University of Connecticut

Department of Economics Working Paper Series

Of Coase, Cattle, and Crime: Why the Becker Model is Compatible with a Moral Theory of Criminal Law

by

Thomas J. Miceli
University of Connecticut

Working Paper 2022-05
February 2022

365 Fairfield Way, Unit 1063
Storrs, CT 06269-1063
Phone: (860) 486-3022
Fax: (860) 486-4463
http://www.econ.uconn.edu/

This working paper is indexed in RePEc, http://repec.org

Of Coase, Cattle, and Crime:
Why the Becker Model is Compatible with a Moral Theory of Criminal Law

by

Thomas J. Miceli*

Abstract: The economic model of crime is often portrayed (and criticized) as being contrary to a moral theory of criminal law. This paper advances the opposing view that the two theories are in fact potentially compatible with one another. The basis for this claim is that, whereas the Becker (1968) model is useful in prescribing a theory of optimal *enforcement* of the law, I will argue that it does not, and indeed cannot, provide a definitive prescription for its *content*. The reason is the reciprocal nature of harm in situations involving incompatible rights, a principle first identified by Coase (1960) in the general context of externalities. The paper develops this argument, offers a formal demonstration of it, and draws out some of its implications.

Key words: Criminal law, externalities, the Coase Theorem, moral theory of law
JEL codes: K14, K42

February 2022

*Professor, Department of Economics, University of Connecticut, Storrs, CT; email: Thomas.Miceli@UConn.edu

Of Coase, Cattle, and Crime:
Why the Becker Model is Compatible with a Moral Theory of Criminal Law

1 Introduction

It is indisputable that morality is an important source of law. Oliver Wendell Holmes, for example, famously observed that "The law is the witness and external deposit of our moral life. Its history is the history of the moral development of the race" (Holmes, 1897, p. 49). H.L.A. Hart likewise noted that "it cannot seriously be disputed that the development of law, at all times and places, has in fact been profoundly influenced…by the conventional morality and ideals of particular groups" (Hart, 1961, p. 181). This would seem to be especially true of criminal law, which deals with those actions that society deems unacceptable. In recognition of this truism, some proponents of the economic approach to crime have described morality as the chief alternative explanation for the substantive features of criminal law.[1]

The purpose of the current essay is to advance the converse proposition; namely, that the economic theory of crime as formalized by Becker (1968) is potentially compatible with morality as the basis for defining the content of criminal law. The basis for this claim will be that, while economic theory is useful in prescribing a theory of optimal *enforcement* of criminal law, it does not, and indeed cannot, provide a definitive prescription for its *content*. The reason is the reciprocal nature of harm in those situations that involve incompatible rights, a principle first identified by Coase (1960) in his analysis of the general problem of externalities. Coase specifically showed that determining which party should be labeled as the injurer and which the victim in such settings is arbitrary and therefore irrelevant with respect to the problem of

[1] See, for example, Posner (1985) and Shavell (2004, pp. 548-550). Both argue, however, for the superiority of the economic theory as a functional explanation for criminal law.

achieving the efficient allocation of resources, provided that transaction costs are low enough to permit bargaining. This conclusion established the Coase Theorem.

Calabresi and Melamed (1972) extended the logic of the Coase Theorem to high transaction-cost settings by introducing court-ordered (non-consensual) exchanges under liability rules as substitutes for Coasian bargains. They specifically showed that, as long as liability is correctly assessed by the court—i.e., that "injurers" are required to fully compensate "victims" for the harms that they suffer—efficiency will be achieved regardless of which party is held legally responsible for the harm. In this case, non-consensual, court-ordered transfers replace consensual ones as the mechanism for promoting efficient exchange.

The fact that Becker (1968, p. 173) categorized crimes as "an important subset of the class of activities that cause diseconomies" justifies extending the Coase-Calabresi-Melamed (CCM) logic to those harmful acts that society has chosen to label as crimes. It follows that a similar irrelevance result should obtain with respect to the determination of criminal responsibility, provided that sanctions are optimally structured, for in that case, only "efficient crimes" would be committed. And although the idea of an efficient crime will shock the conscience of most non-economists, there is no conceptual difference between those non-consensual violations of legal rights that fall under the heading of tort law (i.e., are governed by liability rules) and those that fall under the heading of criminal law. Paradoxically, one consequence of this correspondence is that policymakers are free to appeal to morality, however that is defined at a particular time and place, as the primary basis for determining the content of criminal law without undermining efficiency. Otherwise stated, efficient *pricing* of crime allows freedom in determining the *content* of the law.

