Deterrence is based on the notion that people consciously try to avoid pain and seek pleasure. It follows that by making a choice painful enough—such as the choice of crime—individuals will choose not to engage in the act. Across society as a whole, this perspective would predict that crime rates would be lowest in those places where offending evokes the most “pain” (or costs) and highest in those places where offending brings the most “pleasure” (or benefits). In short, deterrence is held to explain why individuals do or do not offend and to explain why certain places in society—called by criminologists “macro-level” or “ecological” units—have higher or lower crime rates.

In turn, this way of thinking has clear implications for correctional policy and practice. If deterrence theory is correct, then to reduce crime, the correctional system should be organized to maximize the pain of crime and to minimize its benefits. Its whole aim should be to scare people straight—those who have engaged in crime (specific deterrence) and those who are thinking about committing crime (general deterrence). For the past three or four decades, the United States has been engaged in a costly experiment in which policy makers have bet literally billions of dollars that getting tough on crime—especially through mass incarceration—will reduce reoffending. When was the last time you have heard of any politician or judge campaign for office with the slogan, “I promise to get lenient on crime!” And would you vote for that public official? In contemporary America, Todd Clear (1994) has referred to this ongoing attempt to use the correctional system to be an instrument for inflicting pain as the penal harm movement (see also Currie, 1998).

Deterrence theory is attractive because of its inherent intuitive appeal. This is the hot-stove phenomenon. When growing up, we learn that when we touch a hot stove top, we get burned. So, we don’t touch hot stoves. We are “deterred.” We decide, in short, not to do things that are like “hot stoves.” So, it seems like commonsense that if we could
make committing crime like a hot stove, people would not do it. Break the law, and you
get burnt right away. If crime were like this, then offenders would be too scared to touch
the stove again. And if people in general saw someone with a burnt hand, they would
be too scared to touch the stove in the first place.

Stoves are good at deterrence, because the pain they administer is immediate, cer-
tain, and severe. Touch a hot stove top, and it’s “ouch”; lesson learned. Unfortunately, it
is difficult for us to make corrections like a stove. Most correctional punishments are
not immediate and not certain—although they may be severe (or may not). This
inability to make punishments efficient is one hindrance to achieving large deterrent
effects when attempting to put this theory into practice.

The other problem is that of individual differences. Not everyone experiences the
threat of a correctional punishment the same way. In particular, some people pay atten-
tion to future consequences but others do not—or at least not as much. Some people are
more impulsive, short-sighted, inebriated, under the sway of peer influence; alas, these
people tend to be offenders! They are not good at paying attention to future conse-
quences. But paying attention to future consequences is essential if someone is to be
deterred by the threat or even the imposition of a criminal punishment. Scaring offend-
ers straight is thus a difficult business.

This insight reminds us of the lesson taught to Cullen by his beloved family dog,
Bartlett. Yes, Bartlett has passed away, but dogs are important and, in Bartlett’s case,
memorable. Right now, Cullen has two canines: Topspin (a golden retriever) and Deuce
(a big mutt). For those of you who are tennis fans, you will notice the tennis reference
(Topspin as in “topspin forehand”; Deuce as in “the score is deuce”). The dogs reflect
that somewhat pathological addiction to tennis of those in the Cullen clan. Topspin also
is a model of how to live a contented life. Unlike Cullen, Topspin does not worry about
global warming, world hunger, wars, and who is the nation’s president. He is quite
happy, virtually all the time. He is also his own man—err, canine. He will not fetch a
ball if thrown, but when people arrive at the front door, he will go retrieve one of
Cullen’s shoes and prance around the house with the shoe in his mouth. He is a retriever
high on self-efficacy, not on a need to please. But, alas, neither Topspin nor Deuce has
taught Cullen anything about criminology. This is what made Bartlett so special!

Now, back to Bartlett’s lesson. As Cullen was walking Bartlett one day, he thought of
how we are commonly taught that when a dog poops on the rug, we should rub his nose
in it. Yet as Bartlett meandered down the street, Cullen noticed that every time he came
to a pile of poop on someone’s lawn, what did he do? He stuck his nose in it! And every
time he came to another dog, where did he smell?

