

# Deterrence and Crime Results

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## ABSTRACT

This article offers a comprehensive study of the merits of the legal practice of punishing accomplished crimes more severely than attempted crimes all other things being equal (*Differential Punishment*) vis-à-vis the alternative of punishing them with equal sanctions (*Equal Punishment*). Unlike the overwhelming majority of the literature on the issue—which focuses on which practice better mirrors the offenders’ relative moral deserts—the article evaluates both practices from a consequentialist, deterrence-based point of view. In particular, it shows first that traditional economic theories of the criminal law should yield the conclusion that differential punishment is not superior to equal punishment. The few arguments that the economic literature offers against such conclusion, the article shows, are mistaken. Secondly, drawing on social and psychological findings, the article advances three new arguments showing that, under some likely social and psychological conditions, differential punishment is in fact a superior alternative to equal punishment.

## INTRODUCTION

Philosophers and criminal law theorists have long discussed whether the legal practice of punishing more severely accomplished crimes than attempted crimes, all other things being equal, is a justifiable practice—a practice that we have good reasons to maintain.<sup>1</sup> The discussion however has focused on the relative deserts of successful offenders vis-à-vis unsuccessful offenders who fail to accomplish their crimes just by chance (e.g., for the extraordinary intervention of an outstanding surgeon who miraculously saves the

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<sup>1</sup> See George P. Fletcher, *A Crime of Self-Defense* 82-3 (1988) (“Generations of theorists have sought to explain why we punish actual homicide more severely than attempted homicide, the real spilling of blood more severely than the unrealized intent to do so. Our combined philosophical work has yet to generate a satisfactory account of why the realization of harm aggravates the penalty. Yet the practice persists in every legal system of the Western world. We cannot adequately explain why harm matters, but matter it does”).

victim). The mere fact of success (or failure), the critics of the practice contend, may not make one agent more (or less) blameworthy than the other, or otherwise more (or less) deserving of punishment than the other. Hence, to the extent that legal punishment practices are to be responsive to offenders' blameworthiness, the practice of punishing more leniently attempts than the corresponding accomplished crimes should be abolished—or so the critics claim.<sup>2</sup> Defenders of the practice, in turn, have struggled to

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<sup>2</sup> For arguments of this sort against differential punishment, see Glanville Williams, *Criminal Law—The General Part* 136 (2d ed. 1961); Gerald Dworkin & David Blumenfeld, *Punishment for Intentions*, 75 *Mind* 396 (1966); H.L.A. Hart, *Punishment and Responsibility* 131 (1968); J. C. Smith, *The Element of Chance in Criminal Liability* 1971 *Crim. L. Rev.* 63; Stephen J. Schulhofer, *Harm and Punishment: A Critique of Emphasis on the Results of Conduct in the Criminal Law*, 122 *U. Pa. L. Rev.* 1497, 1514-7 (1974); Hyman Gross, *A Theory of Criminal Justice* 385-9, 423-36 (1979); Andrew Ashworth, *Intent, Belief, and Criminal Liability* in *Oxford Essays in Jurisprudence. Third Series 1* (John Eekelaar & John Bell eds., 1987); also, *Criminal Attempts and the Role of Resulting Harm under the Code, and in the Common Law*, 19 *Rutgers L.J.* 725 (1988); also, *Taking the Consequences*, in *Action and Value in Criminal Law* 107 (Stephen Shute, John Gardner & Jeremy Horder eds., 1993); Steven Sverdlik, *Crime and Moral Luck*, 25 *Am. Phil. Q.* 79 (1988); Judith J. Thomson, *Morality and Bad Luck*, 20 *Methaphilosophy* 203 (1989); James J. Gobert, *The Fortuity of Consequence*, 4 *Crim. L.F.* 1 (1993); Sanford H. Kadish, *The Criminal Law and the Luck of the Draw*, 84 *J. Crim. L. & Criminology* 679 (1994); Larry Alexander, *Crime and Culpability*, 5 *J. Contemp. Legal Issues* 1 (1994); Kimberly D. Kessler, *The Role of Luck in the Criminal Law*, 142 *U. Pa. L. Rev.* 2183 (1994); Feinberg, *supra* note 1; Richard Parker, *Blame, Punishment, and the Role of Results*, in *Philosophy of Law* 592 (Joel Feinberg & Jules Coleman eds., 6th ed. 2000); Michael J. Zimmerman, *Taking Luck Seriously*, 99 *J. Phil.* 553 (2002); Stephen J. Morse, *Reason, Results, and Criminal Responsibility*, 2004 *U. Ill. L. Rev.* 363. Notice that some of these authors (such as Judith Thomson and Michael Zimmerman) only address the question of the agents' moral responsibility, without committing themselves to the view that the criminal law ought to mirror such moral judgments.

find an argument showing that successful offenders are actually more deserving of punishment than their unsuccessful counterparts despite the fact that what distinguishes one kind of offenders from the other is just a matter of sheer luck.<sup>3</sup> From this point of view, intuitive though the practice may appear, its justification has proven elusive.<sup>4</sup>

But many would want to argue that, even if the critics are right, the relative blameworthiness of successful and unsuccessful offenders is not the only consideration to take into account in assessing the correctness of the legal practice of punishing the former more harshly than the latter—a practice I will call, for simplicity’s sake, *differential punishment*.<sup>5</sup> In this article I subject the practice of differential punishment to a detailed consequentialist evaluation of the sort deterrence-based theories of the criminal law are

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<sup>3</sup> For arguments of this sort favoring differential punishment, see Peter Winch, *Trying and Attempting*, 45 Proc. Aristotelian Soc’y 209, 226-7 (Supplementary volume, 1971); James D. Brady, *Punishing Attempts*, 63 The Monist 240, 254-6 (1980); Charles R. Carr, *Punishing Attempts*, 62 Pac. Phil. Q. 61 (1981); Michael D. Bayles, *Punishment for Attempts*, 8 Soc. Theory & Prac. 19, 25-8 (1982); Michael Davis, *Why Attempts Deserve Less Punishment Than Complete Crimes*, 5 L. & Phil. 1 (1986); David Lewis, *The Punishment that Leaves Something to Chance*, 18 Phil. & Pub. Aff. 53 (1989); Margaret Urban Walker, *Moral Luck and the Virtues of Impure Agency*, 22 Metaphilosophy 14 (1991); R. A. Duff, *Criminal Attempts* 351-4 (1996); David McCarthy, *Rights, Explanation, and Risks*, 107 Ethics 205, 223-4 (1997); Michael S. Moore, *Placing Blame* 191-247 (1997); George P. Fletcher, *Basic Concepts of Criminal Law* 172-4 (1998); also, *Rethinking Criminal Law* 469-83 (2000); Arthur Ripstein, *Equality, Responsibility, and the Law* (1999), esp. ch. 7; Leo Katz, *Why the Successful Assassin is More Wicked than the Unsuccessful One*, 88 Cal. L. Rev. 791, 799-811 (2000).

<sup>4</sup> See Fletcher *supra* note 1.

<sup>5</sup> As opposed to the alternative practice of *equal punishment*—that is, the practice of punishing offenders equally, independently of whether their actions bring about the crime result or not.

committed to, in order to see whether there are consequentialist, deterrence-based reasons militating in favor of the practice of differential punishment and against its alternative.

Two things are necessary for such a consequentialist evaluation. First, a normative theory that ranks states of affairs, so that we can tell when the consequences of any given institutional arrangement are better than the consequences of other competing arrangements. And, secondly, a positive theory that explains what are the mechanisms through which social institutions—like the criminal law in general, or individual criminal-law arrangements, in particular—affect the world, so that we can both tell which are the features of a social state of affairs that are due to a particular social institution, and predict the consequences that the adoption of a particular institution may bring about.

Available consequentialist theories of the criminal law presuppose at least the following simple normative theory to assess the relative value of the consequences of alternative criminal-law arrangements. The theory states, roughly, that, all other things being equal, fewer crimes are better than more crimes. Accordingly, a criminal-law institutional arrangement is better than another, all other things being equal, if the number of crimes committed under the former is smaller than the number of crimes committed under the latter. In turn, from a consequentialist point of view, less costly criminal-law arrangements are by definition better than more costly arrangements. Though it is controversial precisely what may count as a cost of a criminal-law arrangement, there are at least some monetary costs that any consequentialist theory of the criminal law should take into account, namely, the monetary cost society bears in apprehending, convicting, and punishing offenders—or, as I will often call them, the enforcement costs. So, a criminal-law institutional arrangement is better than another, all other things being equal, if the

enforcement costs the former requires are lower than the enforcement costs required by the latter.

On the other hand, among the possible positive theories a consequentialist account of the criminal law may rely upon, it is deterrence the mechanism that is worth considering in detail.<sup>6</sup> According to the deterrence account, the criminal law affects people's willingness to engage in criminal activity, and therefore the aggregate number of crimes, by making criminal activity less profitable than it would otherwise be. The prospect of being subjected to punitive treatment for acting in a criminal way is an unambiguous cost placed on the decision to act in such a way. Since individuals' behavior is sensitive to the prospects of gain and loss they face for the decisions they may make, criminal law influ-

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<sup>6</sup> Along with deterrence, there are two other familiar accounts of how the criminal law may reduce crime: incapacitation and rehabilitation. Yet, besides other problems these accounts face—see e.g. Moore, *supra* note 2, at 85-7 (opposing rehabilitation); and Paul H. Robinson & John M. Darley, *The Utility of Desert*, 91 Nw. U. L. Rev. 453, 464-8 (1997) (opposing both rehabilitation and incapacitation, but emphasizing on arguments against the latter)—they are straightforwardly unfit to ground the practice of differential punishment. For if we were to organize the criminal law so that it primarily achieves the goals of incapacitation or rehabilitation, what offenders have actually achieved, whether they have been successful or unsuccessful in performing their crimes, would be of no significance. Such goals can only give significance to the likely future commission of crimes by the individuals to be punished—and, in the case of rehabilitation, perhaps also to the background that would make them commit crimes in the future. Successful and unsuccessful offenders may or may not require the same incapacitating or rehabilitating punitive treatments, depending on their respective tendencies to commit crimes in the future and the background conditions that contribute to the development of such tendencies. The mere fact that they have been successful or unsuccessful when they revealed such tendencies is of no importance whatsoever.

ences individuals' behavior by raising the costs of their possible decisions to engage in criminal activity.

In general, then, under this consequentialist, deterrence-based approach, justifying the practice of differential punishment requires an argument that shows that a criminal law that observes the practice of differential punishment is better than a criminal law that observes the practice of equal punishment, in the sense that it is more effective in deterring crimes for any given amount of enforcement costs, or that it saves enforcement costs for any given level of deterrence that both arrangements may equally achieve. Those two competing criminal laws will differ from each other only in what I shall call the *schemes of sanctions* established for every type of criminal action that may bring about a crime result. A criminal law that observes the practice of differential punishment will arrange its sanctions so that, for any criminal action  $\phi$  that may bring about a crime result  $R$ ,<sup>7</sup> the agent who does  $\phi$  receives a harsher sanction if  $R$  ensues than if it does not ensue. I shall call any arrangement of this sort a *scheme of differential sanctions*. By a *scheme of equal sanctions* I shall designate any scheme of sanctions under which, for any criminal action  $\phi$  that may bring about a crime result  $R$ , the agent who does  $\phi$  receives the same sanction whether  $R$  ensues or not. So, my argument will focus on the relative merits, in terms of deterrent efficacy and savings in enforcement costs, of these two schemes of sanctions, assuming all the other features of the competing criminal laws to be equal.

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<sup>7</sup> For instance, if  $R$  designates the death of a person,  $\phi$  could stand for the shooting of a firearm aimed at a person.

Notice that the scope of my inquiry exceeds the case of the relative punishment of what is defined in current criminal codes as attempts vis-à-vis the corresponding accomplished offenses. My arguments address a more general practice of which the relative punishment of attempts and accomplished crimes is just one instance. There are other, though perhaps less salient, criminal-law rules and doctrines that follow the same pattern.<sup>8</sup> For example, negligent or reckless behavior that actually brings about harm may amount to a serious crime such as manslaughter<sup>9</sup> or even murder,<sup>10</sup> whereas no offense whatsoever would be committed if the same kind of behavior happened to result in no harm<sup>11</sup>—or at most, depending on the kind of result that the action risked (e.g., death, bodily injuries, damage to property, etc.), or the way in which it created risk (driving a motor vehicle, handling firearms, keeping wild animals, selling food, etc.) it may amount to a relatively minor endangerment offense, like driving while intoxicated, or recklessly endangering another person.<sup>12</sup> Thus, the justification of such general legal practice—that is, letting the crime result an action actually causes influence the amount of punishment to be imposed for that action—is what I shall be concerned with in this article. As it is

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<sup>8</sup> See Schulhofer, *supra* note 2 at 1498-1502; and J. C. Smith, *supra* note 2 (both finding that the same problem that manifests itself in the law of attempts also obtains in other criminal-law doctrines).

<sup>9</sup> See, e.g., Model Penal Code § 210.3 (a) (Proposed Official Draft 1962) (henceforth MPC).

<sup>10</sup> See, e.g., *United States v. Fleming*, 739 F.2d 945 (4<sup>th</sup> Cir. 1984) (affirming conviction of second degree murder under 18 USC § 1111(a)).

<sup>11</sup> For references to American case-law, see Wayne R. LaFare, *Criminal Law* 542-3 (3d ed. 2000).

<sup>12</sup> See, e.g., MPC § 211.2 (“A person commits a misdemeanor if he recklessly engages in conduct which places or may place another person in danger of death or serious bodily injury”). I borrow the expression “endangerment offense” from R. A. Duff, *Criminalizing Endangerment*, *La. L. Rev.* (forthcoming 2005).

normally the case in the relevant literature, I will often phrase the issue in terms of the justification of the relative punishment for attempts and accomplished crimes, all other things being equal—rather than in more general terms like the relative punishment for successful and unsuccessful offenses. But the reader should be aware that it is the general practice of differential punishment what will always be at stake.

The right place to begin with my inquiry is the economic analysis of the criminal law. Economic theories of the criminal law offer the simplest consequentialist, deterrence-based theory of the criminal law in general, and of particular criminal-law arrangements in particular. Under this economic approach, a criminal-law rule, such as a particular scheme of sanctions, is appropriate if it is a policy implication of the following two more general propositions. First, that the goal of the criminal law ought to be the minimization of costs of crime—i.e., both the direct costs offenders impose on their victims through their criminal behavior, and the indirect costs of crime or enforcement costs. And, second, that, as a matter of fact, the criminal law provides individuals with effective incentives not to engage in criminal behavior—i.e., that the threat of being punished deters would-be offenders—because individuals behave as well-informed, rational agents who seek to maximize their expected utility.<sup>13</sup> All other plausible consequentialist

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<sup>13</sup> The seminal piece in the modern economic analysis of the criminal law is Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. Pol. Econ. 169 (1968). Still, the roots of this approach may be traced to Beccaria and Bentham—see Cesare Beccaria, *On Crimes and Punishments*, in Cesare Beccaria, *On Crimes and Punishments, and Other Writings 1* (Richard Bellamy ed., Richard Davies trans., Cambridge University Press 1995) (1764); and Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (J. H. Burns & H.L.A. Hart eds., Clarendon Press 1996) (1789), esp. chapters XIII & XIV. Valuable surveys of the economic literature that followed Becker's 1968 essay may be found in Al-



theories of the criminal law may be seen as somehow adjusting the core theses of this economic account.

In Part I, I show that evaluating the practice of differential punishment with the theoretical tools that the economic approach offers leads to the conclusion that there are no reasons for adopting schemes of differential sanctions rather than schemes of equal sanctions. After sketching what I will call the basic model of deterrence, I focus on the arguments that deterrence scholars have advanced in defense of differential punishment. I show that none of them survive a close scrutiny. In particular, I refute the argument, that deterrence theorists often raise,<sup>14</sup> that once considerations of marginal deterrence are properly factored in, the theory warrants the prescription that failed attempts should be punished less severely than accomplished crimes. I demonstrate that the same marginal incentives that may be created by a practice of differential punishment may also be created by a practice of equal punishment.

The economic literature on the criminal law offers another argument that is worth considering in detail. According to this argument, the choice between differential and equal punishment would affect the set of incentives potential victims have to invest in self-protective measures against crime in a way that makes the former socially more

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vin K. Klevorick, *On the Economic Theory of Crime*, Nomos XXVII: Criminal Justice 289, 290-7 (J. Roland Pennock & John W. Chapman eds., 1985); and, more recently, Isaac Ehrlich, *Crime, Punishment, and the Market for Offenses*, 10 J. Econ. Persp. 49 (1996); and A. Mitchell Polinsky & Steven Shavell, *The Economic Theory of Public Enforcement of Law*, 38 J. Econ. Lit. 45 (2000).

<sup>14</sup> Most notably Richard Posner—see Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 Colum. L. Rev. 1193, 1217-8 (1985).

desirable than the latter.<sup>15</sup> I conclude Part I deploying an argument that proves that it is simply not the case that under criminal laws that observe the practice differential punishment potential victims have different incentives than under criminal laws that observe an alternative practice of equal punishment.

Now, empirical confirmation of the predictions of deterrence effects based on the economic theory of the criminal law has been elusive.<sup>16</sup> A convincing explanation of this apparent failure is that the economic account is too thin: the mechanisms through which criminal-law practices may influence people's behavior are richer than the simple story depicted by the economic theory.<sup>17</sup> Recent deterrence scholarship has endeavored to find theoretical strategies to amend or adjust the traditional economic approach in order to get a sufficiently richer account. Two basic approaches have arisen. According to one of these approaches, criminal-law variables interact with other non-legal mechanisms of behavioral control—like standing social norms and individuals' moral commitments—in ways that can be predicted and therefore factored into a deterrence model.<sup>18</sup> According to

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<sup>15</sup> The argument is due to Omri Ben-Shahar and Alon Harel—see Omri Ben-Shahar & Alon Harel, *The Economics of the Law of Criminal Attempts: A Victim-Centered Perspective*, 145 U. Pa. L. Rev. 299 (1996) [*Victim-Centered Perspective*]; also, *Blaming the Victim: Optimal Incentives for Private Precautions against Crime*, 11 J. L., Econ. & Org. 434, 449 (1995) [*Blaming the Victim*].

<sup>16</sup> For the most recent review of available empirical evidence, see Paul H. Robinson & John M. Darley, *Does Criminal Law Deter? A Behavioural Science Investigation*, 24 Oxford J. Legal Stud. 173 (2004).

<sup>17</sup> See, e.g., Dan M. Kahan, *Between Economics and Sociology: The New Path of Deterrence*, 95 Mich. L. Rev. 2477 (1997).

<sup>18</sup> An example is Lawrence Lessig's study of antidueling statutes in the American South—see Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. Chi. L. Rev. 943, 968-72 (1995). According to Lessig's account, statutes banning dueling by threat of punishment were largely ineffective. The reason was

the other approach, individuals' perceptions of the relevant criminal-law variables often diverge from the assumptions of perfect rationality and full information due to robust and systematic psychological processes that bias people's cognitive and judgmental abilities. A properly enriched deterrence model should then pay heed to these biases.<sup>19</sup> In Parts II

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that the same moral commitments that led elite men to dueling, led them to disregarding the threat of punishment as a relevant reason for avoiding dueling—avoiding dueling for fear of being punished was a sign of cowardice, such as avoiding dueling for fear of being defeated by the other combatant was. In contrast, statutes that instead of prohibiting dueling, made duelers ineligible for public office were (or could have been if duly enforced) more effective. For the same elite men that felt obliged by a duty to defend their honor through dueling also felt obliged by a duty to “serve their states” by holding public office. As a consequence of such norm of public service, statutes excluding duelers from public office—unlike criminal statutes banning dueling by threat of punishment—did give elite men a reason to avoid dueling: “The state’s action here served to ambiguate a gentleman’s duty, and thereby facilitated the transformation of the social meaning of dueling itself. Against the background that the state has reconstructed, to choose to duel would be to choose to serve private interests over collective duty” (*ibid.*, at 972). For useful overviews of the relevant literature on law and social norms, see Robert C. Ellickson, *Law and Economics Discovers Social Norms*, 27 *J. Legal Stud.* 537 (1998) and, more recently, Robert E. Scott, *The Limits of Behavioral Theories of Law and Social Norms*, 86 *Va. L. Rev.* 1603 (2000).

<sup>19</sup> That is very much in the way of what has been called “Behavioral Law and Economics.” Behavioral law and economics seeks to enrich traditional economic models of the law by adjusting the assumptions of human behavior these models rely upon—basically, rational choice accounts of decision making—with the findings of experimental behavioral sciences. For a useful overview of the behavioral law and economics research agenda, see Christine Jolls, Cass R. Sunstein & Richard H. Thaler, *A Behavioral Approach to Law and Economics*, in *Behavioral Law & Economics* 13 (Cass R. Sunstein ed. 2000); see also, Scott, *supra* note 18, at 1639-46 (reviewing recent work in behavioral law and economics and underscoring some reasons to be cautious about some of its generalizations). For an example of this approach in the criminal

and III I explore the paths these two approaches have opened and see whether, once we adjust the deterrence account along those lines, a justification of the practice of differential punishment arises. And it does.

Drawing on social and psychological research I propose three new arguments for differential punishment and against equal punishment. Part II explores how people's intuitive judgments on how the criminal law should be may impact on the effects of alternative schemes of sanctions. I develop an account that shows that, when people's normative intuitions are that successful crimes should be punished more severely than unsuccessful crimes, the scheme of sanctions that maximizes deterrence is a scheme of differential sanctions.

Then, in Part III, I show how taking into account the effects of what psychologists call hindsight-bias effects, and other phenomena affecting how people perceive, and retrieve from memory information about crime and criminal-law responses to crime may alter the prescriptions that traditional economic models yield under the assumption that there is no noise between the relevant legal rules and what individuals perceive of them. In particular, I argue that once those phenomena are duly taken into account, it may be observed that schemes of differential sanctions offer two advantages over schemes of equal sanctions. First, in an environment plagued with hindsight-bias effects, schemes of differential sanctions facilitate the perception that expected punishment rises with the probability of criminal actions causing harm—a desirable property of a scheme of sanctions. Second, when unsuccessful instances of a kind of criminal action are poorly

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law area, see Alon Harel & Uzi Segal, *Criminal Law and Behavioral Law and Economics: Observations on the Neglected Role of Uncertainty in Deterring Crime*, 1 Am. L. & Econ. Rev. 276 (1999).

salient and later on hardly available from memory, punishing them would barely contribute to the achievement of deterrence effects. In those cases, the best policy would be to adopt schemes of sanctions whereby only accomplished instances of the relevant kind of criminal actions are subject to punishment.

Finally, I offer a brief conclusion.

## I. OPTIMAL DETERRENCE

### A. *The Basic model of deterrence*

According to the economic theory of the criminal law, we should design our criminal-law practices assuming that individuals are well-informed rational beings who act in the way that maximizes their expected utility. The assumption that agents are rational utility maximizers yields the prediction that they will engage in the commission of an act if, and only if, the gain they draw from it exceed its costs. Using the criminal law to deter agents from committing such an act requires fixing an amount of punishment,  $f$ , such that the costs of so acting offset the gain agents would obtain from committing the act—and so depriving them of their utility-based reasons for committing it. If society has an interest in deterring harmful acts through the criminal law, it may attach such a punishment to any act that actually causes harm.

Apprehending, prosecuting, convicting, and punishing offenders involve costs—so much that it is typically the case that the fraction of offenders being actually punished is rather low.<sup>20</sup> But, even in the absence of budget restrictions, the fraction of offenders

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<sup>20</sup> Indeed, according to the F.B.I., Uniform Crime Reports 205 (2000), the national *clearance rate* for seven index crimes (murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft) was only 20.5 % in the year 2000. Notice that not all cleared-up cases end

worth punishing will be less than one hundred percent. Since, on the one hand, apprehending, prosecuting, convicting, and punishing more and more offenders involves increasing costs; and, on the other, the social benefits of achieving higher levels of crime reduction decrease as the crime rate shrinks, there will be a number of crimes worth tolerating—for the marginal costs of punishing them will exceed the marginal benefits of raising the probability of punishment up to that level.<sup>21</sup> Thus, at the time  $t$  when the deterrent mechanism is to operate—that is, at the time when the agent decides to perform the act that causes harm—the probability of the agent being caught, prosecuted, and punished if she commits the crime will be less than unity. (I will refer to this probability with the letter  $p$ .) Accordingly, for punishment to meet at  $t$  the gain the agent expects to obtain from the act, the amount of  $f$  must be fixed in such a value that, when discounted by  $p$ , the expected costs to the agent—a partial function of  $pf$ —equal her expected gain.

Let  $\phi$  stand for a kind of action we want to deter in virtue of the fact that  $\phi$  normally brings about a bad state of affairs  $R$ . Suppose we condition the imposition of punishment to the acts actually causing  $R$ —thus letting  $\phi$ -ers go unpunished if their acts fail to cause  $R$ . Now, when agents decide to commit  $\phi$  they cannot tell with certainty whether  $R$  will obtain or not. Either because we are epistemically limited beings with limited knowledge about the world's actual causal laws, or because the world's actual causal laws are objec-

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in a conviction, while some lead to more than one conviction. The clearance rate, thus, does not necessarily coincide with the probability of being sanctioned, though it may offer some approximation. Drawing on statistics of the early 1990's, Paul Robinson and John Darley report that the overall conviction rate of those arrested for the same seven index crimes was as low as 1.5 %—see Paul H. Robinson & John M. Darley, *The Utility of Desert*, 91 Nw. U. L. Rev. 453, 458-61 (1997).

<sup>21</sup> See, e.g., Ehrlich, *supra* note 13 at 51-2.

tively probabilistic, or both, the fact is that, realistically, we may only predict of any instance of  $\phi$  that it *may* cause  $R$  with such and such probability. (I will use the letter  $q$  to refer to this measure of the probability of the action causing  $R$ .) So, if the imposition of punishment is conditioned to the act actually causing  $R$ , then the value of the punishment at  $t$  will also be discounted by the probability of the act actually bringing about  $R$  (or  $q$ ). Therefore, to achieve deterrence, the value of  $f$  must be set in such a level that, when discounted by  $p$  and  $q$ , it equals the agent's expected gains.

That present discounted value of the possibility of a future sanction—or *expected punishment*—is the key piece of the deterrent mechanism. If this expected punishment is (at least) equal to the expected gain the agent may assign to the act, then the utility maximizer agent will refrain from committing the act. As the agent's expected gains from acting criminally increase, deterrence may be achieved by proportional increases of the expected punishment, which the government may achieve by manipulating the frequency with which offenders are caught and punished (and hence  $p$ ), and the amount of punishment to be imposed ( $f$ ).

One way of increasing the variable  $p$  is to add sanctions for failed attempts (i.e., for instances of  $\phi$  that fail to cause  $R$ ), thus dropping off the conditionality of punishment on the act actually causing  $R$ . Agents will thus face a sanction both in the probable event that the act succeeds in causing  $R$  (i.e., the sanction for the accomplished crime,  $f_r$ ) and in the complementarily probable event that the act fails to bring it about (i.e., the sanction for the attempt,  $f_a$ ). The probability of an agent being punished for performing a particular action is higher under a scheme of sanctions whereby the action is punishable whatever its outcome (i.e., both if it fails and if succeeds in causing  $R$ ), than under a scheme

whereby the action is punishable only on the condition that it actually causes  $R$ . For under the former, a sanction will be imposed on the agent with probability  $p$ , whereas under the latter the probability of punishment being imposed will be discounted by the probability of the action actually causing  $R$ , or  $q$ —and so, a sanction will be imposed with probability  $qp$  (which is, of course, lower than  $p$ ).<sup>22</sup>

Suppose, then, that we choose to punish both successful and unsuccessful instances of  $\phi$ .<sup>23</sup> How should the sanction for the attempt (or  $f_a$ ) be as compared to the sanction for the accomplished crime (or  $f_r$ )?

Under a scheme of sanctions whereby both attempts and accomplished crimes are punishable, the expected punishment for any particular action results from the sum of the value of the sanction for the event the action causes harm, discounted by the product of the probability of the action causing harm and the probability of such sanction being imposed on the agent, on the one hand, and the value of the sanction for the event the action fails, discounted by the product of the probability of the action not causing harm and the

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<sup>22</sup> See Steven Shavell, *Deterrence and the Punishment of Attempts*, 19 J. Legal Stud. 435, 436 (1990) (“Punishing attempts thus increases deterrence by expanding the set of circumstances in which sanctions are imposed”).

<sup>23</sup> All other things being equal, it would be irrational not to do it if, as Shavell argues, “the punishment of attempts is a socially inexpensive means of increasing the probability [of sanctions being imposed], since opportunities to punish attempts often arise as a byproduct of society’s investment in apprehending parties who actually do harm.” Steven Shavell, *Criminal Law and the Optimal Use of Nonmonetary Sanctions as a Deterrent*, 85 Colum. L. Rev. 1232, 1250 (1985). See also Shavell, *supra* note 22 at 442.



probability of this sanction being imposed on the agent, on the other. Formally, this idea may be expressed in the following equation:<sup>24</sup>

$$Ef = qp_r f_r + (1 - q)p_a f_a$$

where  $Ef$  stands for “expected punishment,”  $p_r$  and  $p_a$  for the probabilities of the sanction being imposed if the act succeeds or fails in bringing about the harm, respectively (which are likely to be different),  $q$  for the probability of the action actually causing harm,  $(1 - q)$  for the complementary probability of the action not causing harm, and  $f_r$  and  $f_a$  for the sanctions for the accomplished offense and for the failed attempt, respectively.