The remainder of the paper is organized as follows. The next section summarizes Coase's argument regarding the reciprocal nature of harms within the context of externalities, and Section 3 extends that logic to those external harms that are labeled as criminal. Section 4 provides a formal demonstration of the argument using a standard economics-of-crime framework. (This section can be skipped by readers uninterested in technical details.) Section 5 then comments on some complications of the argument arising from imperfections in the enforcement process. Section 6 turns to a discussion of the use of morality as the basis for defining the content of criminal law, with particular attention to the issue of changing attitudes about morality. Finally, Section 7 concludes.

2 The Reciprocal Nature of Harm

Coase's insight regarding the reciprocal nature of harm was that in the presence of externalities, the direction of causation is a relative concept in the sense that it depends on how legal rights are initially defined with respect to the conflicting activities. To illustrate, consider Coase's example of a rancher whose cattle stray onto a farmer's land, causing crop damage. Common sense suggests that the rancher is the cause of the harm because he is the "active" party, but application of the "but-for" test for causation-in-fact shows that both activities are causes in the sense that removal of either eliminates the harm. This reflects the reciprocal nature of external harms generally, whether classified as torts or crimes. Coase therefore argued that the relevant economic question is not to define causation *per se*, but rather to determine how the loss should be allocated so as to minimize its impact.

Coase went on to demonstrate that if the parties can bargain freely, the assignment of liability—that is, which party is held legally responsible for the harm—will in fact be irrelevant

with regard to efficiency because, starting from any initial assignment, the parties will complete all value-enhancing transactions in the process of moving toward the efficient outcome. This conclusion, known as the Coase Theorem, implies that the only effect of the legally-determined "cause" of the harm will be distributional. Specifically, if the rancher is held liable, he will reduce his herd to the optimal size and will be compelled to compensate the farmer for any residual damage; whereas if the rancher is not liable, the farmer will bribe the rancher to cut the herd back to its optimal size. Either way, the efficient herd size will emerge. The direction of payment reflects a legal, and perhaps a moral, judgment as to culpability,[2] but it has no effect on the final allocation of resources.

In another classic contribution to the law-and-economics literature, Calabresi and Melamed (1972) extended Coase's argument by emphasizing not only the initial assignment of rights but also the rule for protecting that assignment. The importance of the rule is that it determines the conditions under which the right, once assigned, can be legally transferred. The authors specifically distinguished between *property rules* and *liability rules*.[3] Under a property rule, right-holders must give their consent to any infringements, whether involving acquisitions of, or damages to, a protected right; whereas under a liability rule, right-holders need not consent to any infringements but can only seek monetary compensation for their losses after the fact. Calabresi and Melamed argued that property rules are therefore preferred when transaction costs are low, thereby promoting consensual transactions as envisioned under the Coase Theorem, and liability rules are preferred when transaction costs are high. Although non-consensual infringements may occur in the latter case, the resulting exchanges will be efficient as long as

[2] See Coleman (1988, Chapter 7) on moral aspects of the determination of tort liability.
[3] They also discussed a third *inalienability* rule, which forbids transfer of the assigned right under any circumstances.

courts set the amount of liability equal to the victim's loss.[4] Despite the absence of consensual exchange under liability rules, the irrelevance of the initial assignment of rights extends to this case because non-consensual, court-ordered exchanges replace Coasian bargains as the means by which an efficient assignment is ultimately reached.

As an illustration of the foregoing argument, consider the well-known case of *Spur Industries v. Del E. Webb*,[5] which concerned a cattle feedlot that was operating in a rural area of Arizona. Although the operation of the lot produced foul odors, its remoteness from any potential victims resulted in no external harm. When residential development began to encroach on the feedlot, however, a group of victims materialized, prompting the developer to seek to have the lot shut down as a nuisance. The direction of causation is less clear in this case as compared to the farmer-rancher dispute because the "victims" actively moved into the vicinity of the odor-creating activity. The case therefore reflects the common law doctrine of "coming to the nuisance," which allows a court to deny relief when plaintiffs knowingly approach an offensive activity. Thus, although the court in *Spur* granted the developer's request to compel the feedlot to relocate or shut down, it invoked coming-to-the-nuisance to require the developer to pay the feedlot's costs of complying with the order.