This is an individual difference, because Cullen, and especially Jonson, certainly
would be deterred by the prospect of their noses going into a pile of poop! That is,
Bartlett versus Cullen and Jonson differ in their assessment of whether poop sniffing is
a cost or a benefit. Economists call this a difference in our tastes, a concept we would
not want to apply too literally in this example! But the serious point here—the crimi-
nological lesson—is that what we think might deter those most likely to offend may not
have the intended effect. What we think would deter us, in short, may not deter those
with different personalities that predispose them to crime. In fact, some criminologists
worry that *sticking people’s noses in it*—being nasty and punitive—actually makes offenders more criminogenic (Sherman, 1993). There is that iatrogenic effect again.

The appeal, and danger, of deterrence is that it seems so darn simple: *just increase the punishment and crime should go down.* Of course, if it were that simple, we would be a crime-free society. This has not happened.

We do not wish to push the anti-deterrence point too far. Punishing offenders in society almost certainly has some deterrent effect (Apel & Nagin, 2011; Nagin, 1998). Imagine, for example, if we did away with the criminal justice system and there was no threat of any punishment. Break the law, and unless some vigilante shoots you, you get away with it. Might crime increase? Cullen and Jonson think so and, as prudent criminologists, would greet this abolitionist experiment by heading to Canada! Still, as the “Bartlett incident” cautions, these *deterrent effects are complex.* In particular, it is questionable whether deterrence-oriented *correctional policies and programs* reduce the recidivism of those who enter the correctional system as serious or chronic offenders. In a point we will reiterate later, it seems that criminal sanctions have a general deterrent effect but not much of a specific deterrent effect (see also Paternoster, 2010).

With this context set up, what’s the strategy for the remainder of this chapter? Well, we start out with three introductory-type sections:

- We go over key definitions, telling the difference between general deterrence and specific deterrence.
- We discuss whether deterrence theory is necessarily politically conservative. The answer is “no,” although in practice conservatives like the idea of scaring offenders more than bleeding-heart liberals do.
- We explore the theoretical assumptions about crime that underlie deterrence. This analysis is important because *every correctional intervention is based on some underlying theory of crime* (i.e., a theory of why people commit crime). In the case of deterrence, the framework is rational choice theory. The key issue is whether this criminological explanation is multifaceted enough to base a whole correctional system on; Cullen and Jonson do not think so.

After these issues are considered, we turn to the heart of the chapter: subjecting deterrence theory to evidence-based analysis. Readers should realize that nobody on this planet truly knows in a precise way whether deterrence works to reduce crime. It is not one of those clear-cut matters. Studying human behavior—especially a behavior like crime that people try to conceal from the police and even researchers—is a daunting challenge. One option is to throw up our hands and go read philosophy on the meaning of life. Or perhaps to find happiness in retrieving shoes like Topspin does. The other option, which Cullen and Jonson believe in, is to amass as much evidence as possible to supply the most plausible answer possible as to the likely deterrent effect of correctional interventions. So, in this key section of Chapter 4, we review different *types of evidence.*

Deterrence theory will make certain predictions. Mainly, the predictions are all the same: The more punishment there is, the less crime there should be. The more
offenders are watched and threatened with punishment, the less crime there should be. The more people think they will be punished, the less crime there should be. Remember, advocates of deterrence theory truly believe that consequences matter. They truly believe that only fools would touch the stove—or commit a crime—if they had been burned for doing so in the past. All of us would like to believe this because corrections would be really simple: Punish people and crime will vanish. Unfortunately, offenders seem more like Bartlett than they are like the rest of us. Sticking their noses in it just is not that effective. When we look at various types of evidence, for the most part, deterrence theory proves to be either incorrect or only weakly supported.

The Concept of Deterrence

**TYPES OF DETERRENCE: GENERAL AND SPECIFIC**

How do we prevent someone from committing a crime? Deterrence theory suggests that people will commit a crime if it gratifies them—if it is experienced as beneficial. Conversely, the assumption is made that people will not commit a crime if it brings unpleasant consequences—if it is experienced as costly. In everyday language, people commit crime if it pays and will not commit crime if it does not pay.