The model’s deterrent mechanism, let us recall, relies on the *expected* punishment the agent faces at the time when she decides to commit the criminal act, and not on the *actual* punishment eventually meted out to her. Under the model, punishment influences behavior by adding costs to a kind of act, which costs the agent is expected to consider in deciding to engage in an act of that kind. But when the agent makes her last decision towards the act—e.g., when she pulls the trigger of the gun aimed at the victim—she cannot know for sure whether her act will succeed in causing harm, and, in any event, whether she will be sanctioned. The most she can know at that time is the value of the different possible outcomes discounted by the probability of their occurrence, which leads, through a simple probabilistic calculus, to the value of the expected punishment. If punishment influences the decision of the rational utility maximizer agent, it could only be through the consideration of that probability-discounted value—or so the model assumes.

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<sup>24</sup> I draw the equation from Shavell’s model of punishment for attempts—see Shavell, *supra* note 22, at 438-9.

On the other hand, and crucially, the model yields that, for any probability of being sanctioned, and any probability of succeeding in bringing about  $R$ , the same amount of expected punishment may be achieved by different combinations of sanctions for attempts and accomplished crimes. Attempts and accomplished crimes may be punished with equal sanctions, or with sanctions of different relative severity—and, in this case, attempts may be punished either more or less severely than accomplished crimes—insofar as the sum of the products of the values of those sanctions by their corresponding probability of being sanctioned, and the probability of succeeding and failing, yields the required expected punishment.<sup>25</sup>

This indicates that, as far as the basic model of deterrence is concerned, the goal of deterrence does not seem to be the right place to look for a justification of the practice of differential punishment. To ground the practice of differential punishment in the goal of deterrence as such is to demonstrate that, for any kind of action  $\phi$  that may cause crime result  $R$  with probability  $q$ , there are fewer instances of  $\phi$  (because  $\phi$  is more effectively

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<sup>25</sup> See Shavell, *ibid.* at 441. The point can be easily shown by a numerical example of the sort those Shavell relies upon. Suppose an agent,  $A$ , engages in the commission of a criminal action,  $\phi$ , with a probability of succeeding that equals 0.6. Let us assume that the probability of  $A$  being punished if the act succeeds is 0.5, and 0.3 if it fails. Finally assume that an expected punishment of 42 units of disutility is both necessary and sufficient for deterring  $A$  from  $\phi$ -ing. Given the stated values, we can set a scheme of punishment according to which the accomplished crime is punished more severely than the attempt, punishing, e.g., the former with a sanction of 120, and the latter with a sanction of 50—for  $0.6 \times 0.5 \times 120 + 0.4 \times 0.3 \times 50 = 42$ . Alternatively, we can set a scheme of punishment whereby both the accomplished crime and the attempt are punished with equal sanctions of 100—for  $0.6 \times 0.5 \times 100 + 0.4 \times 0.3 \times 100 = 42$ . We can even decide to punish less severely the accomplished crime than the attempt, attaching the former to a sanction of 50, and the latter to a sanction of 225—for  $0.6 \times 0.5 \times 50 + 0.4 \times 0.3 \times 225 = 42$ .

deterred) under a scheme of differential sanctions whereby  $\phi$ -doers are punished more severely when  $R$  actually obtains than when it does not, than under any scheme of equal sanctions whereby  $\phi$ -doers are punished with identical sanctions independently of whether  $R$  obtains or not. Under the model, however, deterrence is a function of the expected punishment agents face in deciding to commit  $\phi$ , so that, in the aggregate, all other things being equal, the higher the expected punishment, the smaller the number of individuals who are willing to do  $\phi$ . In turn, any given level of expected punishment, and therefore any given level of deterrence, may be equally achieved by a scheme of differential sanctions or by a scheme of equal sanctions. It follows that there is no level of deterrence that may be achieved through a scheme of differential sanctions that cannot be also achieved by a scheme of equal sanctions—which amounts to saying that we cannot justify the practice of differential punishment by pointing to the goal of deterrence.

Put another way, the upshot of this section goes as follows. The point of my inquiry is to see whether we have reasons to adopt schemes of differential sanctions whereby successful offenders are punished more severely than unsuccessful offenders, all other things being equal, rather than schemes of equal sanctions whereby both successful and unsuccessful offenders receive identical punishment. Deterrence-based theories of the criminal law state that it is a reason for favoring a criminal-law arrangement that it is more effective in deterring crimes than its alternatives. The basic model of deterrence offers a simple account of the mechanism through which a criminal-law arrangement may produce deterrence (namely, expected punishment), which may be used to assess competing criminal-law arrangements—so, if an arrangement yields higher expected punishment

than its alternatives, there will be a reason based on deterrence to prefer it over the alternatives. For any scheme of differential sanctions yielding a given amount of expected punishment there is a scheme of equal sanctions that yields an expected punishment of the same amount. It follows that each of these two schemes is as good as the other as regards its deterrent effectiveness; and so there are no deterrence-based reasons to prefer one to the other.<sup>26</sup>

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<sup>26</sup> My argument follows the essentials of Shavell's model of punishment for attempts—*see supra* note 22. Shavell rightly argues that the conclusion that the model yields—that is, that sanctions for attempts need not be different from the sanctions for all-else-equal accomplished crimes—holds if people (including courts) are able to gather all the relevant information. He then proves that if the courts are unable to ascertain the probability of actions causing harm (i.e., the variable  $q$  in the model), while offenders are not, the appropriate sanction for an attempt may be lower than the sanction for the corresponding accomplished crime—*see supra* note 22 at 442-4, 463-6. Though correct, Shavell's argument cannot amount to a defense of the legal practice of differential punishment. Granted, if it were the case that courts are normally unable to ascertain the probability of actions causing harm, Shavell's argument would have the advantage over traditional models of deterrence of building in a realistic assumption. Disregarding such a fact—as the argument I presented in this section does—would deprive the analysis of normative force, rendering it unrealistic or unduly abstract. However, courts *do* have sufficient information available to adequately infer the relevant probability of actions causing harm. Certainly, courts (as well as offenders!) are normally unable to find out the true, objective probability of particular actions causing harm—if there is anything like that. Yet, that objective probability is not the relevant probability. What courts should be able to do according to the model is to replicate the estimation that a rational, well-informed individual could make as to the likelihood that an action like the one under judgment causes harm if performed under equivalent circumstances. *See* David Friedman, *Impossibility, Subjective Probability, and Punishment for Attempts*, 20 J. Legal Stud. 179 (1991) (arguing that it is this epistemic or subjective interpretation of probability that is relevant). I see no principled way of maintaining that courts are normally not able to do that. If I am

A final remark is in order. In addition to the impact of a criminal-law arrangement on the aggregate number of crimes, there may be consequences of other sorts that the arrangement may bring about that could be relevant for a consequentialist assessment of it vis-à-vis other alternative arrangements. For instance, if the costs of achieving any given level of expected punishment through a scheme of differential sanctions could be shown to be lower than the costs of achieving the same level of expected punishment through a scheme of equal sanctions, then there would be reasons for adopting the former rather than the latter. However, it does not seem to be such difference in favor of schemes of differential sanctions.<sup>27</sup>

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right, then Shavell's argument only amounts to a theoretical exercise with no policy implications—whatever it proves, it does not serve the purpose of informing the choice regarding the scheme of sanctions we should adopt in the real world.

<sup>27</sup> If the difference between the two competing schemes of sanctions is only who are the individuals selected to be actually punished—so that, under the scheme of differential sanctions all of the convicted are successful offenders, whereas under the scheme of equal sanctions some of them are unsuccessful ones—there will be obviously no differences in enforcement costs. The issue is somewhat more opaque when the frequency of sanctions being imposed and the sanction severity differ from one scheme to the other. Consider two competing schemes of sanctions, Scheme D and Scheme E, established for a given type of criminal action,  $\phi$ , which causes the crime result  $R$  with some probability. Scheme D is a scheme of differential sanctions whereby only consummated instances of  $\phi$  (i.e., those actually causing  $R$ ) are punished, the sanction being imprisonment for a time representing the amount  $f$  of disutility. In turn, Scheme E is a scheme of equal sanctions whereby both consummated and unconsummated instances of  $\phi$  are punished, and both with the same sanction: a prison term representing the amount  $f^*$  of disutility. Scheme D and Scheme E yield the same amount of expected punishment (as measured in units of disutility), and hence, according to the predictions of the model, achieve the same level of deterrence. Now, under Scheme E sanctions are imposed relatively more often than under Scheme D, for there are some

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opportunities to impose sanctions that are forgone under the latter (i.e., offenders who are let off just because their actions do not cause  $R$ ), but not under the former, without the converse being the case. Since the probability of sanctions being imposed is thus higher under Scheme E than under Scheme D, it must be the case that the *individual* prison sentences imposed under Scheme E are shorter than those imposed under Scheme D—for both schemes yield the same expected punishment. Yet, the *aggregate* amount of sanctions actually administered (as measured in time units of imprisonment per person punished times the number of individuals punished) may be the same under both schemes. Indeed, it *will* be the same if the increase in sanction severity that Scheme D involves with respect to Scheme E ( $f$  rather than  $f^*$ ), which is proportional to the decrease in the frequency of sanction imposition, could be achieved through prison terms proportionally longer than those required to meet the level of severity of Scheme E's sanctions. In such a case, the larger number of convictions under Scheme E will be offset by the proportionally larger sentences imposed under Scheme D. Provided the administrative costs of imprisonment are constant—i.e., the costs of keeping a person in prison are the same during the first year as during the  $n^{\text{th}}$  year—there will then be no differences in costs between both competing schemes. However, if, more likely, the marginal disutility that prison sentences create decreases with the prison length, then any increase in the imposed disutility of  $n$  percent will necessitate a more than proportional (i.e., more than  $n$  percent) increase in the prison term. If so, the aggregate amount of sanctions imposed under Scheme D will be higher than under Scheme E, which implies that the latter is a cheaper alternative to the former. This argument is an application of a more general argument by Polinsky and Shavell addressing general issues regarding the tradeoffs between sanction severity and probability of sanction when the type of sanction at stake is imprisonment—see A. Mitchell Polinsky & Steven Shavell, *On the Disutility and Discounting of Imprisonment and the Theory of Deterrence*, 28 J. Legal Stud. 1 (1999). See also Posner, *supra* note 14, at 1213-4 (advancing a similar argument but focusing only on the criminal's discount rate). On the hypothesis of the decreasing marginal disutility of imprisonment, see Michael K. Block & Robert C. Lind, *An Economic Analysis of Crimes Punishable by Imprisonment*, 4 J. Legal Stud. 479, 481 (1975) (stating the hypothesis and advancing several concurring explanations); John J. DiIulio, Jr., *Help Wanted: Economists, Crime and Public Policy*, 10 J. Econ. Persp. 3, 16-7 (1996) (discussing some empirical findings on “present-orientedness”); and

In sum, then, as far as the basic model of deterrence is concerned, there is no reason to hold the practice of differential punishment rather than the practice of equal punishment. The model is neutral as to the issue of the relative punishment of successful and unsuccessful offenses.

### *B. Marginal Deterrence*

The basic model of deterrence I introduced in the previous section does not answer the question as to what is the proper level of expected punishment a scheme of sanctions for a particular kind of act should create. (The model just explains how our practice of punishing offenders for actions of a given kind may affect the decision of prospective offenders of committing actions of that kind—under the model, their willingness to commit such acts is a decreasing function of the expected punishment that our criminal-law practice yields for actions of that kind.) Theories of *optimal* deterrence provide such an answer.

In the economic literature there are two basic theories of optimal deterrence for the criminal law,<sup>28</sup> which for convenience I dub the *Becker model*,<sup>29</sup> and the *Posner model*.<sup>30</sup> According to the Becker model, criminal-law policies ought to be set so that offenders

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Robinson & Darley, *supra* note 16 at 187-9 (reviewing empirical psychological literature on the so-called “hedonic adaptation” effect).

<sup>28</sup> See Keith N. Hylton, *The Theory of Penalties and the Economics of Criminal Law* (Boston University School of Law, Working Paper Series, Law and Economics Working Paper No. 02-17, June 2002) (distinguishing both approaches and developing a model that combines both accounts).

<sup>29</sup> After Gary Becker—see Becker, *supra* note 13.

<sup>30</sup> After Richard Posner—see *supra* note 14.

internalize the social loss their criminal behavior creates. So, the optimal sanction for a given crime is such that, when discounted by the probability of its imposition, it equals the expected social loss associated with the crime. Thus, the crime will be committed whenever the offender draws from it an expected gain that exceeds the crime's expected social loss. In turn, under the Posner model, criminal-law policies ought to be set so as to eliminate offenders' prospect of gain from criminal activity, and thus effect complete deterrence. The optimal expected sanction for a given crime is such that it just outweighs the expected gain the offender draws from the offense. My argument in the previous section is that, whatever the theory of optimal deterrence one may adopt, the level of expected punishment for a given kind of act that such a theory requires can be achieved either by a scheme of differential sanctions or by a scheme of equal sanctions.

Now, according to any plausible theory of optimal deterrence, if there is more than one single offense to be deterred, schemes of sanctions must be so devised as to provide offenders who have already decided to engage in criminal activity with incentives to minimize the harmful effects of their criminal actions by choosing less serious crimes rather than more serious ones, or fewer crimes rather than more crimes. This idea may be expressed by the claim that criminal laws should provide prospective offenders with *marginal* incentives to minimize the number and seriousness of the crimes they commit, or effect *marginal deterrence*.<sup>31</sup> It is sometimes claimed that, under this prescription that

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<sup>31</sup> On marginal deterrence, generally, see George J. Stigler, *The Optimum Enforcement of Laws*, in Essays in the Economics of Crime and Punishment 55, 56-8 (Gary S. Becker & William M. Landes eds., 1974) (introducing the problem of marginal deterrence after Becker's seminal paper). For a recent elaboration, see David Friedman & William Sjostrom, *Hanged for a Sheep—The Economics of Marginal Deterrence*, 12 J. Legal Stud. 345 (1993). As it happens with several other insights of the economic approach to the



criminal laws should effect marginal deterrence, a deterrence-based theory of punishment could accommodate the practice of differential punishment.<sup>32</sup> The purpose of this section is to explore this possibility. I argue that bringing in considerations of marginal deterrence does not alter the conclusion arrived at in the previous section. But before turning to the discussion of the relevant arguments, let me stress the following remark, which, I hope, will prevent possible misunderstandings.

There seem to be good grounds for the claim that the prescription of effecting marginal deterrence requires punishing *incomplete* attempts<sup>33</sup> less severely than accom-

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criminal law, the central idea of marginal deterrence was already present in Bentham's work—*see supra* note 13, at 165-74.

<sup>32</sup> *See, e.g.,* Posner, *supra* note 14, at 1217-8; Isaac Ehrlich, *The Optimum Enforcement of Laws and the Concept of Justice: A Positive Analysis*, 2 Int'l Rev. L. & Econ. 3, 7 (1982); Richard G. Gervase, Jr., *Grading Criminal Attempts—A Proposed Solution for Statutory Reform in Sentencing*, 20 Rutgers L.J. 479 (1989); Mark Perlman, *Punishing Acts and Counting Consequences*, 37 Ariz. L. Rev. 227, 230-1 (1995). However, *see* Shavell, *supra* note 23 at 1244-5 & 1251-2 (briefly contesting arguments of that sort); and *supra* note 22, at 455-6 (same).

<sup>33</sup> The distinction between complete and incomplete attempts is common among criminal law scholars—*see, e.g.,* Joshua Dressler, *Understanding Criminal Law* 347-8 (2d ed. 1995). A *complete* attempt is an action that falls short from meeting the corresponding accomplished crime legal definition *only* in that it failed to actually cause the crime result. For example, if intentionally killing you by stabbing you in the chest is sufficient for meeting the requirements of the legal definition of accomplished murder, then stabbing you in the chest in the same way and with identical intentions but without actually killing you (say, because you are saved by an extraordinary medical intervention) would amount to a complete attempted murder. In turn, an *incomplete* attempt is an action committed in the course of completing an attempt, that is sufficiently close to completing that attempt, but that falls short of being a complete attempt as illustrated in the following example. Suppose, again, that intentionally killing you by stabbing you in the chest would

plished crimes.<sup>34</sup> Indeed, once the agent engages in the perpetration of a crime by performing the first punishable step of an incomplete attempt, punishment must be so devised as to provide her with incentives not to go on to the following step—and the same with every step until completion. Of course, the specific deterrent device is not the actual amount of punishment eventually meted out to the agent, but the expected punishment the agent faces for each step within the attempt. So, in order to meet the prescription of marginal deterrence, the scheme of sanctions must be such that the expected punishment adequately increases with every step closer to the completion of the offense.<sup>35</sup> (The precise distribution of punishment for the different steps of the incomplete attempt is, however, a contested matter.<sup>36</sup>) Likewise, in performing the last step of the attempt, that is, the step

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amount to an accomplished murder and that I plan to murder you in such a way. If I act in furtherance of such a plan, and the applicable law of attempts makes incomplete attempts punishable, this means that I would be eligible for punishment under such law of attempts at some point *before* actually stabbing you in the chest. Let us say that I would reach that point when I start following you on your way home with the intention to stab you in the chest, thereby killing you, as soon as I have the opportunity to do so—*see e.g.*, MPC § 5.01 (1)(c) & (2). Thus, under the applicable law of attempts, if I follow you with the intention to stab you in the chest on your way home, I commit an attempted murder under the applicable law of attempts. But this attempt of mine would be an attempt in a sense other than that in which *complete* attempts are attempts. My attempt would be an *incomplete* attempt.

<sup>34</sup> The essentials of the argument may be found in Beccaria, *supra* note 13, ch. 37.

<sup>35</sup> *See also* Shavell, *supra* note 22, at 455-6. For an alternative account of the same conclusion, *see ibid.*, at 452-4.

<sup>36</sup> *Compare* Gervase, *supra* note 32, at 484-90 (defending a direct function of the degree of completion of the attempt) with Samuel Kramer, *An Economic Analysis of Criminal Attempt: Marginal Deterrence and the Optimal Structure of Sanctions*, 81 J. Crim. L. & Criminology 398 (1990) (advocating for a “parabolic scheme”).

completing the attempt, the agent must face a higher expected punishment than that that she faced in the previous step. If the probability of being sanctioned is constant, then the *actual* sanction set for the incomplete attempt should be, at any step, lower than the actual sanction set for the accomplished crime.<sup>37</sup> (Notice that such conclusion does not follow if the probability of being sanctioned shifts upward with the completion of the attempt or with the occurrence of harm, in which case the expected punishment will be higher even if the actual sanction remains constant.)

But the argument that achieving marginal deterrence requires incomplete attempts to be punished less severely than accomplished crimes does not give support to the practice of differential punishment. Justifying the practice of differential punishment involves showing that the actual causation of a crime result *as such* properly calls for (increased) punishment. Thus, differential punishment would be justified if and only if actions that amount to accomplished crimes because they actually bring about a crime result should be punished more severely than actions that are equal to those actions in every respect except in the fact that they do not bring about a crime result. Hence, an argument showing that accomplished crimes should be punished more severely than incomplete attempts does simply not suffice if the reason why incomplete attempts should be punished more leniently does not apply to complete attempts. And it does not. Let me explain. As I argued in the previous paragraph, marginal deterrence requires that the criminal law policy variables be set in such a way that the expected punishment for every incomplete attempt is lower than the expected punishment for the corresponding accomplished crime, so that

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<sup>37</sup> See, however, Ben-Shahar & Harel, *Victim-Centered Perspective*, *supra* note 15 at 334 (contesting that marginal-deterrence goals should lead to reduced sanctions for incomplete attempts).

the agent has an incentive not to follow her plan up to the point where she may accomplish the attempted crime. Suppose, then, that the optimal expected punishment for the corresponding accomplished crime is  $n$ —where  $n$  is higher than the expected punishment set for the incomplete attempt. According to my argument in the previous section, such expected punishment of  $n$  may be produced through a scheme of equal sanctions—for any amount of expected punishment that may be required to deter a particular harmful act may be achieved both by a scheme of differential sanctions and by a scheme of equal sanctions. Under the assumption that the probability of punishment being imposed is constant, it follows that a deterrence-based theory of punishment is consistent with a scheme of sanctions under which incomplete attempts are punished less severely than accomplished crimes, whereas complete attempts are punished as severely as accomplished crimes.

So, if an argument based on the prescription that the criminal laws effect marginal deterrence gives reason for holding the practice of differential punishment and rejecting the alternative practice of equal punishment, it must show that *complete* attempts should be punished less severely than accomplished crimes, all other things being equal. This I deny. I argue instead that for a scheme of sanctions to secure marginal deterrence it need not be a scheme of differential sanctions.

For the very question of marginal deterrence to arise, there must be, at least, two acts standing in such a relation to each other that the agent, given her beliefs, intentions, opportunities and capacities, may either *complement* one with the other (e.g., killing the victim of the robbery), or *substitute* one for the other (e.g., stealing my neighbor's expensive car instead of his lawnmower). Marginal deterrence requires that the criminal-law

policy variables be set so that the agent has an incentive not to complement a crime with another, and not to substitute a more serious crime for a less serious one.

Alegedly, under a practice of equal punishment there would not be incentives not to complement attempts that turn out to be unsuccessful with further attempts. Richard Posner puts the point in the following terms:

If the punishment for attempted murder were the same as for murder, one who shot and missed (and was not caught immediately) might as well try again, for if he succeeds, he will be punished no more severely than for his unsuccessful attempt.<sup>38</sup>

Of course, if that second shot carried no increase in the expected punishment the agent faces in virtue of his having fired the first shot, it would be true that the criminal law gives the agent no incentive not to shoot again. It is also true that under a scheme of differential sanctions the agent will have an incentive not to try again—for by trying again he will face the risk of being punished with the harsher sanction for accomplished murder. But it does not follow from that claim that under a scheme of sanctions that observes the principle of equal punishment the agent will not have a marginal incentive not to shoot again. A scheme of equal sanctions need not have such an infelicitous consequence. Indeed, if shooting twice is punished more severely than shooting only once, the agent will have an incentive not to endeavor the second shot after missing the first one, even under a scheme of equal sanctions.<sup>39</sup> Notice that this is not just an ad hoc response in defense of equal punishment. Rather, under any plausible theory of optimal deterrence shooting more than once *should* be punished more severely than shooting just once (all

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<sup>38</sup> Posner, *supra* note 14, at 1218.

<sup>39</sup> As far as I know, a similar response is only suggested by Steven Shavell—*see* Shavell, *supra* note 23 at 1252; also, *supra* note 22, at 455-6.

other things being equal), independently of the issue of equal versus differential punishment. Let me explain.

Consider a slightly different case. Suppose I shoot at you firing two guns at the same time. The probability that you die as a consequence of these two shots is higher than the probability that would have resulted had I fired only one shot—for the probability of causing harm by firing  $n$  shots (where  $n > 1$ ) is higher, all other things being equal, than the probability of causing harm by firing just one shot. Under any plausible theory of optimal deterrence, expected punishment should rise along with the probability of actions causing harm—and so, the amount of punishment for firing at you the two guns at the same time should be higher than the amount of expected punishment for firing at you just one shot. In effect, under the Becker model, let us recall, the optimal sanction for a given crime is such that, when discounted by the probability of its imposition, it equals the expected social loss associated with the crime. One of the variables of the expected social loss function is the expected harm to the crime's victim, so that the higher the expected harm to the victim, the higher the expected social loss. Consequently, the higher the expected harm to the victim, the higher the expected sanction required for optimal deterrence purposes. The victim's expected harm, in turn, is an increasing function of the harm the criminal action is likely to bring about, or is aimed at producing (call it  $R$ ), and the probability of the criminal action causing  $R$  (which I term  $q$ ). So, for any  $R$ , the higher the  $q$ , the higher the expected harm to the victim, and, therefore, the higher the required expected sanction to achieve optimal deterrence.

On the other hand, the Posner model of gain-eliminating sanctions yields, in this respect, the same result. In effect, it seems reasonable to assume that the gains offenders

draw from their criminal actions stem, at least in part, from the successful completion of those actions. That is to say, actions that fail to harm the victim (i.e., failed attempts) are less profitable (if profitable at all) to the offender than actions that succeed in harming the victim (i.e., accomplished crimes), all other things being equal. Assessed in prospect, then, criminal actions' profitability to offenders will be responsive to the probability of the action causing harm to the victim (or  $q$ ): all other things being equal, the higher the probability of the criminal action causing harm to the victim, the greater the expected gain to the offender. Since, under the Posner model, proper schemes of sanctions are such that expected punishment rises with the expected gain prospective offenders draw from their criminal actions, then it should be the case that the higher the probability of the criminal action causing harm to the victim, the higher the expected sanction for committing that action.

The general goal of achieving marginal deterrence, finally, also leads to the same conclusion. Criminal laws effect marginal deterrence if they provide incentives for those who have already decided to engage in criminal activity to minimize the harmfulness of their offenses. Thus, whenever an agent may choose between more than one course of action to bring about a given crime result  $R$ , marginal deterrence is achieved if and only if the criminal law gives the agent an incentive to choose the course of action that makes  $R$  less probable. In general, then, sanctions should be such that, for any attempt to cause  $R$ , expected punishment rises along with the probability of the attempt causing  $R$ .

These arguments show that the amount of expected punishment I should face for firing at you two shots at the same time should be higher than the amount of expected punishment I should face for firing only one shot—for the expected punishment should rise

in proportion to the criminal action's probability of causing harm. Now, since, as I argued above, *any* amount of expected punishment that might be required to deter a particular action may be achieved by a scheme of equal sanctions whereby the agent receives the same actual sanction whether she success or fails in bringing about the crime result her action risks, it follows that in order to produce the *optimal* amount of expected punishment actual sanctions need not be distributed in accordance to a scheme of differential sanctions. To illustrate the point, suppose that a scheme of equal sanctions is in place, whereby accomplished and attempted murders, all other things being equal, are punished with equal sanctions; that the severity of the actual sanctions imposed under this scheme increases in proportion to the probability of the action causing the victim's death; and that the probability of sanctions being imposed (or  $p$ ) is constant. If I attempt to kill you by firing just one shot, I will receive a sanction of a given severity ( $f$ ) with probability  $p$ , no matter whether you die as a consequence of my action or not. If instead I choose the alternative course of action of firing two guns at the same time—which will increase the probability that you die—I will receive a sanction proportionally more severe ( $f^*$ , where  $f^* > f$ ) with probability  $p$ , irrespective of whether I succeed in killing you or fail. Thus, under this scheme of equal sanctions, the expected punishment rises along with the probability of the action causing the crime result (i.e.,  $pf$  if I fire only one shot, and  $pf^*$  if I fire two shots at the same time), and so I have an incentive to choose the course of action that makes the crime result less probable (i.e., firing only one shot).

Now, let us go back to Posner's example. Nothing of relevance should change in the foregoing analysis if the pertinent alternative to firing just one shot at you is not firing two shots at the same time but firing two *consecutive* shots, as in Posner's example. Con-



sider the scheme of equal sanctions I have just discussed. Under such a scheme, my attempting to kill you by firing one shot carries a sanction of severity  $f$ , which is imposed with probability  $p$ , irrespective of whether the attempt succeeds or fails. Suppose that I shoot at you and miss. I will receive, in virtue of that failed attempt, a sanction of severity  $f$  with probability  $p$ . Since I am not immediately caught, I consider trying again by firing a second shot. I will have an incentive not to fire this second shot if I risk some punishment for this second shot *in addition to* the probability  $p$  of being imposed a sanction of severity  $f$  I already face in virtue of having fired the first shot. And, of course, a scheme of equal sanctions may provide such an incentive. Consider the following two possibilities.

The first possibility involves dealing with the second shot as though it were an offense independent of the first. Suppose that firing this second shot, individually considered, will impose on you the same risk of dying as the first shot, individually considered, imposed. Under this first possibility, firing the second shot, individually considered, will also carry a sanction of severity  $f$  to be imposed with probability  $p$ , whatever the actual outcome of the attempt. (For  $f$  is a function of the probability of the action causing the crime result, which is the same for each individual shot, and  $p$  is assumed to be constant.) So, if I fire the second shot, I will expose myself, in virtue of this second shot, to a probability  $p$  of receiving a sanction of severity  $f$  whatever the outcome of the shot, *in addition to* the probability  $p$  of receiving a sanction of severity  $f$  in virtue of my having fired the first shot. The aggregate expected punishment for firing the two consecutive shots, under this possible scheme of equal sanctions, will thus be  $2pf$ , which is twice as high as the expected punishment for firing only the first shot.