In terms of the Calabresi and Melamed framework, the court awarded the right to the feedlot and protected it with a liability rule.[6] In effect, the court allowed the developer to take the feedlot's right to continue operating at its current location in return for payment of damages to the feedlot. Alternatively, the court have ordered the feedlot either to shut down without

[4] The economic theory of tort law beginning with Brown (1973) is based on the efficiency properties of various liability rules. See Shavell (1987) and Landes and Posner (1987) for reviews of this literature.
[5] 494 P.2d 701 (Ariz. 1972).
[6] There is some question as to whether the decision in this case fits the Calabresi and Melamed prescription of limiting the use of liability rules to high-transaction-cost settings. The small numbers involved suggests that the conditions of the Coase Theorem may have been met, meaning that use of a property rule was perhaps the better choice. This question, however, is beside the point with respect to the current discussion.

compensation, or to remain in operation provided that it paid compensation to the developer for his losses. Either way, the efficient land use would have emerged, assuming that the court accurately measured the relevant damages. The only difference would have been the direction of payment, which would have affected the distribution of wealth but not the ultimate use of the land. These different routes to the same efficient outcome reflect the reciprocal nature of the harm and hence the irrelevance of the initial assignment of rights.

3 Applying this Logic to Criminal Law

The economic model of crime and punishment, as first developed by Becker and extended by numerous others over the past half century,[7] is primarily about the optimal enforcement of law, while taking its content as given. Indeed, Becker only referred to the content of criminal law in passing with the following, seemingly self-evident assertion: "Usually a belief that other members of society are harmed is the motivation behind outlawing or otherwise restricting an activity" (Becker, 1968, p. 172). The idea that criminal law is aimed at punishing harmful acts is firmly grounded in the Pigovian tradition of subjecting those individuals or activities that cause externalities to publicly-imposed sanctions in amounts equal to the resulting harms. Having embraced this view, Becker focused on the details of how those sanctions, when in the form of criminal penalties, should be structured—specifically, what their form and severity should be, and what amount of resources should be devoted to apprehending violators. The voluminous literature that followed up on Becker's seminal study has largely adopted this approach.

[7] For a recent survey, see Polinsky and Shavell (2007). Although Becker (1968) was the first to formally derive the various policies now associated with the economic approach to crime, there were important early discussions in Montesquieu (1748 [1977]), Beccaria (1764 [1986]), and Bentham (1789 [1970]). It is curious that it took nearly two centuries for these ideas to be resurrected.

Becker's categorization of crimes as externalities, coupled with the forcible nature of "exchange" under liability rules, suggests that the CCM reciprocal-harm principle should equally apply to the delineation of rights within the context of criminal law. Also supporting this view is that the Court's ruling in *Spur*, while recognizing the superiority of the feedlot's right by virtue of its prior existence, essentially authorized an "efficient theft" of that right by the developer (albeit a compensated theft). Although the acquisition had the imprimatur of law because it was duly authorized by a court, from an efficiency perspective, the taking of rights under a properly-calibrated liability rules is indistinguishable from efficient crimes within the context of the Becker model.

This correspondence suggests that it cannot be the absence of consent *per se* which signifies criminality. The designation must also inhere in the nature of the act itself, particularly its moral character. In neither of the above conflicts—that between the feedlot and developer and between the rancher and farmer—do the actions justify a label of criminality. This is in contrast to intentionally harmful acts like murder or assault, where the act in question is clearly immoral.

This difference has led some critics of the economic model of crime to question whether the "benefits" received by perpetrators of clearly immoral acts should be counted in social welfare. Indeed, this argument formed the basis for one of Stigler's (1970) critiques of the Becker model:

> The determination of [the social value of the gain to offenders] is not explained, and one is entitled to doubt its usefulness as an explanatory concept: what evidence is there that society sets a positive value upon the utility derived from a murder, rape, or arson? In fact, society has branded the utility derived from such activities as illicit (p. 527).

Lewin and Trumbull (1990) echoed this view, arguing that "the term 'criminal' represents an implicit societal judgment that the conduct in question has no social value" (p. 280).

But this argument is based on the tautological view that crimes=immoral acts, which prompted Friedman (2000) to offer the following defense of Becker's original definition of welfare:

> If instead of treating all benefits to everyone equally we first sort people into the deserving and the undeserving, the just and the unjust, the criminals and the victims, we are simply assuming our conclusions. Benefits to bad people don't count, so rules against bad people are automatically efficient. We cannot deduce moral conclusions from economics if we start the economics by assuming the moral conclusions (p. 230).