In this context, deterrence is said to occur when people do not commit crimes because they fear the costs or unpleasant consequences that will be imposed on them. In this sense, we can say that people are scared straight. The deterrence effect is how much crime is saved through the threat and application of criminal punishments.

Now, which people do we wish to deter or to scare straight? Well, two kinds. First, there are the people who have not yet broken the law but are thinking about it (or might think about it). Second, there are the people who have broken the law and might do it again (i.e., who might recidivate). Depending on the focus of who we are trying to scare, a different type of deterrence is said to be involved.

Thus, when we punish an offender so that other people do not go into crime, this is called general deterrence. As noted in Chapter 1, this is “punishing Peter to deter Paul.” We are, in essence, making an example of offenders so that other people in society figure out that “crime does not pay.” Some philosophers—especially those who believe in retribution or just deserts—think that this practice is morally reprehensible, because “Peter” is being used as a means to benefit society. Why should we punish Peter in such a way in the hope of stopping another party (Paul) from engaging in a behavior that has not yet occurred? Peter is getting punished for what Paul might do. We will leave the philosophical debates to others, but it is an issue that general deterrence must confront.

The wonderful thing about general deterrence is that its effects are potentially general! If it works, then it is a very efficient and cost-effective way of controlling crime: By punishing a limited number of offenders, we may persuade a whole bunch of other potential offenders not to break the law.

The other type of deterrence, of course, is specific deterrence (sometimes also called special deterrence). Here, we punish Peter so that Peter will not recidivate. That is, the deterrent effect is specific to the person being punished. Importantly, when we focus on
specific deterrence, we are moving more closely to what precisely the correctional system does with offenders. If specific deterrence is effective, we might expect to see these kinds of findings:

- Offenders sentenced to prison would be less likely to recidivate than offenders put on probation.
- Offenders given longer prison terms would be less likely to recidivate than offenders given shorter prison terms.
- Offenders placed in community programs that emphasize close supervision and the threat of probation/parole revocation should be less likely to recidivate.

As we will see, however, the research does not support any of these three propositions. This leaves deterrence theory with a lot of explaining to do!

CERTAINTY AND SEVERITY OF PUNISHMENT

Certainty and severity of punishment are fairly simple concepts that may, however, be related in complex ways. As the term implies, certainty of punishment involves the probability that a criminal act will be followed by punishment. The greater the probability that crime prompts punishment, the greater the certainty of punishment. The severity of punishment involves the level of punishment that is meted out. The harsher the punishment, the greater the severity of punishment. (There is also something called the celerity of punishment, which is how quickly a punishment follows a criminal act. It is rarely studied in the research.)

Now, can you anticipate what predictions deterrence theory would make regarding the certainty and severity of punishment? Here they are:

- The greater the certainty of punishment, the less likely crime will occur.
- The greater the severity of punishment, the less likely crime will occur.

Some authors like to combine certainty and severity of punishment into a single concept, like the expected utility of crime. Again, the prediction would be the same: The more combined certainty and severity there is (the lower the expected utility of crime), the less likely crime will occur.

In general, which component of deterrence—certainty or severity—do you think is more important in deterring crime? The answer is clear: certainty of punishment. It appears that people do not become concerned (or as concerned) about the severity of punishment if they do not believe that they will ever get caught (if they think the probability of arrest and sanctioning is low).

Is Deterrence a “Conservative” Theory?

Is deterrence theory conservative? The answer to this question is “yes” and “no.” It is “yes” because deterrence is typically associated with imposing more punishment on
offenders—that is, it is justified by the claim that we have high crime and recidivism rates because offenders are punished too leniently. This leads to the view that reducing crime should involve getting tough. Conservative politicians have generally embraced this rhetoric. They have argued that we must make crime not pay by implementing a range of laws that increase the costs of crime (e.g., mandatory minimum penalties). Regardless of the wisdom of these approaches, it should be realized that deterrence is not inherently a conservative theory. That is, it does not inevitably lead to a justification of harsh correctional policies.

