Deterrence

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ARTICLE

DETERRENCE

DAVID CRUMP*

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Deterrence has many faces. It also raises many questions, and, in fact, there is a great deal about it that is not well known. The basic assumption that bad consequences will prevent some people, in some way, from committing some crimes is widely shared, but the mechanism by which deterrence works remains elusive and so does the manner of administering the disincentives called for. This article is an attempt to analyze theories about these issues and to project possible consequences.

The first section of the article considers the simplest model of deterrence, which features an individual who considers the balance of advantages and disadvantages of committing a particular crime. This version of deterrence might be called the economic or market model. The theory depends upon at least four variables: the certainty of punishment; its severity; its delay (all of which determine the disadvantages); and, in comparison, the rewards of the crime. The potential criminal, by this reasoning, makes decisions in a way that is analogous to a shopper thinking about spending money to buy a good or service. But the controlling factors depend upon the individual's perceptions of four sets of probabilities, none of which are known to the actor with much precision.

The second section deals with related but arguably distinguishable phenomena. For example, condemnation refers to the community's collective repugnance in the face of crime. It is both expressed and strengthened by criminal sentencing. Condemnation is analogous to retributive justice, but it is less abstract because it operates through action that conveys principles. Incapacitation is yet another distinguishable effect of the criminal law, consisting of efforts to prevent the individual from being able to repeat his crimes, such as by imprisonment. These additional aspects of criminal sentencing are sometimes so intertwined with deterrence that it becomes difficult to separate the effects. There are also extralegal deterrents—those that operate without the mediation of the legal system, but that can persuade the individual not to engage in criminal

2. See infra Part III A.
3. See infra Part I A.
5. See infra Part II A.
6. See infra Part I I C.
activity—such as the predicted negative reactions of other people to the crime. The third section deals with a more diffuse, but possibly more important, kind of deterrence—one that differs from the individualized economic model. This effect might be called systemic deterrence. The individual in this model does not weigh the severity, certainty, or promptness of the punishment for the contemplated crime, but is deterred nevertheless by awareness of the criminal justice system as a whole. The individual knows that, at some time, his activity may be detected and he may be arrested, with the possibility of more or less unpleasant consequences, but the individual does not calculate an estimate of these consequences for the individual crime. Instead, the putative criminal considers the attitudes of those in the jurisdiction toward crime, generally. To the extent this theory reflects reality, the sentence customarily imposed for robbery or burglary is not the dominant factor deterring these crimes. Instead, it is the individual's general perception of the effects of the criminal justice system, adjusted for the seriousness of the crime. By this reasoning, one can hope that sentences imposed for one particular crime will deter others. Sentences for murder, for example, can deter robberies, if the theory is accurate.

A final section sets out the author’s conclusions. These include the observation that, although certainty of punishment is a greater factor than the length of a (nontrivial) sentence, sentence severity also deters in some cases, as well as the conjecture that systemic deterrence may be more important than it has been given credit for. It may mean that vigorous and visible enforcement against the most serious crimes will deter many other crimes as well.

By way of disclaimer, it should be added that this article does not usually distinguish between specific deterrence, deterrence of the sentenced individual, and general deterrence, the deterrence of others. Most of the literature follows this pattern and does not distinguish between the two types. Statements and conclusions that are unattributed here are original formulations by the author. A major effort of this article is to evaluate the

7. See infra Part IIIB.
8. See infra Part III.
9. See infra Part IIIC.
10. See infra Part IIIA.
I. THE ECONOMIC OR MARKET MODEL OF DETERRENCE

A. Certainty, Severity, Delay, and Reward: The Potential Criminal As Homo Economicus

At least four factors—the certainty of punishment, its severity, its delay, and its reward—figure into the basic model of criminal deterrence.\(^{11}\) By this theory, the more certainty there is in detection, apprehension, conviction and sentence, the greater the deterrent.\(^{12}\) The logic behind the conjecture is that a high probability of punishment is a determinant of the cost of committing the contemplated crime.\(^{13}\) In the same way, the severity of the probable sanction is said to correlate with the probability that the crime will be costly. For example, if there is a high probability of detection, apprehension, conviction and sentence, together with a severe expected punishment, the deterrent against the commission of a particular crime is greater than it would be if certainty and severity were lower,\(^{14}\) or so goes the theory.

Cesare Beccaria, the father of modern sentencing philosophy, argued this kind of deterrence was the only proper end of criminal justice.\(^{15}\) “The purpose of punishment, then, is nothing other than to dissuade the criminal from doing fresh harm to his compatriots and to keep other people from doing the same.”\(^{16}\) And the seriousness of punishment, he


\(^{12}\) See Role of Deterrence, supra note 11, at 992 (“The empirical studies seem to agree that increasing the probability of punishment provides a better chance of strengthening deterrence than increasing the severity of punishment.”).

\(^{13}\) Id. at 979.

\(^{14}\) See DAVID CRUMP ET AL., CRIMINAL LAW: CASES, MATERIALS, AND LAWYERING STRATEGIES 558 (3d ed. 2013) (analyzing the difference between modern punishment trends and the period of European history known as “the Enlightenment,” where “criminal punishment is generally understood to have revolved around execution or the infliction of pain on convicted defendants”).


\(^{16}\) Id.
said, should be measured by this goal.17 “Therefore, punishments and the method of inflicting them should be chosen that, mindful of the proportion between crime and punishment, will make the most effective . . . impression on [people’s] minds.”18 Of course, others argued that this theory was incomplete or erroneous.19 Immanuel Kant, for example, considered the utilitarian goal of deterrence improper; instead, “[t]he law of punishment is a categorical imperative.”20 “Punishment by a court,” he wrote, “can never be inflicted merely as a means to promote some other good for the criminal himself or for civil society.”21 Instead, it must be measured “by the principle of retribution.”22

At least one judge has put three of the factors underlying deterrence into a mathematical equation, or rather an inequality, while realizing it cannot be treated as having mathematical exactitude.23 The inequality considers the factor of relative certainty as a probability that is to be multiplied by average or typical severity to determine the disadvantage or cost of committing the object crime.24 The inequality, then, tests the deterrent by considering whether:

\[ C \times S > R, \]

where \( C \) is the probability of punishment, \( S \) is its severity, and \( R \) is the reward expected from the crime.25 \( C \), presumably, is a probability with a value between 0.0 and 1.0, with 0.0 meaning no probability of punishment and 1.0 meaning absolute certainty of punishment. If the product on the left side of the inequality exceeds the reward, deterrence operates to

17. See DAVID CRUMP, supra note 14, at 558 (“Beccaria argued both that deterrence was the overriding goal of sentencing and that it represented a humane alternative to existing practices.”).
18. CESARE BECCARIA, supra note 15, at 558.
19. See DAVID CRUMP, supra note 14, at 567 (exploring Immanuel Kant’s “retributive theory of punishment” in which “[p]unishment is matched to the crime and the offender” and punishing someone to serve as an example to others is prohibited).
21. Id.
22. Id.
24. Id.
25. See id. (using “F” for “fruits of the crime” rather than “R”).
One should immediately add that the mathematics, such as they are, should in theory operate even if \( C \times S \) is less than \( R \); the result, then, is simply that the deterrent administered by the sentence is not, alone, sufficient to dissuade the criminal from seeking the expected reward.\(^{27}\) In that event, there are other factors resulting from the criminal justice system, including indirect and extralegal factors that can combine with the residual deterrent to prevent the crime.\(^{28}\)

Judge Posner has developed a numerical example of the operation of this theory.\(^{29}\) This approach features an intense focus on economic costs and benefits. Posner notes that some criminal acts are “wealth-maximizing,” and postulates that responses should be calibrated so that the product of certainty times severity exceeds the reward in mathematical terms:

Once the expected punishment cost for the crime has been set, it becomes necessary to choose a combination of probability and severity of punishment that will bring that cost home to the would-be offender. Let us begin with fines. An expected punishment cost of $1000 can be imposed by combining a fine of $1000 with a probability of apprehension and conviction of one [i.e., absolute certainty], a fine of $10,000 with a probability of .1, a fine of one million dollars with a probability of .001, etc.\(^{30}\)

The argument was merely illustrative, and Posner recognized that it was subject to the limits of the underlying model as well as, presumably, opposing goals such as proportionality and uniformity.\(^{31}\)

Acceptance of the economic market theory has been widespread.\(^{32}\) Isaac Ehrlich writes that:

\(^{26}\) See id. (providing an equation recognizing an individual will not commit a crime if the fruits received in committing the crime are outweighed by the certainty and severity of punishment). Judge Browning recognized the inaccuracy of this simple mathematical expression, and found it would require multiple “conversion factors.” Id.

\(^{27}\) Id. at *16.

\(^{28}\) See infra Part IIC.


\(^{30}\) Id.

\(^{31}\) See id. at 1230–31 (reserving “moral” issues for “another day”).
The “market model”... builds on the assumption that offenders, as members of the human race, respond to incentives... This has been the justification for applying economic analysis to all illegal activities, from speeding and tax evasion to murder... At least in the economic literature, there has been little controversy concerning this approach.33

Others, like Anthony Doob and Cheryl Webster, actually see the market or economic model as having limited validity,34 and this article discusses that position in a later section.35

In any event, the version of the mathematical inequality above omits the factor of delay,36 which, therefore, needs to be added. Apparently, no one has revised the symbolic inequality so that it reflects delay as well as certainty and severity.37 This factor, delay, has been studied less than the other determinants in the model, probably because it is more difficult to analyze by natural experiments.38 But it is apparent that delay weakens a deterrent.39 This is the reason that merchants advertise goods by promising “no money down” or that there need be “no payments until next year.”

The question arises, then, how should delay be figured into the inequality that expresses the relationship among C, S, and R? Because delay, D, reduces the deterrent flowing from enforcement of a particular law, and the deterrent presumably lessens, at least roughly, according to the length of any delay, it theoretically should be represented as a divisor.

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32. See, e.g., Isaac Ehrlich, Crime, Punishment, and the Market for Offenses, 10 J. ECON. PERSP. 43, 43 (1996) (referencing Becker, Fleisher, Tullock, Rottenberg, and others as those who have done similar economic analysis).
33. Id. at 43–44.
34. See generally Anthony N. Doob & Cheryl Marie Webster, Sentence Severity and Crime: Accepting the Null Hypothesis, 30 CRIME & JUST. 143, 143 (2003) [hereinafter Accepting the Null Hypothesis] (postulating sentence severity has little to no effect on the level of crime, and, therefore, does not deter crime). Their title says so, in that the “null hypothesis” is that the effect at issue does not exist. Id.
35. See infra Part IB1.
37. See, e.g., Corchado-Aguirre, 2015 WL 10383207, at *15 (utilizing a symbolic inequality which represents only probability, severity, and benefit).
38. In other words, comparing records about delay is difficult.
of the \( C \times S \) product. We might construct a mathematical relationship, then, that would predict a deterrent if:

\[
\frac{C \times S}{D} > R.
\]

If this relationship holds, the strength of the deterrent is proportional to the certainty of punishment, multiplied by the severity of the expected punishment, divided by the length of the delay before its imposition. If the result is greater than the anticipated reward, deterrence operates to suppress the crime. But this proposition is highly theoretical, and the mathematics are intended to show only the relationship, not quantities.