The second possibility is to treat both consecutive shots as part of a single course of action—the course of action being attempting to kill you with two consecutive shots. All other things being equal, the probability that you die if I attempt to kill you with two consecutive shots is higher than the probability that you die if I attempt to kill you with only one shot. Suppose, to simplify, that the probability that you die if I attempt to kill you with two consecutive shots is as high as the probability that you die if I fired the two shots at the same time.<sup>40</sup> This being so, the optimal sanction for attempting to kill you

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<sup>40</sup> Let A be the event of you dying as a consequence of shot number one, and B the event of you dying as a consequence of shot number two. The probability that you die if I attempt to kill you with two consecutive shots would be as high as the probability that you die if I fire two concomitant shots if the probability that you die as a consequence of shot number one, or P(A), is independent of the probability that you die as a consequence of shot number two, or P(B) in both scenarios. The relevant probability I create in the scenario where both shots are fired concomitantly, and in the scenario where both shots are fired consecutively is the probability that you die as a consequence either of shot number one or of shot number two—or P(A or B). In the first scenario, A and B are not mutually exclusive, for you may die as a consequence of both shot number one *and* shot number two (say, if both bullets hit your brain at the same time). So, in such a scenario,

$$(1) \quad P(A \text{ or } B) = P(A) + P(B) - P(A \ \& \ B) = P(A) + P(B) - P(A) \times P(B)$$

In turn, in the scenario where I attempt to kill you by firing two consecutive shots, A and B are mutually exclusive—for I fire shot number two only if you did not die as a consequence of shot number one. The probability that you die as a consequence of shot number two should then be discounted by the probability that you not die as a consequence of shot number one, or  $[1 - P(A)]$ . Thus, in this second scenario,

$$(2) \quad P(A \text{ or } B) = P(A) + [1 - P(A)] \times P(B)$$

For any pair of probabilities P(A) and P(B), equation (1) and equation (2) yield equal results. *See, e.g.,* John A. Rice, *Mathematical Statistics and Data Analysis 4-6* (2d ed. 1995). To illustrate, take the following numerical example. Suppose  $P(A) = 0.6$ , and  $P(B) = 0.6$ . In the scenario of two concomitant shots,

with two consecutive shots should be the same as the optimal sanction for attempting to kill you by firing two shots at the same time. I argued above that the optimal sanction for attempting to kill you by firing two concomitant shots is a sanction of severity  $f^*$ , which is proportionally higher than the optimal sanction  $f$  for attempting to kill you by firing just one shot. The same should hold for attempting to kill you with two consecutive shots. Thus, under this second possibility, by firing the second shot I will expose myself to the probability  $p$  of receiving a sanction of severity  $f^* - f$  (i.e., the difference between the sanction for shooting twice and the sanction for shooting only once) whatever the outcome of the shot, in addition to the probability  $p$  of receiving a sanction of severity  $f$ , to which I am already exposed in virtue of my having fired the first shot. In other words, under this possible scheme of equal sanctions, the expected sanction for firing two consecutive shots will be  $pf^*$ , which is higher than the expected punishment for firing just one shot, or  $pf$ .

In sum, as the foregoing examples illustrate, there is no need to adopt a scheme of differential sanctions in order to create proper marginal incentives in repeated attempt cases like Posner's example. Marginal deterrence in such repeated attempt scenarios may be achieved by schemes of equal sanctions as well as by schemes of differential sanctions. Posner's point, then, is a *non sequitur*.

A final note is in order. My argument assumes that for any level  $f$  of required sanction severity, there is a possible treatment that we can impose on the convicted as a way of punishment, which treatment meets  $f$ . And this assumption may not hold. There may

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$P(A \text{ or } B) = 0.6 + 0.6 - 0.6 \times 0.6 = 0.84$ . In turn, in the scenario of two consecutive shots,  $P(A \text{ or } B) = 0.6 + 0.4 \times 0.6 = 0.84$ .

be—as indeed there are—constraints on how we can act on the convicted as a way of punishing them, which in turn may set an upper bound to the level of severity we may produce through punishment. If we think of imprisonment, for instance, as the appropriate kind of treatment, an upper bound will be set by the offender’s remaining lifetime—for offenders cannot be imprisoned for a time longer than their remaining lifetime. When a particular sanction reaches its upper bound, we say that the level of severity this sanction produces is *maximal*—or, to abbreviate, that the sanction is maximal. That is, there is no higher level of severity we may produce through punishment.

Maximal sanctions pose an unsurmountable problem for the goal of marginal deterrence. Once an offender becomes, in virtue of the crimes she has committed, eligible for a maximal sanction, by the same token she will become deterrence-proof for any further crime she might be willing to commit.<sup>41</sup> Thus, if the sanction for, say, murder is maximal, then once an agent has murdered one person, she will have no incentive based on the criminal law not to go on and kill other people—or, by the way, commit any other crime she might want to commit. It is an unavoidable, infelicitous byproduct of any maximal sanction that it makes marginal deterrence impossible.

Now, Posner’s example of consecutive shots would make sense under the assumption that punishment for accomplished murder must be maximal, and that a scheme of equal

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<sup>41</sup> I assume that the probability of sanctions being imposed is constant. This is of course a simplifying assumption. The probability of sanctions being imposed may rise along with the number of crimes the agent performs. If so, even though the actual sanction the agent risks by committing further crimes will be the same (i.e., the maximal sanction), the expected punishment will increase. However, at some point the expected punishment will reach its maximal level—ideally, when the probability of the maximal sanction being imposed equals unity. At that point, then, the offender will become deterrence-proof.

sanctions for attempted and accomplished murder must then be a scheme of sanctions whereby offenders obtain a maximal sanction independently of whether they succeed in killing their victims, or not. *Given these assumptions*, it follows that under such scheme of equal sanctions “one who shot and missed (and was not caught immediately) might as well try again, for if he succeeds, he will be punished no more severely than for his unsuccessful attempt.” These assumptions may rescue Posner’s argument from the charge of fallacy, but at the cost of rendering it uninteresting and inconclusive. Let me explain.

As I argued above, maximal sanctions make marginal deterrence impossible; so, under *any* scheme of sanctions that includes maximal sanctions the same sort of problems will arise: once an agent performs the act in virtue of which she is eligible for the maximal sanction, she will become deterrence-proof. The problem Posner’s example underscores, then, is not attributable to the fact that the relevant scheme of sanctions is a scheme of *equal* sanctions, but to the fact that it is a scheme that includes a maximal sanction for firing the first shot. Since, in addition, there is no *a priori* reason why punishment for accomplished murder *should* be maximal, and therefore no reason why punishment under a scheme of equal sanctions for attempted and accomplished murder should be maximal, then taking this latter scheme of equal sanctions, rather than other possible scheme of equal sanctions, as the relevant example of equal punishment, renders the argument ad hoc.

One might still think that even though Posner’s argument does not prove the general proposition that successful offenders should be punished more severely than unsuccessful offenders, all other things being equal, it does prove that a scheme of differential sanctions whereby the successful offender receives a maximal sanction and the unsuccessful

offender receives a less than maximal sanction is better than a scheme of sanctions whereby both successful and unsuccessful offenders equally receive the maximal sanction—for, as Posner stresses, under the latter there will be no marginal incentives not to try again after the first failed attempt. So, if those were the only two alternatives, there will be a deterrence-based reason to choose the scheme of differential sanctions rather than the scheme of equal sanctions. However, this is not necessarily true. Assuming the probability of sanctions being imposed to be constant, the expected punishment that prospective offenders would face for firing the *first* shot is higher under the scheme of equal sanctions (or Scheme E) than under the scheme of differential sanctions (or Scheme D). Since, on the one hand, the expected punishment results from the sum of the two alternative sanctions the offender can receive (the sanction for the attempt, and the sanction for the accomplished crime) discounted by the probability of each sanction being imposed on the offender, and, on the other, all the variables that contribute to the expected punishment are equal under both Scheme E and Scheme D, except for the fact that the sanction for the attempt in Scheme E is higher than the sanction for the attempt in Scheme D—for the former is maximal, and the latter is less than maximal—it follows that the expected punishment for firing the first shot is higher under Scheme E than under Scheme D. Under Scheme E, prospective offenders face a probability  $p$  of receiving a maximal sanction whatever the outcome of their shot, whereas under Scheme D they face a probability  $p$  of receiving a maximal sanction if they succeed, and a probability  $p$  of receiving a less than maximal sanction if they fail. It follows from the basic model of deterrence that *ceteris paribus* the higher the expected punishment for a particular type of act, the smaller the number of people that will decide to commit an act of that type. Therefore, under

Scheme D the number of individuals who would fire the first shot will be larger than under Scheme E. Now, as Posner claims, offenders who *did* fire the first shot and failed are more likely to fire a second shot under Scheme E than under Scheme D. So, the *fraction* of the offenders who have fired and missed the first shot who will also fire a second shot will be larger under Scheme E than under Scheme D. But since the pool of offenders who have fired and missed the first shot will be larger under Scheme D than under Scheme E, it is uncertain whether the actual number of offenders who fire the second shot will be larger under Scheme E than under Scheme D. Hence my claim that it is not necessarily true that Scheme D is better than Scheme E.

To conclude, let me briefly state the upshot of this section: Considerations based on the goal of achieving marginal deterrence may not alter the conclusion arrived at in the previous section that, in order to design the proper incentives not to perform harmful acts, there is no need to set up a scheme of sanctions punishing more severely successful crimes than unsuccessful crimes.

### *C. Victim Incentives*

Omri Ben-Shahar and Alon Harel defend the view that under a scheme of differential sanctions potential victims invest less in self-protective measures against crime than they do under a scheme of equal sanctions. Since potential victims have independent incentives to overinvest in self-protection against crime—a socially inefficient outcome—schemes of differential sanctions would be thus superior to schemes of equal

sanctions. Or so Ben-Shahar and Harel claim.<sup>42</sup> I disagree. For, as I will contend, schemes of differential sanctions and schemes of equal sanctions are equivalent alternatives as incentive devices for both offenders *and* potential victims.

Let me concede that potential crime victims tend to overinvest in self-protective measures against crime and so that it is in the interest of efficiency to discourage such expenditures.<sup>43</sup> Hence, if one of two otherwise equivalent criminal-law arrangements gives potential victims incentives to reduce investment in self-protection, this will be a reason to prefer that arrangement over the other. That is the normative side of Ben-Shahar and Harel's argument in favor of schemes of differential sanctions. For they claim that we ought to adopt schemes of differential sanctions, rather than otherwise equivalent schemes of equal sanctions, because the former, unlike the latter, provide potential victims with incentives to reduce expenditures in self-protective measures against crime.

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<sup>42</sup> The argument was first advanced in Ben-Shahar & Harel, *Blaming the Victim*, *supra* note 15 at 449, and it was further elaborated in Ben-Shahar & Harel, *Victim-Centered Perspective*, *supra* note 15.

<sup>43</sup> The point appears well-supported by the relevant literature. On the economic account of potential victims' behavior against crime *see* (besides Ben-Shahar and Harel's articles) David Friedman, *Efficient Institutions for the Private Enforcement of Law*, 13 J. Legal Stud. 379 (1984); Philip Cook, *The Demand and Supply of Criminal Opportunities*, 7 Crime & Just. 27 (1986); Steven Shavell, *Individual Precautions to Prevent Theft: Private versus Socially Optimal Behavior*, 11 Int'l Rev. L. & Econ. 123 (1991); David de Meza & J. R. Gould, *The Social Efficiency of Private Decisions to Enforce Property Right*, 100 J. Pol. Econ. 561 (1992); Koo Hui-Wen & I. P. L. Png, *Private Security: Deterrent or Diversion?*, 14 Int'l Rev. L. & Econ. 87 (1994); Ian Ayres & Steven D. Levitt, *Measuring Positive Externalities from Unobservable Victim Precaution: An Empirical Analysis of Lojack*, 108 Q. J. Econ. 43 (1998); Matthew T. Clements, *Precautionary Incentives for Privately Informed Victims* (unpublished manuscript, May 21, 2002, on file with author).



Now, let me state how it is that, according to Ben-Shahar and Harel, schemes of differential sanctions, unlike schemes of equal sanctions, produce those proper incentives to potential victims. Consider first how criminal law in general may induce potential victims' behavior. Take the group of potential victims of burglary in a given town, and any choice the members of this group face, for instance, whether to clean the sidewalks adjacent to their homes, or to leave them dirty. Criminal law could induce a particular decision by setting the expected punishment variables so that the members of one group of victims (e.g., those who did not clean their sidewalks) become more attractive targets for burglars than the members of the other group (i.e., those who did clean their sidewalks). If, say, criminal-law policy is such that burglarizing homes with clean sidewalks is punished more severely than burglarizing homes with dirty sidewalks, then (all other things being equal) homes with dirty sidewalks would be more often burglarized than homes with clean sidewalks. Thus, by manipulating burglars' incentives in this way, such policy imposes extra costs on the decision of potential victims to leave their sidewalks unclean, and correspondingly reduces the net costs of cleaning them. Generally, then, criminal-law policy decisions may create victim-centered behavioral incentives.<sup>44</sup>

Ben-Shahar and Harel's approach mainly involves taking into account these kinds of effects on potential victims' incentives for the evaluation of alternative criminal-law

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<sup>44</sup> Assumed in the previous example is, first, that the cleanness of the sidewalks is a feature burglars can observe and, therefore, that burglars can select their victims taking that feature into account; and secondly, that potential victims can infer the pattern according to which burglars select their victims—or, at least, that victims behave *as if* they knew such pattern. Provided these two assumptions are met, one can extend this simple model to any other decision of the group of potential victims.

policies—something that, they claim, is absent from traditional, offender-centered theories. With respect to the issue of differential punishment, they argue that the choice between a scheme of differential sanctions and a scheme of equal sanctions influences potential victims’ decisions to adopt certain kinds of self-protective measures against crime.

Self-protective measures against crime make it more difficult, or simply less desirable, for offenders to commit a crime against the potential victims who have adopted them. Some of these measures, like deadbolt locks, fences, safes, bulletproof vests, etc., have *preventive* effects: they reduce the probability of successful completion of the crimes involving the things protected by such measures.<sup>45</sup> That is, for example, an attempt to kill a person who wears a bulletproof vest by shooting a firearm will more likely fail than an otherwise equal attempt addressed to an unprotected person; an attempt to steal some valuables will more likely fail if the valuables are stored in a safe, than if they are kept in a cupboard; etc. Generally, all other things being equal, “[t]he more potential victims invest in precautions [of this, preventive kind], the more likely they are to be victims of unsuccessful attempts rather than victims of completed crimes.”<sup>46</sup>

These preventive, self-protective measures not only have such preventive value for the victims adopting them—that is, not only reduce the probability of success of the crimes attempted against those victims—but they also have individual *deterrent* value—that is,

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<sup>45</sup> Other self-protective measures *only* have *deterrent* effects, either by making detection more likely (e.g., security cameras), or by directly reducing the benefit to offenders (e.g., marking property to make it more difficult to sell)—*see, e.g., Ben-Shahar & Harel, Blaming the Victim, supra note 15, at 439; also, Clements, supra note 43, at 5.*

<sup>46</sup> Ben-Shahar & Harel, *Victim-Centered Perspective, supra note 15, at 336.*

they reduce the number of attempts against those victims. These deterrent effects of preventive measures are easy to account for. Since preventive precautions raise the costs of victimizing the protected potential victims, all other things being equal, the more potential victims invest in this kind of precautions, the less likely they are to be victims of criminal attempts. Put another way, the higher the level of preventive self-protection a victim adopts, the smaller the number of offenders who are willing to target that victim.

The core of Ben-Shahar and Harel's defense of schemes of differential sanctions is that schemes of differential sanctions may counteract such *deterrent* value of *preventive* self-protective measures. The argument goes like this:

As the sanction for attempts decreases relative to the sanction for completed acts, the expected cost of sanctions facing criminals decreases, regardless of the type of victim they target [whether a high- or a low-precaution victim]. This expected cost of sanction decreases more if the criminal targets an overly cautious victim. Consequently, as the sanction for attempts decreases, cautious victims become more attractive targets. Thus, some criminals are likely, under a rule that exculpates or mitigates the sanctions for attempts, to substitute their targets and choose to act against more cautious victims, rather than against less cautious ones.<sup>47</sup>

To see the point more clearly, take the following example. Imagine there are only two classes of victims depending on whether they have adopted a high or a low level of precaution of the relevant, preventive kind. If a criminal action is directed against a high-precaution victim, probability of success is low (say,  $q = 0.3$ ). If, in turn, the same criminal action is addressed to a low-protection victim, chances that it ends up being an accomplished crime are high (say,  $q = 0.7$ ). Under a scheme of equal sanctions according

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<sup>47</sup> Ben-Shahar & Harel, *ibid.* at 336.

to which both attempts and accomplished crimes are punished with equally severe sanctions irrespective of the class the victim belongs to (say,  $f_r = f_a = 100$ ), assuming that the probability of the sanction being imposed ( $p$ ) is constant for every case,<sup>48</sup> both actions will face the same expected punishment (i.e.,  $Ef = 100p$ ).<sup>49</sup> In contrast, under a scheme of differential sanctions where attempts are punished more leniently than accomplished crimes (say,  $f_r = 100, f_a = 50$ ), assuming again a constant probability of punishment being imposed, expected punishment will differ depending on the class the victim of the crime belongs to. Particularly, crimes against low-protection victims will lead to higher expected punishment than those directed against high-protection victims, as it is shown in Table 1.<sup>50</sup>

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<sup>48</sup> The argument depends on this assumption, and this is one of its weaknesses—see *infra* note 54. However, I will not stress this point here.

<sup>49</sup> Expected punishment ( $Ef$ ) is calculated by adding the expected sanction for the case the action accomplishes the crime (that is, the value of the sanction to be imposed in that case,  $f_r$ , discounted by the probability of the action accomplishing the crime,  $q$ , and the probability of the offender being apprehended, convicted and sentenced,  $p$ ) plus the expected sanction for the case the action fails (that is, the value of the sanction for the attempted crime,  $f_a$ , discounted by the probability of the action failing to accomplish the intended crime,  $1 - q$ , and  $p$ ). Formally,  $Ef = qpf_r + (1 - q)pf_a$ . Thus, in the example of the text, the offender targeting the high-protection victim faces an expected punishment of  $0.3 \times p \times 100 + (1 - 0.3) \times p \times 100 = 100p$ ; whereas the offender victimizing the low-protection victim faces  $0.7 \times p \times 100 + (1 - 0.7) \times p \times 100 = 100p$ .

<sup>50</sup> The expected sanction for addressing low-protection victims (i.e., where  $q = 0.7$ ) equals  $0.7 \times p \times 100 + (1 - 0.7) \times p \times 50 = 85p$ . In turn, offenders aiming at high-protection victims (i.e., whose  $q = 0.3$ ) face an expected sanction of  $0.3 \times p \times 100 + (1 - 0.3) \times p \times 50 = 65p$ .

**Table 1**

	Scheme E ( $f_r = 100, f_a = 100$ )	Scheme D ( $f_r = 100, f_a = 50$ )
Low-precaution victim ( $q = 0.7$ )	$100p$	$85p$
High-precaution victim ( $q = 0.3$ )	$100p$	$65p$

One implication of these differences in expected punishment is that under the scheme of differential sanctions (Scheme D) more crimes will be committed than under the scheme of equal sanctions (Scheme E). For the decrease in the severity of the sanctions for attempts leads to an overall decrease in the expected sanction—that is, offenders targeting *any* victim face reduced expected sanctions relative to those they would face under the competing scheme of equal sanctions. The second and crucial implication is that the distribution of crimes between the two classes of victims will differ from one scheme to the other. Indeed, Scheme D offers offenders an incentive for selecting high-precaution victims—an incentive that is absent under Scheme E. Scheme D offers, as it were, a  $20p$  discount in expected punishment for targeting high-precaution victims instead of low-precaution ones. Granted, offenders still have independent incentives for targeting low-precaution victims—for regardless of the costs imposed by the criminal law, targeting high-precaution victims is either more costly (i.e., overcoming the precautions involves more effort) or otherwise less beneficial (i.e., the same effort is more likely to fail) than targeting low-precaution victims, all other things being equal. However, this change in expected punishment would make it the case that *some* offenders who would choose to

target low-precaution victims under the equal-sanctions scheme shift to targeting high-precaution victims under the differential sanctions scheme.

If the latter prediction is correct, then the move from Scheme E to Scheme D may affect the relative victimization rate of low-precaution victims vis-à-vis high-precaution victims, so that the former will be targeted relatively less often, and the latter relatively more often, than they would be under the equal-sanctions scheme.

On the other hand, by altering in such a way offenders' incentives, the move from a scheme of equal sanctions to a scheme of differential sanctions would also affect potential victims' incentives to invest in self-protective measures of the relevant preventive kind. By reducing the expected sanction for crimes directed against high-protected victims, schemes of differential sanctions place a cost on the decision to adopt preventive self-protection (i.e., a higher victimization rate), which cost is absent under the corresponding scheme of equal sanctions. Therefore, it moves the individually optimal level of preventive self-protection to a lower point. In other words, it gives potential victims an incentive to adopt a lower level of preventive self-protection—lower, that is to say, than that that they would adopt under the scheme of equal sanctions. (Granted, even if the lower expected sanction perfectly offsets the individual deterrent value of preventive self-protection, this will still provide the potential victim with some benefit—namely, the reduced probability of success of the crimes directed against her. Hence, even under such a scheme of sanctions, there may still be some positive level of preventive self-protection.)<sup>51</sup>

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<sup>51</sup> See Ben-Shahar & Harel, *Blaming the Victim*, *supra* note 15, at 449 (“A victim may prefer to forego the deterrent effect of the sanction and rely solely on his private prevention measures. For example, a home-

This completes the case for schemes of differential sanctions I am considering. Given the inefficiencies associated with individual self-protection, we would thus have an efficiency-based reason to adopt a scheme of differential sanctions and to reject a scheme of equal sanctions. For any scheme of differential sanctions would have the felicitous advantage (over an otherwise equivalent scheme of equal sanctions) of bringing about an incentive for potential victims to reduce their (socially inefficient) investment in preventive self-protection.

Let me state now why I think the argument is mistaken. My first point against it addresses the fertility of the victim-centered approach to the discussion of the relative severity of punishment for successful and unsuccessful offenses. To the extent that such an approach endorses the proposition that it is a desirable feature of a scheme of criminal sanctions that it provides potential victims with global incentives to reduce their investments in preventive self-precaution, it adds nothing to traditional, offender-centered models of optimal deterrence.<sup>52</sup> For any scheme of sanctions that complies with the

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owner may elect to build an impenetrable fortress, even if the consequence of the reduced sanction leads to more attempts on the part of criminals to enter the house.”).

<sup>52</sup> Of course, my point is *not* that criminal-law theorists and policy makers should not pay attention to criminal law consequences on potential victims’ behavior, or that a victim-centered perspective is generally fruitless, or mistaken. Indeed, for example, it might be the case that we should adopt something like the contributory fault doctrine Ben Shahaar and Harel advocate for in *Blaming the Victim* (*supra* note 15, *passim*) in order to provide potential victims with incentives (not) to adopt *particular* self-protective measures. The point I make here is simply that *to the extent* it yields the prescription of setting criminal sanctions so that potential victims eventually reduce their investments in *preventive* self-precaution, the approach is superfluous.

prescriptions of traditional economic models of optimal deterrence will provide potential victims with the incentives Ben-Shahar and Harel advocate for.

As I claimed above, there are two traditional models of optimal deterrence for the criminal law:<sup>53</sup> the Becker model—according to which criminal-law policies ought to be set so that offenders internalize the social loss their criminal behavior creates—and the Posner model—according to which criminal-law policies ought to be set so as to eliminate offenders’ prospect of gain from criminal activity. Both models yield the prescription that criminal-law policies must be such that the expected punishment offenders face in performing criminal actions rises along with the probability of the actions causing harm to the victim. Now, the probability of an action causing harm to the victim is a partial, decreasing function of the level of preventive self-precaution adopted by the victim: the higher the level of the victim’s self-precaution of the preventive kind, the lower the probability of the criminal action causing harm to the victim. It follows, then, that under both models the lower the victim’s level of preventive self-precaution, the higher the optimal expected punishment.

Then, whatever the model one adopts, any scheme of criminal sanctions that conforms to the basic prescription of making expected punishment rise along with the probability of the action causing harm to the victim will have the felicitous byproduct of providing potential victims with incentives to reduce their expenditures in preventive self-protective measures. Indeed, any scheme of sanctions that conforms to the basic prescription of making expected punishment rise with the probability of actions causing harm (and, by implication, inversely relate expected punishment to victims’ level of preventive self-

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<sup>53</sup> See *supra* text accompanying notes 28-30.



precaution) will produce the same incentives as those produced by Scheme D in Ben-Shahar and Harel's argument. That is, by making expected punishment rise with the probability of actions causing harm to the victim, a proper scheme of sanctions will give prospective offenders an incentive to choose high-precaution victims rather than low-precaution victims. Some offenders who would choose to victimize low-precaution victims under a scheme of sanctions that is not properly responsive to variations in  $q$  (like Scheme E in Table 1) are likely to shift to targeting high-precaution victims under a proper scheme of sanctions. As a consequence, the relative victimization rate of high-precaution victims will rise, thus placing an extra cost to preventive self-precaution. Accordingly, the individually optimal level of preventive self-protection will shift to a lower point—that is, prospective victims will have an incentive to invest less in self-protection of the preventive kind.

My second, and crucial point against Ben-Shahar and Harel's argument is that it is not a necessary feature of a scheme of equal sanctions that it yields the same expected sanction regardless of the criminal actions' probability of success. It certainly can be the case that a scheme of equal sanctions makes expected punishment rise along with the probability of actions causing harm to the victims—as any scheme of sanctions should do according to traditional models of optimal deterrence. Therefore, it can be the case that a scheme of equal sanctions yields different expected sanctions depending on the self-precaution class the victim belongs to—particularly, a higher expected sanction for targeting low-precaution victims, and a lower expected sanction for targeting high-precaution victims, thus setting proper incentives to potential victims. Consequently, it is *not* a feature peculiar to schemes of differential sanctions that of providing potential victims with in-

centives to reduce expenditures in preventive self-precaution—for any scheme of equal sanctions that complies with the prescriptions of traditional models of optimal deterrence will offer equivalent incentives. In other words, the need to provide potential victims with the right set of incentives gives a reason to adopt *either* a scheme of differential sanctions *or* a proper scheme of equal sanctions—which amounts to saying that, contrary to Ben-Shahar and Harel’s claims, schemes of differential sanctions have *no* advantage over proper schemes of equal sanctions as incentive devices to reduce victims’ expenditures in preventive, self-protective measures against crime.

Ben-Shahar and Harel build their case for a scheme of differential sanctions (like Scheme D) by opposing it to a particular scheme of equal sanctions, Scheme E. Under Scheme E, expected punishment does not vary with the probability of actions causing harm to their victims. Hence, Scheme E does not counteract offenders’ incentives to target low-precaution victims rather than high-precaution ones—and consequently, does not counteract potential victims’ incentives to invest in preventive self-precaution. Scheme D is, thus, superior to Scheme E, for the latter is unresponsive to variations in criminal actions’ probability of success ( $q$ ), while Scheme D is responsive to variations in  $q$  in the required direction.

In fact, if the probability of sanctions being imposed on offenders ( $p$ ) is constant whatever the criminal actions’ outcome—whether failed attempts or accomplished crimes—every scheme of differential sanctions will yield higher expected sanctions the higher the probability of actions causing harm to the victim—and correspondingly, higher expected

sanctions the lower the level of preventive self-precaution of the targeted victim.<sup>54</sup> However, as Scheme E shows, not every scheme of equal sanctions will meet an equivalent expected punishment schedule where expected punishment is an increasing function of the probability of actions causing harm to the victim. Yet, any expected punishment schedule can be met by a scheme of equal sanctions simply by manipulating the amount of sanctions to be imposed depending on the probability of actions causing harm. Table 2 shows an example of a scheme of equal sanctions (Scheme E\*) as superior to Scheme E as Scheme D is. In effect, Scheme E\* yields exactly the same expected sanctions as Scheme D.<sup>55</sup> So, qua incentive devices for both offenders and potential victims, Scheme D and Scheme E\* must be equivalent.

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<sup>54</sup> As Ben-Shahar and Harel point out, this felicitous property of schemes of differential sanctions do not necessarily obtain if the probability of sanctions being imposed,  $p$ , is not constant across types of crime outcomes (i.e., failure or completion). If  $p$  is lower for attempts than for accomplished crimes, then even Scheme E would yield the required incentives to potential victims: “[T]he lower probability of detecting attempts is itself a force that makes high-precaution victims more attractive to criminals” (Ben-Shahar & Harel, *Victim-Centered Perspective*, *supra* note 15, at 343). If, on the contrary,  $p$  is higher for attempts than for accomplished crimes, not every scheme of differential sanctions will be superior to Scheme E: “[T]he higher probability for detecting attempts is a consideration that makes high-precaution victims less attractive to criminals: with the greater probability of failure there is a greater probability of detection, and higher expected sanction” (*ibid.* at 344).

<sup>55</sup> Again, expected sanctions are calculated with the formula  $Ef = qpf_r + (1 - q)pf_a$  (*see supra* note 49). Scheme E\* sets sanctions of 85 for targeting low-precaution victims, and of 65 for victimizing high-precaution ones. Thus, under Scheme E\*, the offender who targets a high-protection victim faces an expected punishment of  $0.3 \times p \times 65 + (1 - 0.3) \times p \times 65 = 65p$ , whereas the offender who victimizes a low-protection victim faces  $0.7 \times p \times 85 + (1 - 0.7) \times p \times 85 = 85p$ ; which equals the expected sanctions under Scheme D.

