

AN ECONOMIC ANALYSIS OF THE CRIMINAL LAW AS A PREFERENCE-SHAPING POLICY

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INTRODUCTION

The economic model of individual behavior is predicated on the assumption that people rationally choose among their opportunities to achieve maximum satisfaction according to their individual preferences.¹ In accordance with this model, if a person's opportunities or preferences change, then the opportunity the person chooses to satisfy her preferences will also change. Thus the economic model suggests at least two modes by which society can promote desired individual behavior: (1) shaping the individual's opportunities to give incentive for desired behavior, or (2) shaping the individual's preferences by increasing her taste for desired behavior.

To date, law and economics scholars have primarily examined criminal law as an opportunity-shaping policy. Beginning with the work of

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1. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 70 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 115 (2d ed. 1984). Throughout this Article I rely on Varian's books for cites on the basic tenets of economic analysis. *MICROECONOMIC ANALYSIS* is the standard resource for economic theorists. *INTERMEDIATE MICROECONOMICS* covers much the same material at a level that is more approachable by novices in economics.

Gary Becker,² the role of criminal punishment has been largely limited to reducing the attractiveness of criminal opportunities in order to induce optimal compliance with criminal law.³ Although this analysis has proven fruitful,⁴ law and economics scholars have recently expressed misgivings about the adequacy of the current model.⁵ Critics contend that the model has trouble explaining fundamental characteristics of criminal law, including the importance of intent to criminal liability, the relative lack of importance of actual harm to criminal liability, the treatment of imprisonment and fines as incommensurate punishments, and the variation of punishment based on the characteristics of individual offenders.⁶ Perhaps the most troubling shortcoming of the current economic model is its failure to yield a satisfactory distinction between criminal and tort law.⁷ If tort law is designed to provide incentives for efficient personal behavior as law and economics scholars have suggested, then what explains the existence of the "criminal category"?⁸

In this Article I provide an economic analysis of criminal law as a preference-shaping policy. I argue that in addition to creating disincentives for criminal activity, criminal punishment is intended to promote various social norms of individual behavior by shaping the preferences of criminals and the population at large. By taking into account this preference-shaping function, I explain many of the characteristics of criminal

2. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968). Actually, as Becker acknowledged, his work was the modern rebirth and extension of the opportunity shaping theory of criminal law developed by Bentham and Beccaria. *Id.* at 209.

3. *Id.* at 179, 191.

4. For useful surveys of the literature on the economic analysis of crime and criminal law, see D. PYLE, *THE ECONOMICS OF CRIME AND LAW ENFORCEMENT* (1983); *ECONOMIC MODELS OF CRIMINAL BEHAVIOR* (J. Heineke ed. 1978); Cameron, *The Economics of Crime Deterrence: A Survey of Theory and Evidence*, 41 KYKLOS 301 (1988).

5. Coleman, *Crime, Kickers, and Transaction Structures*, in NOMOS XXVII: CRIMINAL JUSTICE 313 (J. Pennock & J. Chapman eds. 1985); Klevorick, *On the Economic Theory of Crime*, in *id.* at 289, 290 [hereinafter Klevorick, *Economic Theory of Crime*]; Klevorick, *Legal Theory and the Economic Analysis of Torts and Crimes*, 85 COLUM. L. REV. 905 (1985) [hereinafter Klevorick, *Torts and Crimes*].

6. Coleman, *supra* note 5, at 324-25 (discussion of intent and punishment); Fletcher, *A Transaction Theory of Crime?*, 85 COLUM. L. REV. 921, 924 (1985) (discussion of punishment); Rizzo, *Economic Costs, Moral Costs, or Retributive Justice: The Rationale of Criminal Law*, in *THE COSTS OF CRIME* 257, 259-69 (C. Gray ed. 1979) (discussion of all characteristics); Schulhofer, *Is There an Economic Theory of Crime?*, in NOMOS XXVII, *supra* note 5, at 329, 336-38 (discussion of intent and punishment). The importance of intent and the almost irrelevance of actual harm to criminal liability have been identified as the primary characteristics distinguishing criminal law from tort law. Epstein, *Crime and Tort: Old Wine in Old Bottles*, in *ASSESSING THE CRIMINAL: RESTITUTION, RETRIBUTION, AND THE LEGAL PROCESS* 231, 248 (R. Barnett & J. Hagel eds. 1977).

7. Fletcher, *supra* note 6, at 923-27; Klevorick, *Economic Theory of Crime*, *supra* note 5, at 295; Klevorick, *Torts and Crimes*, *supra* note 5, at 908; R. COOTER & T. ULEN, *LAW AND ECONOMICS* 511-14 (1988).

8. Klevorick, *Economic Theory of Crime*, *supra* note 5, at 295-97.

law that have heretofore escaped the logic of the economic model. It is also the preference-shaping function and the prerequisite ordering of preferences that distinguish criminal law from tort law. My analysis suggests that society will make an activity a crime whenever the social benefits of changing individual preferences through criminal punishment outweigh the social costs. However, since this weighing of social costs and benefits is conducted through a political process on the basis of ethical and moral standards and requires estimates of the costs of changing opportunities and preferences, I conclude that other disciplines can usefully inform the economic model of criminal law.

This Article is organized in three parts. Part I sets forth the economic theory of crime and its regulation through criminal law. It begins by reviewing some basic concepts of economic analysis (subpart A)⁹ and the formulation of the problem of crime in the economic model (subpart B).¹⁰ I then present the economists' traditional opportunity-shaping solution to the problem of crime (subpart C),¹¹ my analysis of the alternative, preference-shaping solution (subpart D),¹² and a brief discussion of the balancing of these two solutions in an optimal policy for the control of crime (subpart E).¹³ Part II presents empirical support for my preference-shaping analysis of criminal law by examining some characteristics of criminal law that have proved troublesome for the current economic model.¹⁴ Finally, Part III examines the distinction between tort and criminal law in light of my analysis of criminal law as a preference-shaping policy.¹⁵

I. THE ECONOMIC ANALYSIS OF CRIME

A. *Foundations of Economic Analysis*

The basis of the economic model of individual behavior is the assumption that people rationally choose among their opportunities to achieve the greatest satisfaction of their preferences. Breaking this assumption down into its component parts, economists view individual choice as governed by two functions. The first is the "constraint" or "opportunity set," which specifies the set of all feasible opportunities that

9. See *supra* text accompanying notes 16-37.

10. See *supra* text accompanying notes 38-41.

11. See *supra* text accompanying notes 42-72.

12. See *supra* text accompanying notes 73-100.

13. See *supra* text accompanying notes 101-10.

14. See *supra* text accompanying notes 114-59.

15. See *supra* text accompanying notes 160-95.

an individual might choose.¹⁶ Economists commonly assume the individual has perfect information on all these opportunities.¹⁷ The second function is the "objective function," which specifies an individual's ranking of her opportunities from least to most preferred.¹⁸ Sometimes economists envision this ordering of opportunities according to the satisfaction or utility each opportunity will bring the individual and refer to it as the individual's "utility function."¹⁹ Economists assume that the individual is rational in that her preferences are complete, reflexive, and transitive, and the individual will choose the opportunity that yields the greatest utility according to her preferences.²⁰ Thus, economists model the problem of individual choice as one of constrained maximization in which the individual chooses among her feasible opportunities to maximize individual utility.

This model of individual choice suggests at least two methods by which society might seek to influence individual behavior.²¹ The first

16. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 20-21 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 115 (2d ed. 1984).

17. H. VARIAN, *MICROECONOMIC ANALYSIS* 290 (2d ed. 1984).

18. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 33 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 111 (2d ed. 1984).

19. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 53 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 113 (2d ed. 1984).

20. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 35 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 111-12 (2d ed. 1984). To assume an individual's preferences are "complete" is to assume that for any pair of feasible opportunities, the individual can rank the opportunities according to her preferences. The assumption of reflexivity means that the individual must view each opportunity as at least as good as an identical opportunity. The assumption of transitivity means that if the individual prefers opportunity *A* to opportunity *B*, and prefers opportunity *B* to opportunity *C*, then the individual prefers opportunity *A* to opportunity *C*. To facilitate analysis and ensure the existence of unique individual choices among feasible opportunities, economists sometimes must also assume the individual's opportunity set is concave or quasi-concave and this individual's preferences exhibit the properties of continuity, monotonicity, local nonsatiation, and convexity. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 35, 44-46 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 112-13 (2d ed. 1984). For a survey of empirical works testing the extent to which individual preferences actually fulfill these assumptions, see Schoemaker, *The Expected Utility Model: Its Variants, Purposes, Evidence and Limitations*, 20 *J. ECON. LITERATURE* 529 (1982).

21. This statement is made assuming perfect information, rationality, and that the individual's choice among opportunities is not a "corner solution," where the individual's opportunities or preferences are so skewed as to dictate a specific decision. If we were to relax the assumptions of perfect information and rationality, then we might find that the economic model suggests additional methods by which society could influence individual behavior: supplying information or promoting rational thought. Consideration of such methods is beyond the scope of this Article.

If the individual's choice is a "corner solution," then society can influence that decision only by shaping the skewed function. Examples of such corner solutions include a person who so thoroughly enjoys a crime there is no criminal sanction that will induce her to choose non-criminal activity, and an honest person who commits a crime to survive. In the first example, changes in the criminal's opportunities will not induce non-criminal behavior. If society is to affect the individual's decision, then it must do so by shaping her preferences. This example has been referred to in the literature as a "non-deterrable crime." See *infra* note 65. In the second example, all but the most

would be to construct policies to shape the opportunities from among which an individual can choose. Society might use fines, taxes, or subsidies to improve the individual's opportunities for desired behavior relative to her opportunities for undesired behavior. The second would be to construct policies to shape the preferences upon which the individual makes her choice. Society might use punishments, rewards, or education to instill preferences for desired behavior. Traditionally, economists analyze only the opportunity-shaping method of affecting individual behavior, assuming that individual preferences are exogenous and immutable.²² The adequacy of this assumption is explored more fully in my analysis of the preference-shaping solution.²³

In the context of crime, the individual must decide whether spending time in criminal or non-criminal activity will bring the most utility.²⁴ This decision will depend on the individual's criminal and non-criminal opportunities, and the individual's preferences with respect to those opportunities. All other things being equal, a person will decide to engage in crime if either his criminal opportunities are sufficiently remunerative in comparison with his non-criminal opportunities, or the person has a sufficiently low distaste for criminal activity. Society can discourage criminal behavior by using penalties and subsidies to shape individual opportunities in favor of a non-criminal decision, or by using punishments, rewards, or education to shape preferences in favor of non-criminal behavior. In terms of the traditional theories of criminal punishment, policies that decrease the expected remuneration of crime or the individual's taste for crime are said to deter criminal activity, whereas those activities that increase the expected remuneration of non-criminal activities or the individual's taste for non-criminal activity are said to rehabilitate the individual.²⁵

radical changes in the criminal's preferences will fail to induce non-criminal behavior. What is needed is a change in the criminal's opportunity set. The reader might recognize such a crime as one committed out of necessity. For an in-depth discussion of the necessity defense, see *infra* note 138 and accompanying text.

22. For an example of the analysis of individual choice, see H. VARIAN, INTERMEDIATE MICROECONOMICS 70-83 (1987); H. VARIAN, MICROECONOMIC ANALYSIS 118-20 (2d ed. 1984).

23. See *infra* note 79-82 and accompanying text.

24. For an excellent model of the individual's choice to engage in crime that takes into account differing preferences for criminal and non-criminal activity, see Block & Heineke, *A Labor Theoretic Analysis of the Criminal Choice*, 65 AM. ECON. REV. 314 (1975).

25. Economists sometimes associate shaping opportunities with the deterrence theory of punishment and shaping preferences with the rehabilitation theory of punishment. See, e.g., Ehrlich, *On the Usefulness of Controlling Individuals: An Economic Analysis of Rehabilitation, Incapacitation, and Deterrence*, 71 AM. ECON. REV. 307, 311 (1981) (deterrence aims to modify the "price of crime" for offenders while rehabilitation attempts to remove offenders from the market for offenses). This approach is an inaccurate characterization of the concepts of deterrence and rehabilitation. Legal theorists would define these concepts more as I have, with each including both opportunity- and

Economics has two criteria for judging the desirability of behavior or policies from a societal perspective. The first is Pareto optimality. A society is said to be in a Pareto optimal state if resources are distributed among the members of that society in such a way that no redistribution of resources can make one member better off without making another member worse off.²⁶ Such a distribution of resources is said to be "allocatively efficient" or just "efficient."²⁷ When a society is in a Pareto optimal state, there exist no voluntary trades that can benefit people.²⁸ If such an exchange existed, a redistribution of resources would be possible (by making the voluntary exchange) that would benefit at least one member of society without hurting another, and the state could not be said to be Pareto optimal. The concept of Pareto optimality is useful because it allows limited comparisons among different states of society without requiring interpersonal comparisons of utility. If society is not in a Pareto optimal state and some change can be made that will make a member better off without making anyone worse off, there is a strong normative argument for making that change.

