Informational Paradox and the Pricing of Crime: Capital Sentencing Standards in Economic Perspective

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CRIMINAL LAW

INFORMATIONAL PARADOX AND THE PRICING OF CRIME: CAPITAL SENTENCING STANDARDS IN ECONOMIC PERSPECTIVE

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Introduction

The criminal sentencing process involves two essential considerations: the abstract nature of the crime and the individualized circumstances in which the crime occurs. The process of individualizing a sentence to reflect a particular criminal transaction requires sentencing authorities to exercise substantial discretion. The United States Supreme Court has recognized the problems involved in permitting trial courts enough discretion in sentencing to properly consider the individual circumstances of a crime without sanctioning an arbitrary or capricious exercise of the sentencing power.

In Moore v. Missouri, the Court considered a challenge to the practice of giving less severe sentences to first offenders than to those with a history of prior convictions in cases where statutorily identical criminal acts were involved. In upholding this practice, the Court read the equal protection clause of the United States Constitution to require "that no different degree or higher punishment shall be imposed on one than is imposed on all for like offenses," but found no constitutional bar to "different punishment for the same offense under particular circumstances, provided that it is dealt out to all alike who are similarly situated."

This article focuses on a recent manifestation of the constitutional limitations on sentencing, a series of difficult cases involving the constitutionality of the death penalty and the procedures under which it is imposed. In these capital punishment cases, McGautha v. California, Furman v. Georgia, and the set of five decisions announced simultaneously in the summer of 1976, the Court considered the constitutionality of statutes that permit trial courts to exercise discretion in imposing the death penalty. Each case involved a balance between legislative and judicial determinations of when to apply the death penalty. The cases thus posed the question: "What degree of individualization of sentencing do the due process clause and the eighth amendment permit trial courts to exercise?"

The constitutional right to due process and the eighth amendment's protection against cruel and unusual punishment are inherently subjective concepts that can be difficult to apply in specific situations. This article will argue that an economic analysis of sentencing procedures can demonstrate a more logical basis for analyzing these issues in capital cases. The economic analysis will substantially clarify the normative issues involved in individualized sentencing and, in fact, will reveal a rationale that closely corresponds to the results and reasoning actually used by the Court. Moreover, this economic analysis will point out a central


8 This melding of economic and equitable concerns in constitutional adjudication involving the criminal process is not limited to this line of cases. For a similar analysis of Santobello v. New York, 404 U.S. 257 (1971), and other cases dealing with negotiated guilty pleas, see Adelstein, The Negotiated Guilty Plea: A Framework for Analysis, 53 N.Y.U.L. REV. 783 (1978).
problem in the sentencing procedure: the difficulty in gathering and disseminating information on the consequences of committing a crime.

This approach to constitutional analysis requires a fresh perspective on the economics of legal institutions in general. The criminal justice system can be viewed as a mechanism designed to exact the "price" of a crime from the criminal. Every crime is a cost imposing activity. It is a transaction in which the criminal derives some satisfaction while imposing initially uncompensated (external) costs upon a set of victims which includes both the direct victim of the crime and society in general. Just as in every economic transaction the buyer must pay the seller an acceptable price, the criminal should pay, for purposes of efficient allocation, a price for the satisfaction derived from the cost imposing activity. This notion of a "price" for a crime is manifested in the proportionality that governs criminal sentencing. Generally, more serious crimes result in harsher penalties to the offender. The "seriousness" of a crime is actually a measure of the total cost imposed by the crime. Clearly, a peaceful society could not tolerate individual victims exacting the "price" from criminals, thus the sentence imposed by the court forces payment to society in general for the total cost of a crime.

The problem of crime and its control is, in economic perspective, a special case of the larger problem of allocating resources efficiently in the presence of external effects. With typical cost imposing activities, the market mechanism effectively regulates the activity. The activity will be required to bear the costs for the resources it uses. These costs will be calculated by those in the best position to know them in determining how much activity will be undertaken. In other words, the costs will be internalized and an efficient allocation of sources realized.

However, there are cost-imposing activities for which there is no market for the primary resources. Criminal activity is one such cost-imposing activity in which the market mechanism does not operate to internalize the costs. As a result, the victims of the activity remain the cost bearers. Since the number of cost bearers may be great and since each may bear a different cost, the practical difficulties involved in organizing these transactions are likely to be insuperable. Thus, the costs of the criminal activity remain uncompensated and external to the market mechanism.

Concern with systemic efficiency leads one to ask how an efficient level of aggregate cost imposition can be achieved in cases where the market solution is unavailable. Alternative organizational modes which centralize allocational decisions are inferior to markets in their ability to allocate efficiently because they are less able to extract the requisite cost information in useful and timely forms. But where markets fail and the goal of efficient allocation remains, nonmarket solutions must be sought and careful consideration given to the relative capacity of these alternative institutional forms to gather and use the information necessary for centralized allocational decisions.

Since the pathbreaking work of Gary Becker, economic analysis of the criminal process has largely drawn upon this theoretical framework and postulated a systemic objective of efficient resource allocation. Following Becker, several writers have emphasized the formal specification of efficient "marginal conditions," i.e., specific penalties to be levied against individual offenders, which would fully internalize the costs imposed upon others by their crimes. Were the information necessary to fix these penalties actually available, their application would result in an efficient allocation of resources to criminal activity and its control given the underlying distribution of income and preferences.

However, this inquiry into systemic efficiency has diverted attention from issues which are essential to a positive understanding of the criminal process as it exists in the real world. The question arises as to whether there are actual or realizable institutional structures which can implement these marginal conditions in practice. Can an institution extract information sufficient to define the relevant prices necessary to organize the myriad of transactions into an efficient system? If these extant structures do exist, how have these structures themselves come to be organized and why?

This analysis specifically addresses the issue of institutional form and organization in the criminal process. In this as in other externality situations, the central problem in the search for institutional mechanisms to facilitate efficient allocation is the
acquisition and dissemination of necessary information. Markets in externalities fail because the information required to permit efficient transactions, the magnitude of personal costs and benefits resulting from various externality relationships, and the identities of those involved, generally impacts upon individuals who have no opportunity or incentive to reveal the extent of the external effects upon them. But systems of criminal justice (as well as systems of tort liability) can be seen as imperfect but operational market-like structures which encompass mechanisms to extract this information in a form that will allow the identification and completion of efficient transactions on a case-by-case basis. Our concerns here are the properties of these institutional structures and the variations in form that result from differences in the nature of the external effects which give rise to them. The specifics of organization in the legal process, this article argues, can be directly related to the human characteristics and capacities of individual decisionmakers and the problems they face in acquiring necessary information in various exchange environments.

The institutional approach thus entails a basic shift in emphasis from the factors that generate an efficient system to the act of exchange itself and the environment in which it takes place, an environment often characterized by imperfection or unavailability of essential information. Where information is difficult or impossible for individuals to obtain, markets and other institutional forms can be seen as alternative modes of organizing these exchanges. The informational problems that confront human transactors become the key to understanding the legal institutions which have evolved in response to them. A developmental perspective emerges; the evolution of observed legal institutions can be rationalized in terms of their relative efficacy in facilitating individually efficient criminal transactions given the practical obstacles to market organization.