Most authors have adopted this agnostic approach, while occasionally commenting on the controversial nature of counting offenders' gains.[8]

The above irrelevance result, however, suggests that the question of whether or not to count offenders' gains is actually a moot point when crimes are viewed through the lens of the CCM framework. Further, adherence to Friedman's admonition does not foreclose the use of morality as the primary criterion for determining the content of criminal law. The next section formally demonstrates this conclusion.

4 A Formal Demonstration

The following analysis makes use of the version of the economic model of crime employed by Shavell (1991), which allows both harms and benefits from criminal acts to vary depending on circumstances. For illustrative purposes, I will use the feedlot-developer conflict, except that I will characterize punishments as criminal sanctions (fines) rather than as tort liability.

[8] See, for example, Polinsky and Shavell (2007, note 8).

Let b be the benefit of operating a feedlot, which is distributed by the density function $f(b)$ on $[0,\infty)$;[9] and let h be the resulting harm to a residential developer, which is distributed by the density $g(h)$ on $[0,\infty)$.[10] At this point, the labels "benefit" and "harm" reflect the technological nature of the spillover effect in the sense that the feedlot is the "physical" source of offensive odors. In deriving the optimal fines, I will assume that the realized value of both the benefit and harm can be observed by a court. Thus, sanctions can be conditioned on b or h, as the situation requires. I will also assume that in neither case is the sanction artificially bounded by the defendant's wealth.[11] Finally, I will assume that enforcement (i.e., detection) is perfect, though in reality this is an important difference between torts and crimes, a point that I will address in the next section.

I first consider the case where the developer has the right to be free from any monetary harm caused by odors from the feedlot. In other words, production of such odors is "illegal" and hence subject to a criminal sanction, $s(h)$. Faced with this situation, the feedlot will expand its operation as long as the benefit it receives from operation exceeds the resulting sanction, or as long as $b \geq s(h)$. The resulting level of social welfare is given by

$$W_1 = \int_0^\infty \int_{s(h)}^\infty (b-h) f(b) g(h) db dh \qquad (1)$$

The optimal sanction is found by maximizing (1) with respect to s for all h. However, because s can be conditioned on h, the enforcer can simply solve

[9] In the Becker-Polinsky-Shavell model of crime, the distribution of b either represents varying gains from distinct acts by different offenders, or varying benefits of multiple acts by a single offender. The latter interpretation is more consistent with the traditional externality situation.

[10] I assume that b and h are independently distributed.

[11] Since s is a fine, it is bounded in practice by the ability of offenders to pay. However, the approach I will employ here, which involves a fixed (and certain) imposition of the sanction, will result in a finite optimum for s in all cases.

$$\max_{s} \int_{s}^{\infty} (b-h) f(b) db \tag{2}$$

This yields the solution $s^*=h$,[12] which represents the optimal Pigovian sanction in this case. As a result, feedlot owners will only expand to the point where $b=h$, resulting in "optimal deterrence" of odor production by feedlots. Because h varies across the population of developers, the size of particular feedlots will depend on how harmful odors are to their particular neighbors (as determined by the realization of h). To account for all possible levels of harm, we write the maximized measure of welfare in this case as

$$W_1^* = \int_0^{\infty} \int_h^{\infty} (b-h) f(b) g(h) db dh \tag{3}$$

This quantity represents the net gain from efficient crimes, consisting of the net benefits arising from the continued efficient operation of those feedlots whose benefits exceed the harms that they impose on their particular neighbors. Figure 1 represents this outcome graphically, where the area above the 45^0 depicts those combinations of b and h such that feedlots continue to operate. It also represents the set of efficient criminal acts in this case.

[Figure 1 here]

Now consider the opposite situation in which the legal right is switched so as to make unrestricted operation of feedlots "legal." In this case, feedlot owners can expand without the possibility of incurring a legal sanction for the damage to neighboring residential developers. Suppose, however, that developers can take it upon themselves to reduce the harm by killing cattle. Because feedlots have the legal right to hold as many cattle as they want in this scenario, killing cattle is a crime. In this scenario, the harms and benefits are now reversed, and so are the

[12] This solution reflects *specific enforcement* in Shavell's (1991) sense, meaning optimal enforcement within the category of acts imposing harm of h per crime.

identities of the injurer and victim. Specifically, the lost benefit to feedlot owners, b, is now the "harm" from the illegal act, whereas the saved harm from odors, h, is the "benefit" received by the offender. We therefore define the sanction in this case to be $s(b)$, which is now written as a function of the harm suffered by feedlot owners from lost cattle.[13]

