would be effective).

* * *