Section I sets forth cognate models of the external costs imposed by tortious and criminal activities as a demonstration that markets will generally fail to define punishment prices sufficient to permit the completion of efficient transactions. This leads to an examination of the way in which American legal institutions have evolved in both civil and criminal contexts to fulfill this role. Section II interprets the recent death penalty cases as an attempt to ameliorate informational problems and to facilitate a sentencing procedure that will encourage efficient crimes. Section III concludes with a brief discussion of the positive and normative aspects of these issues and the role of the criminal process in a larger social context.

I. THE ORGANIZATION OF EXCHANGE IN CRIMINAL TRANSACTIONS

A. INFORMATIONAL PROBLEMS IN MARKETS FOR CRIMES AND TORTS

The basic economic theory outlined in the introduction suggests that criminal sentencing in the Anglo-American criminal process is an attempt to measure the damages caused by an offender’s unlawful activity and to impose the cost of these damages upon the offender in the form of a “punishment price.” To analyze the transaction that results in a criminal sentence, it is necessary first to expose the precise nature of the “price” of a crime. Although the abstract nature of the crime itself is the primary basis for a determination of its cost, the law has recognized two other elements. First, a criminal act harms indirect victims who are not involved in the actual criminal transaction. And second, a precise calculation of the cost of a crime depends upon the particular circumstances in which it occurs.

According to Pollock and Maitland, the line separating crime from tort had been sharply drawn:

A deed of homicide is thus a deed that can be paid for by money. Outlawry and blood-feud alike have been retiring before a system of pecuniary compositions. From the very beginning... some small offenses could be paid for; they were “emend-
Each criminal act produces a set of external effects with two distinct kinds of cost, economic and moral. These costs are imposed on two classes of victims, direct and indirect. Economic costs reflect personal welfare losses and are consequently easily envisioned in material terms. Economic costs are generally borne by the direct victims of an offense and can often be the subject of a tort action. The lost income and medical expenses suffered by the victim of an assault are examples of direct economic cost. But economic costs are also imposed on indirect victims who are members of the community. This cost is reflected in the decrease in material security and the decrease in incentives for acceptable modes of behavior. For example, a bank robbery not only harms the bank robbed, it may also result in increased insurance rates for other banks and may even stimulate other robberies.

Moral costs are the product of the community’s reaction to a crime based upon each individual’s sense of right and wrong. Moral costs are measured in terms of the personal indignation or sense of injustice one experiences as the result of the plight of the victim of a crime. They are a positive attempt to measure the social outrage that results from many crimes and which is largely borne by the indirect victims of crime. Moral costs need not be manifested in changes of behavior on the part of their bearers (and thus need not appear as changes in market values), nor do we imply any ethical justification for them in particular cases.

This characterization of social cost as a combination of economic and moral costs preserves the institutional interpretation of the criminal process as a means of externality control. Cost-imposing activity is controlled through the exaction from an offender of a “price” in the form of a deprivation of liberty or a pecuniary fine, which corresponds roughly to the total social cost of the offense. Thus, for example, severe penalties for crimes of terror can be understood in terms of the clearly substantial direct and indirect moral cost involved. Moreover, the apparent disparity in social cost imposed for otherwise identical statutory offenses can be traced to variations in moral cost. This is because the outrage created by a given act is sensitive to the identity and social status of both the victim and offender and the peculiar circumstances under which the crime was committed. For example, a presidential assassin will probably provoke a greater quantum of social outrage than most murderers, but a child who commits murder may benefit from a sense of sympathy which mitigates the moral costs of his act. This results in the individualization of criminal sentencing, a principle which permeates the American criminal process and is one of its most distinctive features.

This characterization of social cost suggests a useful positive distinction between crimes and torts. Tortious activity rarely results in moral costs apart from those which themselves generate separate causes of action. Although moral costs do arise in each case is less than perfect, Becker has shown that the punishment price which minimizes the sum of the costs imposed by the offense itself and the costs of maintaining a mechanism of price exaction (and thus would lead to systemic efficiency in the allocation of resources to crime and its control) must exceed the actual social cost of the act itself; the scale factor is the reciprocal of the probability of conviction. See Becker, note 10 supra. As D. Newman, Conviction: The Determination of Guilt or Innocence Without Trial (1966) and K. Dawson, Sentencing: The Decision as to Type, Length, and Conditions of Sentence (1969) make clear, however, this factor is generally not considered in the actual establishment of punishment prices in practice. Despite the low probability of conviction which characterizes many American jurisdictions, sentencing authorities continue to seek the punishment which most accurately reflects the true social cost of each offense without regard to this probability. This practice supports the positive portrayal of the criminal process as a means to facilitate exchange between cost imposers and cost bearers on a case-by-case basis rather than as a mechanism designed to achieve systemic efficiency of resource allocation.

Similarly, the graduated penalties generally associated with larcency, simple theft, robbery (which adds the element of placing the direct victim in fear for his or her safety), and armed robbery (in which this fear is intensified by the use of a weapon), can be rationalized in these terms. In addition, “victimless” crimes, such as prostitution or consensual homosexuality, can be seen as lacking only direct victims; there, all the external cost imposed appears to be moral in nature and borne by indirect cost bearers.

See generally Dawson, note 15 supra; Newman, note 15 supra.
actions involving direct psychic injury *i.e.*, pain and suffering, most of the external effects of torts are exclusively economic in nature. Thus, while criminal activity imposes substantial moral costs on a large number of victims, tortious activity imposes a more clearly economic cost that is concentrated on a small and readily identifiable group of cost bearers. This points out one of the central problems facing an institution attempting to regulate criminal transactions: each criminal transaction affects a large number of people in a highly subjective manner.

In a model of the criminal justice system based upon notions of efficient exchange, one must first determine the factors that generate the cost of a crime and, hence, the price subsequently due from the offender. The classification of these factors into economic and moral costs clarifies the nature of the costs imposed by criminal acts. But if a crime is to be viewed as a transaction, one must define a conceptual object of exchange. In other words, it is necessary to clarify the nature of what a criminal is "purchasing". In economic terms, this object of exchange is an entitlement. According to Calabresi and Melamed, an entitlement is defined as a collectively granted right either to impose costs in a given way, or alternatively, to be free of costs imposed by the acts of others. When the legislature declares an act unlawful, it is in effect placing an entitlement with the victim. For example, a bank has an entitlement not to be robbed, and, for purposes of efficiency, this entitlement should only be exchanged if the purchaser (the criminal) is willing to pay a "price" greater than the value of the entitlement to the bank.

Entitlements can be protected by either "property rule" or "liability rule". The property rule permits the transfer of entitlements whenever a buyer and a seller can negotiate a mutually acceptable price, whereas under a liability rule, an entitlement can be transferred whenever an individual is willing to pay an objectively determined value for it.

In practice, two factors determine which rule must be used: the degree of homogeneity in the entitlements and the voluntariness of the transaction. A homogeneous entitlement protects a "good" that is identical for all buyers and sellers in the relevant market since its value is not a function of the individual transactors. In situations involving entitlements that protect homogeneous goods for which two parties can voluntarily negotiate an acceptable price, market organization based on the property rule can generate efficient transactions. An example of this would be a typical fruit and vegetable market where a transaction takes place whenever two parties can negotiate a mutually acceptable price.

If the goods sold are not homogeneous, a market place based on the property rule can still function, although at a less efficient level. An example of this would be an antique market where the goods involved are often unique and where both buyers and sellers are often misinformed about the value of an item. The decrease in efficiency is a result of the difficulties involved in acquiring information regarding the price and quality of the good being traded.