From these ideas, one can evaluate some kinds of possible deterrents. For many crimes, the weakest ingredient of deterrence is the probability of apprehension, which is a determinant of the certainty of punishment.\(^{40}\) If this factor can be increased, the likelihood of punishment grows, and thus the deterrence of crime is stronger.\(^{41}\) Empirical observation supports this conclusion.\(^{42}\) Policies that increase police presence in a community, therefore, should be expected to reduce crimes such as robbery or burglary, because of the greater certainty of detection and apprehension.\(^{43}\) Increased severity, too, may increase the deterrent in some cases.\(^{44}\) Such statutes as use-a-gun-go-to-jail laws increase the severity of the targeted type of crime, and studies suggest that the deterrent effects result in a decrease in offense rates.\(^{45}\) Likewise, decreasing delays should result in

\(^{40}\) See Roy E. L. Watson, The Effectiveness of Increased Police Enforcement As a General Deterrent, 20 L. & Soc'y Rev. 293, 293 (1986) (“This skepticism has been supported by the failure of empirical studies, especially those based on official records of crimes and of the apprehension of offenders, to provide convincing evidence of the deterrent effect of legal penalties.”).

\(^{41}\) See id. at 299 (suggesting increasing awareness of the threat of punishment may lead to greater compliance with the law).

\(^{42}\) Id.

\(^{43}\) See, e.g., id. at 297 (showing, through a graph, that increased police presence at phase two of the same will lead to greater apprehension).

\(^{44}\) Certainty, however, is usually the real controlling factor. See infra Part IB2.

\(^{45}\) See, e.g., Naomi Harlin Goodno, Career Criminals Targeted: The Verdict is in, California’s Three Strikes Law Proves Effective, 37 Golden Gate U. L. Rev. 461, 469–71 (2007) (“Several studies and surveys have concluded that the Three Strikes law has had a deterrent effect.”).
greater deterrence.46 The addition of courts and personnel to provide more speedy trials, then, will decrease crime too.47 To the extent that the death penalty is a deterrent, if it is, the Federal Antiterrorism and Effective Death Penalty Act, which was intended to reduce delays between the time of sentence and its execution,48 should have been expected to increase any possible deterrent effect of capital punishment—again, if it exists.

All of this reasoning, however, is subject to real-world effects, which are substantial. The market model appears more precise than it really is. There are factors that it cannot account for, and these factors are great enough to make the model useless in many cases, as the next section of this article will show. The confounding variables include, first, the dependence of all three deterrence factors on the perceptions of the individual actor.49 Second, there are instances in which a rational choice model loses predictive value because actors do not choose rationally.50 Third, there are contrary tendencies buried in the determinants.51 Fourth, there are differences in the influence of each of the factors, as well as differences that vary with the extent of each, and the marginal effects of the factors tend to weaken as they increase.52 As a result, the market or economic model is subject to serious criticisms.

46. See Rule of Deterrence, supra note 11, at 994 (“[W]hen punishment is imposed, the strength of the punishment memory—that is, its recalled punitive ‘bite’ as a perceived threat for a future violation—is dramatically reduced as the length of delay increases.”).

47. See id. (increasing resources might reduce delay and thereby increase deterrent effects).


49. See Raymond Paternoster, How Much Do We Really Know About Criminal Deterrence?, 100 J. CRIM. L. & CRIMINOLOGY 765, 776 (2010) (lamenting the fact that “[a] law can have no deterrent influence upon a potential criminal if he is unaware of its existence.” (quoting John C. Ball, The Deterrence Concept in Criminology and Law, 46 J. CRIM. L., CRIMINOLOGY & POLICE SCI. 347, 351 (1955))).

50. See id. at 819 (finding this system incapable of being exploited by the justice system, because, even if offenders chose rationally, they “rationally readjust their perceptions of the risk of sanctions and reduce their offending”).

51. See id. at 810 (suggesting factors such as whether an individual is “poorly informed about the likelihood of detection” and his “perceptions of sanction threats” are just a few of the “number of obstacles to effective deterrence”).

52. See, e.g., id. at 790 (“[I]n cities in which a higher proportion of robberies resulted in an arrest, the robbery rate [is] lower.”).
B. Criticisms of the Economic Model

1. Perception and Rational Choices: Does a Person Contemplating Crime Function As Homo Economicus?

The market model is a product of the kind of thinking engaged in by economists. Scholars of economics base their diagrams, equations, and laws on several assumptions, none of which fits the world perfectly. The most basic of these assumptions is that actors making economic decisions fit a mold called “homo economicus,” the economic person, and that they make unfailingly rational choices. Homo economicus is always fully informed, so that he or she knows the intricacies of every product and service, from automobiles to heart surgery. Furthermore, homo economicus always makes rational choices and never has to puzzle over whether to buy vanilla, strawberry, or chocolate, or for that matter, to buy a Chevrolet, Jeep, or Cadillac.

Obviously, not all people, tempted to commit crimes, think so precisely—for that matter, neither do consumers in economic markets. Homo economicus is as imaginary as the reasonable person in negligence law: a construct upon which to base approximate (very approximate)

53. One of the basic articles on deterrence in the modern era was the work of an economist. Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169 (1968); see also Raymond Paternoster, supra note 49, at 778 (explaining an economist’s analysis stems from the realization that crime is committed due to the rational self-interest of individuals based on their individualized costs incurred or benefits received in committing the crime).

54. See DAVID CRUMP, HOW TO REASON: A MULTIDISCIPLINARY THINKER’S TOOLKIT 119–20 (2d ed. 2014) [hereinafter HOW TO REASON] (“Although economics obviously has useful predictive and normative applications, there are scholars who argue that it is incomplete and misleading . . . . Socioeconomics regards economics . . . as inadequate to explain actual marketplace behavior.”).

55. See id. at 91 (suggesting homo economicus represents the ideal, “fully sophisticated consumer in a market economy [who] is able to purchase precisely that mix of goods and services that produces the most satisfaction of that individual’s wants and needs”).

56. See id. at 118–19 (“[Homo economicus] is perfectly knowledgeable, never fooled, discerns utility infallibly, and always acts from pure self-interest, never from altruism.”).

57. See id. at 119 (hypothesizing the view that the homo economicus does not labor over options, because he “discerns utility infallibly”).

58. See id. (providing the example of Richard H. Thaler’s experiment, which demonstrated that “real consumers are sometimes guided by their perceptions of social appropriateness or fairness rather than by economic factors such as market price or economic utility, even when they make ostensibly economic choices”).
As such, homo economicus is useful in supporting the kinds of supply and demand curves that economists hypothesize. The curves can be replicated by data from the real world, but only loosely. Likewise, the model of deterrence that depends upon a relationship among certainty, severity, delay, and reward can be expected to correspond only loosely, if at all, to the real world. The assumption of such a correspondence might be said to depend upon a mythical being called “homo legalis,” or the law-centered person. The question then arises: in what way does the economic model vary from deterrence in the real world?

In the first place, the economic model depends upon the putative criminal’s knowledge. That is to say, it is the individual’s perception of the likelihood, timing, and severity of possible punishment that counts, not the formal statute defining the crime and its possible sentence, which few citizens have read firsthand. Unfortunately, an experimenter’s focus on perception is, for the most part, relatively recent, undertaken long after research began on simpler deterrence theories. At least one experiment, however, suggests an answer that provides bad news for the market or economic model. The researchers surveyed people to learn about their awareness of criminal laws in their states. The questions, among others,

59. See id. at 118 (“Homo economicus is an idealized construct, invented to make economic theory workable.”).
60. See id. at 120 (deducing that the socioeconomic-type behavior of the homo economicus does not result in outcomes which violate economic assumptions or predictions).
62. See Richard O’Sullivan, A Scale of Values in the Common Law, 1 MOD. L. REV. 27, 31 (1937) (emphasizing homo legalis was created by the Common Law and stands for “the reasonable man of the law” who will utilize his own free will when acting).
63. See Raymond Paternoster, supra note 49, at 804 (relying on knowledge to create a deterrent effect).
64. See generally Kirk R. Williams & Richard Hawkins, Perceptual Research on General Deterrence: A Critical Review, 20 L. &SOC’Y REV. 545, 545 (1986) [hereinafter Perceptual Research on General Deterrence] (“Deterrence theory implies a psychological process whereby individuals are deterred from committing criminal acts only if they perceive legal sanctions as certain, swift, and/or severe.”).
65. See id. at 546 (recognizing previous attempts to isolate a deterrent effect have glossed over the perceptual process implied by a theory of general deterrence).
66. See Paul H. Robinson et al., The Ex Ante Function of the Criminal Law, 35 L. & SOC’Y REV. 165, 169 (2001) (detailing the test on whether elements of the criminal code “provide the bright lines that set off criminal conduct from allowable conduct”).
67. Id. at 172–73.
included whether it was illegal, in the particular state, to “stand one’s ground” before using deadly force rather than retreat, and whether the law required people to aid someone in distress if they could do so without risk to themselves.\(^\text{68}\) The results indicated that people in the general population were ignorant of the answers.\(^\text{69}\)

This kind of experiment certainly demonstrates that persons contemplating crime are not perfectly knowledgeable about the criminal law and the assumption that homo economicus (or homo legalis) does not hold in all cases.\(^\text{70}\) This result does not mean, however, that people are completely without perceptions of the law of crimes and sentences.\(^\text{71}\) The questions in that experiment dealt with issues at the borderland of the criminal law—issues that varied sharply from state to state.\(^\text{72}\) If, instead, the questions had centered upon universally appreciated crimes, the results would have been different.\(^\text{73}\) What if the experimenters had asked: “Would a person violate the law if he broke into a random home and shot and killed the homeowner without provocation?” or “is it illegal to stick a pistol into the face of a convenience store clerk in order to take money from the cash register?” To these questions, every survey participant would have the right answer, and every one could probably guess that the sentences provided by the law for these offenses included the possibility of long periods of incarceration. Still, the experiment is useful. Many crimes are defined in subtle ways and many sentences are not easy to predict.\(^\text{74}\)

The experiment shows that the economic model is not likely to be useful for these kinds of crimes.\(^\text{75}\)

In fact, people’s perceptions about the crimes of robbery and murder may not be based on a familiarity with the law at all. Another survey

\(^{68}\) Id. at 170–71.  
\(^{69}\) Id. at 183.  
\(^{70}\) See id. at 181–82 (discussing the effects of a study showing that people do not always act with absolute knowledge of the law but instead act based on what they think the law is, regardless of whether it is rational); see also HOW TO REASON, supra note 54, at 119 (analyzing the fact that homo economicus is to always act in a rational manner).  
\(^{71}\) See Paul H. Robinson et al., supra note 66, at 181 (suggesting people are unaware of the laws of their states, but were able to tell the surveyors “what they thought those laws were”).  
\(^{72}\) Id. at 182.  
\(^{73}\) See id. at 183 (hypothesizing results would have differed had the experiment asked about more generally accepted crimes).  
\(^{74}\) See id. at 181–83 (discussing various factors that make sentencing predictions difficult).  
\(^{75}\) See id. at 183 (revealing people are often wrong about the law, and even when they are not sure what the law is, they will assume it is one way or another based on their own moral code, rather than on any knowledge of the actual consequences that arise out of a violation of the law).
showed that participants imagined the law to be consistent with their moral inclinations. In other words, a person thinking about a particular harmful course of action is likely to consider it lawful or unlawful according to whether the person believes it is wrong enough to be criminal, rather than according to acquaintance with the law. Presumably, the individual also imagines an estimated sentence, according to an internal sense of its degree of immorality. The possible conclusion from these results is that sentencing “for deterrence” is likely to be inferior to sentencing for just-deserts distribution. In other words, rather than asking whether a given sentence “will reduce crime,” a legislature or sentencing entity would better succeed by asking, “is this sentence consistent with principles of retributive justice?”