Proceeding as above, I assume that developers will kill cattle as long as the benefit exceeds the sanction, or as long as $h \geq s(b)$. This results in welfare of

$$W_2 = \int_0^{\infty} \int_0^{s(b)} (b-h)g(h)f(b)dhdb \tag{4}$$

Because the sanction can be conditioned on b, it can be chosen to solve

$$\max_s \int_0^{s} (b-h)g(h)dh \tag{5}$$

Note that this differs from (2) in that the sanction is now the upper bound of the integral, reflecting the criminality of acts by the developer to *reduce* the number of cattle, rather than acts by the feedlot to increase the number. The solution to (5) is $s^*(b)=b$, and the resulting maximized value of welfare for all possible realizations of b is

$$W_2^* = \int_0^{\infty} \int_0^{b} (b-h)g(h)f(b)dhdb \tag{6}$$

As above, the net social benefit is equal to the joint gain from feedlots and residential development, or $b-h$. The difference is that crimes now consist of those acts that *reduce* the herd size, whereas in the previous scenario they increased it. In both cases, however, the

[13] I am ruling out a situation in which neither the imposition of crop damage nor killing cattle is considered a crime, as such a scenario is fundamentally inconsistent with an externality situation involving incompatible uses. As Calabresi and Melamed (1972) observe, "When the state is presented with the conflicting interests of two or more people, or two or more groups of people, it must decide which side to favor. Absent such a decision, access to goods, services, and life itself will be decided on the basis of 'might makes right'—whoever is stronger or shrewder will win" (p. 1090). In other words, some form of "self-help" solution will emerge, usually resulting in the stronger party prevailing. Nozick (1974) discusses the transition from such an anarchical situation to one in which that state acquires a monopoly on enforcement.

establishment of an optimal sanction ensures that the first-best outcome is achieved, again represented by the area above the 45^0 line in Figure 1. Mathematically, the expression in (6) is another way to compute that area. Specifically, it is obtained by reversing the order of integration in (3) and appropriately changing the limits of integration on the inside integral. Correspondingly, however, the definition of "crimes" has changed to be those acts by the developer that reduce the feedlot's herd whenever $h>b$, and these acts are now as represented by the area *below* (to the right of) the 45^0 line in Figure 1.

The equivalence of W_1^* and W_2^* establishes the following conclusion: When law enforcement is administered perfectly and harmful acts are efficiently priced, the assignment of criminal entitlements—i.e., what acts are labeled as crimes—is irrelevant with respect to efficiency. Rather than depending on Coasian bargaining, however, this result relies on non-consensual "criminal exchange" as the mechanism by which efficiency is attained.

5 Complicating Factors

As with the Coase Theorem, the irrelevance of alternative assignments of criminal rights as just demonstrated relies on the fact that only efficient transfers will occur by means of criminal exchange. In other words, it relies on the efficient pricing of crime. The formal model, however, assumed both that enforcement of criminal sanctions was perfect (i.e., that all offenders were sanctioned) and that enforcement was costless. Neither, of course, is true.

Consider first enforcement costs. Many authors have argued that when administrative costs are present, the assignment of legal rights should be structured to minimize them. In discussing the assignment of accident liability, for example, Holmes argued that the cost of an accident should generally be allowed to "lie where it falls"—that is, remain with the victim—

because the "cumbrous and expensive machinery [of the state] ought not be set in motion unless some clear benefit is to be derived from disturbing the *status quo*" (Holmes, 1881 [1963], pp. 76-77). Cooter (1982) similarly suggested that "the structure of the law should be chosen so that transaction costs are minimized" (p. 14).[14]

Calabresi and Melamed (1972, p. 1093) echoed this rationale for assigning rights, though with skepticism, and Coleman (1988, Chapter 7) explicitly questioned whether such a criterion is consistent with a moral theory of tort law. Such an objection would presumably apply even more forcefully to determining criminal liability based solely on the goal of minimizing enforcement costs under the view that the nature of the act itself should dictate whether it warrants punishment rather than the cost of implementing that punishment.

Another element of law enforcement that may interfere with the efficient pricing of crime is the uncertainty of detection. Indeed, this is a defining feature of economic models of crime as opposed to torts. However, it is one of the central insights of the Becker model that this problem can be overcome by simply scaling up punishments in inverse proportion to the probability of detection, thereby ensuring that the *expected sanction* is equated to the external harm in the eyes of would-be offenders. The efficient level of crime is thereby assured despite uncertain detection.