There are certain transactions that take place where voluntary negotiations over price are impossible. An involuntary transaction is one in which the two parties could determine an acceptable price prior to a transaction which may or may not actually take place in the future, but at the moment of exchange, negotiations are impossible. For example, many workers will accept a priori high risk employment for increased wages. Yet at the moment a worker is to be "injured," it would be impossible to negotiate a price that would induce a worker to volunteer to be injured. But prior to the event, the worker has, in essence, accepted a price which accounts for the risk of injury he faces on the job. Should the injury in fact occur, no further compensation is due; the injuries borne by the worker simply represent the results of a "losing play" in a lottery in which he had voluntarily participated.

If the entitlement is fairly homogeneous, a property rule system can effectively regulate even involuntary transactions. A good example of this is the sale of certain medical supplies where, for example, just prior to a critical operation, a patient would pay an exorbitant price for a medicine necessary to save his life. But evolved market ar-
arrangements, usually involving insurance companies, generally force prices for such goods to an efficient level by providing for price negotiations prior to the actual moment at which the transaction is completed.

The necessity for the liability rule arises where an involuntary transaction involves nonhomogeneous goods. Where the transaction involved homogenous goods, the use of a property rule was facilitated in an involuntary situation by negotiating a price prior to the actual transaction itself. But since the value of nonhomogeneous goods varies with the individual transactors, it is impossible to negotiate an efficient price prior to the transaction. If entitlements are to be transferred efficiently, an "objective" price which accounts for the full value of the entitlement to its original holder must be set prior to the transaction.

The principal problem facing any institutional arrangement seeking to facilitate efficient transactions in external effects (cost-imposing activity) is the acquisition and dispersion of information on the cost of entitlements. Potential offenders must have sufficient cost information prior to the commission of a crime if they are to distinguish efficient from inefficient cost imposition. In the usual market situation, entitlements are placed with private individuals and protected by property rule. Under competitive conditions, the advantages of a decentralized price system as a means of extracting this cost information are well known. 20 A system of free negotiation will, in the absence of high transaction costs, generally produce an efficient allocation of tradable resources. Thus, in a typical market place, normal market pressures will ensure the establishment of efficient prices and the promotion of efficient transactions.

The individualized nature of the cost imposed by crimes and torts, and the resulting nonhomogeneity of the entitlements involved, generally precludes this result. Since the costs vary with the particulars of the offense, a "small numbers" problem is created; every exchange is a unique transaction (bilateral monopoly) in which the absence of equilibrating market forces provides an opportunity for all parties to conceal their preferences in bargaining. 21 For example, competitive pressures will force the orange salesman to reveal his costs accurately and honestly, for if he does not, another producer dealing in identical oranges can undersell him by revealing these values honestly. But the victims and perpetrators of crime have little incentive to reveal the true extent of the harm or the satisfaction that has been produced. The nonhomogeneity of these entitlements eliminates the probability that competitive forces will extract this information. Moreover, the large number of dispersed moral cost bearers suggests high coordination and information gathering costs even where preferences are truthfully revealed. 22

A crime is thus an involuntary transaction involving nonhomogeneous goods. Society attempts to encourage the commission of only efficient crimes by fixing penalties equal to, but no greater than, the costs imposed by individual offenses. But at the moment a criminal transaction is about to take place, an individual would not voluntarily accept the receipt of a price to permit the transfer of the criminal entitlement. To permit the efficient transfer of criminal entitlements, a price must be set before the transaction is to take place.

The failure of markets to extract this cost information in both criminal and tortious situations requires the development of alternative institutional structures. These institutions must evaluate the costs imposed by various activities and thus specify accurate punishment prices prior to the actual transaction itself. In other words, if the system encourages only the efficient transfer of criminal and civil entitlements, potential offenders must have accurate information on the price they will have to pay. This objectification of costs in the involuntary exchange of entitlements necessitates a change from property rule to liability rule.

However, this objectification introduces an inevitable probability of error. Moreover, the widely dispersed moral costs of crime pose informational problems not encountered in the civil setting. The qualitative distinction between criminal and tortious activity motivates striking variations in the organizational form of the Anglo-American legal process. On the civil side, entitlements are privately placed, and individual cost bearers retain the right to be compensated directly by offenders for those costs they can objectively demonstrate in court. An example of this is the common tort case in which a plaintiff can recover as damages compensation for all physical and psychic injury. The economic character of the costs involved and their relatively narrow incidence enable the civil process to rely

20 See Hayek, note 9 supra.
21 WILLIAMSON, note 13 supra, identifies this combination of small numbers and opportunistic behavior by potential traders as a core source of market failure.
22 These points are discussed further in Adelstein, supra note 8, at 793–95.
upon this arrangement as a means of generating dependable information on the costs imposed by tortious activity. Cost specification is facilitated by the availability of market values for damaged goods; the small number of direct victims ensures that the full extent of the cost imposed can be ascertained with a minimum of litigation. Where all the costs of the offender’s activity can be accounted for in this way, the achievement of an efficient level of cost imposition is impeded only by the costs inherent in organizing the cause of action and bringing the suit.\(^{23}\)

In general, the victims of crime do not have a right to direct compensation from the cost imposers.\(^{24}\) Instead, criminal entitlements are publicly placed, with the state rather than individual cost bearers as the recipient of the punishment price. Insofar as the cost information required to establish efficient punishment prices impacts upon the victims of crime, it might at first seem natural to place entitlements directly with the victims. This might provide the victim with an incentive to reveal the extent of the injury, thus providing the system with accurate cost information. But the multiplicity of moral cost bearers created by crimes makes this an unsatisfactory solution to informational problems in the criminal context. While the aggregate moral cost of a given offense may be substantial, the number of such cost bearers is generally very large and the individual cost borne by each relatively small. As a result, for most victims, the cost of participating directly in the legal process by bringing suit to vindicate these moral entitlements would exceed the benefit to be realized as compensation from offenders.\(^{25}\)

As a result of this problem, compensation can more reliably be achieved by the state’s provision of a single public good available to all, the consumption of which would provide moral benefits generally sufficient to compensate the individual moral costs of the offense involved. Criminal punishment in the form of physical restraint or severe limitation of personal liberty is precisely such a public good. These punishments are highly visible; the suffering imposed upon convicted offenders is easily recognized by the community as universally painful and the element of retribution it represents is payment "in kind" for moral costs incurred. Informational problems still remain, for the sentencing authority must still tailor punishment prices to its own perception of the moral and economic costs involved. But this institutional structure has fulfilled two essential needs. It simultaneously creates an operational mechanism for the exchange of criminal entitlements and also provides a measure of restitution at far less expense than would be required if all moral cost bearers were given enforceable entitlements.\(^{26}\)

B. INDIVIDUALIZED PRICING OF CRIMINAL ENTITLEMENTS: THE AMERICAN MODEL

The legal process is faced with the task of organizing the efficient transfer of criminal entitlements. This entails two distinct problems. First, the initial entitlement must be placed to distinguish legal from illegal activity and second, a precise determination of the economic and moral costs generated by a particular crime must be made so an efficient punishment price can be established.

In the American legal system, a two-part institutional structure has evolved to perform these two tasks. The initial decisions on both the placement of entitlements and their price are made by the

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23. Certainly the costs associated with the price exaction procedure itself and the institutional rules which require one party or the other to bear them are important determinants of whether or not the costs imposed by a given act will in fact be internalized. The implications of the American rules regarding these costs in criminal litigation are discussed in Adelstein, note 8 supra.