There is a second step in considering the economic model of deterrence, and that is to ask whether people contemplating law violations really make rational choices. In the economic realm, Thaler’s experiment shows that often, consumers do not make rational choices. Thaler asked survey participants to picture themselves at a beach, wanting a bottle of beer (or, what might be as effective, a soft drink for those who do not like beer). Your friend is going to make a run to the nearest place to buy the beverage. Your friend then asks, “What is the maximum price you would be willing to pay for this commodity?” Here, Thaler divided the participants into two groups. Half were told that the beverage would come from a luxurious resort hotel, and half were told that it would be bought at a mom-and-pop-style grocery store. Theoretically, homo economicus would not care; the marginal utility of the beer (or soft

76. Id.
77. See id. (reporting on people’s perspective regarding their state law, which can be based on each person’s particular moral beliefs).
78. Role of Deterrence, supra note 11, at 981.
79. Id. at 1002.
80. See HOW TO REASON, supra note 54, at 119–20 (reviewing Thaler’s experiment which examined people’s preference to social fairness rather than economic utility).
81. Id.
82. Id.
83. Id. at 119.
84. See id. (identifying the economic question as one that determines what the highest amount an individual would “pay to buy a bottle of beer from a remote supplier”).
85. Id.
86. Id.
drink) would not change because of its source. But participants were willing to pay a significantly higher price for the beverage that came from the resort hotel. It takes a convoluted notion of economics to consider the beer from the hotel has greater marginal utility. The more likely conclusion is that the consumer is not homo economicus and does not always make choices according to a balance of costs and benefits.

Along the same line, experiments by game theorists demonstrate that human beings have a tendency to vary from rational choices, sometimes with surprising results. Experimenterers have had subjects play zero-sum games (in which everything won is lost by the other competitor), as well as mixed-motive games (in which the competitors seek their own rewards but must take account of the opponent’s probable strategy with at least minimal cooperation), and they have had subjects play games in which both parties, by cooperating, can win maximum rewards for each. The maximizing difference game is an example. By both parties choosing the same square on the game board, they can maximize each of their expected payoffs. The rational strategy of both players, therefore, is to choose that square repeatedly, thereby collecting the maximum payment from the experimenter. The game is of no interest to pure game theorists; the strategy is trivial. But, it is of some interest to those who study the psychology of game players.

Some participants, although they know the rational strategy, deliberately select the wrong square from time to time, meaning a lesser payoff to both

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87. See id. at 119–20 (finding the conclusion of the study—willingness to pay different prices for the same drink based on the source of purchase—“bends the economist’s concepts of utility into an unrecognizable shape”).
88. Id. at 119.
89. See id. at 120 (“[People] assigned less utility to the beer from the grocery store.”).
90. See id. at 119 (“C]onsumers are sometimes guided by their perceptions of social appropriateness.”).
91. See, e.g., id. at 465–468 (analogizing a non-rational game theory strategy to purchasing a lottery ticket when the payoff is at its highest).
92. See generally HOW TO REASON, supra note 54 (enumerating examples of “zero-sum games” and “mixed-motive games”).
93. Id. at 471.
94. Id.
95. Id.
96. Id.
97. Id.
98. Id.
parties. The reason for this nonstrategic behavior is difficult to learn by experiment, but perhaps it is that the deviant player wants to alleviate the boredom of selecting the same square over and over. In other words, it may come from a desire to “shake things up.” In the same way, one can conjecture that many crimes may be responses to something other than rational choice. As horrifying as the thought is, the failure of the rational choice model may be the basis of many of the most serious crimes—from murder based upon anger, to terrifying thrill killings.

Furthermore, individuals have different perceptions of the certainty of punishment, as well as the unpleasantness of the same sentences. For example, people who have committed crimes and gotten away with them, understandably, tend to have lower expectations of the certainty of punishment. Furthermore, some people do not fear incarceration as much as others do. Ironically, the remembered deterrent of a lengthy sentence may decrease over time as the offender adapts, meaning that a longer sentence may deter less by the time it ends than a shorter one. Sentences, however, are fashioned by judges who cannot know perceptual differences of these kinds among different people.

In summary, there are defects in a theory of rational choice that assumes accurate perception. The economic model fails in many situations because perception is erroneous or a motive for rational choice is absent. Indeed, some commentators claim that, in general, the economic model is inaccurate. These commentators have advanced the theory that

99. See id. at 511 (“[M]aybe even reckless change is preferable to profitable boredom.”).
100. See Perceptual Research on General Deterrence, supra note 64, at 550–57 (recognizing variance among individuals in their perception of risk, but noting studies have “blurred the distinction between perceptions of certainty and severity and have implicitly assumed that evaluations of severity are constant across respondents”).
101. See id. at 551 (“[I]ndividuals who were actively involved in crime in the past have lower perceptions of certainty and severity in the present precisely because they have escaped being caught and punished for their crimes.”); Raymond Paternoster, supra note 49, at 809 (discussing the deterrence of criminal law through sanctions); Role of Deterrence, supra note 11, at 977–78 (recognizing the traditional assumption that criminal law will influence conduct).
102. See Role of Deterrence, supra note 11, at 955 (“For those who have not yet experienced prison, it is the imagined horribleness of a prison sentence that keeps them from committing crimes.”).
103. See id. (reiterating the notion that “punishment, once experienced, reduces the likelihood of the person who experienced the punishment [from] risking a similar punishment by offending again in the future”).
104. See id. at 997 (commenting on the role of judicial discretion and its potential to produce perceived injustice).
105. See infra Part III.
sentences based on individual criminal laws do not deter, and instead, it is the criminal justice system as a whole that deter. 106  This model, which might be called “systemic” deterrence, is discussed in a later section of this article. 107

2. The Apparent Primacy of Certainty: Does Severity Even Count?

There is broad consensus among researchers that increasing certainty of punishment is usually more effective than making punishment more severe. 108 In other words, if the person contemplating a crime is reasonably certain that his act will be detected and punished, a longer term of years will not meaningfully enhance the deterrent. 109 Survey research shows a version of the law of diminishing returns at work, by which the targeted potential criminal does not see a twenty-year sentence as proportionally more severe than one of ten years. 110 In addition, it appears that non-detection or non-punishment in response to criminal acts revises a perpetrator’s estimate of the possible deterrent downward, or in other words, getting away with crime creates an expectation that punishment is unlikely. 111

At the same time, it is easier for legislative responses to crime waves to reflect a choice for greater severity. 112 Increasing a sentence range is a readily available answer, even if theorists conclude that it will not be very effective. 113 Increasing the certainty of detection, apprehension, conviction, and sentence, on the other hand, requires intervention into the criminal justice system, together with the possible need for expenditure of

106. See infra Part III.
107. See infra Part III.
108. See generally Accepting the Null Hypothesis, supra note 34 (presenting evidence to support the conclusion that “variation in the severity of sanctions is unrelated to levels of crime”).
109. Id. at 146.
110. See Perceptual Research on General Deterrence, supra note 64, at 545 (“[I]ndividuals are deterred from committing criminal acts only if they perceive legal sanctions as certain.”).
111. See id. at 551 (acknowledging the “experiential effect” and the problem it presents with regard to general deterrence); Raymond Paternoster, supra note 49, at 809 (“Prior perceptions of the risk of punishment are generally modified downward when people commit crimes and get away with it . . . .”); Role of Deterrence, supra note 11, at 977–78 (acknowledging the difficulties of deterrence and complexities that may arise as a result).
112. See Role of Deterrence, supra note 11, at 994–97 (noting the need for improvement of the credibility of punishments).
113. See id. at 967–69 (affirming a “deterrence rationale is common in the formulation of a wide range of sentencing rules and policies”).
substantial funds. In addition, methods for increasing certainty may be difficult to predict or understand.115

Again, the picture is not so clear. As for certainty, it may not be true that legislative improvement is impractical.116 There may be ways to provide a greater likelihood of punishment through changes in individual laws.117 One can consider the case of receiving stolen property. Suppression of this crime is particularly important because receivers generate theft crimes.118 At least one state has revised its laws by removing serious impediments to convictions by abolishing a requirement of corroboration of the receiver’s knowledge that the goods are stolen119 and liberally admitting evidence of other crimes.120 At the same time, the state increased the likelihood of detection and apprehension of receivers by requiring pawnshops and other secondhand stores, which are natural markets for stolen goods, to keep records that facilitate the identification of sellers of these goods.121 These laws are likely to be known to pawnshop operators because they require them to engage in specific conduct,122 and pawnshops receive significant police attention.123 Apparently, no study has compared the incidence of receiving stolen property before and after these enactments, but it seems obvious that they would increase the certainty of punishment, as well as the increase in knowledge among the target audience. This approach may hold some

114. See id. at 993 (“[S]uch increases would require one or all of the following: a significant increase in the amount we spend on law enforcement and criminal justice; an increase in the intrusiveness we suffer from law enforcement; and a reduction in the procedural safeguards we provide in criminal adjudications.”).
115. See id. at 992–93 (“Sentencing discretion contributes to the uncertainty of punishment . . . .”)
116. Id. at 993.
118. See, e.g., Role of Deterrence, supra note 11, at 979 (illustrating the proposition that an increase in punishment could result in increased substitution crimes that cause more serious harm).
120. Id. § 31.03(c)(1).
121. Id. § 31.03(c)(3).
122. See id. (creating a presumption of criminal action unless the pawnshop owner takes certain actions, including obtaining a signed warranty that the seller has the right to possess the property).
promise for enhancing deterrence, but it can be used only in limited cases because changes in the laws to increase detection and conviction will, in many instances, increase the likelihood of erroneous conviction.124

At the same time, the conclusion that severity does not matter may be overstated. It seems probable that the primacy of certainty, and the relative irrelevance of severity, depend upon the likelihood of sentences with at least a minimum degree of severity.125 To take an extreme case, if a serious crime were greeted by a ticket instead of an arrest, and by a short period of shelf probation rather than any deprivation of liberty, even widespread detection of the crime would return a lesser quantum of deterrence than serious punishment would.126 As an example, one city has adopted a policy toward possession of small amounts of marijuana that involves ticketing, requirements of attendance at classes urging abstinence, and informal probation.127 Because the crime is not itself the most serious in the penal code, perhaps the severity of this “punishment”—four hours in a classroom—is sufficient to provide a degree of deterrence, although it seems likely to result in more instances of marijuana possession.128

Perhaps another example is illegal entry into the United States by an alien who has been previously deported. This situation is difficult because deterrence is limited by other factors important to criminal justice, such as proportionality, impact on others close to the actor, and the impossibility of dealing with too-large numbers of people. But solely considered as deterrence, a second deportation, without any deprivation of liberty, may be insufficient to deter more illegal entries.129 Federal law creates a series

124. See, e.g., Role of Deterrence, supra note 11, at 993 (recognizing a higher conviction rate may be obtained “by lowering the standard of proof from the demanding ‘beyond a reasonable doubt[,]’ but expressing concern of ‘criminal convictions retain[ing] even their current level of credibility’

125. See Perceptual Research on General Deterrence, supra note 64, at 550 (discussing a person’s response to severe sanctions when measured through their own perception of the impact of such a penalty on their lives).