Now, when most advocates look at deterrence, they tend to focus on two factors: first, the cost of crime as measured by the certainty and/or severity of punishment; and, second, the benefits of crime as measured by how much money crime may bring. But the decision to go into crime is not just an assessment of the costs and benefits of crime. It also involves an assessment of the costs and benefits of conformity—that is, of non-crime. If deterrence theory is based on an accurate theory of human behavior, it must explain not only why crime is chosen but also why someone chooses to commit a crime rather than do what the rest of us do: go to school, obtain a job, settle down with a family, and so on. It also means that the reason why people go into crime is not only that crime is attractive but also that conformity or non-crime is unattractive.

Can you see what implication this has for correctional interventions? The answer is that offender recidivism might be reduced if interventions increased the likelihood that conformity would be beneficial! If making conformity attractive were the focus, then corrections might not concentrate on inflicting pain. Rather, the goal would be to make the choice of conformity more possible and profitable by placing offenders in programs that would increase their education and employment skills. Such programs as these are often called “liberal” because they seek to improve offenders. In general, however, advocates of deterrence focus almost exclusively on manipulating the costs of crime through punishment. To the extent that this is their limited perspective, they embrace a conservative political ideology.

The Theoretical Assumptions of Deterrence

Every utilitarian correctional intervention (except incapacitation) has, embedded within it, a criminological theory. Logic demands it! This is because the state is doing something to an offender with the expectation that this person will not go back into crime. By applying criminal sanctions, the state is trying to affect the reasons why the person offends.

Deterrence is based on the belief that people go into crime because it pays—the benefits outweigh the costs. This approach thus assumes that before offending, people sit back—if only for a moment—and calculate the likely consequences of their action. It is sort of like a business decision: Am I going to make a profit from this crime or not? This is when the little accountant in our head is supposed to pop up, calibrate the cost–benefit ratio, and tell us whether to invest in crime.
This view of offenders can be traced back to the Enlightenment Era (1700s) and the work of theorists within the Classical School of criminology (such as Cesare Beccaria). More recently, this view of offenders has been used by economists who study crime. This is because when economists study any behavioral choice—whether it is investing in the stock market, taking a job, getting married, or committing a crime—they assume that people’s choices are affected by the likely consequences (or by their self-interest).

Most often, the underlying criminological theory is called rational choice theory. This term implies two things: first, that crime is a choice; and, second, that this choice is rational—that is, based on a calculation of costs and benefits. From the very fact that someone engages in an act, we can infer that a choice has been made. But the key issue is why has this choice occurred? The distinctive thing with rational choice theory is that it assumes that choices are rooted in a conscious assessment of costs and benefits.

Note that rational choice theory—at least in its pure form—assumes that offenders and regular citizens are exactly the same. The only thing that differs is that offenders happened to be in situations where crime is rational and regular citizens—we—are not. There are no individual differences that distinguish offenders from non-offenders—that make some people more likely to be criminals. We are all self-interested rational decision makers. Thus, all of us would commit a crime if we were confronted with the same set of costs and benefits. Not committing the crime would be irrational; committing the crime, rational. What differs are not individual traits but the costs and benefits we confront.

As you might imagine, nearly all of modern criminology rejects rational choice theory. Most believe in the approach of the Positivist School of criminology first developed by Cesare Lombroso and fellow Italian scholars in the last quarter of the 19th century. Here, the assumptions about crime are quite at odds with rational choice theory:

- Crime is not a rational choice but is caused.
- Crime is caused by biological, psychological, and/or sociological factors.
- Offenders are different from non-offenders; there is something special about them or their social situation that makes them commit crimes.

It is possible that rational choice theory is partially correct. That is, a range of factors might create a person’s propensity to commit crimes, but that one factor in determining whether a crime takes place is the person’s perception of the likely certainty and severity of punishment. If this were the case (and we suspect it is), this is good news and bad news for deterrence theory: The good news is that increasing certainty/severity of punishment should have some deterrent effect (because part of the reason for crime is the view that it pays). The bad news is that the deterrent effect is likely to be modest (because other factors involved in the causation of crime are not changed by punitive interventions).