24. Insofar as particular offenses are defined as torts as well as crimes, some direct costs imposed by offenders may in fact be compensable. But such claims must be pursued separately from criminal proceedings in the case, and the costs involved in such actions make them a practical rarity. Moreover, moral costs are in general not compensable in civil actions.

25. Analogous problems are faced in civil class action suits.

26. Note that this solution fails to deal with the often large economic costs visited upon direct victims. The perceived inequity associated with this failure has prompted many jurisdictions to institute administrative arrangements designed to ameliorate these costs. Generally, direct victims are given the opportunity to establish the objective economic cost they have borne, and those claims approved by a compensation board are then paid by the state. In this way, the state acts as insurer of these costs and, to the extent that this encourages potential direct victims not to undertake those private precautions to avoid the costs of crime which they would otherwise, an element of "moral hazard" is created. An interesting contrast is observed in the French criminal process, which allows direct victims to become third parties in criminal litigation itself at their own expense, entitled to introduce evidence independently of the public prosecutor on the issues of both guilt and damages. Should the defendant be convicted, he may face both a criminal punishment and an award of compensatory damages to the direct victim. See Vouin, The Role of the Prosecutor in French Criminal Trials, 18 AM. J. COMP. L. 483 (1970).
legislature. This occurs every time a law is passed proscribing a particular act and establishing a punishment for its commission. But the legislative judgment requires an assessment of a complex situation based upon an \textit{ex ante} evaluation of the external effects of a crime. Since every crime is unique, this \textit{ex ante} judgment is prone to error and usually lacking in specificity. The role of the judicial process is to ameliorate these problems. Given an initial legislative decision, the judiciary can modify both the initial placement of entitlements and the determination of cost.

For cost-imposing activity deemed illegal, the entitlements are placed in the state, which can exact a punishment price from violators. In contrast, for lawful activity, entitlements are placed in the cost imposers, forcing those who suffer the cost to bear the costs or remove the burden by purchasing the entitlement. The determination that an activity is a crime is a decision that in the majority of cases a particular transaction results in a net social loss. As a result of the high transaction costs, it is most efficient to place the entitlement in the victim.

The determination of transaction costs and the determination of social gain or loss is the same for civil and criminal entitlements. An examination of the process in the civil context will facilitate an understanding of how it operates in the criminal context.

Hypothesize two adjoining landowners, Hamilton and Jefferson. Hamilton has discovered that his land is uniquely suited for opening a business of catering noisy parties. As a result of this discovery, Hamilton's land has risen in value, but Jefferson's land is now worth less. Suppose, for example, that prior to opening the catering business, the value of Hamilton's land to him was $1,000 while Jefferson values his land at $1,200. Without the catering business, the total value of the properties is $2,200. If the catering business produces only a $200 gain for Hamilton while causing a $500 loss to Jefferson, the result of opening the business would be a net social loss of $300 since the total values of the properties now would be $1,900. If Hamilton is given the entitlement, Jefferson will pay him at least $200, but less than $500, to prevent him from opening the business. If Jefferson is given the entitlement, Hamilton will be unable to bid a transfer price sufficient to persuade Jefferson to sell the entitlement since the cost of the business exceeds its benefits.

The efficient result is “no business,” and assuming negotiations between Hamilton and Jefferson are cost free it is reached regardless of the initial placement of the entitlement.\textsuperscript{27} However, if the entitlement is placed with Jefferson, to whom it is worth more, no transaction took place. Thus for situations involving a net social loss, a transaction is unnecessary, and transaction costs are obviated if the entitlement is placed with the cost bearer.

The legislature undergoes the same process when determining whether an activity should be criminalized. Since there is a presumption that the vast majority of victims place a higher total value on their entitlement, a crime results in a net social loss. Therefore, the cost efficient solution is to place the entitlements with the cost bearers, \textit{i.e.}, the victims, since this limits the number of transactions and any attendant costs. In principle, then, only in the rare case where a criminal places a higher value on the entitlement than does the entire set of victims, direct and indirect, will a transaction take place.

The legislature’s role in the assignment of entitlements is to determine whether there is a presumption of net social gain or loss. But the judiciary also plays a role in the placement of entitlements. The presumption of illegality in cases of net social cost may be overcome by costs involved in the process of price exaction itself (the cost of punishing criminals). The identification, apprehension, conviction, and punishment of offenders clearly entails substantial economic cost and moral costs may result as well whenever price exaction procedures are perceived by the citizenry as “unfair” or “improper.” These moral costs are incurred, for instance, when rights of a defendant embodied in the Constitution or widely shared communal values are endangered or when inadequate safeguards exist to protect against false arrest or conviction. Where the sum of these costs exceeds the net social cost of the activity, efficiency requires either that the activity be made legal or that laws against it be left unenforced, a decision often made by the actors within the judicial process itself \textit{ex post}. Examples of this phenomenon are seen in the sporadic enforcement of traffic laws, petty misdemeanors, and marijuana laws.

The second task imposed on the criminal justice system is to determine the price of these entitlements. In a penal system where punishment is equated with the costs imposed by a criminal act, the price of entitlements will vary greatly in different situations. The information required to price

\textsuperscript{27} Coase, \textit{The Problem of Social Cost}, 3 J. Law & Econ. 1 (1960).
entitlements *ex ante* is thus beyond the legislature’s reach. The American response has been to divide the information gathering burden between the legislature and the courts. The legislature proscribes broadly defined offenses and establishes the outer limits of punishment. The judiciary has the case-by-case duty to specify the costs and penalties *ex post*, and thus individualize the application of criminal sanctions in the least costly way. The judiciary must consider such factors as budgetary constraints on its officers and the moral costs of various procedures in developing factfinding processes and of modes of conviction, such as plea bargaining, which elicit the requisite information at a relatively low cost.  

The key to the implementation of this mandate is the pervasive discretion vested in judicial officers to modify legislative standards where they believe circumstances warrant. Police officers can focus their efforts on certain types of activities to the exclusion of others or enforce the law selectively within offense categories. Prosecutors can frame charges as they see fit or elect not to pursue a given case at all. At trial, the jury may refuse to convict even where the facts show a clear violation of the law and, of course, the trial judge has wide latitude in fixing sentence upon conviction. This discretion, moreover, plays an important informational role in legal dynamics, for judicial action consistently at variance with legislative standards is a clear signal to legislators that their assessments of cost in various situations may be in error.

### II. Organization Failure and Institutional Response in the Criminal Process

#### A. Individualized Pricing and Informational Paradox

A principal purpose of the institutional structures discussed here is to enable the potential offender to distinguish efficient from inefficient offenses prior to their commission. An efficient crime is one in which the satisfaction derived by the criminal exceeds the price he must pay. By equating punishment price with the costs imposed by the crime, society discourages only inefficient transfers of criminal entitlements and provides (abstracting from the uncertainty of conviction) for an efficient level of criminal activity in the aggregate. But the highly individualized nature of these costs has motivated a two-stage approach to price exactation in which specific prices are defined precisely by the judicial process only upon completion of the offense involved. Implicit in such an approach, however, is an apparent informational paradox, for in closely tailoring punishments to the peculiar circumstances of each offense so as to encourage only efficient transfers, the courts simultaneously reduce the flow of information requisite to these decisions to the potential offenders who must make them.