126. No study of this issue has apparently been conducted.


128. See id. (highlighting the changes in punishment from jail time).


https://commons.stmarytx.edu/thestmaryslawjournal/vol49/iss2/2
of increasing mandatory minimums for re-entry. This example features cases in which greater severity of the sanction might provide greater deterrence if enforcement were widespread—although that may be impractical because of both logistical and humanitarian concerns.

These may not be the only types of situations in which severity may be important. If an increased sanction is well publicized within a group of people particularly interested in it, some studies show a measurable increase in deterrence. For example, in one study, a so-called three-strikes law, which severely enhanced sentences upon conviction for three qualifying felonies, was followed by a statistically significant decrease in defendants eligible for the more severe sentence. One can infer that this effect was the product of deterrence since it focused on defendants not yet incarcerated. Likewise, a law increasing sentences for the use of guns during robberies was followed by a lessened incidence of gun robberies, and regression analysis showed a statistically significant deterrent effect. In general, however, when there is a decrease in crime rates, confounding variables such as incapacitation may have produced the results, and other studies suggest that no deterrence results from lengthy sentences.

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130. See 8 U.S.C. § 1326 (1996) (mandating incarceration of an alien who enters or attempts to enter the United States before their imprisonment term is complete, “for the remainder of the sentence” and who, further, “shall be subject to such other penalties relating to the reentry of deported aliens as may be available under this section or any other provision of law”).
131. Cf. Role of Deterrence, supra note 11, at 994 (noting the decreased delay in punishment “by giving law enforcement greater authority to intrude into personal affairs to find offenders more quickly” could lead to violations of constitutional rights). Granting law enforcement this authority could require a change in procedures or an increase in resources “that could be held unconstitutional” or “require unpopular trade-offs.”
132. Cf. id. at 989 (discussing the likelihood of decreased crime if the law is more widely known, understood, and even taught to the unbeknownst offenders who may not have the education or experience to understand the law on their own).
133. Daniel Kessler & Steven D. Levitt, Using Sentence Enhancements to Distinguish Between Deterrence and Incapacitation, 42 J.L. & ECON. 343, 357–58 (1999) [hereinafter Using Sentence Enhancements].
134. See id. at 343–45 (“[B]y looking at changes in crime immediately following the introduction of a sentence enhancement, it is possible to isolate a pure deterrent effect that is not contaminated by incapacitation.”).
136. See Using Sentence Enhancements, supra note 133, at 343–44 (asserting incapacitation is a primary force in crime patterns).
137. See Accepting the Null Hypothesis, supra note 34, at 187 (concluding that severity generally does not influence deterrence at all).
The conclusion remains, therefore, that certainty of punishment is more important than severity, and probably, more important by far. At the same time, this statement has to be qualified by the observation that it depends upon a sentence severe enough to create at least a perception of sufficiently serious unpleasantness. Furthermore, enhanced severity can provide greater deterrence if it is well targeted.

C. Indirect and Extralegal Effects

In addition to the effect of criminal sentences, the criminal justice system can cause deterrence from indirect and extralegal reactions. For example, a spouse who has disapproved of the actor’s course of crimes may view a particularly egregious example as the last straw and leave the marriage. A prisoner may find herself saying, “I received a shorter sentence than I had feared, but it was long enough to make me lose my job; now, with my criminal record, I’m having difficulties finding any work at all.” These kinds of extrinsic effects might be serious enough in some cases to decrease “the expected utility of crime.”

Could the government use the existence of these kinds of deterrents to reduce crime? Possibly so. Bankrate.com estimates the total expense of an arrest for driving under the influence can climb to $20,000.
Advertisements telling potentially intoxicated drivers “[y]ou can’t afford it” are examples of the use of extralegal deterrence. In fact, these kinds of indirect deterrents include billboards informing the public that an arrest for driving under the influence can cost as much as seventeen-thousand dollars.

The phenomenon of extralegal deterrence shows how multifaceted deterrence is. And there is much more. For example, what of the potential criminal who desists from an act because his or her conscience is affected by societal condemnation of the crime? Is this effect to be called deterrence, or is it something else altogether? These questions raise issues about criminal justice objectives that are related to deterrence and are arguably a part of it.

II. EFFECTS THAT ARE RELATED TO DETERRENCE BUT DISTINGUISHABLE

A. Condemnation and Internalization

The term condemnation refers to a phenomenon similar to retributive justice, but with a more utilitarian edge. Condemnation is the effect of criminal sentences upon ordinary citizens who do not commit crimes. It results from a shared sense that the law is being enforced, and it strengthens motives against criminal activity. In a way, condemnation is the glue that holds society together. As the great sociologist Emile Durkheim put it, criminal sentences have an effect not just on those who commit crimes, but also, and perhaps more importantly, on “upright people”:


147. See DAVID CRUMP, supra note 14, at 571–72 (reasoning the word condemnation serves a more functional purpose).

148. Id.

149. See id. at 572 (asserting the concept of condemnation acts to reinforce society’s faith in the legal system).
Although [punishment] proceeds . . . from movements which are passionate[,] . . . it does play a useful role. . . . [T]his role is not where we ordinarily look for it. It does not serve, or else only serves quite secondarily, in correcting the culpable or in intimidating possible followers [through deterrence]. . . . [Instead,] [i]ts true function is to maintain social cohesion intact, while maintaining all its vitality in the common conscience. . . . It is necessary, then, that [the common conscience] be affirmed forcibly[,] . . . by an authentic act which can consist only in suffering inflicted upon the agent. . . . [T]his suffering is not a gratuitous cruelty. . . . Without this necessary satisfaction, what we call the moral conscience could not be conserved. We can thus say without paradox that punishment is above all designed to act upon upright people . . . since it serves to heal the wounds made upon collective sentiments[.]

In other words, the reason most people do not commit serious crimes is simply that they have absorbed the common conscience, and therefore they are “upright people.” An “upright person” does not need deterrence after reading the newspaper and seeing that a severe sentence has been imposed for a heinous crime, because the news reinforces the commitment not to engage in crime. This function of criminal law is brought about by the force of condemnation.

Condemnation can be internalized by the potential criminal, so as to cause desistance from crime. Williams and Hawkins explain this mechanism against crime as follows, in the context of prevention of murder by punishment—not through deterrence, but as a consequence of condemnation felt by the actor himself:

Imagine an increase in the number of offenders . . . who are [actually punished] within a given American state. Suppose further that this increase is associated with a subsequent reduction in the rate of [the particular crime].

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150. ÉMILE DURKHEIM, THE DIVISION OF LABOR IN SOCIETY (George Simpson trans., 1933) (2d ed. 2013).
151. DAVID CRUMP, supra note 14, at 572.
153. See generally Perceptual Research on General Deterrence, supra note 64 (discussing the effects of condemnation).
154. Id. at 547 (proposing one’s own self-condemnation acts “as a moral inhibitor to [criminal] involvement”).
One reason for the reduction, of course, could be general deterrence. Potential offenders perceive the increased risk of [punishment], and this perception frightens them from committing [the crime]. This sequence is consistent with the conception of general deterrence . . . .

[But a] competing interpretation of the reduction in [crime] is that the increased threat of [punishment] intensifies the personal and/or social condemnation of the crime, with condemnation operating as a moral inhibitor to the [potential criminal’s] use of lethal violence. This explanation is consistent with a longstanding argument in the sociology of law . . . that legal punishment can reinforce the condemnation of wrongful acts. In other words, the commitment to the belief that an act . . . is wrong can be strengthened by the knowledge that offenders are punished.\textsuperscript{155}

The result, then, is that criminal punishment works its effects upon upright people, as Durkheim said.\textsuperscript{156} But through what is commonly called conscience, condemnation extends beyond upright people.\textsuperscript{157} Condemnation also communicates to those who otherwise might be tempted to commit crimes, and through this mediating force, it persuades potential criminals to avoid their crimes because the actor feels, internally, the condemnation of the act by society.\textsuperscript{158} That is to say, actors are deterred from committing crimes simply by their consciences. Whether to call this deterrence or something else is a metaphysical issue.

B. \textit{Stigma, Attachment Costs, and Commitment Costs}

In addition to this effect within the actor through conscience, there are other deterrents that might be called stigma, attachment costs, and commitment costs.\textsuperscript{159} These effects might be seen as extralegal deterrents, although they are slightly different.\textsuperscript{160} They are reactions to the actual or moral force of the criminal justice system, but they are expressed by agents outside the system itself.\textsuperscript{161}

\textsuperscript{155.} Id. at 559–60.
\textsuperscript{156.} \textsc{Émile Durkheim}, supra note 150.
\textsuperscript{157.} \textit{See Perceptual Research on General Deterrence}, supra note 64, at 547 (“An example of indirect ‘crime prevention,’ not general deterrence, is refraining from a criminal act because the perceived threat of punishment intensifies one’s condemnation of the act . . . .”).
\textsuperscript{158.} Id.
\textsuperscript{159.} Id. at 562, 564–65 (1986).
\textsuperscript{160.} \textit{See id.} at 561–65 (discussing the subtle, but real, distinctions between legal and extralegal sanctions).
\textsuperscript{161.} Id. at 561.
What is meant by stigma? Imagine an individual who has just been charged with possession of cocaine. The actor’s use and occasional sales of the prohibited substance may have been tolerated by the actor’s peer group up to now, and may not have been known to others, such as business associates or employers. But the arrest and the proceedings that follow will create a stigma that did not exist before the indictment, and communicate the seriousness of the matter to those who know of it. Alternatively, it may be that the behavior itself (i.e., drug use) creates a stigma: “He’s a cokehead.” This effect, which is related to the condemnation created by the criminal justice system, provides a separate motive for avoiding the crime.