A consequence of this strategy, however, is a divergence between the deterrence function of criminal penalties and their role in exacting corrective justice. This is true because the sanction actually imposed upon those offenders who are apprehended and punished will be disproportionately high relative to their particular acts, resulting in a situation that is incompatible with the goal of retribution, or "just deserts," as reflected by the "norm of

[14] Cooter and Ulen (1988, p. 101) refer to this proposal as the Normative Coase Theorem.

proportionality" (Adelstein, 2017, p. 176).[15] This divergence represents perhaps the greatest departure of the Becker model from the actual practice of criminal justice, including as it does substantial hurdles to the implementation of sentences that are out of line with the crimes that defendants actually committed.[16] These consist of legislatively-enacted sentencing guidelines, and unwillingness of prosecutors, judges, and juries—the key decision makers when it comes to carrying out sentencing policy—to impose excessive punishments. Indeed, it is this institutional commitment to ex post proportionality that is, according to Adelstein (2017), "the animating principle of all liability," whether applied to civil or criminal law (p. 176).[17]

6 Criminal Law, Morality, and Legal Change

The preceding analysis, by viewing criminal law through the lens of the CCM framework, did not provide a basis for distinguishing between crimes and torts. On the contrary, it interpreted both as acts that impose unwanted harm and hence warrant the imposition of a legal sanction aimed at internalizing that harm. This view reflects the idea, inherent in the Becker model, that crimes and torts are just different labels for externalities. Nonetheless, an extensive literature has arisen to provide a positive economic theory of the need for both areas of law.[18]

One strand of this literature has focused on the nature of the costs inflicted by harmful acts. Adelstein (2017), for example, argues that the defining characteristic of crimes is that they impose "moral costs," which "are rooted in every individual's personal sense of right and wrong," and which

[15] Proportional, or "fair," punishment is a value not generally included in economic models of crime. Exceptions are Harris (1970), Miceli (1991), and Polinsky and Shavell (2000).
[16] See Miceli (2019, Chapter 4) for a fuller discussion of this issue.
[17] Holmes (1881 [1963]) likewise acknowledged that the fitness of punishment following wrong-doing is "axiomatic," though for him this pursuit is "only vengeance in disguise" (p. 39).
[18] See, for example, Friedman (2000, Chapter 18) and Shavell (2004, Chapter 25).

> …reflect the outrage created by various kinds of cost-imposing acts and their accompanying states of mind that distinguish criminally blameworthy behavior from other, more innocent activity that might cause equal damage to people or property but results only in torts. It's the reprehensibility of the offender's act and the quality of his intentions that inflict moral costs on …indirect victims (p. 167).[19]

Cooter and Ulen (1988) similarly describe crimes as those harmful acts that create "a threat to peace and security, which is a public good," as opposed to the harms caused by torts, which are private (p. 508).

In their listing of reasons for adopting a particular assignment of legal rights, Calabresi and Melamed (1972) include, as an alternative to administrative costs and distributional goals, "other justice reasons." They quickly add, however, "that it is hard to know what content can be poured into that term" (p. 1102). This caveat would equally apply to moral costs as the basis for defining the content of criminal law (and in the current context, these may be two ways of saying the same thing). In many cases, the classification of what acts are morally objectionable and hence criminal will meet with general agreement based on widely-accepted or long-standing social, religious, or political norms; but in other cases, it will be much more difficult and will require a judgment as to how best to arbitrate among conflicting interests or preferences. For example, when can one religious group prevent another religious group from openly exercising its observances because doing so offends the first group? Or, when do certain utterances become hate speech rather than protected speech?

Calabresi and Melamed (1972, 1112-1113) refer to the external costs arising from these types of conflicts as "moralisms," and their resolution necessarily becomes a political or

[19] Adelstein relates moral costs to Michelman's (1967) "demoralization costs," which represent the disutility that observers experience from uncompensated government seizures of property under takings law, which is a form of non-consensual transfer.

constitutional matter. The lesson from the above analysis is that the pursuit of such a resolution, however fraught it may be, can at least be pursued without sacrificing efficiency provided that sanctions are properly calibrated to reflect the spillover costs arising from those acts that are ultimately labeled as criminal. And while it will admittedly be difficult to attach "prices" to harms in these sorts of conflicts owing to their subjective nature, that same problem plagues any number of policy issues which also involve competing values that are not easily expressible in monetary terms. The problem is therefore not unique to the pricing of crime.