Consider a continuum of market structures defined by the degree of homogeneity which characterizes the good, here tortious or criminal entitlements, being traded. At one extreme is the case of perfect homogeneity; every act of a given type committed by every offender imposes an identical cost upon the community. In this case, entitlements can be protected by the property rule and market forces can be relied upon to establish a single efficient equilibrium price for them. In this single parameter (the price of a similar “product”), a potential offender can find all the information needed to determine the efficiency of his contemplated act. Rational behavior on his part will suffice to ensure that only efficient transfers are undertaken. But as the costs imposed by a given act are allowed to vary with the circumstances surrounding it, problems of information impact on the protection of entitlements to pass from property rule to liability rule. The single price established in the polar case gives way to a multitude of efficient entitlement prices, one for each of the different levels of cost associated with the act. Moreover, this fragmentation of the exchange environment results in the quantum of price information available to the offender being insufficient to effect only the efficient transfer of entitlements. Decisions at the margin require potential offenders to have more information about their place in the fragmented environment which has produced the multiplicity of prices than is contained in the set of prices themselves. They must know which of these prices will be exacted from them should they commit the act in question, and their ability to ascer-
tained this extra bit of information diminishes as the costs imposed by the act become more specific to individual circumstances and the number of possible punishment prices associated with it increases. The final result is that a potential criminal may be precluded from committing an efficient crime when it is impossible to determine the cost (the potential sentence if caught).

In the case of tortious entitlements, the economic nature of the costs imposed and the possibility of \textit{ex ante} market valuation mitigate this problem to some degree. But the moral cost involved in criminal activity exacerbates the difficulty, and in the polar case of purely individual specific cost imposition, even full knowledge of the possible range of punishment prices fails to provide the potential offender with sufficient \textit{a priori} information for his marginal decision. Thus, as the exchange environment changes along the continuum in this direction, the "organizational failure" of the legal process becomes ever more pronounced and its institutions less able to perform the function of encouraging only efficient transfers of entitlements.

B. MANDATORY SENTENCING

Two distinct organizational arrangements which remove much of the sentencing discretion granted judicial officers can be seen as institutional responses to this informational paradox, each best suited to a different kind of exchange environment. The first is legislative drafting of a schedule of uniform, mandatory penalties for various offense categories. This is a form of systematic planning which sharply reduces the economic cost of fixing punishment prices, but one that entails a substantial risk of inaccurate cost specification. Given the "infinite variety of cases and facets to each case"\textsuperscript{31} it may be possible to produce an efficient market place with a system of mandatory sentencing. A uniform price that represented a weighted average of the costs imposed by each offender's activity would be exacted from all violators of a particular law.\textsuperscript{32}

\textsuperscript{32} This has recently been explained in economic terms by Diamond. Let $x_i$ be the number of offenses of type $x$ committed by individual $j$, so that $\frac{\partial h}{\partial x_j} < 0$ is marginal cost to individual $h$ of $j$'s activity in $x$ and $\frac{\partial x_j}{\partial p}$ is the marginal deterrent effect upon $j$ of increments in the punishment price for $x$. While in general, an efficient level of activity in $x$ will result if punishment prices are individualized across offenders such that $p_i = \sum \frac{\partial h}{\partial x_j} \frac{\partial x_j}{\partial p}$. But the problem of gathering information sufficient for the \textit{ex ante} specification of these uniform punishment prices is a most formidable one. First, legislators must be able to predict the economic and moral cost which would be imposed by each potential offender in a given offense category. In contrast, the two-stage procedure requires only the \textit{ex ante} articulation of these costs in the single case at bar. Further, the legislature must estimate the marginal deterrent effect of increased punishment upon every potential offender, information not required at all for individualized sentencing.

Where this information is available to the legislature, uniform penalty schedules and the general withdrawal of discretion from judicial officers may promote efficient levels of criminal activity at substantially less economic cost than the two-stage approach. In practice, the exchange environments for which this institutional structure is best suited can be characterized in two ways. Initially, the social cost, particularly the moral cost, imposed by each offense within a given category must be roughly equal and within the scope of \textit{ex ante} estimation. These costs must thus be relatively insensitive to the peculiar circumstances of the offense and the identities of the direct parties to it. Secondly, criminal punishment must have a deterrent effect upon potential offenders which is roughly equal for every individual within easily defined classes of offenders. Generally, both these criteria seem more accurately to describe crimes against property, such as larceny and burglary, and "white collar" crimes, embezzlement or fraud, as opposed to crimes against the person, such as assault, rape, or homicide. Offenders in these cases are usually motivated by pecuniary gain and are often "professional" criminals, more likely to weigh the risks of crime rationally. Moreover, the individual characteristics of the criminals seem less likely to be significant determinants of the moral cost

\[
-\sum \frac{\partial h}{\partial x_j} \frac{\partial x_j}{\partial p},
\]

Diamond shows that efficiency in $x$ can also be achieved by exacting a uniform punishment price $p^*$ from all offenders, where

\[
p^* = \left( \frac{-\sum \frac{\partial h}{\partial x_j}}{\sum \frac{\partial x_j}{\partial p}} \right)
\]

Thus, $p^*$ represents a weighted average of the costs imposed by each offender's activity, the weights being the deterrent effects upon each offender of increments in $p$. Diamond, \textit{Consumption Externalities and Imperfect Corrective Pricing}, 4 Bell. J. Econ. 526 (1973).
associated with their acts, perhaps justifying the assumption of equal social cost for statutorily identical offenses.

But even in these cases, judicial officers often strongly resist legislative attempts to limit their charging and sentencing discretion in this way. Where mandatory penalties are attached to crimes of general definition, the judicial mechanism adapts by an increase in plea bargaining as prosecutors reformulate charges against specific defendants to avoid the systemic sentencing mandates.\textsuperscript{33} Even greater difficulties would be presented by attempting to treat crimes against the person, particularly violent crimes, within a mandatory sentencing scheme. These crimes are often the product of passion and circumstance and vary greatly from case to case, elements which appear to require individualized treatment at the judicial stage.

C. Sentencing Standards and the Death Penalty

An alternate and more typical response to the informational paradox is legislative establishment of clearly defined sentencing standards to be applied \textit{ex post} by the judicial process in individual cases. This addresses the informational paradox by retaining a large amount of discretion in judicial officers. In a series of recent decisions with important ramifications for all criminal sentencing, the U.S. Supreme Court has invalidated mandatory penalty schemes in capital sentencing cases. The Court imposed certain standards upon the criminal process to prevent a violation of the constitutional guarantees against cruel and unusual punishments. The degree to which these opinions reflect the problems discussed herein is indeed striking.

In \textit{McGautha v. California},\textsuperscript{34} petitioner was found guilty of murder and, in a separate trial proceeding to fix the penalty, sentenced to die in the gas chamber by the same jury which had convicted him. The purpose of the separate penalty procedure was to provide the jury with as much information relevant to the sentencing decision as possible. While the jury was to be apprised “of the circumstances surrounding the crime, of the defendant’s background and history, and of any facts in aggravation or mitigation of the penalty,”\textsuperscript{35} California law left the fixing of the sentence to the unguided discretion of the jury. Upon their return of sentences of death for him and life imprisonment for a codefendant convicted of the same offense, McGautha argued on appeal that a purely discretionary procedure which could produce such a result was fundamentally lawless and deprived him of life without due process in violation of the fourteenth amendment.\textsuperscript{36}

In response to this claim, the Court, speaking through Justice Harlan, reviewed a history of attempts to impose capital sentencing standards upon the American criminal process which closely reflects our earlier discussion of the two-stage approach to the efficient pricing of criminal entitlements. Legislative efforts to “identify before the fact those homicides for which the slayer should die,”\textsuperscript{37} by incorporating specific penalties in statutes defining degrees of homicide were often frustrated by the jury’s exercise of the nullification power, \textit{i.e.}, the refusal to convict a defendant of the capital offense in cases where they believed the death penalty inappropriate. Rather than try to refine further the definition of capital homicides, legislatures instead met the nullification problem by explicitly granting juries the discretion to individualize the capital sentencing procedure \textit{ex post}. A 1968 decision concerning the composition of capital sentencing juries discussed this practice of permitting an unguided jury, acting as a repository of community standards, to individualize sentences. The opinion appears to recognize the advantages of \textit{ex post} individualized sentencing in the subtle and shifting equation of punishment price and costs imposed.