The second criterion is social welfare maximization. This criterion is necessary because the Pareto optimal criterion does not specify a unique optimal state for society. The specification of the Pareto optimal state for a society depends on the initial distribution of assets in that society and the preferences held by its members.²⁹ Accordingly, a different Pareto optimal state is possible for each permutation of initial assets

preference-shaping aspects. The distinction legal theorists draw between the two is that deterrent policies are "negative," using punishment or fear, whereas rehabilitative policies are "well-intentioned," using rewards or education. G. FLETCHER, *RETHINKING CRIMINAL LAW* 414 (1978); J. WILSON, *THINKING ABOUT CRIME* 173 (rev. ed. 1983). Ehrlich himself recognizes this inaccuracy in the common economic characterization. Ehrlich, *supra*, at 314. The distinction between "negative" and "well intentioned" policies in legal theory may have relevance for the economic model since deterrent policies decrease the potential criminal's utility, whereas rehabilitative policies increase the potential criminal's utility and social welfare. However, deterrent policies may increase social welfare through the satisfaction of retributive desires which rehabilitative policies cannot fulfill.

26. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 484 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 198 (2d ed. 1984).

27. E. BROWNING & J. BROWNING, *MICROECONOMIC THEORY AND APPLICATION* 559 (3d ed. 1989); T. KOOPMANS, *THREE ESSAYS ON THE STATE OF ECONOMIC SCIENCE* 49 (1957). The term "Pareto efficient" is also equivalent. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 484 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 198 (2d ed. 1984). There are other economic concepts of efficiency, for example Kaldor-Hicks efficiency or Koopmans' efficiency, but these concepts are much less commonly used. J. QUIRK & R. SAPOSNIK, *INTRODUCTION TO GENERAL EQUILIBRIUM THEORY AND WELFARE ECONOMICS* 120-24 (1968).

28. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 485 (1987).

29. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 529 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 206 (2d ed. 1984).

and preferences that is possible for that society.³⁰ To choose among the different possible Pareto optimal states, economists hypothesize a social preference ordering in which society ranks each possible state of society from least to most preferred.³¹ This social preference ordering depends on individual preferences as to possible states of society and is determined through the political system.³² Economists postulate that the social preference ordering can be represented by a social welfare function that specifies the amount of welfare society derives from each state.³³

Although the social welfare function may specify a unique welfare maximizing state, social welfare analysis introduces greater subjectivity into the economic analysis. Arrow has shown that, if each individual in a democracy merely votes according to her preference ordering, the resulting social preference ordering may not exhibit the characteristics of completeness, reflexivity and transitivity that economists associate with rationality.³⁴ To ensure a rational social preference ordering, economists usually assume that interpersonal comparisons of the intensity of individuals' preferences are possible, and that the intensity of individuals' preferences is reflected in the social preference ordering.³⁵ If one allows preferences to vary, then it is also necessary to assume that intertaste comparisons of the intensity of an individual's preferences are possible, and that intertaste intensity is also reflected in the social preference or-

30. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 529 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 206, 209 (2d ed. 1984). This result is implied in the Second Theorem of Welfare Economics, which states that for any Pareto optimal state there exists a set of prices and an initial distribution of assets such that the Pareto optimal state can be maintained as a competitive equilibrium. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 499, 500 (1987); J. QUIRK & R. SAPOSNIK, *supra* note 27, at 129.

31. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 529 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 206-07 (2d ed. 1984); J. QUIRK & R. SAPOSNIK, *supra* note 27, at 105. There is a strong analogy between the social preference ordering and the individual preference ordering previously discussed.

32. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 532 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 206 (2d ed. 1984); J. QUIRK & R. SAPOSNIK, *supra* note 27, at 105.

33. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 532-33 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 206 (2d ed. 1984); J. QUIRK & R. SAPOSNIK, *supra* note 27, at 105.

34. K. ARROW, *SOCIAL CHOICE AND INDIVIDUAL VALUES* 46 (2d ed. 1963); *see also* H. VARIAN, *INTERMEDIATE MICROECONOMICS* 532 (1987) (discussing Arrow's theorem); and J. QUIRK & R. SAPOSNIK, *supra* note 27, at 108-09 (same). Although Arrow originally titled his theorem the General Possibility Theorem for Social Welfare Functions, this interesting result has come to be known as Arrow's Impossibility Theorem.

35. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 532-33 (1987); J. QUIRK & R. SAPOSNIK, *supra* note 27, at 115. To facilitate analysis and ensure a unique maximum for the social preference ordering, it is also useful to assume that society's utility possibility is concave or quasi-concave and that the social preference ordering exhibits the characteristics of continuity, monotonicity, local non-satiation and convexity. H. VARIAN, *supra*, at 44-46, 535-56.

dering.³⁶ To account for these interpersonal and intertaste comparisons, the social welfare function has been modeled as a summation of individual utility functions which reflect the intensity of preference in their measure of utility.³⁷ It is not necessary that utility derived from different activities or enjoyed by different individuals be weighted equally in this social welfare function. The necessity of interpersonal and intertaste comparisons, as well as the subjective form of the social welfare function, introduce subjectivity into the normative conclusions that can be drawn from social welfare analysis.

B. *The Problem of Crime as an Externality*

In economic analysis, crime can be characterized as an externality. An externality is an action or activity by which a person realizes her preferences, despite the fact other people have incompatible preferences, and this incompatibility is not accommodated through the market.³⁸ Because of the incompatibility in preferences, the person who undertakes the activity imposes costs on the people she affects who have incompatible preferences. These costs may be distributional in terms of the frustration of the affected people's preferences, or allocational in terms of the cost of precautionary measures they undertake to avoid the effects of the activity.³⁹ Because there is no market in which the losers can charge the winner for the costs they suffer, these costs are "external" to the winner's decision whether or not to engage in the activity. As a result, the winner may decide to undertake the activity even though the benefits she derives are less than the costs she imposes on other people. This state is clearly not Pareto optimal since the losers could be made better off without making the winner worse off merely by bribing the winner to yield to their preferences. A bribe worth slightly more than the benefit of the activity to the winner, but less than the cost of the activity to the losers, should convince the winner to cease the activity, leaving both the winner and the

36. McManus, *Social Welfare Optimization with Tastes as Variables*, 114 WELTWIRTSCHAFTLICHES ARCHIVE 101, 102 (1978).

37. H. VARIAN, INTERMEDIATE MICROECONOMICS 533 (1987); H. VARIAN, MICROECONOMIC ANALYSIS 207 (2d ed. 1984).

38. H. VARIAN, INTERMEDIATE MICROECONOMICS 542-43 (1987); H. VARIAN, MICROECONOMIC ANALYSIS 259 (2d ed. 1984). More specifically, this definition and the example of crime represent what is known as a *negative* externality. There are also *positive* externalities in which a person's activity causes external benefits that are not accounted for in his decision to undertake the activity. H. VARIAN, INTERMEDIATE MICROECONOMICS 542 (1987). For example, a beekeeper's labors would benefit a neighboring apple grower and the apple grower's efforts would also benefit the beekeeper. *Id.* I use the term "externality" to refer to a negative externality in the text merely for purposes of exposition.

39. Skogh, *A Note on Gary Becker's "Crime and Punishment: An Economic Approach,"* 75 SWED. J. ECON. 305, 307 (1973).

losers better off. To curtail the externality through such a bribe would also increase social welfare, assuming society valued the increase in utility to either the winner or losers.

To give this analysis meaning for the problem of crime, imagine a society in which crime is not discouraged by a criminal justice system. Every person runs the risk of theft and, in turn, is free to steal from other people. Assuming that there is incompatibility of preferences in that some people desire to consume the fruits, of their labor rather than give them away while other people desire to take and consume those same fruits, and that there is sufficient opportunity for the other people to take and consume those fruits, then theft will occur. The benefit of theft to the perpetrator is the value he places on the stolen good. The perpetrator imposes on the victim distributional costs in the form of the victim's value of the good that is lost and imposes on all potential victims allocational costs in the form of the precautions they take to prevent crime—purchasing locks, finding or creating safe hiding places, purchasing weapons, and standing guard. Assuming the benefits the thief obtains by theft are less than the costs he imposes on the victim and potential victims, this situation is not Pareto optimal. Theoretically, potential victims could bribe the thief to end his life of crime for some amount greater than the benefits the thief derives from theft but less than the amount that theft costs the potential victims. The potential victims would retain more of the fruits of their labor, making themselves better off without making the thief worse off.⁴⁰ The increase in utility to the potential victims from achieving such an agreement to end crime would increase social welfare.⁴¹

C. *The Traditional Solution—Shaping Opportunities*

Traditionally, economists treat preferences as exogenous and immutable and only examine changes in opportunities.⁴² When viewed from this perspective, the problem of externalities becomes one of a miss-

40. Although such "protection" contracts are not unheard of, the problems of enforcing such agreements in a lawless society and the transaction costs of including all potential thieves and victims in such an agreement probably prevent the use of such agreements as a general solution to the problem of crime. Thus, the bargaining solution to the problem of externalities hypothesized by Coase is not available for the problem of crime. See generally Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1, 18 (1960) (where there are no transaction costs, individuals will efficiently bargain to accommodate externalities).

41. It is more problematic whether the increase in utility to the thief, derived by extortion, would be included in the social welfare function.

42. Some economists even use this assumption to define the discipline and distinguish it from sociology, psychology, and ethics, which deal with the formation and ranking of preferences. McKean & Keller, *The Shaping of Tastes, Pareto Efficiency and Economic Policy*, 12 J. OF BEHAV. ECON. 23, 23-24 (1983).

ing market. An externality presents an efficiency and social welfare problem because there is no market in which the person who undertakes the activity is charged the costs the activity imposes on other people.

The traditional solution to this problem is to impose a tax on the externality equal to its external costs.⁴³ This solution was first proposed by Arthur Pigou and accordingly is called a "Pigouvian tax."⁴⁴ The Pigouvian tax, in essence, creates a "market" in which the person who undertakes the externality is charged with the external costs of her activity.⁴⁵ The person is thus forced to take into account—or "internalize"—these costs in deciding whether to engage in the activity, and she will decide to engage in the activity only if the benefits she receives exceed the external costs. As a result, the costs of the activity no longer exceed its benefits, opportunities for bribes to improve someone's position no longer exist, and society achieves Pareto optimality and increases social welfare.

This traditional solution is the one analyzed by Gary Becker in his economic model of crime.⁴⁶ Becker envisioned the criminal sanction as a "tax" or price that society imposes on crime to make criminal opportunities less remunerative.⁴⁷ In the Pigouvian tradition, Becker argued that society could reduce criminal activity to the efficient level by setting the criminal penalty so that its *ex ante* expected value is equal to the external costs of the crime.⁴⁸ With such a sanction, a person would commit a crime only if his benefits from the crime exceeded the costs of the crime to society.⁴⁹ Because criminals are not always caught and convicted, the actual penalty imposed on a convicted criminal would have to exceed the external costs of the crime so that the expected value of the penalty

43. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 554 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 261 (2d ed. 1984).

44. See A. PIGOU, *THE ECONOMICS OF WELFARE* 256-62 (2d ed. 1924).

45. The question naturally arises whether the people who suffer the costs of the externality should not be compensated from the tax for those costs. This question has been resolved in favor of compensation in tort law, but not in criminal law. See *infra* note 106 and accompanying text.

46. Becker, *supra* note 2.

47. *Id.* at 191-92. The actual amount of this tax would be equal to the cost of the criminal sanction to the criminal in terms of the fines and the pain and lost wages of imprisonment which are imposed after conviction for the crime.

48. *Id.* The *ex ante* expected value of the criminal sanction is equal to the probability the criminal will be caught and convicted, times the cost of the criminal sanction to the criminal. The *ex ante* expected value is the relevant figure in considering the individual's decision whether to commit a crime since a rational person would discount the costs of the criminal sanction by the probability he will actually suffer that sanction in deciding whether to commit the crime. See generally H. VARIAN, *INTERMEDIATE MICROECONOMICS* 216 (1987); H. VARIAN, *MICROECONOMIC ANALYSIS* 155-58 (2d ed. 1984). The external costs of crime include the distributional costs of the harm done to the victims and the allocative costs of deterring crime, including the costs of our criminal justice system in catching and punishing criminals. Skogh, *supra* note 39, at 306-08, 310.

