I. The Traditional Theory of Criminal Law

There are two fundamental questions we need to answer:
1. What acts should be punished?
2. To what extent?

Viewed from the economic perspective, the assumed goal is to minimize the social cost of crime.

According to the traditional theory, criminal law differs from civil (tort) law in the following ways:
- the criminal intended to do wrong
- the harm done was both public and private
- the plaintiff is the state, as opposed to a private individual (the case in tort law)
- there is a higher standard of proof in criminal law than there is in tort law
- in the case where the defendant is guilty, he or she will be punished.

A. Criminal intent

Consider a scale of care that runs from careful to negligent to reckless to intentional to cruel. Criminal law does not apply until behavior goes beyond reckless.

B. Public harm and public prosecution

Generally speaking, harms in property, contract, and tort law are primarily private. In contrast, harms in criminal law have a distinct public goods element. It is this public goods element that results in the state acting as the plaintiff in a criminal case. The state represents society, which has been collectively harmed by the crime. Note that in criminal law, harm is not a necessary condition as it is in tort law. Why?

C. Standard of proof

In general, guilt must be established beyond a reasonable doubt. This is a more demanding standard than the preponderance of the evidence test applied in most tort cases. Note that we would prefer not to convict innocent parties. In addition, we want to adjust for the state’s typical advantage in terms of the amount of resources it can devote to the prosecution of a particular case.

D. Punishment

The penalty for a crime goes beyond perfect compensation (the goal in most torts) to include punishment for a variety of reasons we consider further below. (In many criminal cases the victim receives no compensation.)

II. An Economic Theory of Crime and Punishment

A. Inadequacy of tort law, necessity of criminal law

1. There are at least three reasons why civil law cannot minimize the social cost of crimes (recall that this is the objective of tort law with respect to torts)
   i) Perfect compensation is not possible in many cases, e.g., loss of life, which in turn implies it is not possible to perfectly internalize the cost of the crime.
   ii) Civil law protects interests as opposed to rights; however, protecting rights is more
important than simply protecting interests because the former does more to promote voluntary exchange which, in turn, enhances the efficiency of the allocation of scarce resources. The point here is that society is indifferent between accidents with perfect compensation and no accidents. This is not so with respect to crime.

iii) punishment is often necessary to secure optimal deterrence because, in many cases, the expected cost of crime is less than the benefits if punishment is not a possibility. Punishment increases the expected cost of crime.

B. Rational crime
1. We begin by considering how a rational, amoral person would behave.
   • assume payoff from crime and seriousness of crime are positively related
   • assume that the expected cost of crime is a function of the probability of getting caught and punishment in the event of conviction
   • assume that the penalty increases with the severity of the crime.

The foregoing assumptions are illustrated in Figure 1

So long as the expected punishment curve lies above (to the left) of the payoff curve, there will be no crime. If the expected punishment curve is Ex. Pun. 3, there will be some amount of crime because, for some range of seriousness of offense, the payoff exceeds the expected punishment, i.e., the net gain is positive.

C. Mathematics of rational crime
1. The preceding graph illustrates the total benefits and costs of committing a crime. Algebraically, the criminal’s problem is:

\[ \text{max } y(x) - p(x)f(x) \]

where \( y(x) \) is the payoff \( f \) expressed as a function of seriousness, \( p(x) \) is the probability of conviction as a function of seriousness, and \( f(x) \) is the severity of punishment as a function of seriousness.

Taking the first derivative of this function and rearranging terms yields

\[ y'(x) = p'(x)f(x) + p(x)f'(x) \]

The left side of this expression is the marginal benefit from crime. The right side represents expected marginal cost.
2. Graph this.

3. Consider the effects of changes in the probability of conviction and severity of punishment on the seriousness of offenses.

D. Applying the model of rational crime to public policy
1. Considering the results from the previous section, if we instead think in terms of the number of crimes committed (instead of seriousness) as a function of expected punishment, the implication is that as expected punishment increases (decreases), the optimal amount of crime (viewed from the criminal’s perspective) will decrease (increase).

2. The extent to which a change in expected punishment causes the quantity of crime supplied to change in turn depends on the sensitivity of the quantity supplied to a change in price.
   a. If quantity supplied is relatively sensitive to a change in expected punishment, i.e., relatively elastic, punishment will serve as an effective deterrent. If the supply of crime is relatively inelastic, other variables, e.g., socio-demographic characteristics, will be relatively more important.
E. Criminal behavior and criminal intent

Our economic model is not perfect because it focuses on behavior as opposed to the subjective reasoning process. We assume that people behave as if they explicitly compare marginal costs and marginal benefits and we use the model to predict behaviors. (Who knows what many people are actually thinking!)

Nonetheless, the model enables us to make various predictions about, e.g., how different practices might be expected to deter crime. We can then conduct empirical tests to determine how good the model’s predictions are.

F. Diminished rationality-Saturday night fever: Skip this section

G. Civility: Skip this section

H. The economic goal of criminal law

1. Focus on two basic costs of crime: (1) the net loss in value from harm (suppress your moral distaste for this for now), and (2) the expenditure of resources to protect against crime. This leads to a simple goal: Criminal law should minimize the social costs of crime, which equals the sum of the net harm it causes and the cost of preventing it.

2. Complications: complexities such as the opportunity costs of criminal activities (the embezzling accountant) and the moral issues associated with the focus on net harm.

I. Optimal amount of crime deterrence and punishment

A. The Model

1. Measure deterrence as the percentage reduction in crime.

2. Compare the marginal social benefits and marginal social costs of successive reductions in crime.

3. Measure reduction in crime along the horizontal axis.

4. MSC = incremental value of resources used to reduce crime

5. MSB = incremental value of harm avoided

6. The optimal level of deterrence occurs where MSB = MSC.
J. Mathematics of optimal means of deterrence (Here we are concerned with the allocation of resources among activities that result in deterrence. We are also distinguishing between economic efficiency and cost-effectiveness. The latter is a necessary, but not sufficient, condition for the former.)

1. Begin by noting that a given level of deterrence can be achieved with different combinations of certainty and severity of punishment, i.e., we can trade one for the other while holding the level of deterrence constant. The result is a series of “deterrence isoquants.”

2. Now consider the budget constraint imposed on deterrence-related activities. A fixed amount of resources can be devoted to severity or certainty of punishment or some combination of the two, i.e., with a fixed amount of resources we can produce different combinations of severity and certainty of punishment.

3. Comparing the tradeoff between certainty and severity required to achieve a fixed level of deterrence to the various combinations of severity and certainty we can produce with a fixed amount of resources yields the optimal, i.e., cost-effective, combination of severity and certainty and the maximum amount of deterrence possible given available resources. Whether this combination of certainty and severity also yields the efficient level of deterrence also depends on the MSB and MSC of deterrence.
4. Analysis of 100,000 new cops on the street

5. Regarding the optimal combination of punishments, e.g., imprisonment and fines, fines are much cheaper to administer than imprisonment. However, depending on the solvency of the criminal, some combination of the two may be necessary to secure a given level of deterrence.

K. Private deterrence

Private investment in deterring crime has three principal effects:
- private deterrence
- public deterrence
- redistributing crime

The question that arises is, what role should the state play in encouraging private investment in deterrence? To begin, the state does not need to influence decisions that lead to private deterrence, as incentives are already sufficient. Regarding the other two effects, we need to first distinguish between *ex ante observable precautions* and *ex post observable precautions*. The former tend to redirect criminals to other victims, i.e., result in redistribution of crime, while the latter reduce the average profitability of crime, causing the total amount of crime to decrease. Thus, the state should encourage the latter and not the former.