\textit{[Juries] do little more—and must do nothing less—than express the conscience of the community on the ultimate question of life or death... [O]ne of the most important functions any jury can perform in making such a selection is to maintain a link between contemporary community values and the penal system—a link without which the determination of punishment could hardly reflect "the evolving standards of decency that mark the progress of a maturing society."}\textsuperscript{38}

\textsuperscript{34} 402 U.S. 183 (1971).
\textsuperscript{36} In \textit{McGautha} the Court also considered the claim that capital sentencing without separate guilt and penalty proceedings was a denial of due process. While recognizing the tension inherent in unitary proceedings between a defendant’s natural desire to present evidence in mitigation of a potential death sentence and the fifth amendment protection against self-incrimination, the Court refused to find a constitutional basis for imposing “bifurcated” trial procedures upon the states. See 402 U.S. at 210–17.
\textsuperscript{37} \textit{Id.} at 197.
The McGautha Court was not unmoved by petitioner’s argument that while the granting of unchecked sentencing discretion in capital cases had once served the purpose of identifying the very rare defendant whose life would be spared, in modern times its function had become just the opposite, for juries have become increasingly loath to impose the death penalty in any but the most extraordinary cases. But in failing to impose sentencing standards in these circumstances, legislatures implicitly created two groups of murderers, those who should live and those who should die, without offering any basis, rational or otherwise, for distinguishing one from the other. Whatever its original purposes, the petitioner contended, such a sentencing mechanism had become constitutionally intolerable as a means of selecting the unlucky few whose crimes deserve the ultimate sanction. In the Court’s view, however, the construction of an intelligible set of standards which would simultaneously provide these ex ante distinctions but maintain and encourage individualized sentencing based upon the jury’s proper consideration of “the infinite variety of cases and facets to each case” was quite literally impossible, and the Court thus refused to hold that the fourteenth amendment mandated them.

In a long and scholarly dissent, Justice Brennan found “sentencing procedures that are purposely constructed to allow the maximum possible variation from one case to the next, and provide no mechanism to prevent that consciously maximized variation from reflecting merely random or arbitrary choice” to be inconsistent with the rule of law itself and thus with the dictates of due process. The suggestion that standards must be so precise and mechanical as to remove all discretion from the sentencing authority was, he argued, a misapprehension. But the fourteenth amendment does require that the state’s choices regarding penal policy be expressed clearly and be administered through procedures which ensure substantial consistency and avoid the “government by whim” forbidden by due process. Moreover, the primary responsibility for articulating such policy must be with the legislature, and while it may delegate its authority to enact or enforce policy in specific cases to administrative or judicial bodies, it must do so subject to controls on discretion which prevent the legislature from abdicating this basic decisionmaking responsibility. Included among acceptable control mechanisms, he maintained, are sentencing guidelines or standards which permit the clear expression of legislative policy but do not require the sentencing authority to be insensitive to unforseen but important details. These guidelines would be subject to judicial review to prevent inconsistent application or to prevent the use of impermissible factors such as race or religion in decisionmaking.

The constitutional vehicle for Justice Brennan’s analysis was the fourteenth amendment principle that legislative enactments cannot be so vague as to permit their arbitrary application to specific individuals. His formulation of this doctrine can be substantially illuminated in terms of the informational paradox posed by individualized sentencing. Traditionally, the vagueness doctrine has been held to require that a criminal statute must at least give citizens fair notice of the precise conduct which it forbids; that is, it must clearly define the initial placement of criminal entitlements regarding cost imposing behavior in various situations. But, as it has been demonstrated, merely establishing the initial ownership of a given entitlement while leaving the specification of its individualized transfer price (or indeed whether any price will ultimately be attached to it) to the ex post operation of the judicial process creates severe informational problems for the potential offender seeking to effect an efficient transaction.

Justice Brennan’s view of the doctrine, based on the Court’s earlier holding in Giaccio v. Pennsylvania, would speak to this further problem of notice as well. In Giaccio, the Court overturned a Pennsylvania statute whereby the state attempted to mitigate the harshness of its common-law rule requiring criminal defendants to pay the costs of prosecution in all cases by committing the matter to the jury’s discretion in cases where the defendant was acquitted. Thus, as in McGautha, the statute implicitly created two classes of unlawful conduct, one in which the criminal statute itself would apply and a second in which the behavior of acquitted defendants might still be deemed sufficiently reprehensible to justify the imposition of court costs. Significantly, the Giaccio Court did not void the

\footnote{40} 402 U.S. at 208.
\footnote{41} “To identify before the fact those characteristics of criminal homicides and their perpetrators which call for the death penalty, and to express these characteristics in language which can be fairly understood and applied by the sentencing authority, appear to be tasks which are beyond present human ability.” Id. at 204.
\footnote{42} Id. at 248.
\footnote{43} Id. at 250.
\footnote{45} 382 U.S. 399 (1966).
statute because it permitted the punishment of legally innocent defendants. Rather, it struck down the act because “it is so vague and standardless that it . . . leaves judges and jurors free to decide, without any legally fixed standards, what is prohibited and what is not in each particular case.”

In applying this view to the implicit classification scheme represented by standardless capital sentencing, Justice Brennan suggests that the legislature can constitutionally fragment the exchange environment by providing differing punishment prices in various circumstances. But if the legislature wishes to do this and continue to induce efficient criminal transactions, it must provide potential offenders some further information regarding their place in the fragmented environment. Articulated standards which preserve, subject to judicial review, some measure of sentencing discretion can, in his view, discharge this obligation.

The Court soon developed these themes in Furman v. Georgia, a case in which it squarely confronted the constitutionality of the death penalty in the context of the eighth amendment prohibition of “cruel and unusual punishments.” The Court, however, was unable to find five members willing to speak in a single voice on this general issue, and could muster only a bare majority in support of the narrow per curiam holding that the imposition and execution of death sentences in the specific cases under consideration in Furman violated the eighth amendment. Each of the nine Justices contributed a lengthy opinion regarding the general issue. Justices Brennan and Marshall each argued that “evolving standards of decency” in American life had rendered the death penalty cruel and unusual punishment under any circumstances. The remaining three opinions in the per curiam majority, as well as Chief Justice Burger’s dissent, however, are of more interest to this discussion.

Justice Douglas, arguing that “the idea of equal protection of the laws . . . is implicit in the ban on ‘cruel and unusual’ punishments,” read the English and American antecedents of the eighth amendment to suggest that it is “cruel and unusual” to apply the death penalty—or any other penalty—selectively to minorities whose numbers are few, who are outcasts of society, and who are unpopular, but whom society is willing to see suffer though it would not countenance general application of the same penalty across the board.