49. Becker, *supra* note 2, at 191.

equaled the external costs.⁵⁰ Moreover, because the optimal criminal sanction depends only on the external costs of the crime and the probability the criminal will be caught and convicted, the criminal sanction for a given crime should be the same for everyone with a similar probability of being caught.⁵¹ Finally, because in Becker's model the only purpose of criminal penalties is to give incentives for efficient behavior, the objective of criminal punishment can be met equally well by imposing a jail term or its monetary equivalent in a fine. Becker argued that, to minimize the costs of our criminal justice system, we should rely first on monetary fines and resort to more costly imprisonment only for criminals who can not afford to pay an appropriate fine.⁵²

However, Becker did not confine himself to analyzing the problem of crime from an efficiency perspective. Instead he extended the analysis to a social welfare perspective, arguing that an appropriate Pigouvian tax would minimize the "social costs" of crime.⁵³ The problem with this extension of the argument is that, although a Pigouvian tax may ensure a Pareto optimal result, there is no a priori reason to assume society will choose the Pareto optimal state that results from the current distribution of initial assets and preferences in choosing among Pareto optimal states to maximize social welfare. A Pigouvian tax balances the benefits of crime to the criminal against the costs of crime to society in determining the efficient level of crime. To elevate this analysis to a social welfare argument is to implicitly assume that society values the benefits of crime to criminals and includes those benefits in its determination of the social welfare maximizing state of the world.⁵⁴

There seems good reason to doubt that criminal benefits are included in the social welfare function. First, the notion of including criminal benefits in the concept of social welfare seems to defy common sense. Indeed, my own anecdotal observation is that unless people are thor-

50. Since the probability of being caught and convicted is less than one, the expected value of the criminal sanction is always less than the actual penalty. See *supra* note 48.

51. If criminal sanctions are adjusted so that the expected value of the criminal sanction equals the external costs of the crime, it must be that the actual criminal sanction now equals the external costs of the crime—divided by the probability the person will be caught and convicted. Accordingly, for a given crime with given external costs, the actual penalty imposed on convicted offenders must be the same for people with a similar probability of being caught and convicted.

52. Becker, *supra* note 2, at 193.

53. *Id.* at 181-85.

54. Klevorick has pointed out that the assumption that society values the utility derived from all activities the same, is also implicit in Coase's argument that all externalities are reciprocal in nature. Klevorick, *Economic Theory of Crime*, *supra* note 5, at 300 (discussing Coase, *supra* note 40.) If society does not value criminal benefits in the social welfare function, this fact would undermine Coase's reciprocity argument from a societal perspective, at least with respect to externalities that are crimes. Cf. Klevorick, *Economic Theory of Crime*, *supra* note 5, at 300.

oughly steeped in efficiency theory, they generally are shocked to find that some economists argue for a balancing of the benefits of crime to the criminal against the costs of crime to society in determining the optimal level of crime. Even among economists, there is a growing consensus that criminal benefits should carry no weight in the social welfare function.⁵⁵

Second, the examples of socially beneficial crimes that are commonly given to support or explain Becker's social welfare analysis are unconvincing. The two most common are parking violations and the "Goldilocks parable" of a person who steals food to survive.⁵⁶ As I will argue below, crimes such as parking violations, which are merely *malum prohibitum*, are basically torts that are enforced by the state.⁵⁷ Their social welfare analysis varies greatly from core criminal acts such as theft, rape, and murder, which are *malum in se*. In the case of the Goldilocks parable, the person's decision to commit the crime is dictated by her opportunity set—either the person commits the crime or she dies.⁵⁸ The fact that we find such actions justified does not mean society in general values the benefits criminals derive from crime.

Finally, certain practices under our criminal justice system suggest we do not value the benefit of crime to the criminal. First, we punish repeat offenders more severely than first time offenders to ensure that future decisions to violate the law are not made on the same cost-benefit analysis as past infractions.⁵⁹ This practice suggests we do not accept the idea of a socially beneficial crime, since repeating the same offense is met

55. See, e.g., *id.* at 293-94 (some say there is no evidence society places value on criminal's benefit; some say no weight only when crime subject to imprisonment—not fines); Shavell, *Criminal Law and the Optimal Use of Nonmonetary Sanctions as a Deterrent*, 85 COLUM. L. REV. 1232, 1234 (1985) (analyst can assume that social benefits from an act are zero and he is thus able to study a society that finds some acts objectionable no matter how high the private benefits); Dau-Schmidt, *Sentencing Antitrust Offenders: Reconciling Economic Theory With Legal Theory*, 9 WM. MITCHELL L. REV. 75, 90 (1984) (criminal benefits receive no weight in the social welfare function); Stigler, *The Optimum Enforcement of Laws*, 78 J. OF POL. ECON. 526, 527 (1970) (doubtful that concept of "social value of the gain to offenders" is useful, since society has branded utility illicit). R. COOTER & T. ULEN, *supra* note 7, at 538-39; Lewin & Trumbull, *The Social Value of Crime?*, 10 INT'L REV. L. & ECON. — (forthcoming 1990); Cooter, *Prices and Sanctions*, 84 COLUM. L. REV. 1523, 1525 n.27, 1549 n.58 (1985). Even Becker realized the subjective and controversial nature of his analysis. See Becker, *supra* note 2, at 209 ("[r]easonable men will often differ on the amount of damages or benefits caused by different activities").

56. See A. POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 75-86 (2d ed. 1989) (parking violation); R. POSNER, ECONOMIC ANALYSIS OF LAW 206 (3d ed. 1986) (Goldilocks parable); Polinsky & Shavell, *The Optimal Tradeoff Between the Probability and Magnitude of Fines*, 69 AM. ECON. REV. 880, 886-87 (1979) (parking violation).

57. See *infra* note 189 and accompanying text.

58. For a discussion of the necessity defense see *infra* note 138 and accompanying text.

59. Mann, Wheeler, & Sarat, *Sentencing the White-Collar Offender*, 17 AM. CRIM. L. REV. 479, 498 (1980).

with increasing penalties even though the external costs of the later crimes may be the same.⁶⁰ Second, we exclude certain serious offenders from the political determination of what maximizes social welfare by revoking their right to vote and hold office.⁶¹ This exclusion helps ensure that criminal utility is not valued in the social welfare function, or at least is under-represented.⁶²

If, in fact, society gives no weight to criminal benefits in the social welfare function, what implications does this have for the use of criminal penalties to shape opportunities and promote behavior that maximizes social welfare? The only author to deal seriously with this question to date is Steven Shavell.⁶³ The simple answer is that if criminal acts have no social value, then criminal penalties should be set so high that the potential criminal's benefits never exceed his expected costs and crimes are never committed.⁶⁴ This solution would have the additional benefit that, because crimes are never committed, society would never have to spend resources actually punishing criminals.⁶⁵ However, Shavell has

60. Dau-Schmidt, *supra* note 55, at 88.

61. See Note, *The Disenfranchisement of Ex-Felons: Citizenship, Criminality, and "The Purity of the Ballot Box,"* 102 HARV. L. REV. 1300, 1302-03 (1989).

62. The fact we do not enforce "protection" agreements in which one person agrees not to commit crimes against another in return for money also probably suggests society does not value the benefits of crime.

Some might protest that certain crimes increase efficiency or benefit non-criminals. For example, insider trading may reduce the time it takes for a stock price to reflect relevant information benefiting all market participants. As another example, honest businessmen in poor areas may benefit from the money drug trade brings into the area. Although my assessment is entirely subjective, I would argue that to the extent the criminal benefits from increased efficiency, society does not value the change. The criminal's benefit from increased efficiency is not different from the benefit a thief obtains when she values the good more than the victim, as reflected in their's willingness to steal the good despite high expected costs of punishment. To the extent the crime benefits non-criminals, these benefits may be included in the social welfare function and may induce laxer enforcement against such crimes.

63. Shavell, *supra* note 55. Posner has also dabbled in opportunity-shaping analysis, assuming that society does not value the benefits of some or most crimes. Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193, 1215 (1985).

64. Shavell, *supra* note 55, at 1242.

65. However, society would have to expend some resources to maintain a credible threat of apprehending and punishing criminals. *Id.* at 1242-43. For purposes of exposition, I have simplified Shavell's analysis. Although Shavell acknowledges society does not value most crimes, he argues that some crimes may be socially beneficial, citing traffic violations and the Goldilocks parable as examples. *Id.* at 1235, 1243. Shavell also argues that some crimes may be undeterrable because of an individual's preferences or because individuals do not always act rationally. *Id.* at 1242 n.38. Shavell suggests a crime committed during a fit of "uncontrollable rage" as an example of an undeterrable crime. *Id.* at 1243. However, Shavell asserts that, under perfect information, courts will identify beneficial and undeterrable crimes and never punish them. Beneficial crimes will not be punished because the courts do not want to discourage socially beneficial acts. Undeterrable crimes will not be punished because it is futile, and therefore wasteful, to punish an undeterrable act. *Id.* at 1242.

pointed out that in the real world of imperfect information such an ideal solution is impossible.⁶⁶ Crimes always will be committed since some criminals will mistakenly believe the benefits of crime outweigh the expected penalties, and the legislature will mistakenly set penalties too low for some crimes.⁶⁷ Courts will try and convict people, some mistakenly, and sentence them to suffer the high criminal penalties.⁶⁸ High criminal penalties will deter people from desirable, but only marginally lawful, activity because they are uncertain whether they will be convicted of a crime.⁶⁹ Finally, arbitrarily high criminal penalties will destroy marginal incentives for good behavior. If robbery and murder both carry the death penalty, we may have many fewer robberies; but in those that do occur, the criminal will be very likely to kill all witnesses since his criminal punishment will be the same.⁷⁰ As a result, increasing penalties to prevent crime imposes costs on society in the forms of the mistaken punishment of innocent people, deterrence of beneficial but marginally lawful activity, and destruction of marginal incentives for good behavior. Shavell concludes that, for opportunity-shaping purposes, the expected value of the criminal penalty for a crime should be set so that the social benefits of the penalty in preventing crime equal the social costs of the penalty listed above.⁷¹ The optimal expected value of the criminal penalty may well exceed the external costs of the crime, but it cannot be set arbitrarily high to maximize social welfare.⁷²

However, if society gives no value to criminal benefits in the social welfare function, another mode of affecting individual behavior and preventing crime may also be appropriate: the shaping of individual preferences.

D. *An Alternative Solution—Shaping Preferences*

If we treat opportunities as fixed and examine only changes in preferences, the problem of externalities becomes one of incompatible preferences. The realization of one person's preferences imposes costs on people with incompatible preferences in the form of the direct frustration

66. *Id.* at 1243.

67. *Id.* at 1242 & n.38, 1243. Shavell also argues that crimes will always be committed because some crimes are undeterrable. *Id.* at 1243.

68. *Id.* Shavell also includes people who have committed undeterrable crimes among those who are mistakenly punished because he sees it as futile and wasteful to punish undeterrable acts.

69. *Id.*

70. *Id.* at 1245. George Stigler was the first to raise this argument against setting criminal penalties arbitrarily high. See Stigler, *supra* note 55, at 526-27.

71. Shavell, *supra* note 55, at 1243-44.

72. *Id.*

of their preferences and the resources they expend to protect themselves from the externality.

The obvious solution to this problem is to shape peoples' preferences so that they are compatible. If peoples' preferences are compatible, no one's preferences will be frustrated, and there will be no need to expend resources on precautionary measures.

Economists have been slow to examine this preference-shaping solution for several reasons.⁷³ First, changes in preferences are less readily observable than the changes in taxes, prices, and wages that make up changes in opportunities. Moreover, if opportunities change at the same time that preferences change, it is difficult to separate the simultaneous effects of these changes on behavior.⁷⁴ Second, a complete model of a societal preference-shaping policy requires specification of the preference-shaping technology and the process by which society gives some peoples' preferences preeminence over others' in the social welfare function.⁷⁵ Economists have little expertise in these areas and traditionally

73. Marschak has succinctly and colorfully stated the perils of relaxing the assumption of exogenous preferences as follows:

To enter the field of taste changes one ought to find danger exhilarating. The perils are extreme. First, the very ground threatens to fall away at one's feet: the economist, as policy adviser, is supposed to seek efficiency, but whether a given policy is efficient depends upon the preferences of those affected, and those preferences may depend in turn on policy. Second, if one continues to believe that even in a world of changeable tastes the foundation for policy and prediction has to be a theory of individual rational choice, then one risks turning Economic Man into a complex monster of calculated schizophrenia, who chooses or manipulates future mutations of himself. Third, and most alarming of all, one risks discovering that true progress in this field means entering long-forbidden territory; exploring the structure of human contentment from the inside; searching beyond the hints about what people want that are given by the old familiar economic observable (prices, incomes, and quantities demanded); and becoming at last full and active partners with "behavioral scientists," unrigorous as they may be, shaping their work as well as learning from it.