Is this stigma a form of deterrence, or is it something else? Williams and Hawkins call it deterrence if the effect is created by the operation of the criminal justice system. Additionally, “[i]f persons anticipate that others will disapprove of their arrest for committing a certain act, and they refrain from that activity because they fear the stigma of being caught, this should count as an instance of general deterrence with a legal sanction being the source.” On the other hand, these commentators say, the effect is to be differently characterized if the actor responds not to the fear of arrest, because the risk is perceived as low, but instead desists because of the potential disapproval by others of the act itself: “In this case, fear of stigma stems from the act, not the sanction, and thus operates as an extralegal sanction.” In other words, it is a product of condemnation. Again, deterrence and condemnation are intertwined.

In any event, these considerations suggest that law enforcement, by means of detection and apprehension, can suppress some kinds of crimes even without a sanction under the law. The treatment of marijuana cases discussed in a previous section of this article may provide an example. It is possible that peers do not react negatively to the actor’s behavior in

162. *Id.* at 562–63.
163. *See id.* at 563 (“If the risk of arrest is seen as low and the severity of possible punishments is considered minimal, individuals might still be prevented from committing a crime because they anticipate stigmatizing reactions from others for involvement in crime itself.”).
164. *Id.*
165. *Id.* at 547.
166. *Id.* at 562–63.
167. *Id.* at 563.
using marijuana. Nevertheless, there is evidence that the same people who tolerate the behavior may react to the stigma of an encounter with the criminal justice system, such as an arrest, particularly if it is repeated. It appears that charges for offenses, such as driving while intoxicated and writing bad checks, produce this effect. The relatively light treatment of marijuana possession, likewise, may be sufficient to reinforce its illegality even without an arrest, if the jurisdiction has chosen to treat it as illegal.

Thus, it may be that lowering actual punishments for lesser offenses may not impair the deterrent effect flowing from a brief encounter with the criminal justice system. This is why a jurisdiction that retains the principle—that marijuana possession is illegal—can nevertheless achieve deterrence by abolishing formal punishment and relying on four-hour abstinence classes instead. The stigma of being ticketed for the offense may itself provide a modicum of deterrence, perhaps even the desired amount.

Attachment costs are the damage done to close relationships by engagement in or accusations of crime, as contrasted to reputational injury by stigma. If you minimize your incidents of driving while intoxicated because your spouse disapproves and threatens to leave, you are responding to a kind of condemnation. If you curtail the activity for fear that you may be arrested, and that this will cause your spouse to leave, the effect is deterrence by the legal system. The distinction between these two phenomena, of course, is hardly the point. A mixture of condemnation and deterrence probably operates in these (and many other) circumstances.

169. See Perceptual Research on General Deterrence, supra note 64, at 562 (suggesting college students may only react negatively when an individual is arrested for using marijuana).
170. See id. at 563 (acknowledging the existence of a stigma associated with being arrested for crimes such as drug usage, i.e., marijuana).
171. Id.
172. St. John Barned-Smith, supra note 127.
173. See, e.g., id. (discussing Harris County’s newer, lighter sentencing for marijuana, but acknowledging the county’s imposition of jail time when necessary).
174. Perceptual Research on General Deterrence, supra note 64, at 564.
175. See Conscience, Significant Others, and Rational Choice, supra note 140, at 841 (characterizing an actor’s significant other, including “friends, family, employer, etc., [anyone] whose opinions about an actor are considered important by that actor,” as an individual or individuals with some control).
176. See Perceptual Research on General Deterrence, supra note 64, at 563 (emphasizing the deterrent effect of a threat of stigmatizing reactions even when criminal penalties are low).
Research shows it is not the strength of the attachment that counts.\textsuperscript{177} Instead, a concern about disruption in one’s personal relationships, whether close or not, is apparently the driving force.\textsuperscript{178} If you foresee that your relationship with your brother will deteriorate if you are arrested, the deterrent exists, even if you are not particularly close to your brother.\textsuperscript{179} Once again, as in the case of severity, people contemplating crime are not closely calibrated in their reactions to disincentives.\textsuperscript{180}

Commitment costs are the disadvantages to one’s other activities caused by engagement in crime.\textsuperscript{181} A person who desists from crime because of fears that arrest or conviction might create barriers to future education or jobs is reacting to the threat of commitment costs.\textsuperscript{182} Likewise, the financial cost of being charged with driving while intoxicated can be a powerful disincentive, as is discussed in a previous section of this article.\textsuperscript{183}

These considerations might give rise to a serious use of deterrence (and condemnation) that does not flow from actual arrest or criminal charges.\textsuperscript{184} Some jurisdictions provide advertisements designed to prevent people from drinking and driving.\textsuperscript{185} Could these advertisements combine warnings about stigma, attachment costs, and commitment costs, all together, and obtain more “bang for their buck?” The voice-over or text might say, “The stigma to your reputation from getting arrested for driving while intoxicated is only the beginning. You’ll destroy the attachment you have with friends and family. And commitment costs can run as high as fifteen thousand dollars, as well as killing your job and education prospects.” This appeal may even exceed the already-understood deterrent from conviction and sentencing for the crime.

\textsuperscript{177} Id. at 564.
\textsuperscript{178} Id.
\textsuperscript{179} See, e.g., id. (highlighting the effect of potential stigma of committing crimes on relationships of all strengths).
\textsuperscript{180} See \textit{Role of Deterrence}, supra note 11, at 956 (describing how penalties might not significantly influence an individual “if the chance of getting caught is seen as trivial”).
\textsuperscript{181} \textit{Perceptual Research on General Deterrence}, supra note 64, at 565.
\textsuperscript{182} Id.
\textsuperscript{183} \textit{ supra} Part IIB.
\textsuperscript{184} See Craig Guillot, \textit{ supra} note 144 (finding more jurisdictions are using examples of extralegal consequences as a motivational tool of deterrence).
\textsuperscript{185} See \textit{TxDOT Urges Texans}, \textit{ supra} note 145 (detailing use of indirect costs of a DWI conviction to discourage drunk driving).
C. Incapacitation

As the great criminologist, James Q. Wilson, explained, “When criminals are deprived of their liberty, as by imprisonment[.] . . . their ability to commit offenses against citizens is ended. We say these persons have been ‘incapacitated,’ and we try to estimate the amount by which crime is reduced by this incapacitation.”186 This effect of incarceration has at least one advantage over deterrence, in that it does not depend on what the actor thinks or knows about sentences.187 It prevents future crimes regardless of what the incapacitated person perceives and without concern for whether the actor makes rational choices.188 As Wilson says, “By contrast, deterrence works only if people take into account the costs and benefits of alternative courses of action[.]”189 He adds, “Incarceration, on the other hand, works by definition: its effects result from the physical restraint placed upon the offender and not from his subjective state.”190

But incapacitation cannot be used routinely.191 The idea of confining people for lengthy prison terms, on account of episodic crimes that are not the most serious, would violate other principles of criminal justice, such as that sentencing should bear a rough proportionality to the gravity of their offenses.192 As Wilson says, “[T]he most rational way to use the incapacitative powers of our prisons would be to do so selectively.”193 This regime of selective incapacitation presumably would depend upon estimates of the probability of recidivism multiplied by the magnitude of harm likely to be caused by the actor’s future crimes.194

The trouble is, these determinants are difficult to estimate,195 and even if we could approximate them, the commentators would not agree on how

187. See id. (“[I]t does not require us to make any assumptions about human nature.”).
188. See id. at 149 (“[I]ts effects result from the physical restraint placed upon the offender and not from his subjective state.”).
189. Id. at 148.
190. Id. at 149.
191. See id. at 152 (proposing incapacitation via incarceration as the most effective method when handed out to those who commit serious crimes).
192. See id. at 148 (“Incapacitation cannot be the sole purpose of the criminal justice system; if it were, we would put everybody who has committed one or two offenses in prison until they were too old to commit another.”).
193. Id. at 152.
194. Id.
195. Id.
to rank them. Wilson, for example, says that longer sentences should not be used “for persons who have prior records, or for persons whose present crime is especially grave[.]”\(^{196}\) Since we cannot predict future lawlessness very well, however, perhaps it makes sense to use past behavior as an objective measure, in spite of Wilson’s pronouncement. Thus, a three-strikes law provides a long sentence for a property criminal (as well as others) who is convicted of a third qualifying offense.\(^{197}\) The reason, unlike the idea behind deterrence, is that this actor is overwhelmingly likely to have committed undetected crimes and is sure to commit others in the future if not prevented from doing so; therefore, incapacitation is justified.\(^{198}\) The sentence is probably something of a deterrent; it may be perceived by the legislature as consistent with retributive justice, and it is imposed in a situation in which rehabilitation has not been achieved during past sentences. Thus, the incapacitative sentence created by a three-strikes law is also arguably consistent with other goals of the criminal justice system.

There are other criticisms of incapacitation.\(^{199}\) Von Hirsch, for example, argues that we are likely to pick the wrong people for incapacitation.\(^{200}\) False positives result because there is nothing to alert us to noncommission of crimes by those who are incarcerated, while crimes by those who are not incarcerated make news:

> [A]ny system of preventive incarceration conceals erroneous confinements, while revealing erroneous releases. The individual who is wrongly identified as dangerous is confined, and thus has little or no opportunity to demonstrate

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196. Id.
198. Role of Deterrence, supra note 11, at 964 (asserting the three-strike laws targeting repeat offenders are justified in part through the “incapacitation of dangerous offenders by predicting future dangerousness from repeated past offenses”); see also ‘Three Strikes’ Sentencing Laws, supra note 197 (“The primary focus of these laws is the containment of recidivism (repeat offenses by a small number of criminals.”)).
200. See id. at 114–15 (enumerating the failures of experts to verify their predictions of dangerousness when using the predictive model as one cause of false positives).
that he would not have committed [another] crime had he been released. The individual who is wrongly identified as nondangerous remains at large, so it comes to public attention if he later commits a crime. Thus, once a preventive system is established, it creates the illusion of generating only one kind of evidence: evidence of erroneous release[] that prompts decision makers to expand the categories of persons who are preventively confined.201

Von Hirsch takes the argument one step further; cost-benefit thinking of this kind is “wholly inappropriate,” he says, because if it generates mistaken confinements, then it is “unacceptable in absolute terms because it violates the obligation of society to do individual justice.”202

This conclusion is questionable, because sentencing is the result of very rough approximations based upon debatable assumptions. Von Hirsch’s argument would seem to prohibit consideration of deterrence too, because the effects of sentencing for deterrence can be perceived only dimly, and our efforts to sentence for rehabilitation or retributive justice suffer from the same kind of inaccuracy.203 The conclusion, then, would be that no purpose of sentencing is legitimate. Furthermore, Von Hirsch’s one-way reasoning proves too much because the impetus for incapacitation is likely to be based upon statistics showing overall crime rates rather than by evaluation of individual cases, so that the use of preventive sentences responds to decreases in crime rates instead.204

In fact, the most recent development in incapacitation is sentencing based on statistically developed algorithms that predict recidivism.205 In State v. Loomis,206 the defendant faced incarceration on several charges, including driving a stolen vehicle.207 A trial judge in Wisconsin sentenced

201. Id. at 120–21.
202. Id. at 122.
203. See generally Using Sentence Enhancements, supra note 133 (noting the difficulties in measuring deterrence).
205. See generally Jason Tashea, Calculating Crime, 103 A.B.A. J. 54, 56 (Mar. 2017) (discussing the use of COMPAS: an algorithm used to statistically estimate an offender’s “likelihood of committing a future crime”).
Loomis to seven years of incarceration, partly on the basis of a risk assessment score generated by a method called COMPAS (Correctional Offender Management Profiling for Alternative Sanctions). The risk assessment, in turn, reflected answers to 137 questions provided by the offender, in addition to his criminal record, about subjects ranging from parental divorce behavior to whether he had a telephone at home. Loomis argued that COMPAS violated his right to due process because, among other grounds, the algorithm was a trade secret, and its proprietary nature prevented examination of its workings.