Yet even ostensibly neutral capital sentencing procedures in the United States which grant unguided discretion to sentencing authorities in practice have produced precisely this result, and the burden of this discrimination has largely been borne by the poor and the black. While conceding that it is logically possible for such selective procedures to operate in a constitutionally neutral way, Justice Douglas contended that history has shown their application to be irreconcilable with the “desire for equality . . . reflected in the ban against ‘cruel and unusual punishments.’” Thus the eighth amendment demands withdrawal of this discretion to discriminate and its replacement by clear, legislatively defined sentencing structures overseen by the courts. As he explicitly recognized, such an approach is foreclosed to a Court “imprisoned in the McGautha holding.” Therefore, he would use the eighth amendment rationale to overturn McGautha and instead adopt the procedures outlined in Justice Brennan’s dissent, in which he had joined.

While declining to interpret the eighth amendment in this way, the two remaining members of the Furman majority also based their concurrences upon the nature of the discretionary process which had produced these sentences. For Justice Stewart, the constitutionality of the death penalty per se would be at issue only if these cases were the result of a sentencing procedure which made death mandatory upon conviction for specifically defined offenses. But its imposition under discretionary procedures which “capriciously [condemn a] random handful” such that “if any basis can be discerned for the selection of these few sentenced to die, it is the constitutionally impermissible basis of race” was, in his view, cruel and unusual.

50 Id. at 245.
51 Id. at 248-49 (Stewart, J., concurring). Justice Stewart uneasily distinguished McGautha by noting that the case had been decided solely on due process grounds and that the Court had explicitly refused in McGautha to consider claims under the eighth amendment. Id. at 310 n.12. In dissent, Justice Powell responded that if the

45 Id. at 402-03.
46 408 U.S. 238 (1972).
47 See note 38 supra.
48 408 U.S. at 257 (Douglas, J., concurring).
To this, Justice White added a note which recalls the Brennan dissent in *McGautha*. Where legislatures have authorized the death penalty but left its imposition to the standardless discretion of the jury, he argued, legislative purpose will not be frustrated even if the penalty is never imposed. "Legislative ‘policy’ is thus necessarily defined not by what is legislatively authorized but by what juries and judges do in exercising [their discretion]. In my judgment, what was done in these cases violated the Eighth Amendment."55

In a vigorous dissent, Chief Justice Burger spoke directly to what he saw as the sub silentio overruling of the one-year-old and carefully considered *McGautha* decision. Burger described jurors as refiners of legislative intent with regard to sentencing who are properly meticulous where the death penalty is involved. Burger then challenged Justice Douglas's assertion that capital juries had acted in a racially or socially biased way in the past or that they would do so in the future. Further, he argued, eighth and fourteenth amendment principles ought not to be inappropriately mixed in this way. Where it can be shown that prima facie constitutional discretionary sentencing procedures are being employed discriminatorily or irresponsibly, sufficient doctrine regarding the equal protection clause exists to strike down these practices. To Justices Stewart and White, concerned with the extremely rare imposition of the death penalty in practice, he responded dryly that their approach "suggests that capital punishment can be made to satisfy Eighth Amendment values if its rate of imposition is somehow multiplied; it seemingly follows that the flexible sentencing system ... has yielded more mercy than the Eighth Amendment can stand."56 More directly, he questioned the propriety and efficacy of the remedies to the ill they had identified. As *McGautha* had argued, sentencing standards of substance would be frustrated by the irrepressible tendency of judicial officers to individualize the criminal process; the prosecutor's charging discretion and the jury's power to nullify or convict of a lesser offense could not be denied.57 The alternative to mandatory sentencing, while sharing this defect, was even worse. Such arrangements, he main-

55 *McGautha* Court had been prepared to find the death penalty unconstitutional on eighth amendment grounds, its approval of standardless capital sentencing would have been a "singularly academic exercise." *Id.* at 427 (Powell, J., dissenting).
56 *Id.* at 314 (White, J., concurring).
57 408 U.S. at 398 (Burger, C.J., dissenting).
58 See text at note 33 supra.
offense could be placed by either side before the sentencing judge or jury. While the sentencing authority was free to consider any such circumstances not impermissible under law, it could not return a death sentence unless it specifically found the presence of at least one of ten aggravating factors clearly defined in the Georgia statute. Furthermore, it was not required to impose the death penalty in any case. If it did so, however, the statute granted the defendant specially expedited direct review by the Georgia Supreme Court to determine the appropriateness of the penalty. That court was bound to overturn the sentence if it found (1) that the sentence was "imposed under the influence of passion, prejudice, or any other arbitrary factor"; (2) insufficient evidence to support the finding of the statutory aggravating circumstances; or (3) the death sentence excessive relative to penalties imposed in Georgia for like offenses under similar circumstances.

The United States Supreme Court, by a vote of seven to two, upheld the constitutionality of this closely circumscribed procedure. After first rejecting the claim that the death penalty per se constituted cruel and unusual punishment, Justice Stewart, in a plurality opinion joined by Justices Powell and Stevens, characterized Furman as mandating that discretionary capital sentencing procedures not create a substantial risk that the death penalty will be imposed capriciously or arbitrarily. Toward this end, "justice generally requires... that there be taken into account the circumstances of offense together with the character and propensities of the offender." Bisected trial proceedings are more likely to remove the deficiencies identified in Furman because they use this information without prejudicing the decision with respect to guilt. Moreover, once the sentencing authority has this information, society can ensure that it will be used as the basis of a fair and principled sentence if the legislature offers the judiciary guidance as to those factors most relevant to the sentencing decision.

In summary, the concerns expressed in Furman that the penalty of death not be imposed in an arbitrary or capricious manner can be met by a carefully drafted statute that ensures that the sentencing authority is given adequate information and guidance. As a general proposition, these concerns are best met by a system which provides for bifurcated proceeding at which the sentencing authority is apprised of the information relevant to the imposition of sentence and provided with standards to guide its use of the information.

Thus McGautha, mortally wounded by Furman, was dispatched by Justice Stewart's carefully chosen words in Gregg. The petitioners argued that the retention of prosecutorial discretion and the jury's power to return a conviction of a lesser offense even where a capital verdict could be supported produced an intolerable potential for arbitrariness. The plurality responded that removal of this discretion would go far beyond the Furman requirement of principled sentencing and that the complete inability of the judicial process to tailor punishments to "the particularized circumstances of the crime and the defendant" would produce a system "totally alien to our notions of criminal justice." Moreover, citing the Georgia Supreme Court's action in Gregg's own case, the plurality argued that the statute's judicial review provision provided an adequate check against capricious or disproportionate sentences.