Marschak, *On the Study of Taste Changing Policies*, 68 AM. ECON. REV. PAPERS & PROC. 386 (1978).

74. In economics, such a problem is known as a simultaneity problem. Economists have dealt successfully with simultaneity problems in other areas. For instance, market price and quantity are a function of changes in both supply and demand.

75. The idea of a preference-shaping or opportunity-shaping technology is analogous to the economists' conception of a production technology. A production technology specifies all the feasible combinations of inputs that can be used to produce a given output. H. VARIAN, *INTERMEDIATE MICROECONOMICS* 310 (1987); see also H. VARIAN, *MICROECONOMIC ANALYSIS* 8 (2d ed. 1984). For example, a shoe manufacturer may know that to produce one pair of shoes he must combine 15 minutes of labor with 15 minutes of machine time and the necessary materials or combine two hours of labor with a scissors, needle, and hammer, and the necessary materials. Given the prices of labor, machines, scissors, shoes, etc., the profit maximizing shoe manufacturer can decide how best to produce shoes and how many shoes to make. Similarly, a preference-shaping technology specifies all feasible combinations of inputs—for example condemnation, prison time, psychological therapy, etc.—that can be used to produce a given change in individual preferences. Given the social costs of preference-shaping inputs and the social benefits of changing preferences, society can determine how best to change preferences and to what extent to engage in preference-shaping activity. See *infra* note 101 and accompanying text.

have left them to other disciplines.⁷⁶ Finally, the Pareto optimal and social welfare criteria are both based on individual preferences. Allowing individual preferences to change undermines the basis for these criteria. The social welfare criterion can be salvaged by assuming intertaste comparability of the intensity of preferences, as well as the traditional interpersonal comparability of the intensity of preferences.⁷⁷ However, the Pareto optimal criterion is largely useless in evaluating the desirability of changes in preferences.⁷⁸

76. The job of specifying the preference-shaping technology has traditionally been the domain of sociologists, psychologists, and child development specialists. See, e.g., R. BROWN, *SOCIAL PSYCHOLOGY* ch. VIII (1965); A. EHRENZWEIG, *PSYCHOANALYTIC JURISPRUDENCE, ON ETHICS, AESTHETICS, AND "LAW" — OR CRIME, TORT, AND PROCEDURE* 212 (1971); R. FLETCHER, *INSTINCT IN MAN* 226-34 (1957); J. PIAGET, *THE MORAL JUDGMENT OF THE CHILD* (M. Gabain trans. 1932); B.F. SKINNER, *ABOUT BEHAVIORISM* 224-25 (1974); Hoffman, *Moral Development*, in 2 CARMICHAEL'S *MANUAL OF PSYCHOLOGY* ch. 23 (P. Mussen 3d ed. 1970). Similarly, the job of determining how and why some preferences are given preeminence over others in the social welfare function traditionally has been the domain of political scientists, sociologists, philosophers, and theologians. See, e.g., N. FRIEDMAN, *LAW IN A CHANGING SOCIETY* (1959); J. RAWLS, *A THEORY OF JUSTICE* 461 (1971); Chambliss, *A Sociological Analysis of the Law of Vagrancy*, 12 *SOC. PROBS.* 67 (1964). Legal theorists and criminologists have also endeavored to answer both these questions. See, e.g., R. POUND, *LAW AND MORALS* (1926); R. POUND, *INTERPRETATIONS OF LEGAL HISTORY* (1923); Fiss, *The Death of Law?*, 72 *CORN. L. REV.* 1, 7-8, 14-16 (1986); Fuller, *Morals and the Criminal Law*, 32 *J. CRIM. L. & CRIM.* 624 (1942); Jeffery, *Crime Law and Social Structure*, 47 *J. CRIM. L. CRIM. & POL. SCI.* 423 (1956); Lasswell & McDougal, *Criteria for a Theory About Law*, 44 *S. CAL. L. REV.* 362, 374 (1971). But see D. MUELLER, *PUBLIC CHOICE II* (1989); J. BUCHANAN, *THE ECONOMICS OF POLITICS* (1978); J. BUCHANAN, *THE CALCULUS OF CONSENT* (1965).

77. McManus, *supra* note 36, at 103.

78. Weisbrod has hypothesized that some preference changes may be desirable even in a Paretian sense if the costs of dealing with the externality are so large that even the person whose preferences are to be changed agrees, on the basis of his unchanged preferences, that he will be better off with the increased resources for consumption after the preference change. As Weisbrod points out, "Consumption possibilities are not independent of preferences." Weisbrod, *Comparing Utility Functions in Efficiency Terms or, What Kind of Utility Functions Do We Want?*, 67 *AM. ECON. REV.* 991, 993 (1977). From a practical perspective, however, such instances are probably rare.

The astute reader might wonder why we cannot salvage the Pareto optimal criterion in the same way that we salvaged the social welfare criterion, by assuming intertaste comparability of the intensity of preferences? The problem is that the Pareto optimal criterion evaluates whether a state of society is better or worse from each *individual* member's perspective, whereas the social welfare criterion evaluates whether a state of society is better or worse from a *societal* perspective. It is the individual perspective that gives the Pareto optimal criterion its strong normative value, and so strongly associates it with voluntary exchange. Thus to assume intertaste comparability for purposes of the Pareto optimal criterion would require that individuals be able to make intertaste comparisons on their own preferences, or have second order preferences about their own preferences. Assuming intertaste comparability for purposes of the social welfare function requires only that individuals be able to make intertaste comparisons about other peoples' preferences, or have single order preferences about other peoples' preferences. The concept of second order or "meta" preferences has been applied usefully by other economists. See generally George, *Meta-Preferences: Reconsidering Contemporary Notions of Free Choice*, 11 *INT'L J. SOC. ECON.* 92 (No. 3, 1984); Hirschman, *Against Parsimony: Three Easy Ways of Complicating Some Categories of Economic Discourse*, 1 *ECON. & PHIL.* 7, 8 (1985). However, adding this concept to my analysis would add further complexity without changing its basic results. Even if people do voluntarily endeavor to adjust their preferences

It is becoming increasingly apparent that the failure to address the malleability of preferences seriously limits the explanatory power of economic analysis.⁷⁹ Preference shaping, on an individual, organizational, and societal level, is an important human endeavor. It has been identified as a primary or secondary goal of childrearing, education, religion, advertising, public service announcements, legislation, and, as I argue, criminal punishment.⁸⁰ Although economists might find it useful to assume that these preference-shaping processes are exogenous to their analysis of traditional markets, when economists expand their analysis to social institutions that are more intimately related to the preference-shaping processes, either affecting or being affected by them, this assumption should be relaxed. Certainly when one is analyzing a possible preference-shaping policy, such as the criminal law, one must explore the possible implications of endogenous preferences.⁸¹ Although it complicates empirical tests and introduces greater subjectivity via the social welfare analysis, relaxing the assumption that preferences are exogenous promises greater understanding of many social phenomena.⁸²

Based on consideration of the identified preference-shaping processes, one might assume the following general outline for the preference-shaping technology. The first requirement is that the person or

according to second order preferences, a social welfare maximizing preference-shaping policy could be devised by society given the initial distribution of first and second order preferences and the anticipated amount of voluntary change.

79. See A. ETZIONI, *THE MORAL DIMENSION: TOWARD A NEW ECONOMICS* 10 (1988); S. KELMAN, *WHAT PRICE INCENTIVES? ECONOMISTS AND THE ENVIRONMENT* 45 (1981); Marschak, *supra* note 73, at 386; McKean & Keller, *supra* note 42, at 24-25; McPherson, *Want Information, Morality, and Some "Interpretive" Aspects of Economic Inquiry*, in *SOCIAL SCIENCE AS MORAL INQUIRY* 100 (N. Haan ed. 1983). This point has also been made by various legal theorists, see West, *Taking Preferences Seriously*, 64 *TUL. L. REV.* 659, 670 (1990); Sunstein, *Naked Preferences and the Constitution*, 84 *COLUM. L. REV.* 1689, 1694-95 (1984); Kelman, *Choice and Utility*, 1979 *WIS. L. REV.* 769, 772-78 (1979). *But see* Stigler & Becker, *De Gustibus Non Est Disputandum*, 67 *AM. ECON. REV.* 76 (1977) (arguing that all preferences are in fact innate and immutable and apparent preference changes can be explained as people learning how to better satisfy their innate preferences).

80. A. ETZIONI, *supra* note 79, at 10; J. GALBRAITH, *THE NEW INDUSTRIAL STATE* 211-18 (1967) (advertising); S. KELMAN, *supra* note 79, at 45; (criminal punishment); Donohue, *Prohibiting Sex Discrimination in the Workplace: An Economic Perspective*, 56 *U. CHI. L. REV.* 1337, 1338-41 (1989) (anti-discrimination legislation); Marschak, *supra* note 73, at 386 (public policies, advertising, education); McKean & Keller, *supra* note 42, at 29 ("It is clear that firms, social groups, political parties, government entities, friends and family consciously formulate policies to inculcate beliefs in their members and potential members."); McKenzie, *The Economic Dimensions of Ethical Behavior*, 87 *ETHICS* 208, 214-17 (1977) (families, education, friends, religion); McManus, *supra* note 36, at 104 (education advertising, public service announcements); Weisbrod, *supra* note 78, at 944 (child-rearing).

81. Etzioni has convincingly made this point with respect to criminal law. A. ETZIONI, *supra* note 79, at 241.

82. McPherson, *supra* note 79, at 100.

group of people who are endeavoring to affect another's preferences have some legitimate claim to authority over the person, or at least have the confidence of the person.⁸³ An untrusting and defiant person is probably a poor candidate for preference modification. The authority figure then characterizes a behavior as either "good" or "bad" and reinforces this characterization with rewards, punishment, and education as to why the behavior is good or bad.⁸⁴ By characterizing a behavior as good or bad rather than just inexpensive or expensive, the authority figure indicates need for a fundamental change in the basis upon which the affected person makes decisions. Different types of punishments, rewards, and methods of education may vary in their cost and effectiveness in shaping preferences. For example, corporal punishment in which the person experiences physical pain or isolation is more costly, but also more effective, in shaping preferences than charging a fine.⁸⁵ Education that shapes preferences should not merely supply more complete information—although this may also shape preferences—but should fundamentally change the way the person views the behavior, for example by asking the person to empathize with the victim.⁸⁶ Finally, either positive or negative examples can shape people's preferences.⁸⁷ Witnessing someone else's reward or punishment for a behavior can affect a person's preferences towards that behavior.⁸⁸

Families, friends, and associates will engage in the most preference-shaping activity because they have the greatest incentives and abilities to shape preferences. The external costs of a person's behavior are visited largely on her family, friends, and associates. Also, the existence of interdependent preferences within these relationships gives rise to pater-

83. J. RAWLS, *supra* note 76, at 466; Cook, *Punishment and Crime: A Critique of Findings Concerning the Preventive Effects of Punishment*, 41 *LAW & CONTEMP. PROBS.* 164, 177 (Winter 1977).

84. Steven Kelman has pointed out the importance of stigmatizing behavior as "bad" in shaping preferences. S. KELMAN, *supra* note 79, at 27, 44, 47 (1981). It is my own observation, from caring for my two sons, that this stigmatization must be followed by punishment, reward, and education.

85. Dau-Schmidt, *supra* note 55, at 96-97.

86. Henderson, *Legality and Empathy*, 85 *MICH. L. REV.* 1574, 1584 (1987). Indeed, psychologists have argued that some people (psychopaths) are criminals precisely because of their inability to empathize with other people. R. FRANK, *PASSIONS WITHIN REASON: THE STRATEGIC ROLE OF THE EMOTIONS* (1988).