The Wisconsin Supreme Court, however, upheld the sentence. The Supreme Court of the United States, on petition for certiorari, has invited the views of the United States. The Wisconsin court’s decision is supported by the consideration that a judge’s unguided decision making for incapacitation or deterrence is equally inscrutable and, arguably, even more proprietary than COMPAS. The assistant attorney general who argued the case said that the algorithm allowed the state to “tailor limited resources in the best way possible[,]” and a spokesman for COMPAS claimed that it “facilitate[d] the implementation of evidence-based practices[.]” But a group studying a similar risk assessment in Broward County, Florida, charged that it was too inaccurate—only “somewhat more accurate than a coin flip;” a characterization that COMPAS’s owners disputed—and that it found high risk almost twice as often for black defendants as for white defendants. Again, however, the arguments tumble against each other so as to inhibit conclusions. Supporters of COMPAS pointed out that if, in fact, black individuals also are

208. Loomis, 881 N.W.2d at 749 (rendering a mixed sentence consisting of “four years of initial confinement and three years of extended supervision”).
209. Id. at 753–54.
211. Id. at 54, 56.
212. Loomis, 881 N.W.2d at 754.
213. See Loomis v. Wisconsin, 137 S. Ct. 1240 (2017) (Mem.) (“The Acting Solicitor General is invited to file a brief in this case expressing the views of the United States.”).
214. Jason Tashea, supra note 205, at 58. Supporters argue that if COMPAS is a “black box,” so is “a judge’s head.” Id.
215. Id. at 56–57.
216. Id. at 57.
disproportionately represented in other crime statistics, an algorithm cannot be faulted for reflecting this reality. 217

Another algorithmic tool called the Public Safety Assessment has been used in thirty jurisdictions and “may avoid many of the critiques.” 218 Meanwhile, one ongoing issue is whether the algorithms use or discriminate on the basis of gender. 219 Additionally, the Wisconsin Supreme Court has said, “[I]f the inclusion of gender promotes accuracy, it serves the interests of institutions and defendants, rather than a discriminatory purpose.” 220 But, in Craig v. Boren, 221 the Supreme Court of the United States appears to have prohibited the use of gender in criminal laws, even if accurately based on statistics, although that decision did not involve sentencing. 222 COMPAS, the Wisconsin court explained, used gender for “statistical norming,” or in other words, for assigning different computations to men and women. 223 This approach, however, would assign higher dangerousness scores to men than women. 224 The unresolved issues have been described as “the Wild West” and “a mess,” 225 which the Supreme Court has yet to clarify. 226

So, should the courts sentence for the purpose of incapacitation? Or should they sentence for deterrence, or for something else? Some indicia of risks of dangerousness do seem to justify incapacitation, such as those

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217. See id. at 59 (“[E]ven if an algorithm is equally accurate for all, more [African-Americans] and males will be classified as high-risk’ because African-Americans and men are more likely to be arrested for a violent crime.”).

218. Id. at 58.

219. Id. at 57.


222. Id. at 208–10 (“[T]he principles embodied in the Equal Protection Clause are not to be rendered inapplicable by statistically measured but loose-fitting generalities concerning the drinking tendencies of aggregate groups . . . . We conclude that the gender-based differential contained in [the statute at issue] constitutes a denial of the equal protection of the laws to males aged 18–20 and reverse the judgment of the District Court.”).

223. Loomis, 881 N.W.2d at 765–66.

224. Jason Tashea, supra note 205, at 57.

225. Id. at 59.

226. See id. (“Loomis’ attorney filed a petition with the U.S. Supreme Court to overturn the state court’s decision, arguing that the use of Compas violated his 14th Amendment rights to due process.”). The Supreme Court denied the writ of certiorari. Loomis, 881 N.W.2d 749.
involving repeated crime.\textsuperscript{227} Incapacitation of a serial murderer, for example, responds to a combination of the severity of the offense and its repetition, and even if the combination does not unerringly signal future criminality, the risk may justify a sentence of life imprisonment or more.\textsuperscript{228} Perhaps experience with algorithms like COMPAS will prove that they furnish sound grounds for incapacitation, although it seems probable that the counterarguments will always be with us.\textsuperscript{229} At the least, algorithms combine an evidentiary basis for incapacitation with a kind of uniformity in sentencing based on similarly generated risk assessments.\textsuperscript{230} Deterrence, on the other hand, seems a likely basis for sentencing when conviction is relatively certain (at least for an actor who repeats the crime) and when the targeted offenders have reason to know about the deterrent sentence.\textsuperscript{231} One might conclude that three-strikes laws, to the extent they are not already justified as incapacitative, fit this rationale for deterrence.\textsuperscript{232}

One of the problems with conclusions in this area, however, is that it can be difficult to separate the effect of incapacitation from that of deterrence.\textsuperscript{233} If armed robbers, for example, receive moderate sentences of incarceration—say, three to five years upon first conviction—one can probably foresee that there will be an incapacitative effect, because at any time, a portion of the offenders in this category will be prevented from committing their crimes, even if the preventive effect does not extend to all.\textsuperscript{234} And presumably, there is a deterrent effect too, even if it is

\textsuperscript{227} See Role of Deterrence, supra note 11, at 964 (asserting three-strike laws targeting repeat offenders are justified in part by the “incapacitation of dangerous offenders by predicting future dangerousness from repeated past offenses”).


\textsuperscript{229} See Jason Tashea, supra note 205, at 56 (rejecting the use of algorithmic risk assessments because “[t]hey may exacerbate unwarranted and unjust disparities that are already far too common in our criminal justice system and in our society”).

\textsuperscript{230} See id. (explaining COMPAS uses several factors, including a person’s criminal history and answers to specific questions, to determine their risk of committing a crime in the future).

\textsuperscript{231} See Role of Deterrence, supra note 11, at 964 (discussing three-strikes laws and their deterrent effect on repeat offenders).

\textsuperscript{232} Id.

\textsuperscript{233} See Does Criminal Law Deter?, supra note 204, at 200–01 (suggesting some studies mislabel “incapacitative effects” as “deterrent effects”).

\textsuperscript{234} See id. at 201 (“[I]t is possible that the alteration of crime rate that follows [an increase in prison terms] is a result of locking away for a longer period those repeat criminals who are responsible for a good deal of the crimes committed.”).
In this situation, if the crime rate decreases, we cannot easily learn whether it is incapacitation that is operating, or deterrence. In most cases, the effect is probably caused by both operating together.

III. SYSTEMIC DETERRENCE: AN ALTERNATIVE TO THE ECONOMIC MODEL

A. What Is Systemic Deterrence, and How Does It Work?

The theory of deterrence that comes first to mind is likely the market or economic model. In *Gregg v. Georgia*, the case that upheld modern death penalty statutes, the Supreme Court apparently accepted this market model:

> [F]or many [murderers], the death penalty undoubtedly is a significant deterrent. There are carefully contemplated murders, such as murder for hire, where the possible penalty of death may well enter into the cold calculus that precedes the decision to act. And there are some categories of murder, such as murder by a life prisoner, where other sanctions may not be adequate.

The Court’s “cold calculus” reasoning suggests that it is referring to an expected enhanced sentence that produces behavior based on the economic model. By this theory, the perpetrator is like a consumer in the marketplace who weighs the particular reward against the specific cost. Maybe this situation involves the combination of awareness of the actual sentencing law and rational choice that can sometimes drive the economic model.

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235. See, e.g., *Role of Deterrence*, *supra* note 11, at 951 (arguing that the general existence of the criminal justice system is itself a deterrent, but that specifically tailored criminal statutes have a limited deterrent effect).

236. See *Using Sentence Enhancements*, *supra* note 133, at 344 ("[M]ost empirical tests of deterrence are, in practice, joint tests of deterrence and incapacitation.").

237. *See id.* (contending reduced crime rates resulting from increased arrest rates are “consistent with the presence of deterrent effects, incapacitation, or both”).


239. *Id.* at 185–86.

240. *See id.* (describing the thought process of criminals before certain crimes, such as murder for hire, which often involves an assessment of the potential punishment he or she will face if caught).

241. *See supra* Part IA.
But in general, this is probably not the way that deterrence works. Instead, the more likely mechanism is that an offender is affected by what can be called “systemic” deterrence.242 The research suggests that deterrence from manipulation of precise sentence ranges accompanying identifiable criminal offenses is marginal at best for most offenses.243 But, the consensus is that deterrence does result from the criminal justice system.244 The conclusion might be stated as: sentences for particular crimes do not deter, but the criminal justice system as a whole deters.245

Sometimes courts have taken surprisingly narrow views of systemic deterrence.246 For example, in United States v. Edwards,247 the court affirmed a sentence of probation and restitution for what it described as a “serious” white collar offense,248 where the defendant had been previously convicted of a similar crime, and was described by another judge in another case as a “big time thief.”249 The district court considered a sentencing law that required adequate deterrence and concluded that only people residing in the defendant’s “community” were likely to know of his sentence.250 A dissenting judge criticized the majority’s “unnecessarily restrictive view of general deterrence.”251 In fact, both the majority and dissent confined their analysis to the

242. See Role of Deterrence, supra note 11, at 951 (acknowledging the general deterrent effect of a criminal justice system, but finding the manipulation of criminal law “according to a deterrence-optimizing analysis, may have a limited effect or even no effect beyond what the system’s broad deterrent warning has already achieved”).

243. See id. at 1001 (expressing the view that doctrinal manipulations of criminal law are likely to achieve their intended deterrent effect only in the exceptional case where several conditions are met simultaneously).

244. See id. (“[H]aving a criminal justice system that imposes punishment can and does deter violations.”); see also Daniel S. Nagin, Criminal Deterrence Research at the Outset of the Twenty-First Century, 23 CRIME & JUST. 1, 3 (1998) (arguing the criminal justice system successfully “exert[s] a very substantial deterrent effect”).