A key issue in corrections is what factors are being targeted for change in an intervention. If a theory about crime is wrong or only partially correct, then an intervention is likely to be targeting for change either (1) the wrong factors or (2) only some of the...
factors that should be altered. Again, rational choice theory has some merit, but its fundamental weakness is its willingness to ignore a mountain of evidence that other factors are involved in the causation of crime (more generally, see Thaler & Sunstein, 2008). In turn, a key limitation of deterrence as a correctional approach is that it is based on an incomplete understanding of crime causation. It follows that its proposed interventions are necessarily also incomplete, if not incorrect.

Studying Whether Deterrence Works: Assessing Types of Evidence

Now we have arrived at that point where we focus on the guts of the issue of deterrence. What do the studies say about the effectiveness of deterrence? The key point here is that there are different types of studies that may be used to assess the extent to which the punishments handed out by the courts and correctional system deter. We examine five types of studies. Note that although all the studies are important, the most significant assessments are drawn from the last three types of studies. This research is most relevant to corrections because it assesses how sanctions and correctional interventions affect individuals and, in particular, offenders brought into the system.

- Studies of policy changes that increase the level of punishment. If crime goes down after get tough policies are implemented, then this would be evidence in favor of deterrence theory.
- Macro-level (or ecological level) studies of punishment and crime rates. If geographical areas (e.g., cities, states) that have higher levels of punishment have correspondingly lower crime rates, then this would be evidence in favor of deterrence theory.
- Perceptual deterrence studies. If individuals who perceive punishment to be certain and/or severe are less involved in crime, then this would be evidence in favor of deterrence theory.
- Studies of correctional interventions that are control or punishment oriented. If offenders who are exposed to more control or punishment are less likely to recidivate, then this would be evidence in favor of deterrence theory.
- Studies of the effects of imprisonment. If offenders who are exposed to prisons (as opposed to probation) or to longer terms or harsher conditions are less likely to recidivate, then this would be evidence in favor of deterrence theory.

The strategy underlying this assessment is to try to determine if the predictions made by deterrence theory are consistently supported. If so, then this would be compelling evidence that punitive policies and interventions reduce crime. However, if the evidence is weak and contradictory, then deterrence theory would be judged to be less viable. As a guide through this assessment process of the five types of evidence, we have developed Table 4.1.
<table>
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<th>Types of Research</th>
<th>Examples</th>
<th>Specific Method(s)</th>
<th>General Results</th>
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| Policy changes that increase the level of punishment                            | Three-strike laws; mandatory sentencing laws; mandatory arrest for domestic violence; police “crackdowns” on drug markets. | Before–after evaluations; interrupted time-series studies; experimental or quasi-experimental studies comparing more and less punishment conditions. | (1) Short-term effects, then decay of effects.  
(2) Many interventions show weak or no effects.  
(3) Some “brutalization” effects reported—crime increases. |
| Macro-level studies                                                             | Compare how levels of punishment influence crime rates across ecological units. | Multiple regression studies; time-series studies that compare effects of changes in punishment. | (1) Some evidence of deterrent effects (likely a “general” deterrent effect).  
(2) The effects are complex, inconsistent, and often weak.  
(3) Effects of punishment outweighed by social factors.  
(4) Attribute incapacitation effects to deterrence effects. |
| Perceptual deterrence                                                           | Surveys—mostly of students but at times of community members and inmates—measuring how perceptions of the certainty and severity of punishment influence self-reported crime or “intentions” to offend. | Self-report surveys measuring for each respondent’s perceptions and self-reported offending; vignette scenario surveys. | (1) Weak to no support on longitudinal, multivariate self-report survey studies.  
(2) More support on scenario studies.  
(3) Stronger effects for the certainty than the severity of punishment. |
| Correctional interventions with offenders                                        | Scared straight programs; boot camps (“shock incarceration”); intensive supervision programs; electronic monitoring; drug testing. | Evaluation studies using experimental or quasi-experimental designs; meta-analyses that assess the effects of these punishment-oriented interventions across all available studies. | (1) Studies find no support that punishment-oriented programs appreciably reduce recidivism rates.  
(2) Some interventions appear to increase recidivism.  
(3) No evidence of a “specific” deterrent effect. |
| Effects of imprisonment                                                        | Prison versus probation; longer versus shorter sentences; harsher versus less harsh prison conditions. | Evaluation studies comparing levels of punishment; longitudinal studies examining effects of being in prison. | (1) Imprisonment has no effect or increases recidivism.  
(2) Harsher conditions tend to increase recidivism. |
Policy Changes That Increase Punishment