87. J. RAWLS, *supra* note 76, at 471.

88. The potential for criminal punishment to affect the preferences of people other than the one who is punished was recognized by Sir James Fitzjames Stephen, who said: "Some men, probably, abstain from murder because they fear that if they committed murder they would be hanged. Hundreds of thousands abstain from murder because they regard it with horror. One great reason why they regard murder with horror is that murderers are hanged." H. GROSS, *A THEORY OF CRIMINAL JUSTICE* 489 (1979). Clearly, from a preference-shaping perspective, the only purpose of capital punishment can be to shape preferences in the population as a whole.

nalistic incentives to shape other people's preferences.⁸⁹ Family members, friends, and associates, with their shared confidence, time, and experiences, have the best opportunity to shape each others' preferences. Hierarchies within these relationships determine which among incompatible preferences prevail.⁹⁰ Parents, in particular, have a strong incentive and ability to shape the preferences of their children and modify their behavior in ways the parent deems desirable.⁹¹ Because of superior incentives and ability to shape preferences, families, friends, and associates will prescribe a set of desired preferences broader than that prescribed by society at large. This broader set of desired preferences can be understood as the economic description of morality.

To the extent that the preference-shaping efforts of family, friends, and associates coincide with the preferences desired by society as a whole, society can rely on these subgroups of people to promote its interests. However, these subgroups may sometimes fail to adequately promote society's interests. An individual may have particularly resistant preferences, inept family, friends, and associates, or family, friends, and associates who share and promote different preferences for behavior than those shared and promoted by society as a whole. Even if these failures do not occur, society will play a role in reinforcing the preference-shaping activities of family, friends, and associates, and ensuring that the preferences learned in these relationships are applied to people outside them. Accordingly, society will have to develop a policy for the shaping of individual preferences. But how should society formulate and evaluate this policy? Which preferences should be changed and to what extent should society expend resources in changing preferences? As previously discussed, the Pareto optimal criterion is inappropriate for such determinations. Thus, we must proceed directly to the criterion of maximizing social welfare.

In order to specify a preference-shaping policy that maximizes social welfare, society must first determine what constitutes social welfare. As previously discussed, economists envision this determination as one occurring through the political process.⁹² Through the votes of the populace and their elected representatives, society determines whose utility and what activities will be valued. The utility derived from some activities and their associated preferences may be highly valued, whereas util-

89. Although paternalism is undoubtedly an incentive for preference shaping at a societal level, it is generally a stronger incentive among family members, friends and associates.

90. J. RAWLS, *supra* note 76, at 467.

91. McKean & Keller, *supra* note 42, at 29-32; McKenzie, *supra* note 80, at 214-16; Weisbrod, *supra* note 78, at 994.

92. See *supra* note 32 and accompanying text.

ity derived from other activities and their associated preferences may not be valued at all.⁹³ This ordering of utilities and preferences may be made on the basis of economic, ethical, or political considerations. With few exceptions,⁹⁴ this ordering cannot be unanimous.⁹⁵ By definition, individuals desire the activities they prefer and will dissent from the subjugation of their preferences to other people's preferences. Accordingly, the social welfare function and the optimal preference-shaping policy that it specifies must be formulated by one group of people imposing their desires on another group of people through society's political structure.

Once society has specified its social welfare function, it then can proceed to construct a preference-shaping policy to maximize that function. The optimal preference-shaping policy would be one in which society changed those preferences for which the social benefits of the change exceed the social costs.⁹⁶ The social benefits consist of the value that society places on the utility derived by the people whose preferences would escape frustration with the change in preferences, the value society places on the utility derived from the newly formed compatible preferences, and the savings in resources spent to avoid the externality. The social costs consist of the value that society places on the utility derived from the preferences that would be modified and lost, and the resources spent on shaping preferences.⁹⁷ The social costs might also include the value society places on any loss of individual autonomy that accompanies the change in preferences.⁹⁸ The necessity of interpersonal and intertaste

93. Legal theorists have long recognized that one of the law's primary functions is the ordering of values or preferences. R. POUND, *LAW AND MORALS* (1926); R. POUND, *INTERPRETATIONS OF LEGAL HISTORY* (1923); Fiss, *supra* note 76, at 7-8, 14-16; Lasswell & McDougal, *supra* note 76, at 374.

94. Weisbrod hypothesizes that there may be some preference changes for which the cost-saving to the person whose preferences are changed is large enough that he or she would agree to the preference change even on the basis of his or her current preferences. Thus, such a preference change could be agreed to unanimously. Weisbrod, *supra* note 78, at 993. However, from practical perspective such instances are probably rare.

95. Marschak, *supra* note 73, at 387-89; McManus, *supra* note 36, at 101.

96. McManus, *supra* note 36, at 112. The balancing of social benefits and costs to determine the optimal policy is a familiar result of social welfare analysis. It assumes that there are declining marginal social benefits and increasing marginal social costs in the changing of preferences. By following this rule, society maximizes social welfare because it undertakes all preference changes that promise a net increase in social welfare.

97. Indeed, without costs to check the preference-shaping policy, the optimal policy becomes quite simple—change preferences to abolish want by making people very happy with very little. Although this possibility seems farfetched, it is perhaps the objective of some religious groups that require vows of poverty. A cult might be distinguished from these groups in that a cult is led by a cynical person who convinces people they are happy with very little and then makes himself very happy with the surplus of their labors. The phenomenon can also be explained by the incentives religions offer in the form of eternal rewards. McKenzie, *supra* note 80, at 216-19.

98. On the surface, it seems plain that a preference-shaping policy would entail a loss of individual autonomy. It would certainly limit free will, the concept Nozick uses to define individual

comparisons of the intensity of preferences comes in balancing the benefits some individuals enjoy in the liberation of their preferences against the possible costs other individuals incur from the change in their preferences. Society could use this social welfare maximizing rule of balancing social benefits and costs to specify an optimal set of social norms for behavior to which it would attempt to conform individual preferences.

Of course, the social welfare function is a theoretical construct not subject to precise definition. Scholars could argue endlessly about its form, as well as whose utility and what activities are included. Given this indeterminacy in the model, what can "objectively" be said about the optimal preference-shaping policy?⁹⁹

First, there are some individual preferences society will have no incentive to change. Preferences that are entirely a matter of personal consumption—for instance, whether I have beans or peas for dinner—do not interfere with anyone else's preferences or impose external costs on other people. Hirschman has designated such preferences as "tastes," whereas he designates incompatible preferences that give rise to controversy as "values."¹⁰⁰ One should note, however, how easily a taste may become a value. For instance, if we are talking about a person's preference for beans or meat, that preference may be a value for a person who believes in reincarnation or takes seriously the marginal impact their consumption of meat has on world grain prices and world hunger.

Second, assuming that the cost technology of changing preferences is similar for all preferences, the preferences subject to the most extensive efforts of modification will be those whose realization is assigned no value in the social welfare function and which interfere with preferences whose realization is highly valued in the social welfare function. Changing such preferences would yield society the greatest net social benefit because society highly values the realization of the preferences that are saved from frustration, and there is no countervailing social cost from the loss of the realization of the preferences that are changed. This characterization of preferences whose realization is not valued, and that interfere with pref-

autonomy. R. NOZICK, *PHILOSOPHICAL EXPLANATIONS* 291-99 (1981). It would also seem a grave threat from the Kantian perspective since a conscious societal policy of shaping preferences would be more subject to the treatment of people as means, not ends, than the inadvertent effects of society on preferences or the opportunity- and preference-shaping efforts of our family and friends. I. KANT, *FOUNDATION OF THE METAPHYSICS OF MORALS* 47 (L. Beck trans. 1959) (1st ed. 1785). However, even the strongest proponents of individual autonomy acknowledge that the concept wanes when confronted with another's interest in individual autonomy, as in the problem of externalities. J. MILL, *ON LIBERTY* 68 (G. Himmelfarb ed. 1982) (1st ed. 1859); R. NOZICK, *supra*, at 501-03.

99. I use the word "objectively" loosely here since I am seeking only the common ground about which there is little argument. Statements about which there is no argument would seem impossible here.

100. Hirschman, *supra* note 78, at 9-10.

and the precise techniques employed to shape opportunities and preferences will depend on the technology of behavior control. Although this technology is very complex, it seems safe to assume that shaping opportunities is less costly than shaping preferences. This is true because opportunity-shaping policies (such as damages, taxes, and subsidies) are cheaper to administer than are preference-shaping policies (such as criminal fines, probation, and imprisonment).¹⁰⁶ Moreover, shaping opportunities for desired behavior probably does not involve the same loss of individual autonomy as does shaping people's preferences. Although both infringe on free will, shaping a person's opportunities does not violate individual sovereignty in the intimate way that shaping a person's preferences does.

Accordingly, it is predictable that society will rely first on the cheaper solution of opportunity shaping to control the problem of externalities. To this end and to the end of compensating the victims of externalities, tort law was invented. This solution will be the only one employed for externalities in which the net social benefit of changing preferences is negative because society values the utility obtained from both sides of the incompatible preferences about the same. The more costly solution of preference shaping will be reserved for externalities in which there are substantial benefits from preference shaping that exceed the higher social costs because there is a significant disparity in the value society assigns to the utility derived from each side of the incompatible preferences. To this end, criminal law was created and superimposed on top of the structure of tort law.¹⁰⁷

Society's efforts to shape opportunities and preferences to prevent crime are evident from the damages and punishments for which criminals are liable under the law. First, almost all crimes are also torts.¹⁰⁸ Accordingly, the criminal is liable for monetary damages—assuming he is able to pay—that create a disincentive for criminal behavior. Second, the criminal is subject to criminal punishment in the form of

106. Becker, *supra* note 2, at 193. Even a criminal fine has higher administrative costs than a corresponding tax because it requires a higher burden of proof to establish liability and people are more resistant to paying criminal fines given the moral condemnation attached to them.

107. Other means by which society could conceivably conduct a societal preference-shaping policy include public education, public service announcements, statements by popular public figures, and non-criminal legislation. Marschak, *supra* note 73, at 390; McKenzie, *supra* note 80, at 214-16. Presumably all of these means will be employed along with criminal punishment to the extent that their social benefits exceed their social costs.

108. The most common exception is crimes that are merely *malum prohibitum* and crimes, such as attempts, in which there is no actual harm. These crimes are not treated with the opportunity-shaping method of tort damages because crimes that are *malum prohibitum* are basically torts enforced by the state, *see infra* note 189 and accompanying text, and the actual harm and appropriate tort damages from an unsuccessful attempt are zero.

condemnation, fines, probation, and imprisonment. Criminal punishment creates a disincentive for criminal behavior by imposing costs on the criminal in the form of a fine or the pain and lost wages of imprisonment. Moreover, the moral condemnation and punishment of a criminal sentence is also intended to eradicate preferences for the prohibited activity from the criminal and the rest of society.¹⁰⁹

To follow the social welfare maximizing rule in criminal punishment, society should employ both opportunity- and preference-shaping methods to the extent that their social benefits exceed their social costs. Because criminal punishment results in both opportunity and preference shaping, it should be employed to the extent that its *combined* social benefits from both these means of controlling crime exceed its social costs. Accordingly, in setting the optimal amount and form of the criminal sanction, society should consider the potential social benefits and costs from each possible punishment, given the likely disincentive effects of the tort law.¹¹⁰ For a crime that causes small social costs, and thus presents the opportunity for small increases in social benefits from opportunity and preference shaping, society should assign a small penalty and use a less expensive and effective preference-shaping method—for example, condemnation with a small fine and probation. But for a crime that causes large social costs and thus presents the opportunity for large increases in social benefits from opportunity and preference shaping, society should assign a large penalty and use a more expensive, but effective, preference-shaping method—for example, a long prison term. Individual characteristics of the criminal may also be relevant to the optimal amount and form of punishment, since different individuals may be in greater or less need of preference modification, or be more or less susceptible to different methods of preference modification.

II. CRIMINAL LAW AS A PREFERENCE-SHAPING POLICY

There is considerable ambiguity in the criminal law between applications of the opportunity- and preference-shaping theories. Both methods of controlling behavior are employed in preventing crime and find representation in the doctrine of criminal law.¹¹¹ Moreover, the two methods coincide in purpose, observable effect, and, often, in their means. As a result, policies to decrease crime can be justified by either theory, and the success of these policies can be attributed to a change in

109. Legal theorists have recognized this purpose of criminal punishment. L. KATZ, *BAD ACTS AND GUILTY MINDS* 27-28 (1987); J. GORECKI, *A THEORY OF CRIMINAL JUSTICE* (1979).

110. For many potential criminals, the likely disincentive effects of tort law are probably negligible since the defendant is judgment proof.