Another problem with moral costs as the basis for law is their mutability. Although some precepts are eternal ("thou shalt not kill"), others are subject to variation over time and place. To quote again from Adelstein (2017):

> The definitions of crimes and the moral costs they impose in particular circumstances are strongly conditioned by the full range of a community's culture, attitudes, experiences, prejudices, religious beliefs, and historical past. Different communities may have different attitudes, and judge motives and behaviors accordingly. An act that might be honored as fulfilling a moral obligation in one community may be condemned as an immoral crime in another, to the mutual incomprehension (p. 172).

A prominent historical example of this concerns laws regarding segregation by race in the U.S., which were pervasive in the post-Civil War period, predominantly in the South, but which eventually were deemed unacceptable by the majority of citizens, and so were overturned by courts and legislatures. As a result, actions that were once sanctionable are now legal, and actions that were once legal are now sanctionable. A similar evolution now seems to be occurring with respect to drug laws.

In recognition of the changing nature of preferences, a society in which law is based on morality must therefore allow for legal change in response to evolving attitudes. Often, an important signal and catalyst of such a change consists of courageous acts of civil disobedience

by those who view existing laws as immoral or unjust. Rawls (1971), for example, defines civil disobedience to be

> …a public, nonviolent, conscientious yet political act contrary to the law usually done with the aim of bringing about a change in the law or policies of the government. By acting in this way one addresses the sense of justice of the majority of the community and declares that in one's considered opinion the principles of social cooperation among free and equal men are not being respected (p. 364).

Illegal acts of this sort constitute an important tool of legal reformers acting within the confines of a "nearly just society, one that is well-ordered for the most part but in which some serious violations of justice nevertheless do occur" (p. 363). When undertaken for these reasons, law*breaking* itself becomes a moral act.

This reversal of roles, however—with the lawbreaker now being cast as the moral actor—raises the question of how we are to distinguish between true acts of civil disobedience and mere violations of the law out of self-interest. Moral theorists would likely struggle to provide an answer, but from an economic perspective it is an empty question because non-compliance with the law *for whatever reason* is interpreted as an efficient act, provided that individuals are behaving rationally in response to efficiently-structured criminal penalties. This illustrates the consequence, and the importance, of properly pricing crimes as a feature of just law.

Systematic or widespread lawbreaking warrants attention, however, as a possible sign that a change in the law may be desirable, either as a purely practical effort to save on enforcement costs, or for the more noble reason of encoding in law a genuine change in moral attitudes or preferences among citizens. In any case, as long as criminal prices are correspondingly restructured, the final outcome will remain efficient.

7 Conclusion

Criminality is commonly associated with the idea that prohibited acts are morally unacceptable and hence deserving of socially-sanctioned punishment. The competing view that criminal law can best be understood as an economic system aimed at pricing externalities is often described as incompatible with the moral theory of law by its proponents and critics alike. It has been the thesis of the current paper that the two theories are in fact potentially compatible with one another. I argued that this is true for two reasons. First, the economic theory of crime does not (and cannot) offer a definitive explanation for what harmful acts should be labeled as crimes owing to the fundamental reciprocal nature of external harms. Second, the use of morality to define criminality does not preclude the efficient pricing of crime in the sense of equating punishments to harms. Indeed, such a pricing scheme is consistent with most people's notion of morally just punishment.

To be sure, actual law enforcement entails costs and other imperfections that potentially cause a divergence between efficient punishments according to the economic theory, as compared to what moral theorists would consider just. Scholars can therefore debate whether actual practice more closely reflects one theory or the other, and much of the political wrangling about criminal policy reflects debates of this sort. These practical considerations, however, do not undermine the basic theme of this article, which is that as a normative matter, there is no inherent conflict between economics and morality as alternative theories of criminal law.

References

Adelstein, R. (2017) *The Exchange Order: Property and Liability as an Economic System*, New York: Oxford Univ. Press.

Beccaria, C. (1764 [1986]) *On Crimes and Punishments*, Indianapolis, IN: Hackett Publishing Co.

Becker, G. (1968) Crime and punishment: an economic approach, *Journal of Political Economy* 76: 169-217.

Bentham, J. (1780 [1970]) *An Introduction to the Principles of Morals and Legislation*, New York: Oxford Univ. Press.

Brown, J. (1973) Toward an economic theory of liability, *Journal of Legal Studies* 2: 323-349.

Calabresi, G. and A. Melamed (1972) Property rules, liability rules, and inalienability: one view of the cathedral, *Harvard Law Review* 85: 1089-1128.

Coase, R. (1960) The problem of social cost, *Journal of Law and Economics* 3: 1-44.