**Table 2**

	Scheme D	Scheme E	Scheme E*
Low-precaution victim ( $q = 0.7$ )	$85p$ ( $f_r = 100, f_a = 50$ )	$100p$ ( $f_r = 100, f_a = 100$ )	$85p$ ( $f_r = 85, f_a = 85$ )
High precaution victim ( $q = 0.3$ )	$65p$ ( $f_r = 100, f_a = 50$ )	$100p$ ( $f_r = 100, f_a = 100$ )	$65p$ ( $f_r = 65, f_a = 65$ )

The contrast between Scheme D and Scheme E\* exemplifies the proposition, which I defended above,<sup>56</sup> that any given level of expected punishment can be effectuated either by a scheme of differential sanctions or by a scheme of equal sanctions. Therefore, any expected punishment schedule could be met either by schemes of differential sanctions or by schemes of equal sanctions—or, by the way, by combinations thereof. As I showed, Ben-Shahar and Harel’s finding is not, strictly read, that schemes of differential sanctions are needed in order to provide potential victims with incentives to reduce preventive self-precaution. Rather, the mechanism that does the job is a proper schedule of expected punishment, where expected sanctions increase with the probability of criminal actions causing harm to the victim—and, consequently, are higher the lower the level of the victims’ preventive self-precaution. Such a schedule, I have just argued, may be achieved not only through schemes of differential sanctions, but also through schemes of equal sanctions. Consequently, Ben-Shahar and Harel’s argument fails to demonstrate the conclusion they openly endorse, that is, that we ought to adopt schemes of differential sanctions rather than schemes of equal sanctions. Their findings, that is to say, do not

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<sup>56</sup> See *supra* text accompanying notes 24-26.

warrant such a conclusion. What they may conclude from their findings might be stated in the following points:

(i) It is a desirable feature of a scheme of criminal sanctions that it provides potential victims with global incentives to reduce their investments in self-precaution (preventive or otherwise)—for victim self-precaution tend to be excessive from a social point of view.

(ii) If expected punishment rises with the probability of actions causing harm to the victim, offenders have an incentive to target victims with higher levels of preventive self-precaution, and potential victims, in turn, have an incentive to decrease their level of preventive self-precaution.

(iii) In virtue of the latter outcome, schemes of sanctions under which expected punishment rises with the probability of actions causing harm to the victim are, therefore, desirable.

(iv) Schemes of differential sanctions may have the property of making expected punishment rise with the probability of actions causing harm to the victim. (Indeed, if probability of sanctions being imposed on offenders is constant whatever the crime outcome, schemes of differential sanctions always have that property.)

(v) Therefore, schemes of differential sanctions, to the extent that they have such a property, are desirable.

My first point against Ben-Shahar and Harel's argument shows that proposition (iii) in itself is unoriginal. The same prescription stems from traditional models of optimal deterrence. Propositions (iv) and (v), in turn, are correct, but uninteresting for the discussion of the relative merits of schemes of differential sanctions vis-à-vis schemes of equal

sanctions. For, as I have claimed in my second point against Ben-Shahar and Harel's argument, it is also true that

(vi) Schemes of equal sanctions may have the property of making expected punishment rise with the probability of actions causing harm to the victim. And,

(vii) Therefore, schemes of equal sanctions, to the extent that they have such a property, are at least as desirable as schemes of differential sanctions.

## II. MORAL INTUITIONS

As my arguments in Part I show, traditional economic models of the criminal law lead to the conclusion that schemes of differential sanctions are not better than schemes of equal sanctions in terms of the incentives they create to avoid criminal behavior. That is, the theory predicts that the move from one kind of scheme of sanctions to the other will not carry any significant change in people's behavior.

Now, empirical studies on the criminal-law deterrence effects show that the predictions based on the economic account of the criminal law do not comfortably fit the available data.<sup>57</sup> In general the response to that fact is that the mechanisms through which the law may affect people's behavior are far more complex than the simple story that backs traditional models of deterrence like the one I introduced in Part I. Two sources of complexity have been pointed out.<sup>58</sup> On the one hand, legal sanctions and official law-enforcement share the stage with other social mechanisms of behavioral control, such as social norms, informal sanctions, peers' esteem, etc. Legal mechanisms interact with those informal mechanisms in ways that often significantly alter the behavioral outcomes that

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<sup>57</sup> See Robinson & Darley, *supra* note 16.

would otherwise obtain were the legal mechanisms to operate in isolation. Theories that fail to properly take into account such possible interactions may yield inaccurate predictions. By the same token, the policy implications based on such predictions may well be defective.

On the other hand, to the extent that legal sanctions and official law-enforcement do influence people's behavior, the impact of such legally controlled variables is mediated by how people perceive those variables and process the perceived information. Traditional economic models of the criminal law assume that there is no (or only negligible) noise between the relevant criminal-law variables and what individuals perceive of them.<sup>59</sup> However, people's perceptions are often biased or otherwise mistaken. Relatively recent experimental research in cognitive psychology and behavioral economics indicates that some kinds of biases or errors systematically (and therefore predictably) affect perception and information processing. Disregarding the mediation of these systematic cognitive and judgmental distortions, as traditional economic analysis of law does, may give rise to inaccurate predictions of the effects of the law on people's behavior—and again the policy implications such predictions yield may be flawed.

In the remainder of the article I explore the possibility of whether either of the preceding two sources of complexity (i.e., the interaction of legal rules with existing social practices, and the mediation of systematic biases in people's perceptions of legal prac-

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<sup>58</sup> See *supra* notes 18 & 19 for references.

<sup>59</sup> See Raaj K. Sah, *Social Osmosis and Patterns of Crime*, 99 J. Pol. Econ. 1272, 1273 (1991) (arguing that “[t]his literature assumes that [individuals’ perceived probability of punishment] is an exogenous parameter to the individual, and typically makes the much stronger assumptions that all individuals have identical and exogenously given perceptions and that these are the same as the reality.”)

tices) makes it the case that schemes of differential sanctions are better than schemes of equal sanctions in terms of the predictable consequences of one and the other scheme. In this Part, after discussing a related argument by Paul Robinson and John Darley, I will argue that the consequences of the adoption of a particular scheme of sanctions may be affected by the consistency between the legal scheme of sanctions and people's moral intuitions regarding how crimes should be punished. Then, in Part III, I will turn to the likely effects of cognitive and judgmental biases.

#### A. *Diminished Moral Credibility*

Considering their experimental findings that people tend to endorse harsher punishment for successful offenses than for unsuccessful offenses,<sup>60</sup> Paul Robinson and John

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<sup>60</sup> The findings are reported in Paul H. Robinson & John M. Darley, *Justice, Liability & Blame—Community Views and the Criminal Law* (1995)—see Study 1, at 14-28, and Study 17, at 181-9, for findings indicating subjects' tendency to endorse differential punitive judgments for successful and unsuccessful offenses. Study 1 was later replicated with similar results—see John M. Darley, Catherine A. Sanderson, & Peter S. LaMantia, *Community Standards for Defining Attempt: Inconsistencies with the Model Penal Code*, 39 *Am. Behav. Scientist* 405 (1996). Findings in similar direction have also been reported by Norman Finkel—see Norman J. Finkel, Stephen T. Maloney, Monique Z. Valbuena & Jennifer L. Groscup, *Lay Perspectives on Legal Conundrums—Impossible and Mistaken Act Cases*, 19 *Law & Hum. Behav.* 593 (1995); and Norman J. Finkel, *Commonsense Justice, Culpability, and Punishment*, 28 *Hofstra L. Rev.* 669, 683-6 (2000). Robinson and Darley's experiments confronted groups of lay subjects with hypothetical scenarios and asked them to give their views on the appropriate liability to assign to the persons in the scenarios. Subjects chose different degrees of liability from a thirteen-level scale, ordering sentencing possibilities by degree of seriousness, from "no liability," to "death." Thus, in one of the scenarios relevant for the discussion of differential punishment, subjects chose, on average, a sentence of



Darley make an interesting argument against the adoption of schemes of equal sanctions.<sup>61</sup> Their argument is best understood as signaling a source of negative side effects on people's willingness to comply with the law, stemming from the clash between criminal-law policies and people's moral intuitions. In brief, they predict that the adoption by the criminal law of schemes of equal sanctions for successful and unsuccessful crimes would risk a decline in people's general willingness to abide by the law.

Robinson and Darley's argument against schemes of equal sanctions is a derivation of their more general argument that community views of responsibility and punishment ought to guide the formulation of criminal-law rules and doctrines, on the one hand, together with their inference that the findings of people's tendency to favor harsher penalties for successful crimes than for (all else equal) unsuccessful crimes bespeak people's strong endorsement of differential punishment, on the other. The argument that community views of responsibility and punishment ought to guide the formulation of criminal-law rules and doctrines, in turn, is predicated on the following premises.<sup>62</sup> First,

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slightly less than life imprisonment when confronted with a case in which the agent, with the intention of killing her victim, stabbed her in the chest, killing her instantly; and a sentence of 9.4 years of imprisonment in a case where the same agent, with equivalent intentions and motives, shot the victim through a window but missed her. For a critical assessment of the chosen methodology, see Christopher Slobogin, *Is Justice Just Us? Using Social Science to Inform Substantive Criminal Law*, 87 J. Crim. L. & Criminology 315, 327-32 (1996).

<sup>61</sup> See *supra* note 60, at 206 (arguing that criminal codes "ought to distinguish and punish more severely instances where the prohibited harm actually occurs or the prohibited conduct is actually consummated, as compared to instances where the harm or evil is only intended (but not carried to completion)").

<sup>62</sup> See *ibid.*, at 5-7, 201-3 (outlining the essentials of the argument); the argument was further elaborated in Robinson & Darley, *supra* note 6.

most people refrain from criminal activity not because they are deterred by the threat of punishment, but primarily on moral grounds, that is, because they believe that is the right thing to do. Among the many possible social sources of moral insight, people tend to take the criminal law as a valid source of moral authority, often deferring to its judgment about what is wrong. These propositions seem to have fairly good empirical evidence in their support.<sup>63</sup>

Secondly, any criminal-law rule (or principle, or official judgment based on it) may clash with a moral belief of an individual. When a clash of this sort occurs, the individual might stick with her belief, disregarding the moral validity of the official rule, or she might somehow revise her initial judgment.<sup>64</sup> If the individual sticks with her initial judgment, she will thereby lack a reason to obey the legal rule she morally objects or disagrees with. That is not to say that she will not have *any* reason to observe the rule; for she may find other reasons to comply with it—e.g., she may be deterred from violating the rule by the threat of legal punishment. The point is that she will be less inclined to obey the rule than she would be if the rule did not clash with her moral beliefs. Furthermore, Robinson and Darley speculate that moral rejections of that sort may have deeper effects. For the dissenting individual, the very “moral credibility” of the criminal law as a valid source of moral authority may be undermined—the individual may believe, that is to say, that as this rule is morally mistaken, others might be as well; and, thus, the individual may be less likely to defer to the criminal law as a source of moral authority in cir-

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<sup>63</sup> See Robinson & Darley, *supra* note 6 at 468-77, and references therein.

<sup>64</sup> For a plausible account of how this change in the individual’s beliefs may happen, see Alex Geisinger, *A Belief Change Theory of Expressive Law*, 88 Iowa L. Rev. 35, 55-72 (2002).

cumstances where legal rules *other* than the one she objects are to guide her conduct—a process Robinson and Darley call “generalization of disrespect.”<sup>65</sup>

Thirdly, the previous two points suggest that some discrepancies between the contents of the criminal law and people’s independently held moral beliefs may lead to a less morally credible criminal law. In turn, a less morally credible criminal law would secure less compliance than a more credible one. If the criminal law is to be devised so as to reduce noncompliance, it should then be formulated so as to minimize the chances of relevant disagreement.

Now, for Robinson and Darley’s conclusion that criminal codes ought to punish more severely successful crimes than unsuccessful crimes to be warranted, more is required than the previous general argument and the findings that people normally favor harsher sanctions in successful crime cases than in (all else equal) unsuccessful crime cases. In a word, Robinson and Darley should show—as they do not—that the adoption of schemes

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<sup>65</sup> Robinson & Darley, *supra* note 6 at 483-5. A recent experiment with 98 undergraduate students offers some evidence for this hypothesis—see Janice Nadler, *Flouting the Law: Does Perceived Injustice Provoke General Non-Compliance?* (April 2002) (Northwestern University School of Law, Law and Economics Research Paper Series, Research Paper No. 02-9, available at the Social Science Research Network Electronic Paper Collection). The participants that had been exposed to information about the adoption of laws they would likely perceive as unjust reported to be slightly more likely to engage in a variety of illegal behaviors (such as drunk driving, speeding, shoplifting, and the like) than those who had been exposed to information regarding the adoption of laws they would likely perceive as just. See, however, Jeremy A. Blumenthal, *Who Decides? Privileging Public Sentiment about Justice and the Substantive Law*, 72 UMKC L. Rev. 1, 16-7 & n.104 (2003) (expressing skepticism as regards the hypothesis of generalization of disrespect, and stressing an important limitation of Nadler’s experiment, namely, the uncertain connection between participants’ self-reported attitudes towards their future behavior, and their actual future behavior).

of equal sanctions would trigger the dynamics of generalization of disrespect so affecting people's willingness to comply with the law. If for whatever reasons the chances that the legal adoption of schemes of equal sanctions affect people's general tendency to abide by the law were not significant, Robinson and Darley's argument, though perhaps decisive as regards other rules, would not serve the purpose of adjudicating the issue of differential punishment versus equal punishment. In the remainder of this Part, I raise some doubts as regards the plausibility of the prediction that the adoption of schemes of equal sanctions would affect compliance with the law through the mechanism of generalization of disrespect.

As I noted before, Robinson and Darley's claim that the law's moral credibility facilitates compliance with its demands is partially based on social science research indicating that people typically refrain from criminal activity on moral grounds, rather than for fear of being sanctioned.<sup>66</sup> However, as this literature also reveals, those moral grounds comprise judgments of, at least, two different kinds: on the one hand, judgments about the propriety of legal rules' content (e.g., I observe the legal rule that prohibits that I kill my neighbor because I believe on moral grounds that I ought not to kill her even in the absence of a legal prohibition), and, on the other hand, judgments about the authorities' legitimacy for enacting and enforcing those rules (e.g., I observe the legal prohibition not to kill my neighbor because I believe that the law should be obeyed whatever its content). In other words, people's moral grounds for compliance with a particular legal rule do not necessarily involve the belief that its content is morally adequate. For they also find

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<sup>66</sup> Perhaps the best example of this literature is Tom R. Tyler, *Why People Obey the Law* (1990) (reporting a study involving a sample of 1,575 Chicago citizens, and reviewing previous studies).

moral grounds for compliance with a legal rule when they believe that the legal authorities who have enacted it, or are enforcing it, are legitimate authorities.<sup>67</sup>

The same literature also indicates two other crucial facts. On the one hand, even though the multiplicity of factors influencing people's judgments about authorities' legitimacy has proven difficult to capture, social scientists have nevertheless found that legitimacy assessments are strongly connected to evaluations of the fairness of the procedures through which the authorities make decisions—and not, or not so much, to the particular contents of their decisions.<sup>68</sup>

On the other hand, evidence also shows that in cases of conflict between legitimacy-based reasons and reasons based on the morality of rules' content, the former normally dominate people's behavior—that is, when individuals feel that authorities are legitimate (or that a legal rule has been legitimately enacted and enforced), they tend to comply with the law (or legal rule), even if they disagree with it (that is, even if they believe their contents to be morally objectionable).<sup>69</sup>

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<sup>67</sup> See Tyler, *ibid.*, at 3-4 (“This normative commitment [as opposed to commitment based on calculations of punishment risk] can involve personal morality or legitimacy. Normative commitment through personal morality means obeying a law because one feels the law is just; normative commitment through legitimacy means obeying a law because one feels that the authority enforcing the law has the right to dictate behavior”), 19-68. See also, Tom R. Tyler & John M. Darley, *Building a Law-Abiding Society: Taking Public Views About Morality and the Legitimacy of Legal Authorities into Account when Formulating Substantive Law*, 28 Hofstra L. Rev. 707 (2000) (reviewing available research and drawing implications for law-making).

<sup>68</sup> See Tyler, *supra* note 66, 71-157; also, Tyler & Darley, *supra* note 67, at 722-4.

<sup>69</sup> See Tyler, *supra* note 66, 57-68 (reporting at 63: “Respondents are almost equally likely to comply with the law because they view it as legitimate whether they think the likelihood of their being caught is high or

In light of these facts, then, the prediction that disagreement with a particular legal rule, or official decision may trigger generalization of disrespect seems unsupported. Indeed, the available evidence suggests that, provided that the rule is adopted, or the decision made, in fair ways, disagreement with it will not affect compliance. Granted, one can conceive of cases where substantive disagreement with an official decision—like the adoption or enforcement of a legal rule—is such that the dissenter’s assessment of the whole legitimacy of the legal system may be put at risk, or even collapse. There is no reliable evidence of this kind of effect; only a couple of anecdotal examples are advanced. Take the following example regarding the behavior of a group of radical supporters of the “pro-life” position, in the wake of *Roe v. Wade*:

This group is one of many within the anti-abortion community. Believing that abortion is murder, this group’s members originally organized protests designed to be nonviolent, following the model of the civil rights movement. They felt that their principled opposition to abortion would lead society to change its laws. However, they failed to achieve this objec-

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low, whether or not they think their peers would disapprove of law breaking, and whether or not they think law breaking is morally wrong.” And concluding, at 64-5: “People generally feel that law breaking is morally wrong, and that they have a strong obligation to obey laws even if they disagree with them . . . Law breaking is viewed both as morally wrong and as a violation of an obligation owed to authorities. This high level of normative commitment to obeying the law offers an important basis for the effective exercise of authority by legal officials. People clearly have a strong predisposition toward following the law. If authorities can tap into such feelings, their decisions will be more widely followed”). See also, Herbert C. Kelman & V. Lee Hamilton, *Crimes of Obedience: Toward a Social Psychology of Authority and Responsibility* 89-90 (1989) (arguing that “[o]nce a demand is categorized as legitimate, the person to whom it is addressed enters a situation where his personal preferences become more or less irrelevant as determinants of behavior”); also, Tyler & Darley, *supra* note 67, at 735-6 (discussing further evidence).

tive, and eventually began to engage in increasingly violent actions, such as blocking the entrances to clinics as an act of civil disobedience. These acts were still within the framework of the law, since group members accepted arrest and jail time/fines as a consequence of their actions. As time went by, and abortion laws were not changed, this group increasingly engaged in acts of sabotage against clinics. At first, such acts were carefully timed to avoid harm to people. However, over time, the group's acts escalated into hunting and assassinating doctors who perform abortions. What this shows is how, over time, the group's view that the law and legal authorities were legitimate and trustworthy declined, as did their respect for the rule of law. The driving force for this decline was their inability to change the law to be more consistent with their own moral views.<sup>70</sup>

It is hard to tell what is the significance of examples like this one. They do suggest that it is possible that an individual infers, from the finding that one or more legal rules or official decisions are morally erroneous, that the legal system is not a reliable source of moral insight, and that is not as fair as to be entitled to her obedience. Yet, they do not tell much about what are the conditions under which a non-negligible number of individuals may draw such inference.

It is nonetheless plausible to suppose that it would take more than *any* perceived moral mistake for minimally reasonable individuals to infer that the criminal law is not a reliable source of moral guidance. Similarly, provided they are reasonable enough as to concede that even the fairest decision-making procedures may yield erroneous decisions, individuals would not be inclined to discredit legal authorities' legitimacy on the grounds that they have committed a moral error of any sort. There must be something in the *kind*

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<sup>70</sup> Tyler & Darley, *supra* note 67, 730-1 (footnotes omitted). Reference to this case is also present in Robinson & Darley, *supra* note 6, at. 482-3.

of moral mistake, something, moreover, that, from the point of view of the dissenting individuals, makes it incompatible with a legal system being legitimate or morally trustworthy. Consider, again, the events of the quoted example. Perhaps, as it has been suggested,<sup>71</sup> these radical “pro-lifers” cannot refrain from *seeing* early fetuses as persons, which may make them particularly immune to moral argument to the contrary. Seeing early fetuses as persons, they believe them as entitled to full legal protection as any other person, including, of course, protection against intentional killing. Accordingly, they may conclude that the law permitting abortion is morally unacceptable. Now, to make sense of their alleged inference that the criminal law in general is no longer a trustworthy source of moral guidance, one needs to assume that these individuals also entertain the belief that, say, no authority that asserts that it is permissible to treat some persons like things might be a reliable source of moral insight. Likewise, their alleged discredit of the legal authorities’ general legitimacy may involve the belief that, say, no legal system that grants some persons the legal status of mere things—and that persists in so doing even against argument to the contrary—may be legitimately entitled to obedience.

What are the implications, if any, of these remarks for the issue of the adoption of schemes of equal punishment for unsuccessful and successful crimes? Certainly none if people’s moral commitments do not lead (a non-negligible number of) them to the conclusion that the legal adoption of such schemes of sanctions is morally unacceptable. Assuming that a relevant number of people would find those schemes of sanctions morally intolerable—an assumption I challenge later on—its adoption will not affect compliance

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<sup>71</sup> See Paul M. Churchland, *The Engine of Reason, the Seat of the Soul: A Philosophical Journey into the Brain* 147-8 (1995).



unless it triggers the mechanism of generalization of disrespect in a non-negligible number of individuals. To that extent, the adoption of a scheme of equal sanctions is relevantly different from the adoption of a rule criminalizing a type of action as yet legally permissible. In the latter case, the adoption of the new rule alters the distribution of what is legally permissible and what is not; thus, any individual who finds the newly criminalized type of action morally admissible will lack content-related moral grounds for compliance with the new rule. In contrast, the adoption of a scheme of equal sanctions simply disposes of the punitive discount for unsuccessful offenders (or the extra charge for successful ones), without altering the moral guidance that the criminal law is expected to offer, in terms of signaling which conducts are prohibited, mandatory, or permissible. So, if its adoption is to affect compliance, it must be by undermining the law's general moral credibility. Anyway, since people's willingness to comply is normally not affected by disagreement with legal rules' content, unless they believe that the authorities enacting and enforcing them are illegitimate, it seems fair to suppose that, provided the adoption of schemes of equal sanctions does not affect people's perception of the authorities legitimacy, it will have no negative impact on compliance.

Of course, as it was the case with the radical pro-lifers of the example, there could be some individuals whose peculiar beliefs make them infer, from the fact that the criminal law adopts schemes of equal sanctions, that the legal authorities are such as not to be entitled to obedience. Like the radical pro-lifers of the example, these hypothetical, radical supporters of differential punishment should be particularly immune to counterargument—that is, they should strongly endorse differential punishment as a matter of principle—and should entertain the belief that no legitimate authority may approve of a scheme

of sanctions under which accomplished and attempted crimes are punished with the same penalties. Conceding, for the sake of argument, that some individuals do endorse the principle of differential punishment in such a strong way, is it plausible to suppose that a relevant number of people would condition authorities' legitimacy to their support of schemes of differential sanctions in the criminal law? I am prepared to believe that there is a relevant number of people who believe that no legal system that denies human beings the legal status of persons (as opposed to mere things) is a legitimate legal system—after all, history has witnessed wars and revolutions made in the name of such idea.<sup>72</sup> However, I simply see no reason why anyone would be inclined to link evaluations of legitimacy to the observance of the principle of differential punishment. In the absence of a convincing story, the prediction that the adoption of schemes of equal sanctions will risk generalization of disrespect—even conceding that people strongly endorse differential punishment as a matter of principle—strikes me as a gross overstatement.

Be that as it may, such a prediction necessitates that a relevant number of people are prepared to object the legal adoption of schemes of equal sanctions—that is, that they endorse differential punishment as a matter of principle, and that upon reflection they would stick with this principle against the law. Robinson and Darley infer this strong endorsement from the fact, suggested by their findings, that people tend to favor harsher sanctions in accomplished crime cases, and more lenient ones in all-else-equal attempted crime cases. Yet, the inferential path from such findings to the conclusion that people

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<sup>72</sup> If some of these individuals also have the strong conviction that early fetuses are as human beings as you and I, then the adoption of a policy making abortion permissible might trigger, for these individuals, the mechanism of generalization of disrespect. Still, the exceptionality of the example suggests that the number of individuals in which these two beliefs coincide is not as large as to be taken into account.

strongly endorse differential punishment as a matter of principle is paved with obstacles Robinson and Darley seem to overlook. Certainly, *if* people strongly endorsed differential punishment as a matter of principle, they would favor harsher sentences in accomplished crime cases than in attempted crime cases, all other things being equal. The findings thus show just that people tend to express punitive judgments in hypothetical cases *as though* they endorsed that principle.<sup>73</sup> But that behavioral coincidence is not enough as to warrant the claim that the adoption of a scheme of equal sanctions will risk generalization of disrespect.

To begin with, the findings do not warrant the inference that people's intuitions that successful offenses ought to be punished more severely than unsuccessful offenses are held independently of the law—and therefore may serve as the basis for criticizing the law. Consider the following study conducted with New Jersey citizens by John Darley, Catherine Sanderson and Peter LaMantia.<sup>74</sup> Following the same methodology of the Robinson and Darley studies, respondents in this study were asked to propose appropriate sentences for hypothetical cases of accomplished and attempted murder, and accomplished and attempted robbery. As expected, respondents proposed substantially more severe sentences in the accomplished crime cases than those they proposed in the attempted

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<sup>73</sup> A methodological limitation not peculiar to Robinson and Darley's study—see Norman J. Finkel, *Commonsense Justice, Psychology, and the Law: Prototypes that are Common, Senseful, and Not*, 3 Psychol. Pub. Pol'y & L. 461, 469 (1997) (arguing that studies reporting the outcomes of jurors' or mock jurors' decisions “only tell[] us what jurors did, not why they did what they did, let alone telling us what they understood or how they applied that understanding”).

<sup>74</sup> Darley, Sanderson, & LaMantia, *supra* note 60.

crime cases.<sup>75</sup> The study also tested participants' perceptions of the relevant criminal law rules in force in New Jersey at the time of the experiment. The evidence showed that participants erroneously believed, for the two tested types of crimes (murder and robbery), that New Jersey criminal statutes punished accomplished crimes substantially more severely than attempted crimes, when the code actually made no difference in punishment between accomplished and attempted robberies, and only a slight difference between accomplished and attempted murders.<sup>76</sup> Darley, Sanderson and LaMantia interpret these findings as follows:

[M]ost citizens hold the (erroneous) belief that the legal code matches their moral intuitions about the liability levels that should be assigned to various attempts. We interpret that association to mean that the subjects have clear intuitions about how attempts are [ought to be?] judged, are unaware of the real content of the code, and think that the code is morally appropriate and thus must agree with their judgments.<sup>77</sup>

Though possible, that interpretation is not warranted by the evidence. It may also be the case that, uncertain about what is the right principle from which to derive their judgments, participants are willing to defer to the law—as they normally would do, according to Robinson and Darley.<sup>78</sup> Given that they are unaware of the precise contents of New Jersey applicable statutes, they make an educated guess, based on whatever experience they might have—and they are rather accurate, considering variations across jurisdic-

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<sup>75</sup> *Ibid.*, at 411-4.

<sup>76</sup> *Ibid.*, at 414-6 (showing that “[p]articipants’ own liability assignments for both murder and robbery cases are almost identical to their perceptions of the actual New Jersey codes”).

<sup>77</sup> *Ibid.*, at 419.

<sup>78</sup> See Robinson & Darley, *supra* note 6, at 471-7.

tions, and over time: the Model Penal Code trend, which the New Jersey statutes in force at the time of the study followed, is a recent, and rather exceptional trend.<sup>79</sup> They then conform their responses to the (erroneous) view of the criminal law contents that their educated guess yields.

That is not to say that in the absence of a perceived legal practice of differential punishment respondents would tend to hold equal punitive judgments. Indeed, for reasons I will deploy later on,<sup>80</sup> I think that our intuitive punitive judgments in such cases do tend to be differential, rather than equal, independently of the law. For, as I will suggest, our moral intuitions regarding wrongdoing that revolves around the causation of harm are dominated by paradigm cases of accomplished offenses. In pairs of all-else-equal accomplished and attempted crime cases, the accomplished crime case will be more close to the relevant paradigm case than the attempted crime case, which will determine a less extreme intuitive response for the latter than for the former. Still, our intuitive responses to actual or hypothetical cases are just that, that is, intuitive responses. What we believe on intuition is often proven to be mistaken by those better informed than we are. Thus, the fact that we believe that the criminal law mirrors our intuitive judgments would reinforce our intuitive beliefs, making us more confident in holding them, and in acting on the basis of them, than we would otherwise be. My point here is just that insofar as

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<sup>79</sup> For references, *see* Paul H. Robinson, *Fundamentals of Criminal Law* 488-9 (1988) (listing 38 jurisdictions where attempts are always punished less severely than accomplished crimes); also, Paul H. Robinson, *The Role of Harm and Evil in Criminal Law: A Study in Legislative Deception?*, 5 *J. Contemp. Legal Issues* 299, 305 nn.18 & 20 (1994) (distinguishing jurisdictions that generally adopted the Model Penal Code).

<sup>80</sup> *See infra* text accompanying notes 102-118.

this reinforcing effects are not somehow neutralized, the findings in studies such as Robinson and Darley's may not reflect the participants independent commitment to differential punishment, and therefore may not serve as the basis to infer what their position would be if they knew that the criminal law observes the counterintuitive principle of equal punishment.