245. See Role of Deterrence, supra note 11, at 951 (“Having a punishment system does deter. But there is growing evidence to suggest skepticism about the criminal law’s deterrent effect—that is, skepticism about the ability to deter crime through the manipulation of criminal law rules and penalties.”).

246. See, e.g., United States v. Edwards, 595 F.3d 1004, 1022 (9th Cir. 2010) (examining the lower court’s decision that Edward’s sentence would only deter those in his immediate community and finding this to be an “unnecessarily restrictive view of general deterrence”).

247. United States v. Edwards, 595 F.3d 1004 (9th Cir. 2010).

248. Id. at 1015.

249. Id. at 1018 (Bea, J., concurring in part and dissenting in part).

250. Id. at 1024 (Bea, J., concurring in part and dissenting in part).

251. Id. at 1021–22 (Bea, J., concurring in part and dissenting in part).
particularized economic model, and neither considered systemic deterrence.252

Justice Brennan has described systemic deterrence by saying that the issue is not “whether there is some specific deterrent consequence.”253 Separately, he added, “Deterrence can operate in several ways. . . . ‘It is meant to discourage violations by individuals who have never experienced any sanction for them.'”254 These statements were written in defense of the deterrence theory supporting the Fourth Amendment exclusionary rule, but they apply also to criminal sentencing.255

How does systemic deterrence work? The experiments and studies do not tell us, so the mechanism is a matter of conjecture. Perhaps the first step is that persons contemplating crime are solidly aware of the criminal justice system as a general concept, in that they surely know that police officers arrest offenders and that courts convict them, with the result that they serve sentences.256 Potential criminals know these things from newspapers and television.257 Unfortunately, they probably get most of their information from fiction, like the fantasies of John Grisham,258 or television dramas like Law & Order:259 The second step is that, not knowing the exact sentence for the intended crime, the subject realizes, perhaps subconsciously, that he or she must guess at it.260 Third, since

252. Id. at 1016 (majority opinion).
256. See Role of Deterrence, supra note 11, at 1001 (suggesting that mere awareness of the likelihood of capture and conviction does deter crime).
258. See, e.g., JOHN GRISHAM, THE FIRM (1991) (depicting a fictional law firm that kills associates who attempt to leave in order to conceal their ties to organized crime). No one has heard of a law firm that kills everyone who gets out, although there might be law firms where the work will kill you if you don’t get out. Grisham’s books are not really about lawyers, but some people get their information from them. See generally JOHN GRISHAM, THE KING OF TORTS (2003) (depicting the life of a public defender turned mass torts lawyer who, after becoming rich, loses everything).
260. See, e.g., Rule of Deterrence, supra note 11, at 954 (“The available studies suggest that most people do not know the law, that even career criminals who have a special incentive to know it do not, and that even when people think they know the law they frequently are wrong.”).
research shows that people generally picture the criminal justice system as conforming to their own images of what the collective moral code should be,261 the offender installs this conception into the factor representing the severity of the probable sentence that would result from conviction.262 Fourth, the potential offender arrives at a probability of conviction according to a similarly formed estimate of certainty.263 And finally, he or she must decide whether the reward expected from the crime is worth the risk.264

This scenario is highly theoretical, because the research does not disclose the stepwise mechanism of the deterrence process. It is difficult to detect the existence of a deterrent, without determining the precise thinking of offenders.265 The order of thought may differ from the theory set out here, and sometimes, multiple steps may be combined into one.266 For example, it may be that the potential criminal imagines a guesstimated risk of a potential sentence all in a single idea. In any event, it is usually the system, not the precise sentence likelihood for the particular crime, that does the work of deterrence.267

B. Offender Conceptions of the Systemic Deterrent

As has been reported above, the Supreme Court relied upon the economic model of deterrence in Gregg v. Georgia. The death penalty in the context of the crime of murder for hire, which was the subject of discussion in Gregg, may have been the kind of crime for which the economic model could work, because this crime and penalty may have furnished the exceptional case in which the potential sentence could be anticipated.268 But in the more typical case, it is systemic deterrence that

261. See id. at 1001–02 (“It is assumed the law is as they think it should be.”).
262. See id. (noting a person’s preconceived notions of the law, which deviate from what the law actually is, minimize the deterrent effect of criminal laws).
263. See id. at 992–93 (suggesting people’s presumptions of the probability of punishment are influenced by the “human tendency to heavily discount a future event”).
264. Id. at 954.
265. See Using Sentence Enhancements, supra note 133, at 344 (suggesting most research studies measuring the deterrent effects of criminal punishments “are, in practice, joint tests of deterrence and incapacitation”).
266. See Role of Deterrence, supra note 11, at 992–94 (expressing the potential opportunity to “improve the system’s ability to make and modulate the threat of punishment” based on probability, delay and amount of punishment).
267. Id. at 951.
is the more likely effect. And ideas of the system come from all sorts of sources, including fiction—for better or worse.

An example of systemic deterrence being reinforced by fiction can be found in the motion picture *Thelma and Louise*, however odd this source might appear. The plot depicts the two women engaging in a crime spree that includes multiple episodes, after which, they head for Mexico. The movie depicts Louise repeatedly pronouncing that she does not want their route to go through Texas. She does not express her concern explicitly in terms of the potential sentence for the women’s crimes in Texas, or for that matter, in the states where the crimes were committed. Evidently, the screenwriters concluded that moviegoers would imagine Texas as a place where one encounters severity and certainty of punishment for crime (even if the inference may be doubtful), and that a movie audience would therefore understand Louise’s motivation. The situation, in other words, was one in which viewers would see the existence of systemic deterrence.

One of the confounding factors in systemic deterrence research is that people’s reactions to the system are not uniform. Because individuals have different conceptions of the moral code and different conceptions of the justice system, they arrive at different conclusions about both the severity and certainty of punishment. Thelma acts out this phenomenon in the motion picture because she does not share Louise’s antipathy to a sojourn through Texas. Furthermore, people’s

269. See supra Part IIIA.
270. See, e.g., *THELMA AND LOUISE* (Pathé Entertainment 1991) (hereinafter *THELMA AND LOUISE*) (detailing the story of two women on a road trip to evade law enforcement).
271. Id.
272. Id.
273. Id.
274. Id.
276. See *Rule of Deterrence*, supra note 11, at 956 (discussing the “cumulative effect” of trying to deter crime and how “rage, group arousal, and drug influence” can affect how people perceive a penalty as a deterrent).
277. See id. at 954 (“[T]he ‘hedonic adaptation’ and ‘subjective well-being’ studies suggest that one’s standard for judging perceived punitive effect changes over time and conditions.”).
conceptions of the probability of punishment are not stable over time.\textsuperscript{279} As is indicated above, it appears that a criminal who has committed and repeated the offense begins to discount the certainty of apprehension and punishment.\textsuperscript{280} In addition, people have differing degrees of fear for imprisonment of a given length, leading to different susceptibilities to deterrence.\textsuperscript{281}

Perhaps the most interesting question is: how does a person contemplating crime form his or her attitude toward the justice system? The studies discussed above do not disclose how it happens or from what sources the potential criminal’s image is developed.\textsuperscript{282} If we knew, we might be better able to minimize crime through systemic deterrence.

C. Can Sentences for One Crime Deter Other Crimes, Including Those That Differ Significantly?

Given the nature of systemic deterrence, maybe sentences for robbery can deter other crimes such as burglary.\textsuperscript{283} Maybe sentences for robbery can even exert some minimizing effect on crimes of distant character, such as driving while intoxicated.\textsuperscript{284} If the estimates of potential sentences arrived at by potential criminals are indeed products of the criminal justice system as a whole, rather than of particular statutes or practices, there is no reason to conclude that deterrence cannot result across the range of crimes from punishments of a given crime.\textsuperscript{285}

A remarkable series of six experiments by Keizer and others\textsuperscript{286} in the Netherlands provides support for the idea.\textsuperscript{287} The closest of these experiments to the situation of the potential criminal tested whether visible violation of norms (and presumably laws) against littering and graffiti,

\begin{footnotesize}
\begin{enumerate}
\item[279.] \textit{Rule of Deterrence, supra note 11, at 954.}
\item[280.] \textit{Id.}
\item[281.] \textit{See id.} (denoting studies that show law makers cannot control how people react to sentences simply by altering the length of time imposed).
\item[282.] \textit{See, e.g., id. at 954–55} (explaining the establishment of severe penalties for crimes is not the most effective way to deter one from committing crimes).
\item[283.] \textit{See, e.g., id. at 951} (“Having a punishment system does deter. But there is growing evidence to suggest skepticism about the \textit{criminal law’s} deterrent effect—that is, skepticism about the ability to deter crime through the manipulation of criminal law rules and penalties.”).
\item[284.] \textit{Id.} at 967–69.
\item[285.] \textit{Id.} at 978–83.
\item[286.] Kees Keizer et al., \textit{The Spreading of Disorder}, 322 SCIENCE 1681 (2008).
\item[287.] \textit{See generally id.} (presenting experiments proving a person who observes another committing a crime is more likely to also commit a crime leading to the spreading of disorder).
\end{enumerate}
\end{footnotesize}
committed with apparent impunity, produced more instances of theft than a clean environment. The researchers’ basic device for this experiment was a five-euro bill sticking partially out of an addressed envelope, which was placed so that the envelope protruded from a mailbox with the five euros placed visibly, so that they were easy to remove. The researchers created three surrounding environments, two that featured an abundance of litter or graffiti, and one that was free of these signs of disorder. An observer recorded the results. The hypothesis was that more theft would occur in the litter-graffiti environments, and the results, as the authors put it, were “dramatic.” More than twice the percentage of subjects stole the five-euro note in the graffiti condition than in the clean environment, 27% versus 13%. The experimenters reported even more striking results in the littered environment, where 25% stole the bill as compared to 13% in the clean condition.