Coleman, J. (1988) *Markets, Morals and the Law*, New York: Cambridge Univ. Press.

Cooter, R. (1982) The cost of Coase, *Journal of Legal Studies* 11: 1-33.

Cooter, R. and T. Ulen (1988) *Law and Economics*, Glenview, IL: Scott, Foresman and Co.

Friedman, D. (2000) *Law's Order: What Economics has to do with the Law and Why it Matters*, Princeton: Princeton Univ. Press.

Harris, J. (1970) On the economics of law and order, *Journal of Political Economy* 78: 165-174.

Hart, H.L.A. (1961) *The Concept of Law*, Oxford: Oxford Univ. Press.

_____ (1982) *Punishment and Responsibility: Essays in the Philosophy of Law*, Oxford: Oxford Univ. Press.

Holmes, O. (1881 [1963]) *The Common Law*, Boston: Little, Brown and Co.

_____ (1897) The path of the law, *Harvard Law Review* 10: 457-478.

Lewin, J. and W. Trumbull (1990) The social value of crime? *International Review of Law and Economics* 10: 271-284.

Miceli, T. (1991) Optimal criminal procedure: fairness and deterrence, *International Review of Law and Economics* 11: 3-10.

_____ (2019) *The Paradox of Punishment: Reflections on the Economics of Criminal Justice*, Cham, Switzerland: Palgrave-Macmillan.

Michelman, F. (1967) Property, utility, and fairness: comments on the ethical foundations of 'just compensation' law, *Harvard Law Review* 80: 1165-1258.

Montesquieu, J. L. (1748 [1977]) *The Spirit of Law*, Berkeley: Univ of California Press.

Nozick, R. (1974) *Anarchy, State, and Utopia*, New York: Basic Books.

Polinsky, A. M. and S. Shavell (2000) The fairness of sanctions: some implications for optimal enforcement policy, *American Law and Economics Review* 2: 223-237.

_____ (2007) The theory of public law enforcement, in A. M. Polinsky and S. Shavell, eds., *Handbook of Law and Economics*, Vol. 1, Amsterdam: Elsevier-North Holland.

Posner, R. (1985) An economic theory of the criminal law, *Columbia Law Review* 85: 1193-1231.

Rawls, J. (1971) *A Theory of Justice*, Cambridge, MA: Belknap Press.

Shavell, S. (1991) Specific versus general enforcement of law, *Journal of Political Economy* 99: 1088-1108.

_____ (2004) *Foundations of Economic Analysis of Law*, Cambridge, MA: Belknap Press.

Stigler, G. (1970) The optimum enforcement of laws, *Journal of Political Economy* 78: 526-536.

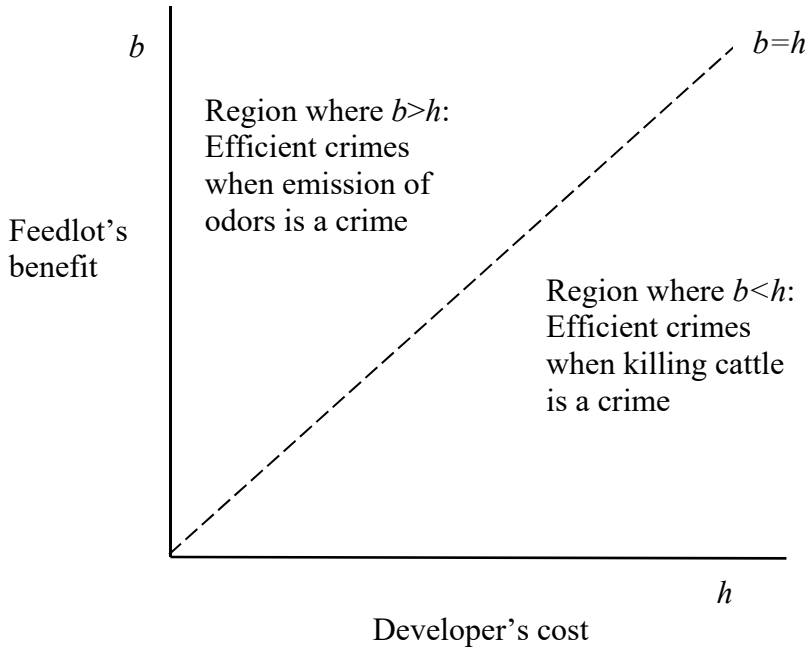

Figure 1. Efficient crimes under alternative assignments of criminal rights.