Furthermore, as I will argue in Part III, the findings of differential punitive judgments in pairs of all-else-equal accomplished and attempted crime cases may also be importantly magnified by the impact of robust cognitive and judgmental biases. As I will show, these biases, which I name "result biases," affect the perception and evaluation of descriptive properties of the cases other than the actual (non)occurrence of the crime result, which in turn may affect the intuitive responses to the cases based on those misperceived properties. In particular, available psychological research strongly suggests that, due to the interplay of three convergent mechanisms, actions that actually cause harm tend to be perceived as more dangerous than otherwise equal actions that fail to cause harm.<sup>81</sup> Since intuitive punitive judgments are likely to be responsive to the actions' perceived dangerousness—so that, all other things being equal, the more dangerous the action is, the harsher the punitive response—then the findings of differential punitive judgments may in part be due to the misperception of the actions' dangerousness, rather than to commitment to the principle of differential punishment. Put another way, an individual who believed that, all other things being equal, unsuccessful offenses should be punished as severely as successful offenses would still hold differential punitive responses to pairs of all-else-equal accomplished and attempted crime

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<sup>81</sup> See *infra* text accompanying notes 118-131.

cases if she is normally affected by result biases—for these biases would prevent her from finding out that the cases are equal in all their properties other than the actual (non) occurrence of the crime result.

Again, that is not to say that in the absence of those result biases people would tend to have equal punitive responses to all-else-equal accomplished and attempted crime cases. My point is just that were the impact of the result biases somehow neutralized, the resulting differential punitive judgments may be significantly attenuated.

Let me sum up. Robinson and Darley's argument that general compliance with the law is a partial function of the law's perceived moral credibility, together with the fact that people's punitive intuitive judgments tend to follow a pattern consistent with the principle of differential punishment yield an argument against the legal adoption of schemes of equal sanctions. The argument depends crucially on the following two propositions. First, the findings that people normally hold differential punitive intuitive judgments indicate that people would disapprove of a criminal law that includes schemes of equal sanctions. And secondly, given the first proposition, the adoption of schemes of equal sanctions may affect the law's perceived moral credibility, and thus reduce people's willingness to abide by the law through the mechanism of generalization of disrespect. Hence, all other things being equal, schemes of differential sanctions are better than schemes of equal sanctions because under the latter people's willingness to abide by the law in general is lower than under the former.

I began my discussion of such argument by challenging the plausibility of the argument's second proposition—i.e., that given the first proposition, the adoption of schemes of equal sanctions may trigger the mechanism of generalization of disrespect. I argued

that even though under some peculiar conditions the fact that a relevant number of people disapprove of a particular criminal law rule might trigger the mechanism of generalization of disrespect for this group of people, there is nothing suggesting that disapproval of the practice of equal punishment might be accompanied by such peculiar conditions.

Then I went on and challenged the plausibility of the first proposition—i.e., that the findings that people normally hold differential punitive intuitive judgments for successful and unsuccessful offenses indicate that people would disapprove of a criminal law that observes the principle of equal punishment. What these findings may warrant is the prediction that people would find the practice of equal punishment counterintuitive. But there is a long way from finding a legal practice counterintuitive to disapproving of it on moral reasons, and even more to disapproving of it as strongly as to be immune to counterargument—let alone to conditioning the very legitimacy of the authorities on the rejection of such practice. Moreover, I also stressed that the available findings of people's tendency to hold differential punitive judgments may overstate people's intuitive commitment to differential punishment—reinforcing effects stemming from people's belief that the law mirrors their intuitions, and cognitive and judgmental result biases may exaggerate the differentiation, polarizing responses that would otherwise be more ambiguous.

To conclude, the case in favor of schemes of differential sanctions grounded in the hypothesis that the adoption of schemes of equal sanctions would undermine the criminal law's moral credibility so as to significantly diminish people's general willingness to abide by the law ultimately depends on empirical evidence as yet unavailable. The experimental evidence showing that people's punitive responses to pairs of all-else-equal



accomplished and attempted crime cases tend to follow a pattern consistent with the principle of differential punishment does not suffice. In the absence of such empirical evidence, however, we may reasonably surmise that the hypothesis upon which the argument is based seems unlikely. That is, the prediction that the adoption of schemes of equal sanctions risks generalization of disrespect for a significant number of individuals appears as a gross overstatement.

### *B. Enforcement Propensities*

The economic analysis of the criminal law assumes that there are two relevant policy variables, variables whose manipulation is available for the policy-maker to achieve the goal of optimal deterrence. The first variable is sanction severity, which comprises not only the level of disutility to be imposed on offenders but also the kind of treatment that is to cause the required level of disutility. The second variable is the probability of sanctions being imposed on offenders, which nests several probabilities: essentially, the probability of an individual being apprehended if she commits a crime, the probability of being prosecuted if apprehended, the probability of being convicted if prosecuted, and the probability of a particular sentence being entered if convicted. The probability that this chain of probabilities yield—the probability of a sanction being imposed—is conventionally assumed to be a function of the resources devoted to public enforcement of the law.<sup>82</sup> The more the resources devoted to that task—i.e., the more police officers, prosecutors, clerks, courts, scientific experts, computers, electricity, time, etc.—provided they are efficiently allocated, the higher the probability of sanctions being imposed on offenders.

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<sup>82</sup> See, e.g., Polinsky & Shavell, *supra* note 13.

Though true, this assumption is only part of the story. Indeed, the probability of offenders being effectively sanctioned is a measure of the level of law enforcement present in a community—as the height of a column of mercury in a thermometer is a measure of temperature. Any level of law enforcement is the result of the convergent behavior of a plurality of actors—victims and witnesses, police officers, prosecutors and defense attorneys, judges, scientific experts, jurors, etc. Certainly, law enforcement level is an increasing function of the level of resources devoted to enforcement tasks, as it is commonly assumed. However, facts other than the allocation of material resources may systematically influence the relevant conduct of the actors whose convergent behavior makes the resulting enforcement level. As I argue in this section, individuals’ intuitive agreement with the legal sanction to be enforced is one of such facts. As a consequence, policy-makers could not choose a level of sanction severity without thereby affecting the corresponding level of law enforcement. I show that, under some realistic conditions, this finding gives rise to an argument against the adoption of schemes of equal sanctions, and in favor of a scheme of differential sanctions—though not any. The argument that so results is related to that upon which the American Law Institute (ALI) appeared to have grounded the MPC scheme of differential sanctions for first-degree felonies.<sup>83</sup> The ALI Commentaries to the MPC offer, however, a rather imprecise account:

How far the penal law ought to attribute importance in the grading of offenses to the actual result of conduct, as opposed to results attempted or threatened, presents a significant and dif-

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<sup>83</sup> MPC § 5.05 (1): “Except as otherwise provided in this Section, attempt, solicitation and conspiracy are crimes of the same grade and degree as the most serious offense that is attempted or solicited or is an object of the conspiracy. An attempt, solicitation or conspiracy to commit [a capital crime or a] felony of the first degree is a felony of the second degree”.

difficult issue. Distinctions of this sort are essential, at least when severe sanctions are involved, for it cannot be expected that jurors will lightly return verdicts leading to severe sentences in the absence of the resentment aroused by the infliction of serious injuries. Whatever abstract logic may suggest, a prudent legislator cannot disregard these facts in the enactment of a penal code.<sup>84</sup>

The argument I develop, then, may also be seen as an attempt to make sense of these vague terms *qua* argument against the adoption of schemes of equal sanctions.<sup>85</sup>

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<sup>84</sup> Model Penal Code & Commentaries § 2.03, Comment at 257 (1985). The claim had been previously made by Jerome Michael and Herbert Wechsler in their 1937 study on the law of homicide, where they wrote: “[P]opular indignation is inevitably aroused by the actual occurrence of a wrong, with the result that death and other very severe penalties are more likely to be tolerated when homicidal behavior has resulted fatally than when it has not”—see Jerome Michael & Herbert Wechsler, *A Rationale of the Law of Homicide II*, 37 Colum. L. Rev. 1261, at 1295 (1937).

<sup>85</sup> Stephen Schulhofer evaluated long ago the argument against the adoption of schemes of equal sanctions that arises from the quoted paragraph—see Schulhofer, *supra* note 2. He focused on the reliability of the factual claim that juries would not be willing “to lightly return guilty verdicts” under a scheme of sanctions whereby attempts are punished as severely as accomplished crimes—see *ibid.*, at 1524-33. His conclusion was that the available (though indirect) scientific evidence gave only weak support to the ALI’s prediction, and only with respect to some unintentional crimes, on the one hand, and with respect to the imposition of the death penalty, on the other. With respect to other types of crimes, and other kinds of penalties, Schulhofer found no reliable empirical support—*ibid.*, at 1533 (“This analysis of nullification suggests that the problem is not likely to arise with any significant frequency in certain important situations, notably prosecutions for unsuccessful attempts, and the likelihood of nullification seems particularly small where the completed crime would not involve serious physical injury in any event. On the other hand, the nullification danger does appear serious in cases not involving major harm, if the crime is based on recklessness or negligence, or if the crime is subject to the death penalty”). For the reasons I deploy below, I still believe that there is some truth in the ALI’s factual claim. Still, be that as it may, the focus of my inquiry lies on

## 1. Background

It is a fact that individuals have views about what the appropriate punitive responses to crime should be.<sup>86</sup> For any particular criminal act, it is likely that some individuals will approve of the act and object its criminalization, others will find the existing legal sanction too lenient, others that it is too harsh, etc. When they face tasks relevant to law enforcement—acting as witnesses, judges, police officers, prosecutors, jurors, etc.—these beliefs may play a role. It is reasonable to speculate that there is some correlation between individuals’ willingness to enforce the law in a particular case, and their beliefs in the correctness of the legal treatment for that case; particularly, that individuals’ willingness to enforce the law in any particular case is a (partial) function of their agreement with the law, so that the more they agree with the legal solution for the case, the more ready they are to enforce it—that is, people are more willing to cooperate with law-enforcement authorities, police officers are more willing to apprehend offenders, prosecutors more willing to press charges against them, jurors are more willing to return

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the propriety of the inference according to which schemes of differential sanctions are superior to schemes of equal sanctions *provided* jurors—and the rest of the relevant actors within the law enforcement venture—are more willing to enforce the former than the latter.

<sup>86</sup> See, e.g., Robinson & Darley, *supra* note 60 (reporting experimental findings of people’s intuitive solutions to hypothetical criminal cases); and Julian V. Roberts & Loretta J. Stalans, *Public Opinion, Crime, and Criminal Justice* (2000) (reviewing research on public opinion).

guilty verdicts, etc. The intensity of this (un)willingness to enforce the law I call *enforcement propensity*.<sup>87</sup>

People's agreement with the legal response to a particular action, and their corresponding propensity to enforce it, may be conceptualized—as Dan Kahan has proposed<sup>88</sup>—as a function of the severity of the legal response, in the following terms. As the legal response to a particular action moves away from what an individual considers the proper response to the action, the individual's agreement decreases and, correspondingly, her willingness to enforce that legal response—or her individual enforcement propensity—decreases as well. In other words, people's enforcement propensity with respect to a particular law reaches its maximal level when the law is in perfect agreement with their personal views about how the law should be. Drawn in a graph, this enforcement propensity function is represented by a single-peaked curve, as it is shown in Figure 1.

[Figure 1 about here. (See Appendix)]

The curve  $e(f)$  represents the variations in an individual's willingness to enforce a legal response for a particular action (or class of actions) as the legal response for it moves from 0, or no criminal-law response, toward increasing levels of sanction severity. The enforcement propensity function represented in Figure 1 shows an individual (or group of individuals) who approves of a policy of criminalization for the action in question—which is expressed by her enforcement propensity being zero when there is no

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<sup>87</sup> I borrow the concept from Dan M. Kahan, *Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem*, 67 U. Chi. L. Rev. 607, 611 (2000) (also arguing that individual enforcement propensity is a function of individuals' agreement with the law to be enforced—see *ibid.*, at 611-3).

<sup>88</sup> See *ibid.*, at 611-8.

criminal-law response—but for whom there is also an *excessive* legal sanction, one which she is unwilling to enforce—that is, her enforcement propensity becomes null if the sanction severity is  $f_m$  or higher. Finally,  $f_n$  is the sanction severity the individual of the example regards as appropriate, and so, that is the legal response she is most willing to enforce—at that point, then, her enforcement propensity reaches its maximal level, or  $e_{max}$ .

The aggregate enforcement propensity function for a legal response to a type of action must have, then, the same single-peaked shape, which implies that for every type of action there is a sanction level, equal or higher than zero, at which aggregate enforcement propensity is at its maximal level. This finding leads to the following implication. The probability of offenders being effectively sanctioned depends not only on the resources devoted to enforcement tasks—as it is commonly assumed—but also on the severity of the legal response to be enforced.<sup>89</sup> For this probability is the resultant of the convergent behavior of all the relevant actors, each of whose individual contributions to the public enforcement venture is influenced (in part) by their agreement with the legal response they are expected to enforce. So, at any given level of resources efficiently allocated to the public enforcement of the criminal law, it will be the case that the resultant probability of offenders being effectively sanctioned for having performed actions of a particular type varies with the relevant actors' enforcement propensity, as it is illustrated in the example of Figure 2.

[Figure 2 about here. (See Appendix)]

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<sup>89</sup> The possibility of this relation between sanction severity and probability of sanction imposition had been anticipated by Becker's 1968 piece on the economics of criminal law—see Becker, *supra* note 13 at 184.

The crucial features of this fact are that, for any given level of resources devoted to public enforcement tasks, there is a level of sanction severity at which the probability of sanctions being imposed reaches its maximal level—the point  $(p_{max}, f_n)$  in the example of Figure 2—and that policy-makers cannot choose a sanction severity level without thereby affecting the probability of sanctions being imposed on offenders. This constraint on criminal-law policy-making, together with people’s tendency to favor harsher punishment for successful offenses than for unsuccessful offenses, may give rise to an argument against the adoption of schemes of equal sanctions.

In effect, according to available evidence, people normally believe that the sanction for accomplished crimes ought to be more severe than the sanction for attempted crimes, all other things being equal.<sup>90</sup> This fact suggests that the corresponding enforcement propensity functions may differ depending on the crime outcomes (success or failure). Indeed, if my previous analysis is correct, the fact that people typically regard differential punishment as the appropriate punitive response indicates that people’s enforcement propensity for the accomplished instances of a type of crime, and their corresponding enforcement propensity for the failed instances of the same type of crime peak at different levels of sanction severity—the former higher than the latter. That is to say, people’s enforcement propensity curves for each crime outcome—and the resulting  $p(f)$  curves—are not perfectly coextensive. This leaves two possibilities open, which the examples of Figures 3 and 4 illustrate.

[Figure 3 about here. (See Appendix)]

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<sup>90</sup> See *supra* note 60.

The curves named  $p_a(f)$  represent the variation in the probability of punishment for the performance of failed attempts of a particular type of crime. The curves  $p_r(f)$ , in turn, represent the variation in the probability of punishment for the commission of accomplished instances of the same type of crime. (For simplicity's sake, it is assumed that both curves have similar shape and only differ in the sanction severity level at which each of them peak.) Figure 3 shows a community where both curves overlap—particularly, the enforcement propensities displayed in Figure 3 indicate that people are most willing to enforce a sanction of severity  $f_2$  for the unsuccessful instances of the crime in question, and a sanction of severity  $f_3$  for its successful instances. Any other sanction they would be less willing to enforce, and in the extreme, their enforcement propensity would become null: for instance, all of them would refuse to enforce any legal sanction higher than  $f_4$  for failed instances of the crime in question, and any legal sanction higher than  $f_5$  for the accomplished instances of it. What is peculiar to Figure 3, as an example of overlapping enforcement propensity curves, is that there are some common possible sanctions for attempts and for accomplished crimes that a non-negligible number of individuals are willing to enforce.

In contrast, Figure 4 shows a community where people are also most willing to enforce  $f_2$  sanctions for attempts and  $f_3$  sanctions for accomplished crimes, but where there is *no* possible common sanction for attempts and for accomplished crimes that a non-negligible number of individuals would be willing to enforce. Hence, the non-coextensive enforcement propensity curves in Figure 4 do not overlap each other.

[Figure 4 about here. (See Appendix)]



To the extent that both curves overlap—as they do in the example of Figure 3—a scheme of equal sanctions is possible, with  $p > 0$  for both successful and unsuccessful crimes, and a common sanction,  $f_n$ , lying anywhere within the overlapping range (i.e., in Figure 3,  $f_1 < f_n < f_4$ ).

In contrast, if the curves do *not* overlap, as in the example of Figure 4, then schemes of equal sanctions are unavailable, for in every case of this sort, there is *no* sanction severity level with  $p > 0$  for *both* attempts and accomplished crimes. If, for instance, a scheme of equal sanctions is legally adopted whereby both attempts and accomplished crimes are threatened with a sanction of, say,  $f_3$ , and the relevant probability functions are as shown in Figure 4, no failed attempt will ever be punished. For at that level of sanction severity the relevant actors (i.e., victims, witnesses, police officers, prosecutors, judges, jurors, etc.) are by hypothesis unwilling to enforce the law. Consequently, the legally adopted scheme of sanctions would *not* in effect be a scheme of equal sanctions, but an extreme scheme of differential sanctions whereby only accomplished crimes are punished.

## 2. The Argument

*a. The (im)possibility of a scheme of equal sanctions.* So far I have argued, first, that due to the contribution of people's personal judgments to the law enforcement venture, the probability of offenders being effectively sanctioned for the commission of any crime depends not only on the resources devoted to public enforcement tasks, but also on the severity of the sanction set up in the law for that crime. As a consequence, for any crime there is a level of sanction severity that maximizes the probability of the sanction being imposed on those who commit such crime. Secondly, I have claimed that people's intuitive judgments about the appropriate punitive responses for successful and unsuccessful

crimes suggest that the levels of sanction severity at which the probability of sanction imposition becomes maximal may be (and, perhaps, typically are) different for either kind of crime outcome—failure or success.

Those two propositions do not entail by themselves a prescription favoring the adoption of a scheme of differential sanctions and rejecting schemes of equal sanctions. Still, as I have shown, the following conditional is true: If the corresponding enforcement propensity curves are such that there is no sanction severity common to both the successful and the unsuccessful instances of a type of crime that a non-negligible number of the relevant actors are willing to enforce—as in the example of Figure 4—then a scheme of equal sanctions for that type of crime is as a matter of fact unavailable. Put another way, if the condition of the differential but non-overlapping enforcement propensity curves obtains, then only schemes of differential sanctions are available to the policy-maker. This already amounts to an argument against the adoption of schemes of equal sanctions, for if it is the case that policy-makers cannot implement a scheme of equal sanctions, then it is not the case that they ought to implement it. The scope of the argument is, of course, as broad as the actual obtaining of the condition upon which it depends—namely, that the standing enforcement propensities are such that they form differential, non-overlapping curves.

To be sure, the mere fact that people endorse differential punishments for successful and unsuccessful offenses does not allow the inference that there is no common sanction for both types of crime outcome that a non-negligible number of relevant actors are willing to enforce. Such a fact does not warrant, that is to say, the conclusion that the condition of the differential but non-overlapping enforcement propensity curves obtains.

Therefore, such a fact by itself, together with what I have so far argued, does *not* account for the conclusion that policy-makers ought to adopt a scheme of differential sanctions, rather than a scheme of equal sanctions for the crime in question. For it might be the case that both enforcement propensity curves, though certainly differential, do overlap each other (as in the example of Figure 3), in which case the possibility of schemes of equal sanctions (with a less than maximal enforcement level) will not be ruled out—and hence neither will be the possibility that policy-makers *ought* to adopt any of them.<sup>91</sup>

What is, then, the relative desirability of schemes of differential sanctions and schemes of equal sanctions when both are possible—particularly, when the corresponding enforcement propensity curves overlap each other? My answer to this question starts as follows: given the constraints placed by the existence of differential but overlapping enforcement propensities curves, deterrence is maximized by a scheme of differential sanctions.

*b. Deterrence-maximizing schemes of sanctions.* Any combination of enforcement level (as measured by the probability of sanctions being imposed on offenders) and sanc-

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<sup>91</sup> Similarly, the fact that no one (or only a negligible number of relevant actors) would be willing to enforce a *particular* sanction for the attempted instances of a crime, while a sufficiently high number of actors would be ready to enforce that sanction in accomplished instances of the same crime—as in the ALI’s claim that “it cannot be expected that jurors will lightly return verdicts leading to severe sentences in the absence of the resentment aroused by the infliction of serious injuries” (*see supra* note 84)—does not warrant the conclusion that the condition of the differential but non-overlapping enforcement propensity curves obtains for that crime; and therefore it is insufficient to build a case against the adoption of *any* scheme of equal sanction—though it is sufficient to reject the possibility of a scheme of equal sanctions whereby both accomplished and attempted crimes are punished with the *particular* sanction enforcers refuse to apply.

tion severity yields a particular level of deterrence. Any particular level of deterrence, in turn, may be achieved by different combinations of sanction probability and severity. All these combinations are equivalent from the point of view of deterrence, for under all of them deterrence is constant. Thus, for instance, each of the three downward-sloping curves ( $D_1$ ,  $D_2$ , and  $D_3$ ) shown in Figure 5 represents different combinations of sanction probability and severity that generate equivalent deterrence effects. Along each of these lines—or *deterrence isoquants*<sup>92</sup>—changes on the probability axis are offset by changes on the severity axis, and vice versa. The exact amounts of the tradeoffs, and the corresponding shape of the curves, depend on the relative elasticity of the supply of offenses with respect to the probability of sanctions being imposed, on the one hand, and to the sanction severity, on the other.<sup>93</sup> In turn, the move from any point on a deterrence isoquant (e.g.,  $D_1$ ) to any point on a higher deterrence isoquant (e.g.,  $D_2$ ) involves an increase in deterrence effects—that is to say, all other things being equal, less crimes will be committed under any combination of sanction probability and severity lying on  $D_3$ , than under any combination lying on lower constant-deterrence curves (e.g.,  $D_1$  and  $D_2$ ).

[Figure 5 about here. (See Appendix)]

Figure 5 illustrates the proposition that, among all the feasible combinations of sanction probability and sanction severity—where their feasibility is due to there being a non-negligible number of relevant actors willing to enforce the legal sanction for the crime in

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<sup>92</sup> See Robert Cooter & Thomas Ulen, *Law & Economics* 446-7 (3d ed., 2000).

<sup>93</sup> Thus, in the extremes, were offenders *unresponsive* to changes on the severity axis, the constant-deterrence lines would be horizontal; and, in turn, they would be vertical, if offenders were only responsive to changes on the severity axis. The  $D_1$ ,  $D_2$  and  $D_3$  curves in Figure 5 represent a somewhat intermediate point between those two extremes.

question—there is one at which deterrence is maximized. This combination corresponds to the point at which the curve  $p(f)$  is tangent to the highest deterrence isoquant—which occurs, on the curve  $p(f)_1$  at point  $(p_1, f_1)$ , on the curve  $p(f)_2$  at point  $(p_2, f_2)$ , and on the curve  $p(f)_3$  at point  $(p_3, f_3)$ . Curves  $p(f)_1$ ,  $p(f)_2$ , and  $p(f)_3$  represent the variations in the enforcement level with respect to the severity of the legal sanction to be enforced, for a same group of actors (victims, witnesses, police officers, prosecutors, judges, jurors, etc.) at three increasing amounts of resources devoted to enforcement tasks. Thus, whatever the amount of resources devoted to enforcement tasks, there is *one* combination of sanction probability and sanction severity at which deterrence is maximized.

Now, if deterrence of a type of criminal action is to be achieved by imposing sanctions both in the event of failure and in the event of success in causing the crime result, the actual level of deterrence is determined by the interplay of the combinations of sanction probability and sanction severity for the event of failure, on the one hand, and for the event of success, on the other. This results from the fact that when offenders perform an instance of the criminal action, they face a probability,  $q$ , of succeeding in causing the crime result, and the complementary probability  $(1 - q)$  of failing. Therefore, their decision to commit the criminal action in question will be influenced by *both* the expected punishment for the accomplished crime (discounted by the probability  $q$ ) *and* the expected punishment for the attempted crime (discounted by the probability  $[1 - q]$ ).<sup>94</sup> So, a policy-maker willing to maximize deterrence should favor the adoption of a scheme of sanctions such that, for each type of crime outcome (failure and success), the combination of sanction probability and sanction severity corresponds to the point at which the rele-

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<sup>94</sup> See *supra* text accompanying notes 22-25.

vant  $p(f)$  curve is tangent to the highest deterrence isoquant. In settings where the working enforcement propensity curves for attempts and accomplished crimes are *not* coextensive, such a scheme will be a scheme of *differential* sanctions.

Figures 6 (a) and (b) illustrate this point in a setting with differential but overlapping enforcement propensity curves and a fixed amount of resources devoted to enforcement tasks.

[Figures 6 (a) and (b) about here. (See Appendix)]

Given the shape of the resulting  $p(f)$  curves, and of the deterrence isoquants, deterrence is maximized by setting a sanction of a severity level of  $f_1$  for attempts, and a sanction of a severity level of  $f_3$  for accomplished crimes (see Figure 6 (a)). The actual deterrence level this scheme is to achieve is represented by deterrence isoquant  $D_{dif}$ , which lies somewhere between isoquants  $D_2$  and  $D_4$ , depending on the probability of actions causing the crime result, or  $q$ .<sup>95</sup> There is no other scheme of (equal or differential) sanctions that could achieve, given the constraints placed by the standing  $p(f)$  curves, a deterrence effect as high as  $D_{dif}$ . For any other feasible scheme of sanctions would involve the adoption of at least one combination of sanction probability and sanction severity at which deterrence is not maximized. *A fortiori*, any feasible scheme of equal sanctions—e.g., the one represented in Figure 6 (b), which sets a common sanction of a severity level of  $f_2$  for both at-

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<sup>95</sup> As  $q$  approaches 1, the impact of the sanction for the event of failure on the offender's decision to commit the crime vanishes, and so the deterrent job is done only by the sanction set up for the accomplished crime. Consequently, as  $q$  approaches 1, the deterrence effect approaches  $D_4$ . On the contrary, as the probability of the actions causing the crime result approaches zero, the deterrent job is done by the sanction set up for the attempt. The deterrence effect for this kind of actions will then approach  $D_2$ .

tempts and accomplished crimes, or any other—will be inferior to the deterrence-maximizing scheme of differential sanctions from the point of view of deterrence.

In sum, in settings where enforcement propensities for attempts and accomplished crimes are not coextensive, the deterrence-maximizing scheme of sanctions is a scheme of differential sanctions.<sup>96</sup> This finding would amount to an argument against schemes of equal sanctions, *if* it were the case that policy-makers ought to maximize deterrence.

Yet, assuming that it is the case that policy-makers ought to maximize deterrence, the resulting argument against the adoption of schemes of equal sanctions is also an argument against the adoption of any under-deterring scheme of *differential* sanctions—that is, any feasible scheme of differential sanctions other than the deterrence-maximizing scheme. In other words, the argument against schemes of equal sanctions grounded on the fact that people are less willing to enforce equal than differential sanctions necessitates embracing the maximization of deterrence as the prevailing goal of criminal-law policy-making. If one rejects this goal, there is no reason not to choose any scheme of equal sanction instead of the deterrence-maximizing scheme of differential sanctions. Now, if one embraces the goal of maximizing deterrence, this commitment should lead not only to the rejection of schemes of equal sanctions, but also to the rejection of any under-deterring scheme of *differential* sanctions—for any scheme of sanctions other than the deterrence-maximizing scheme is, from this point of view, as objectionable as any feasible scheme of equal sanctions.

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<sup>96</sup> Notice that, by the same token, in settings where enforcement propensities for attempts and accomplished crimes are perfectly coextensive, the deterrence-maximizing scheme of sanctions is a scheme of *equal* sanctions!

### 3. Two Qualifications

My analysis shows that for people's tendency to favor differential punishment to give rise to an argument against the adoption of schemes of equal sanctions one need embrace the maximization of deterrence as the prevailing goal of criminal-law policy-making. Still, the argument that so arises is a rather peculiar one: for such a rejection of schemes of equal sanctions also leads to the rejection of any scheme of differential sanctions other than the unique, deterrence-maximizing scheme of (differential) sanctions. The appeal this argument might have diminishes as soon as one takes account of the following two qualifications.

*a. The argument's limited scope.* Assume that policy-makers ought to adopt deterrence-maximizing schemes of sanctions for every type of criminal behavior. Under such an assumption, then, policy-makers ought to implement a scheme of differential sanctions—though not *any* scheme of differential sanctions—if and only if people's enforcement propensities for the attempted and accomplished instances of the crime in question form non-coextensive curves, whether overlapping or otherwise.