There are lots of times in which legislators, the police, or the courts make policies or practices more punitive in order to “crack down on crime” and to “get tough.” These efforts might involve laws that increase punishments for particular crimes (e.g., selling crack or possessing a gun) or policy decisions that increase arrests (e.g., mandatory arrests for domestic violence, police crackdowns on open-air drug markets in a high-crime neighborhood, roadblocks to test for drunk driving). These policies are meant to heighten either the certainty or severity of punishment.

Often, these studies fall into a category of research called interrupted time-series studies (Nagin, 1998). This term is used because the data on crime are collected over time—over a series of months or years. At some point, the punitive intervention occurs that “interrupts” this “time series.” The researcher then examines crime rates before the intervention and compares it to crime rates after the intervention. If crime goes down, then the evidence would favor the existence of a deterrent effect. If not, then deterrence theory is not supported.

Scholars differ in how they interpret these existing studies—some being more favorable to deterrence theory than others (Apel & Nagin, 2011; Doob & Webster, 2003; Levitt, 2002; Pogarsky, 2009; Tonry, 2008, 2009; Wikstrom, 2007). Cullen and Jonson read the evidence more on the negative side, seeing the deterrent effects as weaker than some other scholars may; but we are not alone in our views. The results are complex, but we believe that four main conclusions can be drawn:

- There appear to be real short-term deterrent effects.
- The deterrent effects tend to decay over time—to “wear off.”
- Many interventions show weak or no effects on crime, or they vary by context. For example, studies of mandatory arrest for domestic violence find results in some places but not in others. Other studies suggest that arrest mainly works for people with social bonds to the community (i.e., those who are employed). Those without such bonds, which includes many serious offenders, are not deterred by increased arrest.
- In some instances (not frequent), there may be a “brutalization effect,” in which increased punishment is associated with increased crime (this has been seen, for example, in studies of capital punishment in which certain crimes increase following executions).

Taken together, these studies suggest that when punishment increases in a visible way, it has the potential to deter offenders (or would-be offenders) for a limited period of time. Limited deterrent effects are not unimportant from a policy standpoint. Still, as a general strategy for reducing crime, the decay in effects is a problem. It suggests that get tough interventions cannot sustain enough fear of punishment to have long-term effects on crime. The fact that the effects tend to decay suggests that people may return to crime when:

- They find out they can, after all, escape detection.
- They no longer think about the punishment as the publicity around a new punishment subsides.
• The factors causing them to go into crime (e.g., antisocial attitudes) reassert themselves in the offenders' lives—that is, criminal propensities overpower temporary worries about punishment.

We want to be clear that we are not saying that people's decisions are not affected at all by sensitivity to costs and threats of sanctions. There is a whole field called *environmental criminology* in which scholars plot and scheme to figure out ways to divert offenders from committing crime. These scholars engage in something known as *situational crime prevention*. Here, the focus is on doing things in a particular place that make it impossible or inconvenient to offend. Such preventative strategies might involve installing locks or burglar alarms, placing surveillance cameras, or having an attendant at the door of an apartment complex. Offenders tend not to break the law where they think that they might get detected or have to work too hard to steal a desired good (see, e.g., Felson, 2002; Welsh & Farrington, 2009).

Importantly, the genius of situational crime prevention is that it is *situational*. The threat of possible punishment through detection or the cost of offending is *immediate*—at the precise time when the decision to break the law is being made. By contrast, many policy changes that increase punishments for criminal acts are typically not situational. Rather, they involve passing laws that heighten punishments that may never be applied to a specific offender and, even if so, only come into play after the crime is already committed. Situational crime prevention is much like the hot stove top: The cost is immediate and certain—that is, the burglar alarm goes off, the camera points right at you, the attendant at the door does not allow you to enter. The point we are making is likely clear: When policies that enhance punishment cannot operate like a hot stove, then they are not likely to have a strong deterrent effect.