111. L. KATZ, *supra* note 109, at 27-28; J. GORECKI, *supra* note 109.

either opportunities or preferences.¹¹² Despite this ambiguity, it does appear that some of the fundamental characteristics of criminal law are best explained by a preference-shaping theory.¹¹³

A. *The Importance of Intent to Criminal Liability*

The concept of intent is central to criminal law. Generally, the government must show that the defendant intended the proscribed harm in order to prove her guilt in the crime and liability for criminal punishment.¹¹⁴ A person is not guilty of criminal battery (striking another) for a blow inadvertently or negligently delivered.¹¹⁵ Similarly, a person is not guilty of theft (taking another's property) for appropriating property she mistakenly believes to be her own.¹¹⁶ It has been said that for purposes of criminal law, a person intends a proscribed harm if she desires her acts to cause that harm.¹¹⁷

This requirement of intent is puzzling under the traditional opportunity-shaping theory of criminal law.¹¹⁸ If a person imposes external costs on someone, that person should be assessed the Pigouvian tax whether or not she intended the harm.¹¹⁹ Certainly under tort law, intent is not required for liability.¹²⁰

Posner and Shavell have argued that intent is relevant to punishment under the opportunity-shaping theory because it is positively related to the probability of harm and negatively related to the probability of apprehension.¹²¹ A person who intends to harm someone is more likely to achieve that harm and to plan a way to get away. Accordingly,

112. See *supra* note 74 and accompanying text.

113. Indeed, the important role of intent, the near irrelevance of harm, and the form of punishment are the fundamental characteristics that distinguish criminal law from tort law. Epstein, *supra* note 6, at 248.

114. Some crimes require lesser states of *mens rea* including knowledge, recklessness, and gross negligence. W. LAFAVE & A. SCOTT, CRIMINAL LAW 212 (2d ed. 1986).

115. *Id.* at 220.

116. Such a mistake could occur either because the property looks like something the person in fact owns (a mistake of fact) or the person believes she has purchased the property but there is a legal defect in the purchase agreement (mistake of law). These mistakes would excuse the person's conduct in taking the property under the criminal law because they negate the requirement that she intend to take someone else's property. *Id.* at 216.

117. *Id.* at 217.

118. As Posner has pointed out, "one can read many books on economics without encountering a reference to 'intent.'" Posner, *supra* note 63, at 1221.

119. Sort of a "you broke it, you bought it" philosophy.

120. PROSSER & KEETON ON THE LAW OF TORTS 4 (W. Keeton 5th ed. 1984) [hereinafter PROSSER & KEETON].

121. See Posner, *supra* note 63, at 1221-22; Shavell, *supra* note 55, at 1248. Posner also raises the arguments that intent identifies coercive transfer and deterrable behavior, but then dismisses these justifications. Posner, *supra* note 63, at 1221-23. Lack of correlation with probable harm is also the rationale given for the excuse of mistake. Shavell, *supra* note 55, at 1255.

a person who intends harm and is caught should receive a larger Pigouvian tax than someone who unintentionally causes the same harm.¹²² However, it has not been adequately explained why probable, rather than actual harm, is relevant, especially since actual harm is the relevant concept under tort law. Moreover, even if probable harm is relevant, there are other facts related to the probabilities of harm and escape that have no similar exalted position (or indeed any relevance) in criminal punishment. If the owner of a railroad decides to operate for another year without crossing gates, knowing several people will be killed crossing his tracks, should the owner be guilty of murder when some people are killed because this omission involved a high probability of harm?¹²³ If a person commits a murder in a brightly lit restaurant with many witnesses after leaving her name for a reservation, should that person receive a lighter sentence because she will be easily caught? Finally, unless the person confesses, intent will have to be inferred from the person's acts. So why not just infer probable harm and elusion directly from these acts without the intermediate construct of intent?¹²⁴

The preference-shaping theory of criminal law offers a ready interpretation of the importance of intent. Under this theory, one of the purposes of criminal punishment is to shape people's preferences when they deviate from established social norms. A court can tell that a person's preferences deviate from the prescribed social norms when his actions indicate that he intended or desired to bring about the proscribed harm.¹²⁵ If the person does not intend the proscribed harm but rather

122. Posner, *supra* note 63, at 1221-22; Shavell, *supra* note 55, at 1247-48.

123. Posner attempts to distinguish this hypothetical, arguing that the owner of the railroad benefits from the operation of the railroad, not the deaths of the people, and besides, the operation of the railroad is probably efficient in that its benefits merit its costs. Posner, *supra* note 63, at 1221. However, the fact that one benefits only indirectly from a harm has never been exonerating under the criminal law. If I kill my favorite aunt to get her inheritance, I'm still guilty of murder. Moreover, following Pigou's analysis, the way to be sure that the railroad really is operating efficiently is to charge the owner for its external costs. Finally, the fact that an activity may be efficient from the perpetrator's perspective is not determinative of whether the activity is a crime, *see infra* note 179 and accompanying text.

124. Posner himself raises this criticism. Posner, *supra* note 63, at 1221.

125. The question naturally arises whether society should engage in preference shaping when it has evidence a person has deviant preferences, even though he has not yet attempted a crime. Society does allow the involuntary commitment and treatment of dangerously insane people even though they have not yet attempted a crime. Perhaps with respect to people who are merely dangerously dishonest, society defers on preference shaping until after they actually attempt a crime due to the problems of proving such a dangerous tendency or out of deference to the value of individual autonomy. Several courts have held that criminal punishment of a mental state without an accompanying act in furtherance of those preferences exceeds the constitutional powers of the state. *See Robinson v. California*, 370 U.S. 660, 666-68 (1962); *People v. Belcastro*, 356 Ill. 144, 147, 190 N.E. 301, 303 (1934); *State v. Labato*, N.J. 137, 147-48, 80 A.2d 617, 622 (1951); *Lambert v. State*, 374 P.2d 783, 785 (Okla. Crim. App. 1962).

causes it out of negligence or mistake, the person's acts do not indicate deviant preferences. From a preference-shaping perspective, it does no good to punish a person who does not have deviant preferences, either to shape his preferences or to provide an example for the general population.¹²⁶ This interpretation comports well with legal theorists' understanding of why the criminal law often requires proof of intent for criminal liability. The establishment of the requisite mens rea or "guilty mind" is necessary to show the defendant's blame-worthiness or culpability in the committed acts.¹²⁷

B. *The "Irrelevance" of Actual Harm to Criminal Liability*

Under the criminal law the actual harm to the victim is of secondary importance in the determination of criminal liability. This is true even if the person acts with the requisite intent. A person who attempts a crime, but fails to cause any actual harm, is subject to criminal punishment.¹²⁸ On the other hand, a person who actually commits a crime and causes harm may not be subject to criminal punishment if the act was justified by self-defense, duress, or necessity.¹²⁹ Although it is somewhat of an exaggeration, Richard Epstein has argued that the harm to the victim is irrelevant to criminal law.¹³⁰ Actual harm does play some role in criminal law: more harmful crimes tend to have more severe punishments, successful crimes are punished more severely than attempts, and under an optimal law enforcement policy police and prosecutors will spend more resources to catch and prosecute perpetrators of the most harmful crimes.

The opportunity-shaping theory of the criminal law encounters difficulty in explaining this lack of connection between harm and liability. In simple terms, if criminal punishment is the "price" for a criminal act, the

126. Of course, a government could use an innocent person as an example if the general population believed the person was guilty. However, out of concern for preserving their legitimate authority and the value of individual autonomy, I believe most governments generally abstain from engaging in this practice.

127. H. HART, PUNISHMENT AND RESPONSIBILITY: ESSAYS IN THE PHILOSOPHY OF LAW chs. 5 & 6 (1968); W. LAFAVE & A. SCOTT, *supra* note 114, at 212; R. PERKINS & R. BOYCE, CRIMINAL LAW 828-29 (3d ed. 1982).

128. *Rex v. Scofield*, Caldecott 397 (K.B. 1784); W. LAFAVE & A. SCOTT, *supra* note 114, at 495. Criminal liability may adhere even if the crime is thwarted due to impossibility. R. PERKINS & R. BOYCE, *supra* note 127, at 627-35.

129. W. LAFAVE & A. SCOTT, *supra* note 114, at 404-83. Necessity and duress are not always a defense—for example, they are not a defense for murder. *See, e.g., Regina v. Dudley & Stephens*, 14 Q.B.D. 273 (1884) (defense of necessity denied to three starving men who killed and ate one of their companions); *United States v. Holmes*, 26 F. Cas. 360 (C.C.E.D. Pa. 1842) (No. 15,383) (necessity defense denied to seamen who threw male passengers overboard from a sinking vessel to allow women and children to survive).

130. Epstein, *supra* note 6, at 248.

obligation to pay that price should be associated with receipt of the "good" and realization of the harm that it entails. Under tort law, the general rule is that the obligation to pay is associated with the realization of actual harm.¹³¹

Two arguments have been put forward to justify the punishment of attempts within the context of the opportunity-shaping model. First, Posner and Shavell have argued that we punish criminal attempts to raise the expected value of criminal punishment, thereby increasing the disincentive for criminal activity, without increasing the punishment for the completed crime.¹³² They argue that it is cheaper to raise the expected value of criminal punishment by punishing attempts than by increasing the punishment for the completed crime because increasing the punishment for the completed crime involves greater social costs in the mistaken punishment of innocent people, the deterrence of beneficial (but marginally lawful) activity, and the destruction of marginal incentives for good behavior.¹³³ But they fail to adequately explain why a similar assessment of damages for activity with a high probability of harm would not be optimal under tort law.¹³⁴ Second, Posner has argued that the occurrence of a criminal attempt indicates a person with a high probability of committing a crime who should have her criminal opportunities reduced to zero by incapacitation.¹³⁵ Why such a drastic and costly restriction of the person's opportunity set is optimal when the less expensive alternative of increasing sanctions is available, is never explained.

The preference-shaping theory of criminal law offers a more convincing explanation of the punishment of attempts. The commission of significant acts toward the completion of a crime evidences deviant pref-

131. PROSSER & KEETON, *supra* note 120, at 6.

132. See Posner, *supra* note 63, at 1217; Shavell, *supra* note 55, at 1250. The illustration of this principle given by Shavell is as follows:

Suppose a party who attempts a crime will succeed in doing harm half the time, that he will be apprehended with probability 30% if he does harm and 20% if he does not, that the disutility of the maximum sanction is 1000, and that the expected private benefit from his act is 200. If sanctions are not imposed for unsuccessful attempts, the probability of imposition of sanctions is just $1/2 \times 30\% = 15\%$, so the maximum expected sanction is only 150. Thus, since the party's expected benefits are 200, he cannot be deterred. But if the party is punished whether or not his attempt is successful, the probability of imposition of sanctions is $1/2 \times 30\% + 1/2 \times 20\% = 25\%$, so the maximum expected sanction is 250; hence the party can be deterred.

Id. at 1250 n.73.

133. See Posner, *supra* note 63, at 1208; Shavell, *supra* note 55, at 1243. Both authors also mention increased reliance on costly imprisonment as a social cost of increasing punishment for the completed crime. Posner, *supra* note 63, at 1212-13; Shavell, *supra* note 55, at 1235.

134. Shavell merely notes that it is generally assumed that all tortfeasors are prosecuted and all can pay their damages, two highly unrealistic assumptions. Shavell, *supra* note 55, at 1250 n.71.

135. Posner, *supra* note 63, at 1217.

erences that should be punished for the purpose of shaping preferences, even if no harm actually comes from the acts. This rationale seems to agree with the purpose of punishing attempts as discerned by legal theorists. The application of corrective action to those who have sufficiently manifested their dangerousness has been identified as the primary purpose.¹³⁶ The deterrence of the commission of completed crimes has been identified as merely a secondary purpose.¹³⁷

The defense of necessity is often put forth by proponents of the opportunity-shaping theory of criminal law as an example of a socially beneficial crime. The example commonly used is the "Goldilocks parable" of a person who, lost in the woods, steals food from a cabin to survive.¹³⁸ Such an act would be justified under the necessity defense and therefore would not be subject to criminal punishment.¹³⁹ This result is explained as a case in which the social benefits of the crime outweigh its social costs, and therefore the crime should be committed to maximize social welfare.¹⁴⁰ It is argued that we do not actually punish the person who commits a crime out of necessity because it is wasteful to punish undeterrable crimes.¹⁴¹ This explanation seems plausible. Although society does not value the benefits of crime, in some cases the commission of a crime may avoid a greater social harm and therefore be social welfare-maximizing. Some legal commentators have identified this "lesser of evils" rationale for the necessity defense.¹⁴²

The preference-shaping theory of criminal law offers an additional explanation of the necessity defense. Nothing can be inferred about the deviation of a person's preferences from the social norm against theft from the fact that the person steals to survive. Given a choice between stealing food to survive and not stealing but dying, even a person with a very strong preference for honesty would choose to steal.¹⁴³ Since in the

136. W. LAFAVE & A. SCOTT, *supra* note 114, at 499; P. BRETT, *AN INQUIRY INTO CRIMINAL GUILT* 129 (1963).

137. MODEL PENAL CODE art. 5 intro (1982).

138. Posner, *supra* note 63, at 1205; *see supra* text accompanying note 56.

139. R. PERKINS & R. BOYCE, *supra* note 127, at 1067.

140. Posner, *supra* note 63, at 1205-06; Shavell, *supra* note 55, at 1257. It should be noted that this social welfare analysis precedes the application of opportunity- or preference-shaping methods and is consistent with either theory.