Now, to the extent that the argument may warrant the prescription that policy-makers ought not to implement schemes of equal sanctions—but a (particular) scheme of differential sanctions—it does so only with respect to the types of crimes for which people's enforcement propensities have the required properties of forming non-coextensive curves. The argument is, thus, *crime-specific*. In other words, the argument by itself does not necessarily warrant the prescription of adopting an across the board policy of punishing



successful crimes more harshly than unsuccessful crimes, unless it is true, for *every* type of crime, that people’s enforcement propensities have the required properties.<sup>97</sup>

The available evidence suggests that people normally regard differential punishment as the appropriate punitive response for a number of central crime types, such as homicides and robberies.<sup>98</sup> As I claimed earlier, such a tendency may indicate the presence of differential enforcement propensities—i.e., curves that peak at different levels of sanction severity depending on the crime outcome—for those crime types, in which case it will be true that the deterrence-maximizing scheme of sanctions is not a scheme of equal sanctions, but a scheme of differential sanctions. However, it may still be possible that, for *other* crime types, the same community has differently shaped enforcement propensities. For instance, the MPC drafters appeared to believe that the presence of differential enforcement propensities was correlated with crime types involving the causation of serious bodily injuries,<sup>99</sup> so that enforcement of crime types involving other kinds of crime results—such as bribery, or tax evasion—would face no such constraints.<sup>100</sup>

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<sup>97</sup> Still, it is worth stressing that even if it is true that, for *every* type of crime, people’s enforcement propensities have the required properties, the argument does not support the adoption of *any* across the board scheme of differential sanctions, but only a schedule comprising *the* deterrence-maximizing schemes of differential sanctions for each type of crime.

<sup>98</sup> See *supra* note 60.

<sup>99</sup> See *supra* text accompanying note 84.

<sup>100</sup> A point also underscored by Schulhofer, *supra* note 2, at 1526 (“The danger [of under-enforcement] seems remote where the statutory harm required for the completed crime does not prompt the emotional response associated with death or bodily injury; an attempt to bribe, for example, might well arouse as much public resentment as successful bribery later discovered. Moreover, in the case of crimes involving serious

In sum, being crime-specific, the argument is unlikely to offer a sufficient explanation of a general, across the board policy of treating successful crimes tougher than unsuccessful crimes. Still, the argument does warrant (under the assumption of the duty to maximize deterrence) the rejection of an across the board policy of equal sanctions for accomplished and attempted crimes, if it is true—as it seems—that for *some* type(s) of crime(s), people’s enforcement propensities form non-coextensive curves.

*b. Deterrence maximization.* In accordance with what I have so far argued, policy-makers ought to implement a particular scheme of differential sanctions—i.e., the deterrence-maximizing scheme of differential sanctions—for a particular type of crime (call it *O*) if the following two conditions hold: (i) aggregate enforcement propensities for the accomplished instances of *O* and for its attempted instances form differential (i.e., non-coextensive), single-peaked curves; and (ii) deterrence of *O* ought to be maximized.

The argument’s second qualification stems from the limited fertility of the goal of deterrence-maximization as a source of normative power. It is obviously true that, all other things being equal, a lower crime rate is better than a higher crime rate. However, since producing deterrence involves costs, it is not necessarily the case that its production must be maximal.<sup>101</sup> Thus, efficiency mandates that society achieve deterrence up to the level where the marginal costs of producing additional deterrence equal the marginal benefits of a reduced crime rate.

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moral fault, the defendant’s culpability alone may arouse sufficient resentment to permit imposition of most non-capital penalties”).

<sup>101</sup> A point every deterrence advocate must concede. See Bentham, *supra* note 13 (arguing, at ch. XIII § i, that “punishment ought not to be inflicted . . . [w]here it is *unprofitable*, or too *expensive*; where the mischief it would produce would be greater than what it prevented.” See also ch. XIII § iv).

Accordingly, from the point of view of efficiency, the deterrence-maximizing scheme of sanctions is superior to any other under-detering scheme of sanctions if and only if the net costs of crime are lower under the former than under the latter—where “costs of crime” comprise both the direct costs offenders impose on their victims, and the enforcement costs. Now, the move from any under-detering scheme of sanctions to the deterrence-maximizing scheme of sanctions involves a reduction in the number of offenses and, therefore, a reduction in the direct costs of crimes. Yet, it is a purely empirical matter whether such a reduction comes at a cost worth paying. Adjudicating the issue requires information as to the precise intensity of the crime reduction, the relative number of offenders prosecuted, tried, convicted, and actually punished, and the relative costs of the sentences actually administered under one and the other scheme.

Since a scheme of sanctions that maximizes deterrence given the constraints placed by the standing enforcement propensities may or may not be an efficient alternative over other feasible schemes, the mere fact that there is a deterrence-maximizing scheme of sanctions does not provide policy-makers with efficiency-based reasons to favor it. It remains, then, an open question—one which is to be adjudicated on the basis of empirical data—which among the feasible schemes of (equal and differential) sanctions is the efficient choice.

### *C. Conclusion*

The legal adoption of a scheme of sanctions takes place in a social environment in which legal measures interplay with other informal factors of behavior control, like social norms, or intuitive moral commitments. I have focused in this Part on two arguments that assert that the fact that a scheme of legal sanctions operate on a normative landscape such

that people have moral intuitions in the direction of differential punishment may make schemes of differential sanctions a better alternative to schemes of equal sanctions.

I argued that Robinson and Darley's argument based on the criminal law's moral credibility seems unreliable. For it crucially depends on the implausible claim that schemes of equal sanctions may risk generalization of disrespect for a relevant number of individuals. The argument I proposed, based on the idea of differential enforcement propensities, seems better supported by the findings on the impact of moral intuitions on legally regulated behavior. Still, as Robinson and Darley's, my argument is also contingent on empirical evidence as yet unavailable. Hence, it may only warrant the proposition that there *may* be after all reasons for adopting schemes of differential sanctions rather than schemes of equal sanctions.

I began this Part by pointing out that there are two distinct sources of complexity that may render the prescriptions made by traditional deterrence analysis unreliable. My discussion in this Part has revolved around the first of those sources of complexity. I must now turn to the second.

### III. BIASES

I will now argue that schemes of differential sanctions may be better than schemes of equal sanctions in virtue of people's perceptions of relevant criminal-law policies under one and the other kind of scheme of sanctions. I shall contend that a number of systematic cognitive and judgmental biases may affect what people perceive about relevant criminal-law variables in a way that makes schemes of differential sanctions better policy instruments to effect deterrence goals than schemes of equal sanctions—either because

they facilitate the perception of important facts about criminal-law policies, or because they otherwise optimize the allocation of law-enforcement expenditures.

The cognitive and judgmental biases upon which my argument is built reveal themselves as one seeks an explanation for the fact that we tend to believe on intuition that successful offenses should be punished more severely than their unsuccessful counterparts. I offer such explanation in section *A*. Our pervasive tendency to hold intuitive judgments in accordance with the practice of differential punishment, I will argue, is explained in part by the effects of those biases. I then devote section *B* to develop the policy implications that may emerge from taking into account the existence of such biases as regards the issue of differential punishment versus equal punishment.

#### *A. The Psychology of Differential Judgments*

If we face pairs of all-else-equal accomplished and attempted crime cases we typically feel that the agent in the accomplished crime case should receive harsher punishment than the agent in the attempted crime case. Now, why do we feel this way? In this section, putting together available empirical and experimental research, I sketch an account of the mechanisms that may underlie our tendency to hold intuitive punitive judgments consistent with the practice of differential punishment.

##### 1. The model of pattern recognition

Evidence seems clear in indicating that, in expressing their punitive preferences for particular cases, people use punishment primarily as a language to convey moral condem-

nation,<sup>102</sup> rather than as a tool to effect policy goals regarding the regulation of behavior. That is, individuals seem primarily responsive to desert-related factors rather than to teleological or deterrence-related factors—such as probability of recidivism, “demonstration effects,”<sup>103</sup> and the like.<sup>104</sup> Upon this background, then, people’s tendency to favor different amounts of punishment for successful and unsuccessful crimes is best understood as revealing primarily (and perhaps only) people’s expression of moral condemnation of different degrees or strength.

Research has also shown that, despite behaving as, say, intuitive retributivists, people often rate deterrent goals as more compelling than retributive goals.<sup>105</sup> The finding is less surprising than it may appear at first sight. Psychologists have found in many areas a systematic tendency among people to erroneously report the real determinants of their inferences.<sup>106</sup> The explanation of this tendency, according to psychologists Nisbett and Wilson, is that “when people are asked to report how a particular stimulus influenced a par-

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<sup>102</sup> As Joel Feinberg has famously argued, punishment *is* the language we have got to express moral condemnation—see Joel Feinberg, *The Expressive Function of Punishment*, 49 *The Monist* 397 (1965)

<sup>103</sup> I take the expression “demonstration effect” from Lester Thurow: “If there is a demonstration effect, one crime causes others to commit crimes”—see Lester C. Thurow, *Equity versus Efficiency in Law Enforcement*, in *The Economics of Crime* 85, 89 (Ralph Andreano & John J. Siegfried eds., 1980).

<sup>104</sup> See Roberts & Stalans, *supra* note 86 at 200-2 (discussing public opinion research); also, Jonathan Baron, *Nonconsequentialist Decisions*, 17 *Behav. & Brain Sci.* 1 (1994), reprinted in *Judgment and Decision Making* 712 (Terry Connolly, Hal R. Arkes & Kenneth R. Hammond eds., 2d ed. 2000) (discussing experimental findings).

<sup>105</sup> See Roberts & Stalans, *supra* note 86, at 201-2.

<sup>106</sup> See Richard E. Nisbett & Timothy Decamp Wilson, *Telling More Than We Can Know: Verbal Reports on Mental Processes*, 84 *Psychol. Rev.* 231 (1977) (reviewing and discussing relevant literature).

ticular response, they do not do so by consulting a memory of the mediating process, but by applying or generating causal theories about the effects of that type of stimulus on that type of response.”<sup>107</sup> The fact that individuals primarily react to desert-related factors, while reporting being predominantly responsive to deterrence-related reasons seems to be, then, another instance of that well-documented tendency—as some have suggested.<sup>108</sup>

Those two findings—i.e., that people behave as intuitive retributivists, but report being primarily responsive to deterrent-related reasons—and the explanation they call for suggest that the working mechanism underlying people’s particular punitive judgments may be a spontaneous, automatic process (as opposed to a consciously controlled process). This spontaneity or automaticity is a commonplace feature of current psychological models in the field of perception, cognition, information processing and judgment forma-

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<sup>107</sup> *Ibid.*, at 248.

<sup>108</sup> See, e.g., Roberts & Stalans, *supra* note 86, at 200-1; see also, Gerald Dworkin, *Unprincipled Ethics*, 20 *Midwest Studies in Philosophy* 224, 236-8 (1995) (applying the same account to the general domain of particular moral judgments). On the other hand, the fact that individuals tend to choose *deterrence* as the theory they point to as guiding their judgments is no surprise. Nisbett and Wilson (*supra* note 106) propose that the theories individuals appeal to in explaining their past behavior are somehow culturally determined. Deterrence, in turn, as Dan Kahan has argued, is the prevailing language in our society for public discussion of criminal law issues—the reason being, mainly, that the language of deterrence is the one appearing not to violate social norms against public moralizing. As Kahan puts it, “[w]e resort to the culturally ecumenical idiom of deterrence to avoid a style of public moralizing that principle, interest, and etiquette all condemn”—see Dan M. Kahan, *The Secret Ambition of Deterrence*, 113 *Harv. L. Rev.* 413, 477 (1999). Any other choice would, then, be surprising.

tion, including social inferences and appraisals.<sup>109</sup> Among those models stands out what psychologists call *pattern recognition*—a model that has fruitfully been applied to the explanation of moral and legal decision-making.<sup>110</sup> The basics of this model, as applied to the formation of judgments of appropriate sentences for particular criminal cases, may go like this. At the center of the model of pattern recognition lies a repertory of complex imagery inventoried in our minds as a hierarchy of prototypes, or exemplars, of wrongful or criminal behavior and the “normal” responses they warrant. As the relevant prototypes in any other domain of cognition and information processing, crime prototypes, and more generally moral prototypes, comprise unique patterns of perceptual variables or dimensions.<sup>111</sup> When facing a particular case, we perceive a particular pattern of those variables or dimensions, which we match to those stored prototypes. This preverbal matching process *situates*, as it were, the perceived pattern in a distance-relation to the relevant

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<sup>109</sup> See Denise R. Beike & Steven J. Sherman, *Social Inference: Inductions, Deductions, and Analogies*, in 1 Handbook of Social Cognition 209, 263-73 (Robert S. Wyer, Jr., & Thomas K. Srull eds., 2d. ed., 1994) (discussing automaticity in different kinds of social inferences); also, Ira J. Roseman & Craig A. Smith, *Appraisal Theory—Overview, Assumptions, Varieties, Controversies*, in *Appraisal Processes in Emotion—Theory, Methods, Research* 3, 7 (Klaus R. Scherer, Angela Schorr & Tom Johnstone eds., 2001) (reviewing recent research on the psychology of emotions).

<sup>110</sup> See, generally, Gerald Dworkin, *supra* note 108 (applying pattern recognition model to the making of particular moral judgments); Dan M. Kahan, *Lay Perceptions of Justice vs. Criminal Law Doctrine: A False Dichotomy?*, 28 Hofstra L. Rev. 793 (2000) (applying pattern recognition to legal decision-making); Churchland, *supra* note 71 at 123-50 (including pattern recognition in a comprehensive theory of the brain and mental processes).

<sup>111</sup> See Churchland, *supra* note 71, at 21-55, for simple examples of pattern recognition, from the simplest ones (e.g., recognition of tastes and colors), to more complex ones (e.g., the recognition of faces).



stored prototype(s). The degree of *closeness* to the relevant prototype(s) determines, then, the kind and strength of the associated response.<sup>112</sup> The response such a process yields, finally, is best conceptualized as an emotional reaction, both hostile and retrospective—call it reprobation, contempt, resentment, etc.<sup>113</sup>—which we *express*, through the conventional language of moral condemnation, in terms of amounts of punishment.

The precise richness of the prototype patterns—i.e., the identity and value of each of their constituting variables—is perhaps doomed to lie beyond the reach of our linguistic capacity.<sup>114</sup> Nonetheless, notwithstanding methodological limitations,<sup>115</sup> we may infer

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<sup>112</sup> The spatial metaphor is drawn from Churchland, *ibid.*, who conceptualizes the perceptual patterns as unique patterns of vectors. Each vector corresponds to one of the multiple variables into which the perceived object is coded. Thus, each pattern yields a point in a space with as many dimensions as variables into which the perceived object is coded.

<sup>113</sup> The characterization of the relevant kind of emotion is a dubious matter—*see*, for a comprehensive review of current psychological typologies, Gerald L. Clore, Norbert Schwartz, & Michael Conway, *Affective Causes and Consequences of Social Information Processing*, in 1 *Handbook of Social Cognition* 323, 337-63 (Robert S. Wyer, Jr., & Thomas K. Srull eds., 2d. ed., 1994). In the philosophical literature, the identification of *resentment* as the emotion “most immediately and directly” related to punishment may be traced back to Adam Smith’s theory of the moral sentiments—*see* Adam Smith, *The Theory of the Moral Sentiments* 94-6 (Prometheus Books, 2000) (1759). Joel Feinberg proposed to use the term “condemnation” to refer to the attitude normally expressed through punishment, in order to capture the fact that such attitude have aspects of the two allegedly distinct attitudes we refer to as resentment and reprobation—*see* Feinberg, *supra* note 102, at 403-4. For a distinction between resentment and contempt, *see* Michelle Mason, *Contempt as a Moral Attitude*, 113 *Ethics* 234, 246-50 (2003).

<sup>114</sup> Our inability to capture in language our working prototype patterns is well-documented in several settings, such as recognition of tastes, colors, sounds, faces, and even in the intuitive categorization of natural kinds—*see*, e.g., Churchland, *supra* note 71, at 144-5, for an example of intuitive categorization of some-

from the relevant behavior at least some salient features of our working prototypes. Indeed, the persistent tendency to favor harsher punitive responses to successful crime cases than to unsuccessful crime cases suggests that the working prototypes are result-laden: if the working prototype of, say, murder comprises the victim's actual death (or a perceptual feature the victim's actual death is a proxy of), the pattern recognition process will leave an accomplished murder case closer to the prototype than an (all else equal) attempted murder case—which would lead to different responses for each case, so fitting the available findings of differential punitive judgments.

Besides the fact of the evident tendency of people to hold differential punitive judgments, there is good reason to think that, at least for a number of core crimes, the prototypes of criminal behavior we have are laden with the actual occurrence of harmful results. The reason is that, to the extent that our moral notions of wrongfulness revolve around the avoidance of harm to others, actions that actually cause harm have a *logical priority* in our thinking about wrongfulness over otherwise equal actions that fail to cause harm. Let me explain. If I ought to avoid harming others and want to abide by this norm, I need to know which of my possible actions may cause harm to others. Now, for me to believe that a given action of mine (call it  $x_i$ ) may bring about harm to others, I need bring to mind at least one instance of an action that actually causes harm (call this imagined or recalled action  $x_r$ ) without being able to find any relevant difference between that

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thing as a cat; see also, Gerald Dworkin, *supra* note 108, at 232-3 (reviewing studies regarding the use of categories such as “bird” and “lie”).

<sup>115</sup> See Norman J. Finkel, *Commonsense Justice, Psychology, and the Law: Prototypes that are Common, Senseful, and Not*, 3 Psychol. Pub. Pol’y & L. 461 (1997) (discussing methodological problems in ascertaining working prototypes in legal decision making).

imagined or recalled action ( $x_r$ ) and  $x_i$ . Thus I would be able to grasp that by doing  $x_i$  I may cause harm to others—that is, that my doing  $x_i$  may end up being like  $x_r$ —and therefore that I ought not to do  $x_i$ . Without finding an instance of an action that actually causes harm such that it stands to  $x_i$  in such a relation, I would have no reason to think that by doing  $x_i$  I may cause harm to others, and therefore that I ought not to do  $x_i$ . This is what I mean by the logical priority of actually harmful actions ( $x_r$  in my example) in our thinking about wrongfulness. That is, we cannot grasp what makes a particular action wrongful—in the sense of wrongfulness that has to do with actions' harmfulness—without bearing in mind a proper instance of an action that actually causes harm.

This logical priority that actually harmful instances have in our moral thinking about harmful behavior is consistent with, and perhaps even suggests, the development of result-laden prototypes of immoral and criminal behavior. Indeed, it is claimed that a crucial factor in the generation of moral prototypes is the exposure to examples of the relevant moral kinds—such as examples of moral and immoral behavior, virtuous and vicious attitudes, etc.<sup>116</sup> The logical priority argument tells us why we should select (and may in fact select) actually harmful instances of generally harmful types of behavior as appropriate examples of wrongdoing.

On the other hand, the relatively higher salience of actually harmful behavior (vis-à-vis actually harmless instances of the same types of behavior), the greater vividness of its harmful nature, as well as the emotionally engaging nature of actual injuries<sup>117</sup> may con-

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<sup>116</sup> See Churchland, *supra* note 71, at 146.

<sup>117</sup> On the role of relative salience due to vividness and emotional effects in the assessment of actually harmful behavior vis-à-vis (all else equal) actually harmless behavior, see *infra* text accompanying notes 125-131.

tribute to reinforce the development of result-laden prototypes of crimes and moral wrongdoing. For example, such properties of actually harmful behavior may explain the kinds of cases the media focus on, which, in turn, is usually advanced as an explanation of the empirical evidence that indicates that when people think of general sentencing issues—like when they are asked by pollsters whether they believe courts are too lenient at sentencing—they normally bring to mind “worst case scenarios,” such as intentional, accomplished homicides committed on heinous motives and by abhorrent means.<sup>118</sup>

If my speculations are sound, it is plausible to assume that the pattern recognition mechanism is dominated by result-laden prototypes of criminal behavior, and so, to the extent that it may serve as the description of what goes on in our minds when making intuitive judgments about appropriate sentences in particular criminal cases, pattern recognition will yield behavior consistent with the practice of differential punishment—i.e., support of harsher sanctions in accomplished crime cases, and more lenient sanctions in attempted crime cases, all other things being equal. In other words, under this account our inclination to experience more intense punitive reactions against successful offenses than against unsuccessful offenses would be due to the fact that our punitive reactions are a function of the similarity between the cases we face and our relevant prototypes of criminal behavior, and that our relevant prototypes of criminal behavior are successful crimes rather than unsuccessful ones.

## 2. Result biases

Besides the account based on pattern recognition and result-laden prototypes of criminal behavior, there is another psychological mechanism that may explain our tendency to

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<sup>118</sup> See Roberts & Stalans, *supra* note 86, at 207-9.

hold differential punitive judgments. According to this alternative account, when we are exposed to risk imposing actions, our perception and appraisal of important features of the actions is significantly affected by the fact of whether the actions actually cause harm or not. Due to mental processes for which there is reliable psychological evidence, the actual causation of harm thus biases our perception and evaluation of those features of the criminal actions we are exposed to in a way that may eventually lead to our holding differential punitive judgments even in pairs of all-else-equal accomplished and attempted crime cases, where all the features of the cases other than the actual causation of harm are held constant. I will use the expression “result biases” to refer to the mental processes that produce this tendency to misperceive and erroneously assess some properties of the criminal actions we face depending on whether they result in harm or not.

The operation of these result biases may reinforce and magnify our tendency to believe on intuition that successful offenses call for harsher punishment than unsuccessful offenses, all other things being equal. Indeed, to the extent that we are affected by these result biases, we will perceive things as never being equal. As a consequence of working result biases, two otherwise equal actions, one of which results in actual harm while the other does not, will be misperceived as instantiating different properties—other than the actual causation of harm. At least some of those properties will be relevant for the resulting punitive response. In particular, due to the mediation of result biases, people will overestimate such properties in successful crime cases, and underestimate them in unsuccessful crime cases. Therefore, the resulting punitive responses, which are a function of

these perceived properties, will be more intense in successful crime cases than in their unsuccessful counterparts.

Notice, however, that the account based on result biases is independent of my previous account based on pattern recognition. For the effects of result biases may lead to our holding differential punitive judgments even if my account based on pattern recognition were false;<sup>119</sup> or, more likely, even when we do not rely on our bare intuitions for selecting punitive responses to criminal cases.<sup>120</sup>

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<sup>119</sup> For instance, if it were the case that our intuitions, independently of how we perceive criminal cases, are consistent with the practice of differential punishment, we would still be inclined to favor differential punitive judgments in virtue of our biased perception of the cases' properties other than the actual (non)occurrence of harm.

<sup>120</sup> Indeed, the model of pattern recognition is not proposed as the whole story of what goes on, or may go on, in our minds in our arriving to intuitive evaluations of sentencing alternatives. The theory posits, first, that the stated preverbal mechanism does take place when we make judgments of the sort I am discussing, as it does in innumerable other settings; and, secondly, that such preverbal mechanism has priority over any other verbal scheme to which we may also, and perhaps simultaneously, appeal. (See Churchland, *supra* note 71, at 144.) The theory does not deny, then, that something else may go on in our minds that may influence the outcome judgment. In fact, psychological research in judgment formation and information processing has showed that our mental processes vary along a continuum ranging from automatic, unconscious mechanisms (such as pattern recognition) to conscious reasoning processes (such as controlled deductions from principles or rules), depending on many factors, such as availability of judgmental resources (including opportunity, time, mental abilities, etc.) and motivation. See, e.g., Beike & Sherman, *supra* note 109, at 264: "Rather than conceptualizing cognitive processes as either entirely automated or entirely controlled, most researchers consider cognitive processes to lie somewhere on a continuum between automaticity and control." For a review of the findings regarding the factors upon which automaticity depends, see John A. Bargh, *The Four Horsemen of Automaticity: Awareness, Intention, Efficiency, and Control in*

Let me now turn to the findings that support my account. Research on cognitive psychology has found robust evidence of a consistent and systematic tendency to overestimate the likelihood and foreseeability of a past event once we have learnt that the event in fact occurred—a tendency that psychologists have named “hindsight bias.” Psychological research on this phenomenon started in the early 1970s by the work of Baruch Fischhoff:

In hindsight, people consistently exaggerate what could have been anticipated in foresight. They not only tend to view what has happened as having been inevitable but also to view it as having appeared “relatively inevitable” before it happened. People believe that others should have been able to anticipate events much better than was actually the case. They even misremember their own predictions so as to exaggerate in hindsight what they knew in foresight. . . . It appears that when we receive outcome knowledge, we immediately make sense out of it by integrating it into what we already know about the subject. Having made this interpretation, the reported outcome now seems a more or less inevitable outgrowth of the reinterpreted situation. “Making sense” out of what we are told about the past is, in turn, so natural that we may be unaware that outcome knowledge has had any effect on us. Even if we are aware of there having been an effect, we may still be unaware of exactly what it was. In trying to reconstruct our foresightful state of mind, we will remain anchored in our hindsightful perspective, leaving the reported outcome too likely looking.<sup>121</sup>

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*Social Cognition*, in 1 Handbook of Social Cognition 1 (Robert S. Wyer, Jr., & Thomas K. Srull eds., 2d ed., 1994).

<sup>121</sup> Baruch Fischhoff, *For Those Condemned to Study the Past: Heuristics and Biases in Hindsight*, in Judgment under Uncertainty: Heuristics and Biases 335, 341, 343 (Daniel Kahneman, Paul Slovic & Amos Tversky eds., 1982).

After thirty years of research, robust hindsight bias effects have been invariably found in a diverse variety of settings, including the prediction and postdiction of historical and social events, general knowledge questions, outcomes of political elections, results of psychological experiments, medical and psychological diagnoses, jurors' decisions, etc.<sup>122</sup> In view of the generality of these findings, one could safely assume that the hindsight bias systematically affects people's perceptions and assessments of criminal cases. In particular, according to the psychological research on hindsight bias, individuals affected by the hindsight bias would perceive a criminal action that they know actually caused harm as bearing a significantly higher probability of causing harm than the action actually bore, and would regard the fact that the action did cause harm in the way it did as being far more foreseeable for the agent than it actually was. To simplify, I shall use the

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<sup>122</sup> The first studies on hindsight bias were conducted by Baruch Fischhoff in the early 1970's—see Baruch Fischhoff, *Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgment under Uncertainty*, 1 J. Experimental Psychol.: Hum. Perception & Performance 288 (1975); also, Baruch Fischhoff & Ruth Beyth, "I Knew it Would Happen"—Remembered Probabilities of Once-Future Things, 13 Organizational Behav. & Hum. Performance 1 (1975). For reviews of subsequent research on the hindsight bias, see Scott A. Hawkins & Reid Hastie, *Hindsight: Biased Judgments of Past Events after the Outcomes are Known*, 107 Psychol. Bull. 311, 312 (1990); Jay J. Christensen-Szalanski & Cynthia Fobian Willham, *The Hindsight Bias: A Meta-Analysis*, 48 Organizational Behav. & Hum. Decision Processes 147, 147-8 (1991); Doris M. Dehn & Edgar Erdfelder, *What Kind of Bias is Hindsight Bias?*, 61 Psychol. Res. 135, 135-7 (1998); and Jeffrey J. Rachlinski, *A Positive Psychological Theory of Judging in Hindsight*, in Behavioral Law & Economics 95, 95-8 (Cass R. Sunstein ed., 2000). The robustness of the hindsight bias is indicated by the persistent failures in trying to overcome its effects—see Baruch Fischhoff, *Debiasing*, in Judgment under Uncertainty: Heuristics and Biases 422, 427-31 (Daniel Kahnemann, Paul Slovic & Amos



term “dangerousness” to refer to those two properties of criminal actions whose perception the hindsight bias would affect (i.e., the probability of the action causing harm, and the foreseeability of the produced outcome). So, in hindsight, actions that are seen to have caused the crime results they risked would be regarded as significantly more dangerous than they actually were. In turn, individuals affected by the hindsight bias would perceive actions that fail to bring about the crime results they risk as being significantly less dangerous than they actually were.

These biased perceptions would manifest themselves in experiments like Robinson and Darley’s, leading individuals to hold differential punitive reactions in pairs of all-else-equal accomplished and attempted crime cases, even if (unlikely enough) they were committed to the principle of equal punishment, and (more likely) reinforcing and magnifying the differential punitive judgments they would hold on intuition if they were not affected by hindsight bias effects. Indeed, through the lens of the hindsight bias, all-else-equal accomplished and attempted crime cases look different in properties other than the actual (non)occurrence of the crime result. For the action in the accomplished crime case would be perceived as more dangerous than the action in the attempted crime case. The differential punitive responses that researchers obtain may be (at least in part) responsive to these misperceived differences in the actions’ dangerousness rather than to the (non)occurrence of harm. Of course, this would not be the case if people were not likely to react to differences in perceived dangerousness. But it seems reasonable to expect that differential perceived dangerousness would in fact lead to differential punitive

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Tversky eds., 1982) (reviewing a long series of studies both finding strong hindsight bias effects, and failing to achieve “debiasing” through most of the possible debiasing strategies).

responses. On the one hand, actions' probability to cause harm is straightforwardly relevant for punishment under both retributive and deterrence perspectives, and in either case in virtue of quite simple and highly intuitive arguments.<sup>123</sup> On the other hand, findings of foreseeability of the outcome a criminal action actually produces would likely affect the judgments of the offender's mental state regarding the action's result. For instance, in accomplished crime cases, where according to the hindsight bias research people would tend to believe that the occurrence of the crime result was highly foreseeable, they would more readily find that the agent intended to bring it about. Whereas, in attempted crime cases, where people would tend to believe that the harmless outcome was highly foreseeable, they would more readily find the agent as having merely foreseen the occurrence of the crime result as an unlikely side effect of whatever other intentions she might have had. Since there is evidence that people's intuitive judgments of crime cases are sensitive to offenders' mental states,<sup>124</sup> these differential assessments of foreseeability of the occurrence of the crime result may likely bias the punitive judgments individuals hold in all-else-equal accomplished and attempted crime cases.