This experiment provides strong support for the systemic deterrent theory, even though the support is indirect because it did not involve punishments. The subjects may have acted as they did because they perceived, in the littered-graffiti condition, that their performance would not have affected the disorder around them. Or, they may have concluded that “everyone behaves badly.” Experimenters wrote, “Our conclusion is that, as a certain norm-violating behavior becomes more common, it will negatively influence conformity to other norms and rules.” But these mechanisms for the result are related to the degree of enforcement of the relevant norm, and the experiment shows that unattended and unpunished violations of one norm—such as littering or

288. Id. at 1683.
289. Id. at 1684.
290. Id.
291. Id.
292. Id. at 1683–84.
293. Id. at 1684.
294. Id.
295. See id. at 1684–5 (analyzing the effect of exposing people to acceptable courses of conduct and concluding that increased rule-breaking behavior will “negatively influence” rule-following attitudes).
296. See id. at 1684 (providing experiments supporting correlation between a person who observes another individual committing a crime will likely commit a crime themselves, leading to the spreading of disorder).
297. Id. at 1684–85.
298. Id. at 1684.
graffiti—do create other kinds of law violations, including the presumably worse crime or theft, in this case.299

The experiment supports the so-called broken windows theory advanced by George L. Kelling and put into effect by Mayor Rudy Giuliani in New York City.300 The theory is that disorder and crime that are unaddressed increase the incidence of more serious crime.301 Thus, relatively minor offenses, such as vandalism and aggressive panhandling, give rise to more serious crimes, and suppression of the lesser offenses deters the greater.302 The theory remains controversial, although New York experienced a reduction in crime after putting it in place,303 and the experiments of Keizer, Lindenberg, and Steg support it.304

The theory of systemic deterrence is agreed to by multiple commentators,305 and gives rise to intriguing possibilities. For example, the relative non-enforcement of immigration laws may create a catalyst for increases in all kinds of crimes—not just immigration crimes, and not just by immigrants.306 The systemic deterrence theory may mean a reduction in other crimes would result from immigration law enforcement, including, perhaps, a decrease in robbery and burglary by non-immigrants. Of course, this solution would be limited by resources as well as considerations of fairness and humanitarianism. But enforcement of enhancements for immigration crimes, so that multiple-time deportees

299. See generally Kees Keizer et al., supra note 286 (concluding small crimes, such as littering, can make people more comfortable committing larger crimes, such as stealing).
301. Id.
302. Id.
303. Id.
304. See generally Kees Keizer et al., supra note 286 (evaluating research findings indicating that the observance of a crime will likely lead an individual to commit a crime themselves, in turn leading to further societal unrest).
305. See Role of Deterrence, supra note 11, at 1001 (“We do not dispute that having a criminal justice system that imposes punishment can and does deter violations.”); see also Daniel S. Nagin, supra note 244, at 1 (introducing four impediments in assessing the effectiveness of policy actions on the deterrence of crime).
would be meaningfully punished, together with serious action against immigrants convicted of offenses, might suppress crime generally.

Then, there is the issue of deterrence by severe penalties. The Supreme Court’s speculation in *Gregg* may have been too modest. Systemic deterrence might well mean that serious sentences for serious crimes have far-reaching effects. Vigorous enforcement of laws against the most serious crimes, especially if done in a manner visible enough to capture public attention, may have an across-the-board deterrent effect against crimes of all kinds.

IV. CONCLUSION

A legislature that hopes to deter repetition of a particular kind of crime by increasing sentences is likely engaged in a losing venture. The experiments appear to show that longer sentences usually do not deter crime. Certainty of detection, apprehension, conviction, and sentence type, by most accounts, has a greater deterrent effect than severity of sentence. Instead, therefore, the legislature would have greater success if it increased the criminal’s risk of getting caught and punished. This solution is more difficult because it requires consideration of the entire criminal justice system so that impediments to certainty of punishment can be reduced. In many instances, a buildup of police forces in appropriate roles and places will do more to reduce crime than funds spent on longer prison terms. In other cases, the pressure point may be the adequacy of courts to handle arrestees, so that increases in the number of


309. *But see Accepting the Null Hypothesis*, supra note 34, at 143 (hypothesizing an increase in sentence severity has no impact on deterring crimes).

310. *See id.* ("[V]ariation in the severity of sanctions is unrelated to levels of crime . . . .")

311. *See generally Accepting the Null Hypothesis, supra note 34.

312. *See generally Roy E. L. Watson, supra note 40* (conducting a study that analyzed the effect of other methods of deterrence than sentencing or fines).

313. *See id.* at 293 ("[T]he rate of compliance gradually declined as motorists recognized that the risk of apprehension was small.").

314. *See id.* (presenting an experiment wherein an increase in the certainty of punishment for traffic violations led to a fifty percent reduction in the number of “customary offenders”).

315. *See id.* at 296–99 (concluding a higher likelihood of criminal punishment was a greater deterrent).
judges will reduce crime more than increases in the lengths of sentences they can impose.\textsuperscript{316}

But the picture is not one-sided. There probably are situations in which increases in sentences will reduce crime. In the first place, the primacy of certainty over severity probably depends upon the existence of at least a minimum quantum of punishment to work the desired deterrent. In addition, increases in sentences targeted at groups who are likely to know of the increases probably create a measurable deterrent effect. The essential factor, which has been largely ignored until recently, is perception.\textsuperscript{317} Would-be criminals cannot respond to individual sentences unless they know the particulars, which is too much to expect in the ordinary case.\textsuperscript{318}

In addition to perception, there is the factor of delay. A long lead time reduces the deterrent. If the basic formula is that a deterrent effect exists if \(C \times S > R\), other factors being equal, the introduction of delay, \(D\), into the process probably divides the product of \(C\) and \(S\) and therefore reduces the deterrent. People simply do not respond to the possibility of negative events that may occur a year or five years from now in the same manner in which they respond to events that will occur today. The effect of delay upon deterrence should be the subject of more study.

The \(C \times S\) formula should also be adjusted to account for indirect and extralegal effects, including what is known as condemnation.\textsuperscript{319} The actor himself may decide against crime by reason of his or her own distaste for the act, or may do so because engaging in the course of conduct will create adverse reactions among family or friends, or may create disadvantages in future endeavors, such as employment or education.\textsuperscript{320} If the discouragement from crime is produced this way—by the act itself—the deterrent is extralegal and is not dependent on the criminal justice system.


\textsuperscript{317} See generally \textit{Perceptual Research on General Deterrence}, supra note 64 (positing studies of deterrence have not recognized the complex nature of the perceptual process).

\textsuperscript{318} Cf. id. at 547–49 (supporting the notion that perceptions of particular risks have causal relevance to behavior).

\textsuperscript{319} See IMMANUEL KANT, supra note 20, at 568 (explaining why the principle of equality should be taken into account when determining punishment).

\textsuperscript{320} \textit{Perceptual Research on General Deterrence}, supra note 64, at 564–65.
system.\textsuperscript{321} Or, the potential criminal may refrain from wrongdoing because of conscience inculcated by the criminal justice system, or the expectation of strained relations with friends and family from arrest, or the prospect that arrest or conviction may inhibit future endeavors.\textsuperscript{322} These are indirect deterrents created by the criminal justice system.

In either case, these effects create deterrents that operate in addition to the threat of punishment.\textsuperscript{323} In some cases, they may add enough to justify seemingly lenient treatment by the law. Thus, a jurisdiction in which marijuana possession is illegal, wanting to retain that principle, might dispense with formal punishment and treat a first offense with ticketing rather than arrest, coupled with a required educational program.\textsuperscript{324}

For dangerous crimes or those subject to repetition, it should be remembered that incapacitation provides a separate means of crime reduction.\textsuperscript{325} It is often difficult to discern whether a reduction in crime is due to deterrence or to incapacitation.\textsuperscript{326} Even relatively short sentences—say, three to five years for armed robbery—will prevent crimes by the convicts who are confined, in addition to prevention by whatever deterrent effect they have.\textsuperscript{327} The most difficult part of using incapacitative sentences is the difficulty of predicting future dangerousness or recidivism.\textsuperscript{328} In general, sentences purely for incapacitation are likely to be appropriate in cases of serious violent crime, such as robbery, rape or murder, or for lesser crimes that are often repeated, such as the property crimes that often trigger three-strikes laws.\textsuperscript{329}

Overall, the message is that sentences for particular crimes are not usually what deters. But there is a deterrent effect, because instead, it is

\textsuperscript{321} Id. at 563.
\textsuperscript{322} Id. at 564–65.
\textsuperscript{323} See id. at 562–63 (outlining extralegal sanctions that function as deterrents to crime).
\textsuperscript{324} St. John Barned-Smith, supra note 127.
\textsuperscript{325} James Q. Wilson, supra note 186, at 149.
\textsuperscript{326} Id.
\textsuperscript{327} Id.
\textsuperscript{328} Id.
\textsuperscript{329} See Role of Deterrence, supra note 11, at 964 (discussing how three-strike laws targeting repeat offenders have positive effects on the community by locking up dangerous criminals); see also ‘Three Strikes’ Sentencing Laws, supra note 197 (recognizing the primary focus of the “Three Strikes” laws is to contain recidivism).
the criminal justice system as a whole that deters.\textsuperscript{330} The effect might be called systemic deterrence.\textsuperscript{331} Although the mechanism of this process is not well understood, it probably begins with the non-acquaintance of the person contemplating commission of an offense with precise crime and sentence definitions. But that person is well aware of the justice system, at least to the extent of knowing police officers arrest offenders and courts sentence them upon conviction. The next step may come about because most people, surveys show, imagine that the system conforms to their own conceptions of a common moral code.\textsuperscript{332} They install those conceptions as their expectations of the results of committing crime.\textsuperscript{333} And in this manner, they feel the effects of deterrence not from statutes defining sentence lengths, but from the system as a whole, as systemic deterrence.\textsuperscript{334}

These conclusions may bring about some intriguing possibilities. If it is the system as a whole that deters, meaningfully severe sentences for one given crime may, through condemnation, add to the understanding of this common morality. Indirectly, they may increase the effect of systemic deterrence. Furthermore, there is no reason that sentences for one given crime cannot deter others, given the existence of systemic deterrence, and indeed the experiments suggest that this result will follow.\textsuperscript{335} Serious sentences for murder or robbery, for example, probably deter other

\textsuperscript{330}. See Role of Deterrence, supra note 11, at 1001 (“The system’s generalized threat of punishment provides a clear disincentive to crime.”); Daniel S. Nagin, supra note 244, at 2 (recognizing the criminal justice system has “an overall crime deterrent effect of great magnitude”).

\textsuperscript{331}. See Role of Deterrence, supra note 11, at 1001 (explaining systemic deterrence as the method by which the mere existence of the criminal justice system “provides a clear disincentive to crime”); Daniel S. Nagin, supra note 244, at 1 (arguing the criminal justice system as a whole deters potential law breakers).


\textsuperscript{333}. Id.

\textsuperscript{334}. See Role of Deterrence, supra note 11, at 1001 (arguing it is the criminal justice system as a whole and not “the manipulation of rules for determining liability and punishment” that deters potential offenders); \textit{see also} Daniel S. Nagin, supra note 244, at 1 (“The criminal justice system threatens punishment to law breakers—through the police power to arrest and investigate, the judicial power to adjudicate and sentence, and the corrections agencies’ power to administer punishments.”).

\textsuperscript{335}. See Role of Deterrence, supra note 11, at 951 (“The general existence of the system may well deter prohibited conduct, but the formulation of criminal law rules within the system, according to a deterrence-optimizing analysis, may have a limited effect or even no effect beyond what the system’s broad deterrent warning has already achieved.”).
offenses, such as burglary, theft, or assault. Thus, visible sentences for the most serious crimes may decrease the incidence of other crimes across the penal code, through the mechanism of systemic deterrence. But the testing of this theory, which may be too good to be true, depends upon further experimentation.