141. Shavell, *supra* note 55, at 1257. Shavell also uses a similar argument to explain the defense of duress. *Id.*

142. W. LAFAVE & A. SCOTT, *supra* note 114, at 441-43; *see also* MODEL PENAL CODE Official Draft and Revised Comments § 3.02, comment 2 (1985) ("necessity must arise from an attempt by the actor to avoid an evil or harm that is greater than the evil or harm sought to be avoided by the law").

143. In economic terms, the necessity defense describes what is referred to as a "corner solution." The person's opportunity set is such that only one choice is feasible and the person's preferences do not enter into the decision.

case of necessity the criminal act indicates nothing about the person's preferences, it is not an occasion for criminal punishment to modify preferences.¹⁴⁴ This rationale for the necessity defense also seems plausible and, indeed, has been identified by some legal commentators.¹⁴⁵ It seems that on the issue of the necessity defense, the two models happily coalesce.

C. *The Amount and Form of Criminal Punishment*

Under legal theory, the amount and form of criminal punishment is based on individual culpability.¹⁴⁶ Judges determine an offender's culpability by assessing the offender's responsibility for the offense and the seriousness of the crime.¹⁴⁷ The judge then levies an appropriate punishment that may consist of condemnation, fines, probation, imprisonment, or death. Legislative guidelines aid in the determination of the appropriate sentence.¹⁴⁸ Imprisonment is viewed as the strongest form of punishment, short of death, and appropriate for only the most culpable offenders.¹⁴⁹ Fines are treated as incommensurate with imprisonment and appropriate for less culpable offenders.¹⁵⁰ Criminal punishment may vary in amount and form with characteristics of the individual offender. For example, an offender's punishment may be lighter and of a more rehabilitative bent if he is young or has marketable skills.¹⁵¹ Finally, courts generally try to ensure that the incidence of criminal punishment falls on the culpable individual. If a person commits a crime on behalf of a corporation, it is generally the individual and not the corporation that is held criminally liable.¹⁵²

144. Similar arguments explain the defenses of self-defense and duress.

145. P. BRETT, *supra* note 136, at 155.

146. T. HENDERICH, PUNISHMENT: THE SUPPOSED JUSTIFICATIONS 28 (1969); Flynn, *Criminal Sanctions Under State and Federal Antitrust Laws*, 45 TEX. L. REV. 1301, 1308 (1967).

147. Flynn, *supra* note 146, at 1308.

148. For example, the United States Sentencing Commission has promulgated the Federal Sentencing Guidelines pursuant to the legislative directives contained in 28 U.S.C. § 994(a) (Supp. V 1987).

149. Mann, Wheeler & Sarat, *supra* note 59, at 483 (1980); Renfrew, *The Paper Label Sentences: An Evaluation*, 86 YALE L.J. 590, 613 (1977).

150. Mann, Wheeler & Sarat, *supra* note 59, at 483 (1980); Renfrew, *supra* note 149, at 517.

151. W. LAFAYE & A. SCOTT, *supra* note 114, at 28.

152. *See, e.g.*, Sherman Antitrust Act, 15 U.S.C. §§ 1-7, 15 (1988) (criminal penalties under the Sherman Act adhere to the individual). Although rare, the prosecution of corporations for crimes that are *malum in se* has sometimes been attempted. *See, e.g.*, *People v. O'Neil*, 550 N.E.2d 1090 (Ill. App. 1990) (prosecution of corporation for involuntary manslaughter and reckless conduct); *State v. Ford Motor Co.*, 47 U.S.L.W. 2514 (Ind. Super. 1979) (indictment of corporation for negligent homicide arising from alleged reckless design of Pinto upheld); *People v. Warner Lambert Co.*, 69 A.D.2d 265, 277, 417 N.Y.S.2d 997, 1003 (1979) (indictment of corporation for negligent homicide arising from explosion at plant), *rev'd*, 51 N.Y.2d 295, 414 N.E.2d 660, 434 N.Y.S.2d 159, *cert. denied*, 450 U.S. 1031 (1981). In such cases, the mental state of its offers is imputed to the corpora-

These aspects of criminal punishment are curious from the perspective of the opportunity-shaping theory of criminal law. If criminal punishment is the "tax" or "price" levied to discourage criminal activity, then it should make little difference whether that tax is paid in dollars or the pain and foregone earnings of imprisonment.¹⁵³ In fact, as Becker has argued, society should prefer fines to imprisonment in punishing criminals, since fines are cheaper to administer.¹⁵⁴ Moreover, if criminal punishment is a tax or price that optimally should be set equal to the social costs of the crime divided by the probability of apprehension and conviction,¹⁵⁵ the sentence for a given crime should vary only according to the person's probability of apprehension and conviction, and her opportunity costs of imprisonment.¹⁵⁶ On this basis, Becker has even argued that rich people should receive shorter prison terms than poor people because of their greater wage losses during imprisonment.¹⁵⁷ Finally, Posner has argued that corporations, not individuals, should be held liable for antitrust offenses since the corporation can weigh the costs and benefits of the criminal act and fire the perpetrator if the crime's benefits do not outweigh its costs.¹⁵⁸

Under the preference-shaping theory of criminal law, criminal punishment seeks to shape people's preferences as well as their opportunities. The technology of shaping preferences partially determines what is the optimal amount and form of punishment. Society may not view fines and imprisonment as equivalent for purposes of preference modification. Moreover, the optimal amount and form of preference modification, and therefore punishment, may vary with personal characteristics that indicate more or less deviant preferences and more or less susceptibility to different methods of preference modification. For example, it makes

tion. *O'Neil*, 550 N.E.2d at 1098-99 (citing ILL. REV. STAT. ch. 38, ¶ 5-4(a)(2) (1981)). Prosecution of corporations for crimes that are *malum prohibitum* is much more common but follows a different analysis. See *infra* note 189.

153. Becker, *supra* note 2, at 193.

154. *Id.*

155. See *supra* note 48.

156. Some more caveats must be added if the opportunity-shaping analysis accounts for the fact society gives no value to criminal benefits. Under such an analysis, Shavell has argued that optimal criminal punishment may vary with individual characteristics that indicate high benefits from the crime. Shavell, *supra* note 55, at 1244. Posner has argued in a similar context that under the opportunity-shaping theory, wealthy people should be charged higher fines because of the declining marginal utility of wealth, and recidivists should be given harsher sentences because of their demonstrated unusual individual benefits from crime. See Posner, *supra* note 63, at 1215-16. Despite these caveats, I would still argue that much of the variation in sentencing based on individual characteristics is better explained by the preference-shaping theory of criminal law.

157. Becker, *supra* note 2, at 179-80.

158. R. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* 226 (1976); Posner, *Optimal Sentences for White Collar Criminals*, 17 AM. CRIM. L. REV. 409, 418 (1980).

sense to use rehabilitative methods on younger criminals who are not yet "hardened" and committed to a criminal lifestyle.¹⁵⁹ Indeed, under a preference-shaping theory of the criminal law, we may want to punish rich people more for a given crime because, given their greater legal opportunities, their commission of the crime indicates more deviant preferences. Finally, it makes sense under the preference-shaping theory of the criminal law that the incidence of punishment should fall on the individual. Organizations such as corporations have no preferences independent of their officers and agents that society can hope to modify.

III. EXPLANATION OF THE CRIMINAL CATEGORY

The very existence of the criminal category has posed a puzzle for law and economics scholars.¹⁶⁰ If externalities are subject to private actions for damages under tort law to limit their commission to efficient levels, why are some externalities designated crimes and subject to state prosecution for condemnation and fines or imprisonment? Several opportunity-shaping explanations of the existence of the criminal category have been put forward.

Becker has argued that an externality is designated a crime when it is hard to identify and catch the perpetrator of the externality.¹⁶¹ Because criminals are hard to catch, not all criminals will be caught; and the penalty imposed on them will have to exceed actual damages so that the *ex ante* expected cost of the crime to the criminal equals the costs he imposes on the rest of society.¹⁶² Becker argues that imprisonment is used to punish criminals because some individuals cannot afford to pay commensurate fines.¹⁶³

Calabresi and Melamed have hypothesized that we characterize certain acts as crimes and impose criminal sanctions to prevent individuals from undermining property and inalienability rules.¹⁶⁴ They argue that society uses three kinds of rules to prevent people from harming others through externalities: 1) property rules in which the perpetrator must buy the right to engage in the externality from those who are adversely

159. Greenwood, *Controlling the Crime Rate Through Imprisonment*, in *CRIME AND PUBLIC POLICY* (J. Wilson ed. 1983).

160. R. COOTER & T. ULEN, *supra* note 7, at 511-14; Coleman, *supra* note 5, at 323; Klevorick, *Economic Theory of Crime*, *supra* note 5, at 295; Klevorick, *Torts and Crimes*, *supra* note 5, at 907.

161. Becker, *supra* note 2. For example, a burglar is harder to identify and catch than a person with a negligently icy sidewalk. Shavell offers a more sophisticated presentation of this argument. Shavell, *supra* note 55, at 1238-39.

162. See *supra* note 48 and accompanying text.

163. Becker, *supra* note 2, at 196; see also Shavell, *supra* note 55, at 1238-39.

164. Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1125 (1972).

affected; 2) liability rules in which the perpetrator is free to engage in the externality as long as he pays what a court determines to be fair compensation to those who are adversely affected; and 3) inalienability rules in which the perpetrator is prohibited from engaging in the externality, even if those who are adversely affected are willing to sell their right.¹⁶⁵ Society collectively determines whether a particular externality will be governed by a property, liability, or inalienability rule by weighing efficiency, distributional, and "other justice" considerations.¹⁶⁶ If we allowed a thief to take a watch and just pay damages, this would allow the thief to convert a property rule into a liability rule.¹⁶⁷ Similarly, if we allowed a person to steal an election through ballot fraud and merely pay damages, this would allow the person to convert an inalienability rule into a liability rule.¹⁶⁸ Thus Calabresi and Melamed argue that society imposes criminal penalties with expected values in excess of damages to prevent individuals from converting property and inalienability rules into liability rules, thereby undermining society's determination as to how to best treat externalities.¹⁶⁹

Klevorick has generalized and extended Calabresi and Melamed's analysis.¹⁷⁰ He has termed society's chosen system of property, liability, and inalienability rules the "transaction structure" because it "stipulates the terms on which particular transactions or exchanges are to take place under different circumstances."¹⁷¹ Klevorick has argued that any act violating this transaction structure will be subject to criminal punishment.¹⁷² Thus, in addition to preventing the conversion of property and inalienability rules into liability rules, the criminal law seeks to prevent the conversion of inalienability rules into property rules.¹⁷³ For example, criminal law prohibits the buying and selling of votes. Klevorick emphasizes the non-efficiency considerations involved in society's determination

165. *Id.* at 1092-93.

166. *Id.* at 1093-1105. In general, society favors property rules because they allow individual valuation of benefits and costs. Society uses liability rules when a property rule would be inefficient because of high transaction costs or probable strategic behavior. Inalienability rules are used when a voluntary transaction imposes significant externalities on third parties. *Id.* at 1105-15.

167. Thereby circumventing the owner's right to set the value of the watch. *See supra* note 166.

168. Thereby imposing externalities on the rest of us even if the person could have bought enough votes to win the election for the amount he would have paid in damages. *See supra* note 166.

169. Calabresi & Melamed, *supra* note 164, at 1124-27.

170. Klevorick, *Economic Theory of Crime*, *supra* note 5, at 301-04.

171. *Id.* at 301.

172. *Id.* at 303.