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<sup>123</sup> According to a retributive perspective under which punishment reflects in part the degree of wrongfulness of the punished action, the higher the probability of an action causing harm, the more wrongful the action is, all other things being equal. In turn, under a deterrence approach, the higher the probability of an action causing harm, the higher the threat of punishment required to deter the agent from performing it.

<sup>124</sup> See Norman J. Finkel, Stephen T. Maloney, Monique Z. Valbuena & Jennifer L. Groscup, *Lay Perspectives on Legal Conundrums—Impossible and Mistaken Act Cases*, 19 L. & Hum. Behav. 593 (1995) (reporting mock jury experiments).

In addition to the robust effects of the hindsight bias, psychological research has shown that in judgment and information processing we tend to be subject to what psychologists call vividness effects—i.e., generally, targets that are more vivid have a stronger impact on our evaluations of them than less vivid (but otherwise equal) targets—as well as influenced by the affective state we are in when making the judgment or processing the target information. These findings, and the psychological theories elaborated to account for them, suggest that crime results may impact strongly (and in the direction of differential punishment) on people’s evaluations of crime cases, either directly by conferring vividness to the relevant features of the evaluated cases, or indirectly through the emotional states they trigger. In particular, the greater vividness, and stronger emotions arguably associated with accomplished crimes vis-à-vis (all else equal) attempted crimes may lead people to misperceive the former as more dangerous than the latter—so reinforcing and magnifying the hindsight bias effects.<sup>125</sup>

Consider, first, the effects of emotions. The current state of the psychological empirical research consistently indicates that even minor differences in the affective states we are in may exert a pronounced influence on a number of our cognitive processes—from selective attention to encoding of information, from retrieval of information from

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<sup>125</sup> Unlike hindsight-bias effects, vividness effects and affective influence may also affect the assessment of properties other than the action’s dangerousness (e.g., agent’s motives, attitudes, and character traits), which may also be regarded as relevant for punitive responses. However, for the sake of simplicity, I will focus only on the assessment of the action’s dangerousness.

memory to selection of processing strategies—leading to “affect-induced biases.”<sup>126</sup> The differential emotional responses typically triggered by accomplished crime cases and (all else equal) attempted crime cases may thus lead to differential perceptions or evaluations of the properties equally instantiated in each kind of case. Let me illustrate this hypothesis with one of the robust findings of the field, namely, the impact of affect on processing strategies. Despite the complexity of the empirical evidence, and the variety of the theoretical models developed to account for it, it is an overwhelmingly documented fact that affective states of negative valence normally foster detail-oriented and systematic styles of information processing, whereas individuals in positive affective states tend to adopt more flexible processing strategies, normally based on heuristics, stereotypes or scripts.<sup>127</sup> As regards the assessment of dangerousness of accomplished crimes vis-à-vis (all else equal) attempts, these different processing strategies would thus favor more reliance on mental shortcuts, like those leading to hindsight bias effects, in the assessment of unsuccessful attempt cases than in accomplished crime cases, ultimately yielding, again, different sentencing judgments in the direction of differential punishment.

Similar effects are suggested by the research on the impact of vividness on information processing. It has been shown that when facing a piece of information presented in a

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<sup>126</sup> For recent comprehensive reviews, see Clore, Schwarz & Conway, *supra* note 113, at 369-403; also, Joseph P. Forgas, *Affect and Social Judgments: An Introductory Review*, in *Emotion & Social Judgments* 3 (Joseph P. Forgas ed., 1991).

<sup>127</sup> For a review of the relevant findings, and a thorough account of the diversity of theoretical elaborations of them, see the essays collected in *Theories of Mood and Cognition* (Leonard L. Martin & Gerald L. Clore eds., 2001).

vivid way, individuals' processing responses differ from those obtained when facing similar information presented in more pallid or abstract ways.<sup>128</sup> As recent research has made clear, vividness normally enhances message persuasiveness when the vivid pieces of the information presented are congruent with the message's content.<sup>129</sup> The implications of this research to the evaluation of the dangerousness of particular actions in accomplished crime cases vis-à-vis attempted crime cases may go like this. In both accom-

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<sup>128</sup> According to psychologists Nisbett and Ross, a target's vividness depends on its being "likely to attract and hold our attention and to excite the imagination to the extent that it is (a) emotionally interesting, (b) concrete and imagery provoking, and (c) proximate in a sensory, temporal, or spatial way"—see Richard Nisbett & Lee Ross, *Human Inference: Strategies and Shortcomings of Social Judgment* 44-5 (1980). For empirical evidence of the vividness effect, see R. M. Reyes, W. C. Thompson & G. H. Bower, *Judgmental Biases Resulting From Differing Availabilities of Arguments*, 39 *J. Personality & Soc. Psychol.* 2 (1980) (generally acknowledged as showing clear evidence of a vividness effect); see also, Jonathan Shedler & Melvin Manis, *Can the Availability Heuristic Explain Vividness Effects?*, 51 *J. Personality & Soc. Psychol.* 26 (1986) (reporting studies indicating direct impact of vividness on information processing, unmediated by its effects on memory availability).

<sup>129</sup> See, e.g., K. P. Frey & A. H. Eagly, *Vividness Can Undermine the Persuasiveness of Messages*, 65 *J. Personality & Soc. Psychol.* 32 (1993) (reporting studies challenging the view that vividness, by capturing individuals attention, enhances message persuasiveness); also, Stephen M. Smith & David R. Shaffer, *Vividness Can Undermine or Enhance Message Processing: The Moderating Role of Vividness Congruency*, 26 *Personality & Soc. Psychol. Bull.* 769 (2000) (reporting studies supporting their hypothesis on the moderating role of congruency between vivid aspects of a message and its content: "Highly congruent imagery should have a facilitative effect on message processing because it can both grab attention and prime relevant information stored in memory, whereas message-incongruent imagery is likely to undermine message processing by priming thoughts that are irrelevant to the message content or by undermining motivation to think about message content.")

plished and attempted crime cases, the proposition that the action is dangerous requires rather abstract information—namely, the action is dangerous because it belongs to a class of actions some of whose members did, or will, actually cause harm. However, in accomplished crime cases the fact that the dangerous action did in fact cause harm confers vividness to the proposition that the action is dangerous: the actual harm at hand is a piece of concrete and highly congruent evidence of the action’s dangerousness. In contrast, in unsuccessful attempt cases, the proposition that the action is dangerous may *only* be supported in the less concrete fashion—the action did not cause harm, but it could have caused it. In the latter case, then, the information regarding the action’s dangerousness may only involve reference to possible, counterfactual harms, general categories, and distant (as opposed to proximate) instances of actual harm—all factors psychologists associate with low degrees of vividness.<sup>130</sup> The effects of vividness detected in persuasion settings should manifest themselves also here, at least in terms of different degrees of confidence in the findings of dangerousness in one and the other case. These differences in confidence should, in turn, lead to more extreme evaluations of dangerousness in the accomplished crime cases, and to more moderate evaluations in the attempted crime cases.<sup>131</sup> As noted before, these differences in the evaluation of dangerousness will ulti-

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<sup>130</sup> See Nisbett & Ross, *supra* note 128, at 44-55, esp. 48-9 (arguing that information involving possible, but non-occurred facts is less concrete, and therefore less vivid, than information involving actual facts).

<sup>131</sup> See David M. Sanbonmatsu, Sharon Shavitt & Bryan D. Gibson, *Saliency, Set Size, and Illusory Correlation: Making Moderate Assumptions About Extreme Targets*, 66 J. Personality & Soc. Psychol. 1020 (1994) (reporting studies indicating correlation between confidence on perceived information, and the extremeness of evaluation).

mately yield judgments of appropriate sentences in the direction of differential punishment.

Summing up, then, the reviewed psychological research in the domains of hindsight bias, affect-induced biases, and vividness effects give us good reason to think that the actual occurrence of results and its absence impact heavily on people's perception and evaluation of features (other than actual harm) of the crimes they face. Consequently, two otherwise identical actions, one of which causes harm while the other does not, will tend to be perceived as instantiating different features, some of which (e.g., the actions' relative dangerousness) will certainly be regarded as relevant for punishment. These differences in the perception and evaluation of factual features will lead to differential judgments about the appropriate sentences for one and the other case, fitting the tendency of people to hold punitive responses following a pattern of differential punishment.

### 3. Conclusion

My guess is that the account based on the mechanism of pattern recognition and the priority of result-laden prototypes of criminal behavior, on the one hand, and the account based on the mediation of result-related cognitive and judgmental biases, on the other, pretty much exhaust the explanation of the findings of people's tendency to support differential punitive judgments when exposed to all-else-equal accomplished and attempted crime cases. Many, and perhaps most, of our particular judgments may be grounded in the spontaneous process of pattern recognition, without calling for any deeper reflection, defense or justification. In the cases in which, for whatever reasons, reflective scrutiny is called for, the mediation of result biases will prevent the very question of the independent relevance of results from arising: why would people care about what to do when "all

other things are equal,” if such a scenario never obtains—that is, if accomplished crimes are always relevantly different from attempted crimes in aspects other than the actual occurrence of harm? If I am right, the plausibility of an argument such as the one made by Paul Robinson and John Darley, which I discussed above in Part II,<sup>132</sup> is severely diminished. For the findings of people’s tendency to support differential punitive judgments do not straightforwardly allow the inference that they would be committed to defend the practice of differential punishment as a matter of principle. But the central point of this Part is not to contest such an argument. Rather, it is to explore the possible implications of the mediating result biases for the formulation of deterrence-oriented criminal-law policies. To this task I now turn.

### *B. Result Biases and Deterrence*

I have argued in Part I that, insofar as deterrence is concerned, schemes of equal sanctions and schemes of differential sanctions are, all other things being equal, equivalent alternatives. The argument, briefly stated, went like this. The deterrent mechanism the theory relies upon hinges on the expected punishment agents face in deciding to commit a crime. When the crime at stake is subject to criminal liability both in the event of success and failure—i.e., when there is both accomplished crime liability and attempted crime liability—the value of the expected punishment results from the sum of the value of the sanction for the event the action causes harm, discounted by the probability of the action causing harm and the probability of such sanction being imposed on the agent, on the one hand, and the value of the sanction for the event the action fails, discounted by the

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<sup>132</sup> *Supra* text accompanying notes 60-82.



probability of the action not causing harm and the probability of this sanction being imposed on the agent, on the other. Consequently, for any probability of the action causing harm, and any probability of sanctions being imposed, equal values of expected punishment may be met by different pairs of sanctions—either equal sanctions irrespective of the outcome, or different sanctions depending on the crime’s actual result. To the extent that deterrence is concerned, all those pairs are equivalent—for they yield the same expected punishment.

Now, as it is commonplace in the economic literature on punishment, the foregoing analysis assumes that there is no noise between the relevant criminal-law policies and individuals’ perceptions of them.<sup>133</sup> But, is this a realistic assumption?

Social research has shown that deterrence effects are mediated by people’s perceptions of criminal-law policies; however, there is still little knowledge as to how those perceptions are shaped.<sup>134</sup> Still, there is some empirical support for the view that among the factors influencing individuals’ perceptions of criminal-law policies, their own personal ex-

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<sup>133</sup> See Sah, *supra* note 59 at 1273.

<sup>134</sup> For a recent, thorough review of the relevant findings and open issues in the perceptual deterrence literature, see Daniel S. Nagin, *Criminal Deterrence Research at the Outset of the Twenty-First Century*, 23 *Crime and Justice: A Review of Research* 1, 12-23 (Michael Tonry ed., 1998) (stating, at 15: “The perceptual deterrence literature was motivated by skepticism that perceived and actual sanction threats were tightly linked. Thus it is curious that perceptual deterrence researchers have given only modest attention to the factors influencing risk perceptions and to the dynamic processes by which they are formed”).

perience as victims, witnesses or offenders, and the corresponding experience of their acquaintances loom large.<sup>135</sup>

My discussion in the previous section has brought to light psychological evidence suggesting the existence of result-related cognitive and judgmental biases that may affect people's perception and evaluation of past crimes. I hypothesize that these biases must also play a role in the formation of people's experience regarding the criminal-law deterrence variables—namely, sanction severity and probability of conviction. In this section, I explore what this impact may be, and particularly whether the mediation of these biases could tip the balance in favor of the adoption of a scheme of differential sanctions.

#### 1. Marginal deterrence and hindsight bias

In order to produce marginal deterrence, a scheme of sanctions must be so devised as to provide individuals who have already decided to engage in criminal activity with incentives to minimize the harmful effects of their criminal actions.<sup>136</sup> One of the implications of this general idea of marginal deterrence is that, for any given level of the probability of sanctions being imposed, the higher the probability of an action causing harm, the harsher the sanction its perpetrator is to receive, all other things being equal. More

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<sup>135</sup> See Jerry Parker & Harold G. Grasmick, *Linking Actual and Perceived Certainty of Punishment*, 17 *Criminology* 366 (1979) (focusing on respondents' reports of past victimization of both respondents and their acquaintances, and their reports of arrests in connection with those cases); Julie Horney & Ineke Haen Marshall, *Risk Perceptions Among Serious Offenders: The Role of Crime and Punishment*, 30 *Criminology* 575 (1992) (focusing on respondents' reports of crimes committed by respondents, and their reports of arrests in connection with those crimes); also, Nagin, *supra* note 134, at 15-9 (reviewing other studies), and Sah, *supra* note 59, at 1273-81 (accounting for similar findings in a model of individual criminal choice).

<sup>136</sup> See *supra* note 31 and accompanying text.

specifically, the *expected* punishment the agent faces in performing the criminal action must rise with the probability of the action causing harm. Thus, as noted before, the choice of a particular scheme of relative sanctions for successful and unsuccessful crimes—i.e., either a scheme of differential sanctions, or a scheme of equal sanctions—will make no difference insofar as the resulting expected punishment equally rises with the probability of actions causing harm. Being aware of this feature of the applicable sanctioning scheme—as they are under the assumption of no (or only negligible) noise between the relevant criminal-law policies and individuals’ perceptions of them—individuals willing to engage in harmful activity will have a reason to minimize the probability of their actions causing harm.

Now, according to the available research on perceptual deterrence,<sup>137</sup> individuals learn about the contents of criminal-law policies through their direct experience and the corresponding experience of their acquaintances. So, if the criminal-law schedule of sanctions is such that expected punishment increases with the probability of actions causing harm, individuals will learn about this fact primarily from contrasting the crimes they have been exposed to, directly or through their acquaintances’ experience, and the punishment their perpetrators have received.

The findings regarding the effects of the hindsight bias (and the other result biases that reinforce it) I reviewed above<sup>138</sup> strongly suggest that people will have distorted perceptions of the crimes they are exposed to depending on whether they are successful or unsuccessful crimes. In particular, the hindsight bias research supports the prediction that

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<sup>137</sup> See *supra* note 135, and accompanying text.

<sup>138</sup> See *supra* text accompanying notes 119-131.

actions bearing identical probabilities of causing harm will normally be misperceived as bearing different probabilities depending on their actual outcome (harm or non-harm). Generally, then, successful crimes will be perceived as bearing higher probability of the action causing harm than (all else equal) unsuccessful crimes.

Such misperceptions of the probability of actions causing harm will distort the perceptions of the criminal-law policy of making expected punishment vary with the actual (i.e., unbiasedly assessed) probability of actions causing harm. Especially, if the policy is effected through schemes of equal sanctions—under which actions bearing the same actual probability of causing a crime result are punished with the same penalty independently of whether they succeed or fail—then the effects of the hindsight bias may completely blur the intended policy of providing marginal incentives against marginal increases in the probability of actions causing harm. For, due to hindsight bias effects, schemes of equal sanctions may be seen as systematically affording equal punitive treatment to offenders who perform actions that are perceived as significantly differing in their probability of causing harm.

However, if the criminal-law policy of making expected punishment vary with the actual probability of actions causing harm is effected through schemes of differential sanctions, such undesirable consequence of the mismatch between the actual policy and people's perception of it may not arise. For under schemes of differential sanctions, actions that are perceived as bearing higher probabilities of causing harm (i.e., those that succeed in causing harm) are correlated with more severe actual sanctions than actions perceived as bearing lower probabilities of causing harm (i.e., those that fail to cause harm).

To see the point more clearly, consider the following example. Suppose that acting so as to cause the harmful state of affairs  $R$  is a crime, and that it is punishable either if it does or does not bring about  $R$ —i.e., there is both accomplished crime liability and attempted crime liability. Suppose further that every action that risks  $R$  falls into one of two types,  $A$  or  $B$ , on account of the probability of the action causing  $R$ —so that actions carrying a high probability of causing  $R$  fall into type  $A$ , and actions carrying a low probability fall into type  $B$ . Certainly, both types of actions may either succeed or fail in bringing about  $R$ — $A_r$  and  $B_r$  denote the class of instances of each type that actually caused  $R$ , and  $A_a$  and  $B_a$  the corresponding failed attempts. Although these eventual outcomes will not alter the probabilities the actions bore—which remain high or low irrespective of the outcome—people affected by the hindsight bias will have a different impression. From their biased perspective, they will systematically overestimate the probability of actions bringing about the state of affairs that they indeed brought about. For simplicity’s sake, let me assume that, when assessed through the lenses of the hindsight bias, actions otherwise carrying a high probability of causing  $R$  will be perceived as having borne a very high probability if they did in fact cause  $R$ , and only a low probability if they failed to bring it about. In turn, actions otherwise carrying a low probability of causing  $R$ , will be perceived as having borne a high probability if they did in fact cause  $R$ , and a very low probability if they failed. Table 3 summarizes these facts.

**Table 3**

<i>Action</i>	<i>Actual probability</i>	<i>Probability under hindsight bias</i>	<i>Punishment under Scheme E</i>	<i>Punishment under Scheme D</i>
$A_r$	High	Very high	Severe	Very severe
$A_a$	High	Low	Severe	Lenient
$B_r$	Low	High	Lenient	Severe
$B_a$	Low	Very low	Lenient	Very lenient

Now, imagine that a scheme of equal sanctions like the one described in the fourth column of Table 3 (Scheme E) is in force. If people's experience of past crimes and their criminal-law responses is rich enough as to grasp the complete schedule of sanctions, they will learn that actions falling into the  $A_r$  and  $A_a$  categories risk severe sanctions, and those falling into the  $B_r$  and  $B_a$  categories risk lenient sanctions. Individuals unaffected by the hindsight bias may easily infer that the shift from lenient to severe sanctions is correlated with the increase from low to high probability of actions causing  $R$ . Were they willing to produce  $R$ , this inference should lead them to find a reason to opt for a course of action carrying a low probability of causing  $R$  rather than an alternative course carrying a high probability.

However, hindsight bias effects will prevent some individuals from drawing that inference. In fact, these hindsight-biased individuals will have the impression that past crimes fall into four categories, depending on whether they have borne very high, high, low, or very low probability of causing  $R$ . As well, experience will teach them that the criminal law observes an idiosyncratic pattern according to which actions carrying a high probability of causing  $R$ , as well as those carrying a very low probability, risk lenient sanctions, whereas actions leading to a low probability of causing  $R$ , as well as those bearing a very high probability, risk severe sanctions. With this information in mind, were they

willing to cause *R*, they would rather choose a course of action with a high probability of causing *R*, instead of an alternative course of action carrying a low probability. Indeed, assessing *in foresight* their own prospects of bringing about *R*, they would find possible alternative courses of action falling at most into two types, that is, courses of action bearing either a high or a low probability of causing *R*—for by hypothesis every action is either *A* or *B*, and the hindsight bias does not prevent individuals from so concluding when assessing actions in foresight. Nevertheless, since the hindsight bias effects *do* taint the information about past crimes, these individuals would mistakenly believe that by choosing the low probability course of action they would risk a severe sanction, whereas by choosing the high probability course they would only risk lenient punishment.

Certainly, if, as predicted, hindsight-biased individuals choose high probability actions, they will receive severe sanctions—rather than the lenient sanctions they expect—whether they succeed or fail in bringing about *R*. Yet, by that time they will already know what the outcome of the criminal action was, and will accordingly view their own past action as having borne either a very high or a low probability of causing *R*, depending on whether it did, or did not, bring about *R*, correspondingly. As psychological research has shown, they will even misremember their own foresight assessments, believing that they “knew it all along” that things would turn out as they did,<sup>139</sup> which will in

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<sup>139</sup> Indeed, the hindsight bias effects on memory (i.e., the incapability to reconstruct or retrieve from memory the prediction actually made after having learnt the actual outcome of the predicted event) are the aspects of this phenomenon that have most attracted the attention of the psychological research on the hindsight bias. For early experiments *see*, e.g., Fischhoff & Beyth, *supra* note 122; also, Gordon Wood, *The Knew-It-All-Along Effect*, 4 J. Experimental Psychol.: Hum. Perception & Performance 345 (1978); for recent experiments, *see*, e.g., Dehn & Erdfelder, *supra* note 122 (also reviewing relevant literature).

turn allow them to maintain their biased perception of the criminal law pattern even against their own experience.

In contrast, a scheme of differential sanctions like the one described in the fifth column of Table 3 (Scheme D) may prevent those perverse effects from occurring. By hypothesis, Scheme D yields the same expected punishment for each type of action, *A* and *B*, as Scheme E. Thus, for individuals unaffected by the hindsight bias—who will learn that high probability actions risk very severe or lenient sanctions depending on whether they result in *R* or not, and that low probability actions risk severe or very lenient sanctions contingent on their causing *R* or not—the move from Scheme E to Scheme D will make no difference. However, for individuals subject to the hindsight bias it will. In effect, under Scheme D hindsight-biased individuals will learn from past cases that low probability actions are correlated with lenient sanctions, while high probability actions are correlated with severe penalties. Then, with this information in mind they will have an incentive not to opt for a prospective course of action bearing a high probability of causing *R*, if they have an alternative course that they associate with a low probability.

The foregoing discussion suggests that the goal of marginal deterrence may offer a reason to choose a scheme of differential sanctions over a scheme of equal sanctions, once hindsight bias effects are taken into account. The reason is that, all other things being equal, less individuals will engage in activity of the *A* type (and proportionally more will engage in activity of the *B* type) under the former scheme than under the latter scheme. If the number of crimes is large enough, these differences will manifest themselves in a larger number of instances of *R* under the scheme of equal sanctions than un-



der the scheme of differential sanctions. Provided the minimization of  $R$  is what motivates criminalization, the scheme of differential sanctions should then be preferred.

The real world is much more complex than my oversimplified example, which makes it much more difficult for individuals to grasp the complete pattern of crimes and criminal-law responses that would allow them to infer that punishment risk rises with the probability of actions causing crime results. In such a noisy environment, the widespread presence of the robust hindsight bias that cognitive psychologists have found may be a felicitous advantage. If successful crimes are typically seen, though mistakenly, as involving actions making it very likely that harm occurs, while unsuccessful crimes are typically seen as involving actions carrying low probabilities of causing harm, then a consistent and across the board scheme of sanctions punishing successful crimes more severely than unsuccessful crimes may be an easy device to communicate, though very coarsely, that more dangerous courses of action risk harsher sanctions than less dangerous ones. Granted, those coarse effects are far from an ideal model of marginal deterrence. Yet, in a noisy environment plagued with the effects of the hindsight bias, they are perhaps the best we can achieve.<sup>140</sup>

## 2. Perceived crime and punishment frequencies

I argued before that the fact that a criminal action actually causes a harmful result confers congruent vividness to the action's dangerousness, as well as it triggers emotional re-

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<sup>140</sup> Note, by the way, that for those who can avoid the distortions of the hindsight bias and gather enough information, the scheme of differential sanctions may still provide adequate incentives to minimize the probability of actions causing harm—insofar as the sum of the expected sanctions for the event of failure and for the event of success in causing harm proportionally rises with the probability of the action causing harm.

actions normally absent (or present only to a lesser extent) when harm does not obtain. I also showed that these two phenomena make individuals who are assessing past criminal cases to adopt different information-processing strategies when the case at hand involves the actual occurrence of a harmful result, and when it does not.<sup>141</sup> The same two phenomena, I will now claim, have an impact on people's attention to the criminal cases they are exposed to, and on their retrieval from memory of instances of past crimes and the criminal-law responses they have led to, so that, generally, accomplished crime cases are more attention-grabbing and are better remembered over time, whereas attempted crime cases are less attention-grabbing and more easily forgotten.<sup>142</sup> I will then argue that in designing deterrence-oriented criminal-law policies, policy-makers should generally take into account the existence of differences in salience and availability among types of crimes, for they would impact on people's perception of relevant variables—i.e., the frequency of crimes being committed, and the frequency of crimes being actually punished. Finally, I will defend that the policy implications that emerge from properly paying heed to differences in salience and availability may inform the decision as to the adoption of schemes of differential sanctions vis-à-vis schemes of equal sanctions.

*a. Differential salience and availability.* There is clear evidence that in everyday life, where innumerable stimuli compete for attention, vivid targets capture more attention

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<sup>141</sup> See *supra* text accompanying notes 125-131.

<sup>142</sup> In accordance with the relevant psychological literature, I will use the terms “salience” to refer to the capacity of a target to grab attention, and “availability” to refer to the capacity of a piece of information to be retrieved from memory.

than non-vivid ones.<sup>143</sup> Though well supported in theory, evidence that vivid information is more likely to be held in memory and retrieved over time is somewhat thinner, but still available.<sup>144</sup> Research on the influence of emotions on memory, in turn, shows that emotional states also bias attention and subsequent retrieval, which results in the tendency of emotional targets to be better remembered than unemotional ones, in improved memory for details when encoding takes place under the influence of intense emotions, etc.<sup>145</sup> As these findings suggest, due to the effects on attention, vivid and emotionally charged targets are more salient than pallid and unemotional ones; in turn, due to the effects on memory, stored information regarding vivid and emotionally charged targets is more available than that regarding pallid and unemotional targets. These findings are general

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<sup>143</sup> See S. E. Taylor & S. C. Thompson, *Stalking the Elusive “Vividness” Effect*, 89 *Psychol. Rev.* 155 (1982) (reviewing studies that had failed to find vividness effects, and arguing that their laboratory conditions failed to simulate “noisy” real world conditions).

<sup>144</sup> For evidence supporting the hypothesized memorial advantage of vivid information, see, e.g., R. L. Collins, S. E. Taylor, J. V. Wood & S. C. Thompson, *The Vividness Effect: Elusive or Illusory?*, 24 *J. Experimental Soc. Psychol.* 1 (1988).

<sup>145</sup> See, e.g., W. Revelle & D. A. Loftus, *Individual Differences and Arousal: Implications for the Study of Mood and Memory*, 4 *Cognition & Emotion* 209 (1990) (reviewing literature finding correlation between emotional content and better recall); F. Heuer & D. Reisberg, *Emotion, Arousal, and Memory for Detail*, in *The Handbook of Emotion and Memory: Research and Theory* 151 (S.-A. Christianson ed., 1992) (reporting studies linking intense emotional states at the encoding stage, and subsequent improved detailed-oriented memory). The vast psychological literature on emotions and memory suggests many other effects, and a complex field of supporting data—for a thorough review and discussion of open issues, see W. Gerrod Parrott & Matthew P. Spackman, *Emotion and Memory*, in *Handbook of Emotions* 476 (Michael Lewis & Jeannette M. Haviland-Jones eds., 2d ed., 2000). Yet, as far as my argument is concerned, nothing beyond the general findings I report in the text are called for.

enough as to allow room for hypothesizing that these differences in salience and availability must also manifest themselves when the targets at issue are criminal cases. Given that the actual causation of harm confers vividness to the crime's instantiation of relevant properties such as dangerousness, and normally triggers stronger emotional reactions, it is plausible to suppose that *ceteris paribus* successful crimes are more salient than unsuccessful crimes, and that information about the former is subsequently more available than that concerning the latter. Now, what are the implications that the deterrence policy-maker should draw from these facts?

*b. General policy implications.* It is a well documented fact that, under normal conditions of limited information and processing capacity, people's estimations of frequency are mediated by availability—that is, the frequency with which a class of events has occurred is estimated by the ease with which instances of such class could be retrieved from memory—a judgmental strategy that psychologists call “availability heuristic.”<sup>146</sup> When factors unrelated to the actual frequency determine increased availability (e.g., vividness and emotionality), reliance on this availability heuristic yields biased estimations of frequency: more available events are believed to be more frequent, though they are not necessarily so.<sup>147</sup>

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<sup>146</sup> See Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability* 4 *Cognitive Psychol.* 207 (1973), reprinted in *Judgment under Uncertainty: Heuristics and Biases* 163 (Daniel Kahneman, Paul Slovic & Amos Tversky eds., 1982) (introducing the phenomenon and discussing several studies).

<sup>147</sup> For some examples regarding social judgments, see Shelly E. Taylor, *The Availability Bias in Social Perception and Interaction*, in *Judgment under Uncertainty: Heuristics and Biases* 190 (Daniel Kahneman, Paul Slovic & Amos Tversky eds., 1982).

Suppose, for simplicity's sake, that every instance of a given type of crime falls into one of two categories, *A* or *B*, depending on whether it is highly salient and available over time—in which case it falls into category *A*—or less salient and poorly available over time—in which case it falls into category *B*. If, under conditions of limited information and processing capacity, an individual is to assess the overall frequency of crimes (*A*'s and *B*'s) during a given period of time, research on the availability heuristic predicts that the *A*'s will bear a stronger impact in the individual's outcome estimation—for she will be able to bring to mind instances of *A* more easily than instances of *B*. In other words, for any given overall frequency of crimes (*A*'s and *B*'s), different distributions of *A*'s vis-à-vis *B*'s will lead to different estimations of the overall frequency of crimes—so that, in the extremes, a distribution of few *A*'s and many *B*'s will yield a lower perceived crime frequency than that a distribution of many *A*'s and a few *B*'s will.