In Woodson v. North Carolina, the Court held that a statute imposing a mandatory capital sentence was impermissible since it did not allow individualization of sentence. North Carolina had attempted to satisfy Furman by replacing all sentencing discretion in cases of "willful, deliberate and

64. In Gregg's case, the Georgia Supreme Court used this third ground to void the death sentence on the armed robbery count.
65. A concurring opinion by Justice White, joined by Justice Rehnquist and Chief Justice Burger, adopted a substantially similar rationale, and Justice Blackmun joined in the result, citing only his dissent in Furman. Justices Brennan and Marshall dissented in Gregg, reasserting their belief that the death penalty per se violates the eighth amendment.
67. See note 36 supra.
premeditated killing" 73 with a mandatory penalty of death. But Justice Stewart, again speaking for himself and Justices Powell and Stevens, 74 argued that this approach merely "papered over" the problem of distinguishing ex ante those murderers who must die from those who are to be spared. Echoing Justice Harlan's majority opinion in McGautha, he noted that such a procedure invites jury nullification and the essentially ad hoc and unprincipled sentencing results which accompany it. Where "[t]he belief no longer prevails that every offense in a like legal category calls for an identical punishment without regard to the past life and habits of a particular offender," 76 the Eighth Amendment cannot tolerate a statute which "treats all persons convicted of a designated offense not as uniquely individual human beings, but as members of a faceless, undifferentiated mass to be subjected to the blind infliction of the penalty of death." 77

This completed the Court's reversal of McGautha, and in adopting sentencing procedures identical to those proposed by Justice Brennan's dissent in that case, it substantially mitigated the effect of the informational paradox posed by purely individualized ex post sentencing. 78 The specification of this paradox and its origins in the context of price exaction, moreover, suggests a deeper understanding of the way in which institutional structures have evolved over time in the criminal process. The precise mechanism of this evolution is certainly complex and not yet fully understood, for the specific institutional problems and alternatives posed to appellate courts each result from the slow accretion of many marginal and interrelated decisions made by the various actors on the judicial stage. But the analysis of these and other cases within the price exaction framework 79 points to a clear role for appellate courts in this evolutionary process. Where necessary, they appear to respond to changing conditions in the exchange environment by identifying constantly shifting sources of failure in the exchange mechanism, for example, "evolving standards of decency" in the imposition of penalties and an apparent historical trend toward greater individualization in the perception of costs emanating from criminal activity, and shaping institutional structures to meet them. While not necessarily "optimal" forms, these evolved structures do permit the continued exchange of entitlements within the criminal process.

III. SOME OBSERVATIONS IN LIEU OF CONCLUSIONS

The price exaction framework provides a natural analytic context for the adaptive and evolutionary mental deficiency though such condition is insufficient to establish the defense of insanity.

A plurality of four Justices (Burger, Stewart, Powell, and Stevens), however, speaking through Chief Justice Burger, offered a solution quite consonant with the concern for individualized sentencing expressed in Woodson. Noting that "the concept of individualized sentencing in criminal cases generally, although not constitutionally required, has long been accepted in this country," 76 Id. at 602, the plurality stressed the irrevocability of the death sentence and concluded that, in general, sentences in capital cases must "not be precluded from considering as a mitigating factor, any aspect of a defendant's character or record and any of the circumstances of the offense that the defendant proffers as a basis for a sentence less than death." 77 Id. at 604 (original emphasis). When the choice is between life and death, they argued, the risk of error is too great to allow the Ohio procedure to stand.

It is worth noting that this portion of Chief Justice Burger's opinion was prefaced by the observation that the Court's recent holdings with respect to the death penalty had generated much confusion, and that "[t]he signals from this Court have not . . . always been easy to decipher." 78 Id. at 602. That these holdings can be usefully rationalized in terms of the informational paradox is a demonstration of the analytical power of the price exaction model of the criminal process.

79 See generally Adelstein, note 8 supra.
nature of certain types of constitutional adjudication within the criminal process. It also illuminates an important set of positive and normative issues. In a positive sense, the interpretation of the criminal process set forth here is an economics which suggests that what judges have to tell economists is more important than what economists have to tell judges. Our analysis has shown that a clear economic logic can be discerned in the form of important institutional structures in the legal process. These structures serve a set of evolutionary purposes in a clearly defined system of economic exchange with analytically well specified types of problems. Epistemologically, then, the constitutional litigation discussed here and the institutional structure resulting from it can be seen as “positive evidence” in support of the price reaction model of the criminal process in much the same way as the existence of patent law structures as a response to the public good aspects of invention and knowledge creation can be seen as “positive evidence” in support of the theory of public goods.\(^{80}\)

In this light, it is interesting to consider more closely the structure of the price reaction framework itself. Implicit in the framework is the posited existence of a set of entitlements which might be seen as “intrinsic” in the sense that they logically exist prior to the legal structures which evolved to define them precisely and to protect them from uncompensated encroachment. Moreover, the motivating force driving this evolutionary process is not the systemic objective of efficient resource allocation directly, but rather a postulated human propensity to exchange these entitlements at the margin and to organize structures to facilitate this exchange in response to changing environmental conditions.\(^{81}\) In this context, it seems natural to perceive a variety of institutions and organizations, including many outside the traditional scope of economic scholarship as well as those within it, as evolved forms which attempt to facilitate individual exchange when human and environmental factors make this prohibitively costly. This vantage point in turn suggests the potential of what might be termed the “institutionalist” position. This position directs positive economic inquiry toward the forces and frictions which promote and retard the individual transaction. Insofar as much of the social fabric can be seen as woven to account not for situations in which markets work perfectly but rather for those in which they do not because exchanges are blocked by substantial costs of contracting, a great deal can be learned from the study of human institutions as responses to various sources of market failure.

From a normative perspective, it is of interest to note that the ostensibly equitable nature of the constitutional debate regarding the death penalty can be understood in terms of this evolutionary process. But while this facet of the analysis initially might be seen as a rationale for systemic planning in the criminal process and a means toward “objective” resolution of important normative problems, a moment’s reflection reveals that it merely clarifies the nature of these issues and serves to pose them more directly. The central role of moral cost in the definition of criminal offenses and the punishment prices associated with them, the interrelationship of law and procedure to which it contributes, and the retributive aspects of a criminal process organized around the principle of price reaction underscore the need for caution in this regard. It is a commonplace of equilibrium theory that the particular terms of an efficient market allocation and the prices which motivate it depend not only upon individual tastes and preferences, but also upon the distribution of resources which precede the exchange as well. This interrelationship means that any claim that a particular efficient outcome is in some sense socially preferred or “optimal” presupposes prior judgments about the propriety of the underlying income distribution and the legitimacy of satisfying only certain individual preferences through the exchange mechanism. This implies that distributional problems must be articulated and resolved independently of allocational issues. Insofar as class, income, social status, religious conviction, and simple bigotry all may be significant determinants of the moral cost associated with given activities of specific individuals, it is clear that every scheme of retributive

\(^{80}\) Argument of this kind is not limited to legal structures, as M. Olson, THE LOGIC OF COLLECTIVE ACTION: Public Goods and the Theory of Groups (1965) demonstrates. A similar epistemological position characterizes the inquiry of Coase, The Nature of the Firm, 4 Economica N.S. 386 (1937); Alchian & Demsetz, Production, Information Costs, and Economic Organization, 62 Am. Econ. Rev. 777 (1972); and Williamson, note 13 supra, into the nature of business firms.

\(^{81}\) The existence of a propensity towards mutually beneficial exchange at many levels of behavior is by no means an idea of recent scholarly vintage. For example, see A. Smith, THE WEALTH OF NATIONS 117 (A. Skinner ed. 1970): “[T]he division of labor] is a necessary, though very slow and gradual consequence of a certain propensity in human nature….the propensity to truck, barter, and exchange one thing for another.”
justice is built upon and reinforces a particular scheme of distributive justice. Tyranny may well come disguised as efficiency. The ethical issues of the death penalty thus are not best posed by problems of criminal procedure, which have a clear efficiency component, but rather by the definition of the underlying law itself within the context of price exaction. Where there is tyranny in the criminal process, the remedy must be in the law itself rather than in the procedures which implement it.