**Macro-Level Studies of Punishment and Crime Rates**

*CONDUCTING A MACRO-LEVEL STUDY*

In a *macro-level* or *ecological-level* study, the *unit of analysis* is not the individual. Instead, it is some geographical area—a macro or ecological unit—such as a state, a county, a Standard Metropolitan Statistical Area (SMSA), a city, a neighborhood, or a census tract. In this research, the outcome or *dependent variable* is the *crime rate for each unit*. Usually, the FBI's crime statistics are used for the study, because they are one of the few sources that has data on crime across things like states, counties, SMSAs, and cities.

The researcher then tries to see what characteristics about the macro-level unit might explain why some areas have high rates of crime and why others have low rates of crime. Can you think about what factors researchers might consider in their models? Well, crime rates might plausibly vary by the level of poverty in areas, by the composition of the area (i.e., age, gender, race), by the density of living conditions, by the stability of families, and so on. In fact, studies have included variables such as these in their empirical analyses.

Now, if we want to show that criminal punishments deter, then we would have to show that *above and beyond these other variables*, differences in levels of punishment
account for differences in levels of crime across the macro-level areas. Thus, to conduct a good study, the model would have to be multivariate, containing all at once the many factors that could potentially influence crime rates. Keep this point in mind; we are going to get back to it in one moment.

As we have said, crime rates are typically measured by using crime statistics compiled by the FBI and published annually in *Crime in America: Uniform Crime Reports*. The trickier matter, however, is to measure the variable of deterrence. This is no simple matter. There are different possibilities that would “get at” a person’s risk of being caught and punished for a crime in a given area. These include:

- The size of the police department
- The size of the police department relative to the population size
- Money spent on police activities
- The percentage of arrests made once crimes become known to the police (this is often called the arrest ratio)
- The rate of imprisonment in an area

What would deterrence theory predict? Well, you guessed it: the more police, arrests, and incarceration, the lower the crime rate.

There are a couple of important methodological issues that we need to consider before discussing what the macro-level research reveals. First, one daunting problem is how to interpret findings from research on levels of imprisonment. This is a problem because we do not know what this variable actually measures! Can you think about what it could measure other than deterrence? Tough question, but here’s the answer. It could measure incapacitation—or how much crime is saved simply by having offenders locked up and off the street. In fact, it is highly likely that most of any imprisonment effect is due to incapacitation and not to deterrence (i.e., it comes from getting offenders off the street rather than scaring people straight).

Second, beware of studies that are bivariate. Do you know what a “bivariate” study is? It is a study that has only two variables in it. The two variables would be (1) some measure of deterrence and (2) some measure of crime rates. Can you figure out what the problem is with bivariate studies? It is that the world is not bivariate but multivariate. Accordingly, for a meaningful scientific study to be conducted, it is essential to include in the study measures of all variables that might influence the dependent variable—in this case, crime rates. What happens if some important variables are left out of the analysis? Well, the study potentially suffers from something called specification error. That is, the model is likely misspecified. In plain language, it means that we just cannot know if the results that are reported are true—an accurate reflection of reality—or would change if all relevant variables had been included in the statistical model.

To be direct, bivariate studies that include only (1) levels of punishment and (2) crime rates are unreliable; they have no scientific credibility. This does not mean that the bivariate findings are wrong; it only means that we can never know if they are right. They may be suggestive—even plausible—because the relationship between two variables may persist (to a degree) even when the full multivariate analysis is
undertaken. Still, there really is no reason to do a bivariate study. Solid science demands that scholars undertake multivariate studies that provide the most accurate picture of reality that the existing data sources can make possible.

Now, why have we subjected you to all this methodology stuff? Well, it is because bivariate studies and bivariate thinking are commonplace when assessing the relationship between levels of punishment and crime rates. Conservatives are likely to select a state and show how a rise in imprisonment resulted in a decrease in crime (e.g., Texas), whereas liberals are likely to select a state and show how a rise in imprisonment resulted in an increase in crime (e.g., California). Again, these results are meaningless unless other variables that could influence the crime rate are also included in the statistical analysis.