There are, on the other hand, good reasons to believe that people's decisions to engage in crime are partly influenced by their perceptions of others' behavior regarding crime. Particularly, individuals seem to be much more likely to engage in criminal activity when they perceive that crime is widespread—the most extreme example of which is given by “mob” offenses, such as looting or lynching.<sup>148</sup> This suggests that higher perceived crime rates would be associated with people being more likely to commit crimes. Which, in turn, gives rise to the following general policy implication (PI).

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<sup>148</sup> See Dan M. Kahan, *Social Influence, Social Meaning, and Deterrence*, 83 Va. L. Rev. 349, 352-61 (1997) (reviewing abundant empirical evidence, and advancing several mechanisms through which social influence may determine higher willingness to engage in criminal activity).

PI (1): For any given level of resources devoted to crime prevention, more resources should be allocated to prevent instances of *A*, and less to prevent instances of *B*.

In other words, crime prevention should put more emphasis on *A*'s than on *B*'s. For, as noted, a reduction in the number of *A*'s would impact more strongly in people's estimations of the overall crime frequency than a similar reduction in the number of *B*'s.

Along with the effects on the estimation of crime rates, differences in crimes' salience and subsequent availability may also influence people's estimations of the overall probability of offenders being caught, prosecuted, convicted and punished (simply, the overall probability of punishment). Again, people's assessments of the probability of punishment would stem from their own, and their acquaintances' experience. In this estimation of the probability of punishment, the availability heuristic would mediate both the selection of the reference class of past crimes from which the frequency of sanction imposition will be assessed, and the estimation of the frequency of sanction imposition within the selected reference class. Provided that the fact that a crime is, or is not, punished does not affect crime salience and later availability,<sup>149</sup> the estimation of the frequency of punishment within the selected reference class, even if mediated by the availability heuristic,

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<sup>149</sup> This assumption may or may not be sound as a matter of fact. It is however necessary to build in *ceteris paribus* conditions—for my argument aims at determining the implications of differences in salience and availability due to features of crimes other than their being punished or not (i.e., in particular, the fact that they caused harm, or not).

need not be biased.<sup>150</sup> However, differences in salience and availability among crimes will affect the conformation of the reference class of remembered crimes from which the frequency of sanction imposition is assessed. Particularly, the *A*'s will tend to be over-represented in the reference class of remembered crimes, whereas the poor availability of the *B*'s will make them to be under-represented. These over- and under-representations will thus result in the conformation of a biased reference class, comprising a disproportionately high number of *A*'s and a disproportionately low number of *B*'s. A reference class of remembered crimes thus biased may lead to distorted representations of the actual overall frequency of crimes (*A*'s and *B*'s) being punished, if the actual partial frequencies of *A*'s being punished, on the one hand, and *B*'s being punished, on the other, are not even. Particularly, for any given actual overall frequency of crimes (*A*'s and *B*'s) being punished, any uneven distribution of partial frequencies under which *A*'s are punished more often, and *B*'s are punished proportionately less often will yield a higher perceived overall frequency of crimes being punished than an even distribution, or an uneven one under which *B*'s are punished more often than *A*'s.

Accordingly, if higher perceived overall probability of punishment is desirable, and this, as hypothesized, is formed by people's experience regarding past crimes and the frequency with which they have led to the imposition of punishment, the mediation of the availability heuristic gives rise to the following general policy implication.

PI (2): For any given amount of resources devoted to the apprehension, prosecution and conviction of offenders, the allocation of them should be such that crimes fal-

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<sup>150</sup> See, e.g., Tversky & Kahneman, *supra* note 146, at 164 ("Availability is an ecologically valid clue for the judgment of frequency because, in general, frequent events are easier to recall or imagine than infre-

ling into the *A* category are more often punished, whereas those falling into the *B* category are punished proportionately less often.

There are, in fact, deterrent-related reasons to prefer a policy that leads to perceptions of higher overall probability of punishment than another leading to perceptions of lower overall probability, all other things being equal. Deterrence theory models of criminal choice typically assume that prospective offenders' perceptions of the relevant deterrence variables are crime-specific—so that, for instance, an increase in the probability of punishment regarding one type of crime may lead to a decrease in the number of crimes of that type, and a proportional increase of the number of crimes of another type.<sup>151</sup> In my example of *A*'s and *B*'s, this assumption would imply that prospective offenders will take into account the partial frequency of either *A*'s or *B*'s being punished, and not the overall frequency of crimes (*A*'s and *B*'s) being punished—so that, if an individual is certain that her crime will fall into the *A* category, she will consider only the probability of punishment attached to this type of case; if, in turn, she is uncertain, she will estimate the probability of it falling into that category, and the probability of it falling into the *B* category, and so she will calculate the probability of punishment by taking into account the specific probabilities of punishment attached to each category. However, as some have suggested, prospective offenders' perceptions of the probability of punishment may be influenced by broader estimations of the government's efficacy in apprehending and convicting criminals in general, or with respect to inclusive, cross-type crime categories—as op-

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quent ones”).

<sup>151</sup> See, e.g., Steven D. Levitt, *Why Do Increased Arrest Rates Appear to Reduce Crime: Deterrence, Incapacitation or Measurement Error?*, 36 *Econ. Inquiry* 353, 361 (1998).



posed to crime-specific estimations.<sup>152</sup> In accordance with this suggestion, prospective offenders may form their relevant perceptions of the probability of punishment by assessing the overall frequency of crimes (*A*'s and *B*'s) being punished—in which case, a higher perceived overall probability of punishment will directly contribute to deterrence.

Be that as it may, it seems plausible to suppose that evaluations of this overall probability of crimes being punished are at play in people's judgments of the government's efficacy in prosecuting and punishing criminal offenders. These judgments, in turn, influence people's disposition to cooperate with law enforcement institutions in the prosecution of criminal offenders. It has been argued that the lower the perceived probability of offenders being caught and punished, the lower the willingness of law-abiding citizens to cooperate with the authorities in fighting crime. The argument is that the lower the perceived probability of conviction, the lower the expected benefit of individual acts of cooperation.<sup>153</sup> This relationship, in turn, leads to perverse dynamics: a low perceived probability of conviction leads to a low level of cooperation, which leads to a lower probability of punishment, and so on and so forth.<sup>154</sup>

In sum, either because the perceived overall probability of punishment directly affects deterrence, or because it does so indirectly by influencing people's incentives to cooperate with law enforcement agencies, there is reason to prefer a policy leading to a higher perceived overall probability of punishment rather than an alternative policy leading to a lower perceived overall probability, all other things being equal. So, again, the differential impact of past crimes on people's estimations of the overall probability of punishment

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<sup>152</sup> See Nagin, *supra* note 134, at 18.

<sup>153</sup> See Kahan, *supra* note 148, at 380-1.

depending on crimes' salience and availability over time favors the allocation of limited resources for apprehension, prosecution and conviction of offenders, so that crimes being more salient and available are punished more often, and those crimes being less salient and available are punished proportionately less often.

*c. Punishment for results.* The variety of possible sources of salience and availability makes it difficult to translate the general policy implications PI (1) and PI (2) of focusing crime prevention resources primarily on more salient and available crimes into more specific prescriptions. I have pointed out, however, that the actual causation of harm both confers vividness to the crime's instantiation of relevant properties such as dangerousness, and normally triggers stronger emotional reactions. So, I argued, all other things being equal, accomplished crimes are more salient than attempted crimes, and information about the former is subsequently more available than that concerning the latter. Such point about the relative salience and later availability of successful and unsuccessful crimes suggests that the issue of the relative punishment of successful and unsuccessful crimes may be a realm where the two general policy implications PI (1) and PI (2) may be applied. Yet, a closer scrutiny reveals that only PI (2) may have some bearing on the issue of the relative punishment of successful and unsuccessful crimes—PI (1) has there no application.

According to PI (1), for any type of offense *O*, policy-makers should allocate limited crime prevention resources so that more salient and available instances of *O* are more effectively prevented than less salient and available instances of *O*. Under some conditions, such prescription may be achieved by punishing the more salient and available in-

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<sup>154</sup> *Ibid.*, at 381-2.

stances of *O* more severely, and the less salient and available instances of it proportionally less severely. Thus, individuals willing to commit an instance of *O* would have an incentive to choose the less salient and available course of action rather than the more salient and available one—an incentive that they would not have were both courses of action punished with equal severity. Since, all other things being equal, successful instances of a type of crime are more salient and available than unsuccessful instances of it, one might thus feel inclined to believe that, according to PI (1), successful offenses should be punished more severely, and unsuccessful offenses proportionally less severely. But that belief is mistaken. Indeed, the argument that by punishing the more salient and available instances of *O* more severely than the less salient and available instances of it may give prospective offenders an incentive to choose the latter rather than the former presupposes that offenders may substitute one course of action for the other as a consequence of the relative punishment of one and the other course of action. And this is not the case as regards successful and unsuccessful instances of a given type of crime. For, realistically, agents cannot tell in advance whether the criminal actions they choose to perform will end up causing harm or not. They can only choose among different courses of action bearing different probabilities of causing harm. But for any probability of an action causing harm, the action may end up actually causing harm or not. So, an offender's decision to perform that action would be affected by both the sanction she would receive if the action actually causes harm, and the sanction she would receive if the action fails to cause harm. Expressed in technical terms, the relevant expected punishment would result from the sum of the expected sanction for the event of success plus the ex-

pected sanction for the event of failure.<sup>155</sup> Consequently, to the extent that the resulting expected punishment remains constant, different distributions of punishment between the successful outcome and the unsuccessful one would make no difference for the offender's decision to commit the crime.

Notice, however, that the point is just that, for any given probability of actions causing harm, successful crimes may not be reduced at the expense of allowing a larger number of unsuccessful crimes. Yet, successful crimes may indeed be reduced at the expense of allowing a larger number of unsuccessful crimes by devising a schedule of sanctions such that expected punishment rises with the probability of actions causing harm. For, if expected punishment increases as the probability of actions causing harm augments, individuals willing to commit a crime will have an incentive to minimize the probability of their criminal actions causing harm. If so, on aggregate, more instances of actions carrying lower probabilities of causing harm will be committed, and proportionally less instances of actions carrying higher probabilities of causing harm, than it would be the case were punishment not responsive to differences in the probability of actions causing harm. Since such a schedule of sanctions minimizes the aggregate probability of actions causing harm, fewer instances of successful offenses would obtain under such arrangement than under a competing arrangement whereby expected punishment is not thus responsive to variations in the probability of actions causing harm. As I argued above<sup>156</sup>, schemes of differential sanctions may help to convey that the schedule of sanctions has this property to an audience systematically affected by hindsight bias effects. Now, if this is the only

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<sup>155</sup> See *supra* text accompanying notes 22-25.

<sup>156</sup> See *supra* text accompanying notes 136-140.

prescription that PI (1) may yield for the issue of the relative punishment of successful and unsuccessful offenses, then to that extent PI (1) is superfluous—that is, the same prescription would hold were PI (1) not true. That is why I claimed that PI (1) has no bearing on the issue of the relative punishment of successful and unsuccessful crimes.

Let me turn to PI (2)—i.e., the general prescription that limited law enforcement resources should be allocated so that more salient and available crimes are more frequently punished than less salient and available crimes. Together with the fact that successful crimes are *ceteris paribus* more salient and available than unsuccessful crimes, PI (2) yields the prescription that successful offenses should be punished more frequently than unsuccessful offenses. More specifically, for any given amount of resources devoted to law enforcement, more resources should be allocated to the prosecution of successful offenses, and proportionally less to the prosecution of unsuccessful offenses, all other things being equal. It does not follow from this that when unsuccessful crimes are to be punished, they should be punished with less severe sanctions than the comparable successful crimes. The point is just that, since punishment of successful offenses impacts more strongly on people's perception of the overall frequency of crimes being punished, the distribution of sanctions between successful and unsuccessful offenses that maximizes the perceived overall frequency of crimes being punished is one where successful offenses are punished more frequently than unsuccessful offenses. The institutional arrangements through which this goal could be achieved may involve rules requiring law-enforcement authorities to give priority to the prosecution of successful crimes over unsuccessful crimes, or favoring prosecutorial discretion in attempted crime

cases,<sup>157</sup> but not rules establishing the actual sanctions to be imposed in successful and unsuccessful crime cases.

However, it might be the case that, in the absence of harm actually caused, instances of a given type of crime are normally as poorly salient and easily forgotten as to make punishment for unsuccessful instances of that type of crime worthless—for imposing punishment in such cases, that is to say, would make no relevant contribution to people’s perception of the probability of crimes of that type being punished. Whether there are in fact types of crimes whose unsuccessful instances are thus normally insufficiently salient and available is, of course, an empirical matter. But if there are, it may be sensible to adopt for those types of crimes extreme schemes of differential sanctions whereby only successful instances are punished, whereas unsuccessful instances are not punished at all. For instance, actions that amount to crimes of negligence as serious as involuntary manslaughter are often actions whose dangerousness would remain unnoticed in the absence of harm.<sup>158</sup> If so, the practice of punishing criminal negligence only when it causes harm,

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<sup>157</sup> Among the A.B.A. standards for the prosecution function there is an example of regulation of the exercise of prosecutorial discretion that allows prosecutors to select cases for prosecution in virtue of the actual harm the crime has brought about—see A.B.A. Standards for Criminal Justice: The Prosecution Function § 3.9(b) (1992) (“ . . . The prosecutor may in some circumstances and for good cause consistent with the public interest decline to prosecute, notwithstanding that sufficient evidence may exist which would support a conviction. Illustrative of the factors which the prosecutor may properly consider in exercising his or her discretion are: . . . (ii) the extent of the harm caused by the offense . . .”). My account of the relative impact of successful and unsuccessful offenses on the perceived frequency of crimes being punished may make sense of this regulation.

<sup>158</sup> Consider, e.g., *Commonwealth v. Welansky*, 55 N.E.2d. 383 (1944). The defendant, in charge of a night club in Boston, was found guilty on numerous counts of involuntary manslaughter. His negligent be-

and to the extent of the harm actually caused,<sup>159</sup> may be partly accounted for as an implication of PI (2) as I have just suggested.

### *C. Conclusion*

I began this Part by offering a plausible account of why we tend to believe on intuition that successful offenses call for harsher punishment than their unsuccessful counterparts. This tendency is partly explained, I argued, by the effects of a number of result-related cognitive and judgmental biases that make us misperceive and erroneously assess factual properties of the criminal actions we are exposed to. I then explored the ways in which such result biases may be included in a deterrence model, with an eye put on whether such move could give a reason for adopting a scheme of differential sanctions under which accomplished crimes are punished more severely than attempted crimes, all other things being equal. My discussion showed, first, that people's reliance on the hindsight bias when assessing past crimes' dangerousness, together with the need to provide marginal deterrence by making expected punishment rise with the probability of criminal actions causing harm, and the assumption that people learn about the relevant deterrence

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havior had basically consisted in keeping the night club with highly flammable decorations and defective emergency exits. His negligence resulted in the death of some of the night club's employees and a great number of its patrons who could not escape from a fire—which started (and spread rapidly) as a consequence of the flammable decorations—due to the defective emergency exits. The facts that made Welansky's behavior dangerous may not have been very salient before the fire for the more than one thousand patrons that overcrowded his club the night of the fire—*ibid.* at 907.

variables from their own experience, may offer a reason to prefer a scheme of differential sanctions over a scheme of equal sanctions, all other things being equal.

Secondly, I showed that the relative salience and availability from memory of accomplished and attempted crimes should also be taken into account for deterrence purposes. This phenomenon, however, has no implication for the issue of the relative severity of the sanctions for successful and unsuccessful crimes. The higher relative salience and availability of successful crimes makes it advisable to allocate limited crime prevention resources so that successful crimes bear a higher probability of punishment, at the expense of a lower probability of punishment for unsuccessful crimes, all other things being equal. Yet, under some extreme conditions, the best policy may be one under which unsuccessful crimes are never punished.

## CONCLUSION

What is puzzling about the legal practice of differential punishment is that we think on intuition that it is right, though we cannot find a conclusive argument that fully captures our intuitions. My arguments in this article show that under some likely conditions there may be consequentialist, deterrence-based reasons for punishing successful offenders more harshly than their unsuccessful counterparts. If consequentialists about the criminal law are right, then it will follow from my arguments that there are in fact contexts in which we are right in adopting schemes of differential sanctions.

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<sup>159</sup> See, e.g., MPC §§ 5.01, 210.4, 211.1(b) (excluding negligence from attempt liability, making negligently causing death a felony of the third degree, and negligently causing bodily injury with a deadly



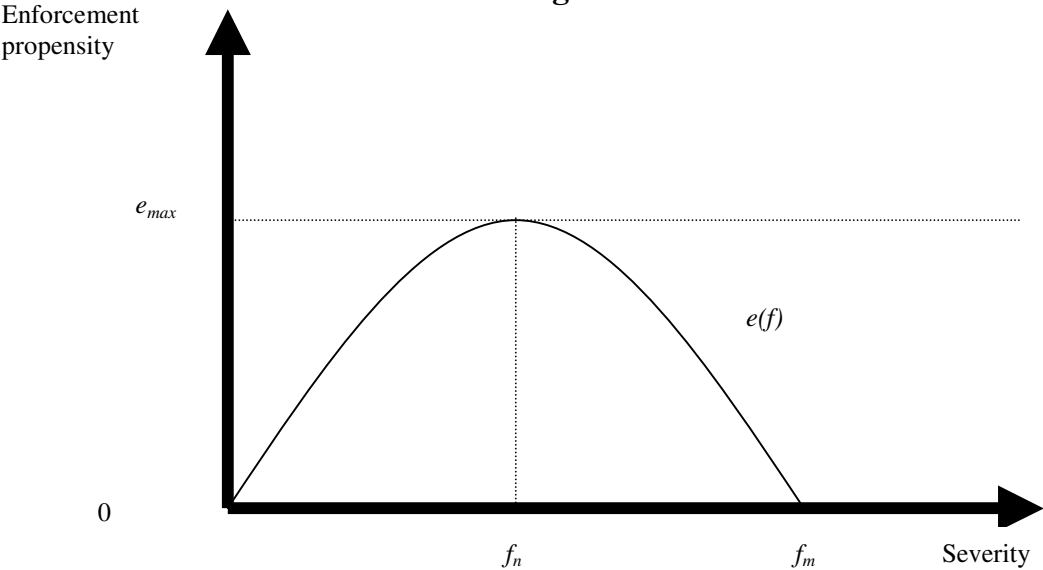
Although my arguments may thus show the practice of differential punishment to be supported by sound normative grounds, they may not remove the puzzling nature of differential punishment. For the reasons favoring differential punishment that my account highlights are certainly not the reasons driving our moral intuitions, as these intuitions appear to us. If solving the puzzle of differential punishment involves advancing a coherent account that fully captures our moral intuitions as they appear to us, then my arguments would make no contribution whatsoever to that venture. Be that as it may, that is not the task I pursued here. My aim was just to find out whether our criminal-law practices of differential punishment are tenable on normative compelling grounds, even if such grounds are not those upon which we have actually decided to adopt such practices. And I found out that there may be such grounds, if it is the case that we ought to organize our criminal laws in accordance to deterrence-related goals, and to the extent that some likely social and psychological facts obtain.

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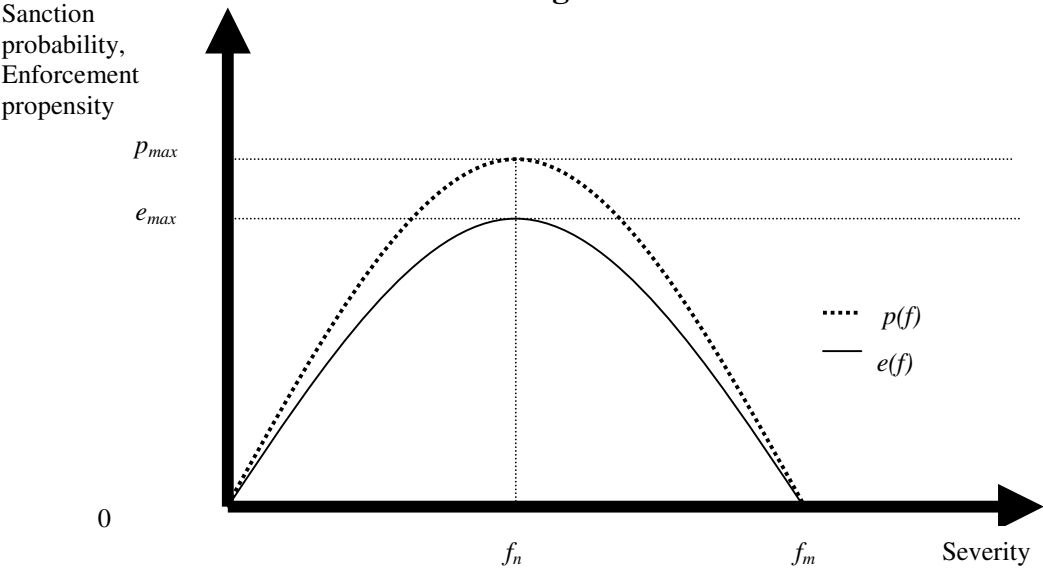
weapon only a misdemeanor).

# Appendix: Figures

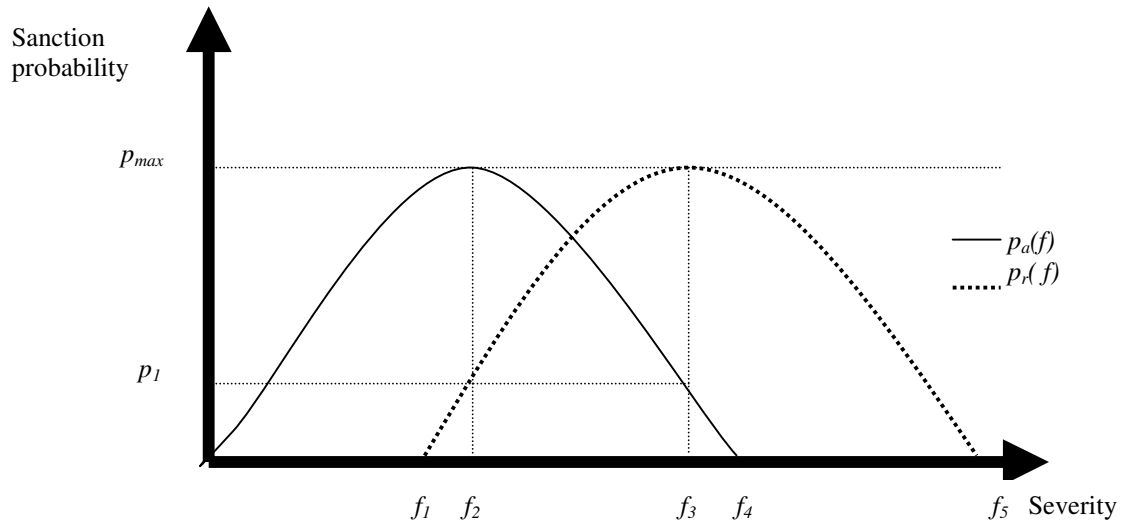
## Figure 1



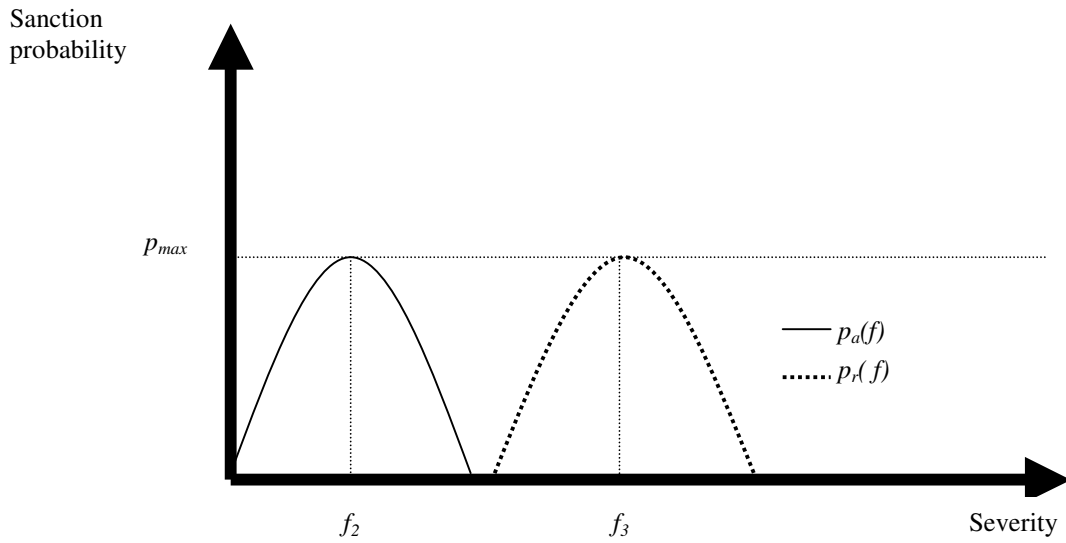
## Figure 2



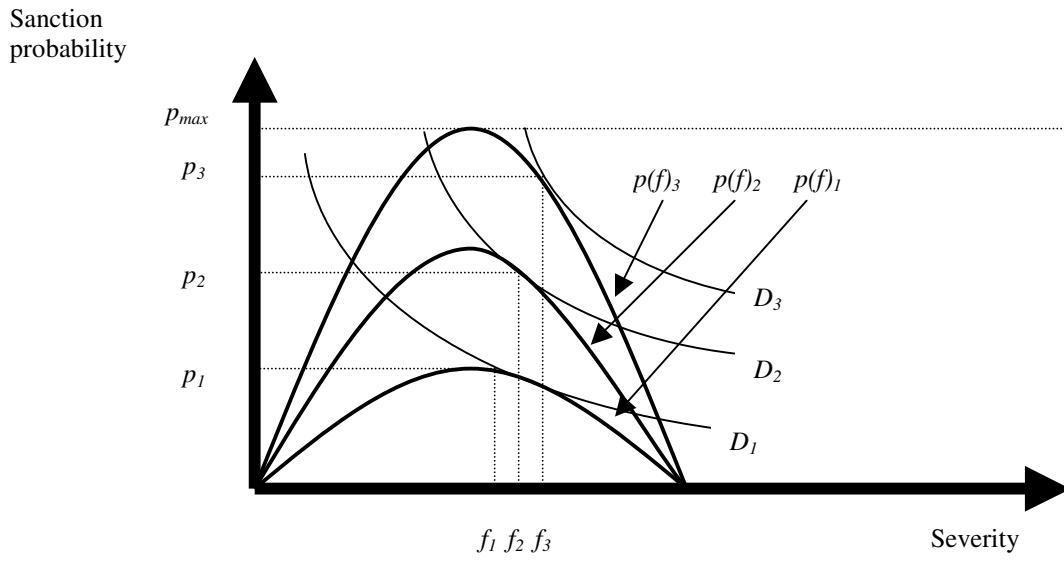
**Figure 3**



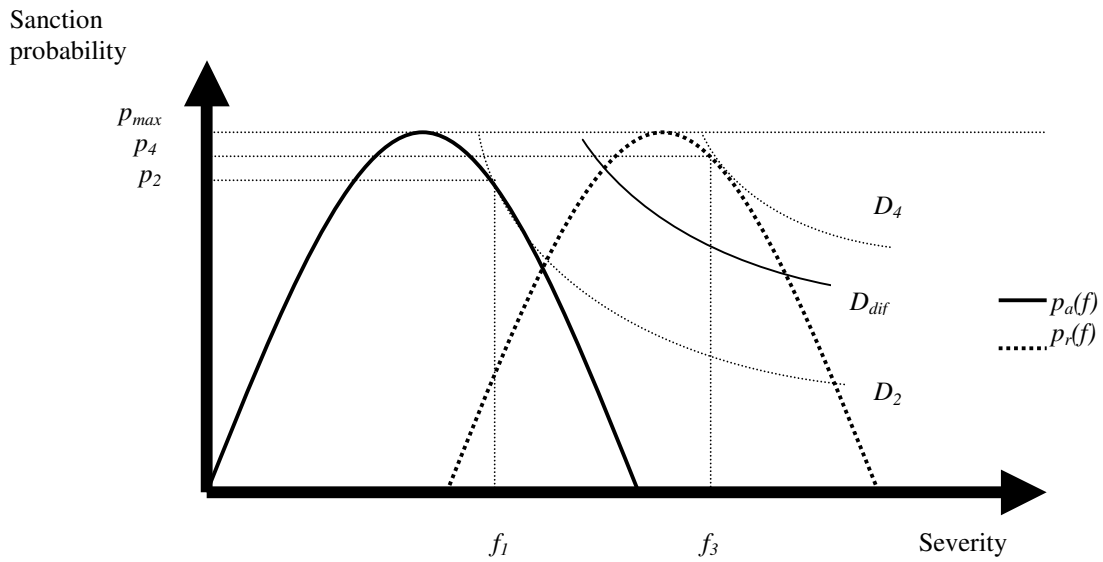
**Figure 4**



**Figure 5**



**Figure 6 (a)**  
Differential Sanctions



**Figure 6 (b)**  
**Equal Sanctions**