173. *Id.* at 302-03. Klevorick also hypothesizes that the criminal law will prohibit the conversion of liability rules into property rules. The hypothetical example he gives is that of a society which makes a societal determination that a certain standard for pollution will be enforced by a liability rule and that polluters who "buy off" individual victims of pollution will be subject to criminal penalties. *Id.*

of the optimal transaction structure and argues that to legitimize the transaction structure, one must look outside economics.¹⁷⁴

Posner has taken a similar but narrower approach than that of Calabresi and Melamed in explaining the existence of the criminal category. Posner argues for the primacy of voluntary transactions over involuntary transactions on the basis of efficiency.¹⁷⁵ Voluntary transactions ensure that resources are allocated to their most valued use, given the current distribution of wealth and preferences, whereas involuntary transactions do not. Expected criminal penalties must exceed damages to "channel" activities into voluntary transactions and discourage people from resorting to involuntary transactions.¹⁷⁶ Thus, in the language of Calabresi and Melamed, Posner argues that expected criminal penalties must exceed actual damages to prevent individuals from converting property rules, which society prefers on the basis of efficiency, into liability rules.¹⁷⁷ Posner does not consider the distributional or other justice criteria considered by Calabresi and Melamed.

Yet there are problems with all of these explanations. The fact that not all criminals are caught has never seemed convincing as an explanation of the criminal category.¹⁷⁸ If all criminals were caught, would that end the distinction between torts and crimes? What about the fact that not all tortfeasors are sued? Why isn't imprisonment used for tortfeasors who are judgment-proof? Although a better explanation, the primacy of voluntary transactions based on efficiency considerations does not fully explain the existence of criminal law. Criminal law is sometimes used to frustrate efficient voluntary transactions—for example vote selling, prostitution, drug sales, and blackmail.¹⁷⁹ Calabresi and Melamed's explanation, as extended by Klevorick, is not subject to the same criticism since these aberrations from the rule of efficiency could be explained by distributional or other justice considerations. However, Coleman has argued that despite its inclusion of these non-efficiency considerations, Calabresi and Melamed's explanation of the criminal category does not adequately account for the moral aspect of criminal law.¹⁸⁰ Coleman argues that the criminal law is more than just a pricing mechanism, and that the prohibi-

174. *Id.* at 303.

175. Posner, *supra* note 63, at 1195-96.

176. *Id.*

177. Klevorick, *Economic Theory of Crime*, *supra* note 5, at 296.

178. Calabresi & Melamed, *supra* note 164, at 1125; Coleman, *supra* note 5, at 318-19.

179. Coleman, *supra* note 5, at 319; Klevorick, *Economic Theory of Crime*, *supra* note 5, at 302.

180. Coleman, *supra* note 5, at 323, 326. Coleman also argues that a good deal of the criminal law has nothing to do with transactions or the transfer of resources. Accordingly he objects to Klevorick's idea that the criminal law enforces a transaction structure. *Id.* at 323; *see also* Fletcher, *supra* note 6, at 924-25; Schulhofer, *supra* note 6, at 336-39.

tions of the criminal law serve as guidelines for behavior apart from the attached sanctions.¹⁸¹ Coleman complains that the requirement of intent, concept of culpability, and use of imprisonment are not encompassed in the "inducement" theory of the criminal law.¹⁸²

The preference-shaping theory of criminal law provides an economic explanation of the distinction between tort and criminal law. In controlling externalities, society will rely first on the cheaper opportunity-shaping methods of the tort law. The prosecution of torts is left to private parties for reasons of administrative efficiency.¹⁸³ The prospect of tort damages simultaneously creates incentives for good behavior and provides a means to compensate the victims of externalities for their losses. Society can use the opportunity-shaping properties of tort law to reduce an externality to the efficient level by limiting tort damages to compensation,¹⁸⁴ or to reduce the externality below the efficient level by allowing punitive damages.¹⁸⁵ Tort law will be the only legal remedy for externalities in which there are negative net social benefits from preference shaping through the criminal law because society values the utility derived from both sides of the incompatible preferences almost the same amount.

The more costly preference-shaping methods of the criminal law will be reserved for externalities in which there are substantial social benefits from preference shaping through criminal punishment that exceed its higher social costs. The prosecution of crimes is conducted by the government because this facilitates the preference-shaping process and no single individual has sufficient interest in society's preference-shaping policy to undertake the task.¹⁸⁶ As previously discussed, the criminal law's reliance on condemnation and imprisonment is also dictated by the

181. Coleman, *supra* note 5, at 324.

182. *Id.* at 325. Coleman uses the words "guilt" and "fault" rather than intent.

183. Becker & Stigler, *Law Enforcement, Malfeasance, and Compensation of Enforcers*, 3 J. LEG. STUD. 1, 3 (1974).

184. R. POSNER, *supra* note 56, at 149. This statement assumes that all tortfeasors are caught and successfully prosecuted. I also ignore the well-known qualifications with respect to level of activity and risk aversity. A. POLINSKY, *supra* note 56, at 67-74.

185. Cooter, *Economic Analysis of Punitive Damages*, 56 S. CAL. L. REV. 79, 89 (1982). It might also be argued that punitive damages are partially intended to shape preferences. PROSSER & KEETON, *supra* note 120, at 9.

186. As previously discussed, the preference-shaping process is facilitated if the party seeking to shape preferences bears some degree of legitimate authority over the subject. See *supra* note 83 and accompanying text. Hopefully, the state occupies such a position of authority in the eyes of most people. Furthermore, society's preference-shaping policy is a public good that no individual has sufficient interest to pursue out of her own self-interest. Even the victim of a crime does not have sufficient interest to prosecute the criminal for preference-shaping purposes since the victim cannot be sure she will benefit in the future from the preference shaping. However, desire for revenge may substitute as sufficient motive for the victim to prosecute in some circumstances.

preference-shaping technology.¹⁸⁷ Of course, criminal penalties shape opportunities as well as preferences, and these social benefits should be taken into account in setting the optimal criminal penalty.¹⁸⁸ However, crime is distinguished from other externalities because society has determined that in these instances, the social benefits of preference shaping through the criminal justice system outweigh the social costs because society values the utility derived from only one side of the incompatible preferences.¹⁸⁹

This explanation of the criminal category bears some relation to the prior efforts of law and economics scholars. Examination of Klevorick's transaction structure reveals the underlying social norms that are the basis of the preference-shaping theory of criminal law.¹⁹⁰ Society's decision that certain entitlements should be transferred by voluntary exchange with money, voluntary exchange without money, or simply not be exchanged, represents our social norms as to how and whether individuals should want to exchange these entitlements. Moreover, economic justifications for the criminal category that have been put forward to date also support the preference-shaping theory of the criminal category. The fact that the perpetrator of an externality is costly to catch would recommend it for the criminal category under the preference-shaping theory of criminal law. An optimal social policy will rely more on preference shaping in cases in which incentives are costly to use. Similarly, since the protection of voluntary transactions promotes economic efficiency and protects indi-

187. See *supra* note 85 and accompanying text.

188. See *supra* note 110 and accompanying text.

189. This distinction does not apply to crimes that are merely *malum prohibitum* rather than *malum in se*. With *malum prohibitum* crimes, society values the benefits the criminal derives from the crime and attempts no preference shaping. Accordingly, the commission of such crimes carries with it no stigma of immorality and generally results in only a fine if the defendant is willing to pay. The activity is made a crime only because its external effects are felt by society at large, and no individual member of society has sufficient incentive to prosecute to limit the activity to efficient levels. Accordingly, a *malum prohibitum* crime is basically a non-criminal tort that is prosecuted by the government because its external costs are dispersed among the population as a whole. For example, parking violations are a crime, yet there is little moral stigma attached to them and even smaller chance of punishment beyond a fine. Parking violators impose costs on society as a whole in the form of traffic congestion, yet no individual would have sufficient incentive to prosecute parking violators if it were merely a tort. As a result, society makes parking violations a crime and takes it upon itself to prosecute these transgressions to limit them to the efficient level. Legal commentators, including Blackstone, have long recognized that crimes that are merely *malum prohibitum* are basically torts which are prosecuted by the state, 1 W. BLACKSTONE, COMMENTARIES *54, 55, 58; R. PERKINS & R. BOYCE, *supra* note 127, at 886-87.

190. I use the word "reveal" here advisedly since the transaction structure reveals the underlying social norms in much the same way an individual's consumption decisions "reveal" his or her underlying preferences. For a discussion of the revealed preference theory of individual consumption, see H. VARIAN, INTERMEDIATE MICROECONOMICS 116-20 (1987); H. VARIAN, MICROECONOMIC ANALYSIS 141-42 (2d ed. 1984).

vidual autonomy, it would seem there would be high social benefits in promoting preferences for voluntary transactions.

However, the preference-shaping explanation of the criminal category goes beyond the prior economic explanations to give an account of the moral dimension that Coleman and others have identified as distinguishing criminal law from tort law.¹⁹¹ Under the preference-shaping theory, criminal punishment is not merely the price of crime, but is also an expression of society's condemnation of the criminal act and an effort to discourage preferences for such activity.¹⁹² In achieving these objectives of criminal punishment, imprisonment has significant, although costly, advantages over fines. A person should be subjected to criminal punishment only if her mental state and actions evidence culpability in the form of preferences that deviate from societal norms.¹⁹³ Criminal law is viewed as part of an overall social process of shaping peoples' preferences to conform to established social norms and notions of morality.¹⁹⁴

It should be noted that although the preference-shaping theory of the criminal law provides an economic explanation of the criminal category, it by no means provides a determinative economic answer to the question of which activities society will designate as crimes. The analysis depends on the technologies of shaping opportunities and preferences and society's determination as to whose utility from what activities should be valued in the social welfare function. My simple treatment of these concepts in this Article masks a myriad of important questions. How are preferences formulated and shaped? How is the social welfare function produced in the political process? Why are certain preferences or values placed above others to become social norms enforced by criminal laws? These questions are traditionally the domain of other disciplines, including sociology, psychology, political science, philosophy, theology, criminology, and jurisprudence.¹⁹⁵ Although economics can add further insight into these questions, it would seem that economists can be usefully informed by other disciplines on the subject of crime.

191. J. GORECKI, *supra* note 109, at 3-27; Coleman, *supra* note 5, at 323, 326; R. Epstein, *supra* note 6, at 231; Fletcher, *supra* note 6, at 924-25; Hall, *Interrelations of Criminal Law and Torts*, 43 COLUM. L. REV. 753, 775-79, 967 (1943); Schulhofer, *supra* note 6, at 336-39.

192. Compare this view of criminal punishment with the concerns expressed in Coleman, *supra* note 5, at 324-25; Fletcher, *supra* note 6, at 923-24; Schulhofer, *supra* note 6, at 337-38.

193. Compare this perspective with the concerns expressed in Coleman, *supra* note 5, at 325; Epstein, *supra* note 6, at 243 (in criminal law the individual's conduct is measured against an "ideal standard of judgment"); and Hall, *supra* note 191, at 778.

194. Gorecki views the criminal law as a means of societal moral education. J. GORECKI, *supra* note 109, at 22-27.

195. See *supra* note 76.

IV. CONCLUSION

To address the problem of externalities, society employs both opportunity- and preference-shaping methods. The optimal social policy for employing such methods will depend on society's valuation of the utility derived from the realization of the various preferences of the members of society, and the social cost technologies of shaping opportunities and preferences. In general, shaping opportunities will be cheaper than shaping preferences because shaping opportunities requires fewer resources and involves less infringement of individual autonomy. Accordingly, opportunity shaping will enjoy wide use by society and may be exclusively employed where society values the utility derived from both sides of incompatible preferences. However, society will also use preference-shaping methods where the social benefits of such methods exceed their social costs. In particular, preference-shaping methods will be used when society values the utility derived from only one side of incompatible preferences.

Criminal law can be usefully treated as a preference-shaping policy. The preference-shaping theory of criminal law provides an explanation of the importance of intent to criminal liability since the intentional infliction of proscribed harms indicates deviant preferences in need of modification. The evidence of such deviant preferences by sufficient acts is the true test of criminal liability, whether or not harm is actually visited on a victim. Moreover, the optimal form and amount of criminal punishment will depend on the technology of preference shaping and will vary with individual characteristics of the criminal which indicate more or less susceptibility to different methods of preference modification and more or less need for preference modification. Finally, the preference-shaping theory of the criminal law provides an economic explanation of the criminal category. An externality is designated as a crime when, due to a grave disparity in the value society assigns to the utility derived from each side of the incompatible preferences, the social benefits of shaping preferences through criminal punishment exceed its social costs.