WHAT MACRO-LEVEL STUDIES FIND

As it turns out, criminologists have done a number of macro-level studies on how a whole bunch of factors influence crime rates. Along with Travis Pratt, Cullen thought it would be an excellent idea to try to organize all existing studies so that we would know what, taken as a whole, they told us about what influences crime rates. Accordingly, Pratt and Cullen (2005) reviewed 214 macro-level studies conducted between 1960 and 1999. This study synthesizes the results using a statistical technique called meta-analysis.

In Chapter 7, what a meta-analysis is will be discussed in more detail. For now, we will note that this technique is like computing a batting average. Each study is similar to a time up at bat. When a study is conducted, the variables get to swing at the dependent variable—so to speak. If a variable—such as a measure of deterrence or inequality in an area—is found to influence the crime rate in the study’s analysis, then it is like a batter getting a hit. If a variable does not influence the crime rate, then it is like making an out. What we try to determine is the batting average for that variable across all studies. The higher the average—or effect size—the more confident we are that the variable is a cause of crime. In essence, meta-analysis tells us quantitatively the relationship of predictor variables to crime—including deterrence variables—across all studies that have been undertaken.

Back to our specific concerns—meta-analysis answers this question: If you look at all the deterrence studies that have been done, what is the average size of the relationship between (1) measures of punishment and (2) crime rates? Pratt and Cullen’s (2005) meta-analysis examined 31 predictor variables. Of these, 6 could be considered measures of deterrence: incarceration, the arrest ratio, police expenditures, get tough policy, police per capita, and police size. Each of these variables assesses either the level of punishment imposed or chances of being caught for a crime committed. The results are presented in Table 4.2. Several conclusions are warranted:

- Of the 31 predictors of crime rates measured, the deterrence measures were among the weakest predictors (see numbers 27, 28, 30, and 31).
- The only punishment variable to have strong effects was the level of incarceration (see number 5). However, this is most likely a measure of incapacitation and not deterrence. The very fact that the effect of incarceration was so different from the
other deterrence variables suggests that it is measuring incapacitation (i.e., its results are inconsistent with the other deterrence measures).

- Overall, macro-level studies suggest that the deterrent effect on crime rates is modest at best.
- The variables that most account for macro-level differences in crime rates are social variables, especially the concentration of social disadvantage.
- If this finding is correct, it suggests that efforts to control crime through deterrence are likely to be only minimally successful. Why? Because the other causes of crime will remain unchanged.

Again, some scholars might read this evidence a bit more positively, especially if they examine only a limited number of the macro-level studies that focus only on deterrence. But overall, our assessment seems reasonable: Measures of deterrence have effects, but they are not among the stronger macro-level predictors of crime. Many other things matter. We will note one other consideration as well.

Measures of deterrence such as the arrest ratio or the size of the police force are mainly measures of certainty of punishment—of an offender’s chances of being caught. Let us agree that these effects exist. But in and of themselves, they say nothing about what to do with offenders after they have been arrested. Virtually every theory of corrections starts with the assumption that it is a good thing to arrest criminals,
especially those offending at a high rate. Take rehabilitation, for example. There can be no rehabilitation if offenders do not enter the correctional system. The crucial correctional policy issue, therefore, is not certainty of arrest but rather whether the subsequent response is one that emphasizes the infliction of pain—deterrence theory’s embrace of severity of punishment—or one that emphasizes doing something productive with the offender (such as rehabilitation advocates). As we will see, studies have been conducted that directly address this debate. We will review this research after the following section.

Perceptual Deterrence Studies

BEWARE OF THE ECOLOGICAL FALLACY

Thus far, most of the research we have reviewed has as its unit of analysis macro-level areas (i.e., geographical areas like cities and states). This research is important in allowing us to draw inferences about the relationship of levels of punishment to crime. Still, this methodological approach has one weakness: It does not directly measure how punishment affects individuals and the decisions they make about crime.

In macro-level studies, the inference is made that if a relationship between punishment and crime rates exists in ecological units or areas, it is because individuals in these areas are being deterred either specifically or generally. This inference is plausible but risky. Unless one measures individuals directly, we really do not know for certain that processes observed on the macro or ecological level actually occur as we think they do on the individual level. In fact, when researchers make inferences about individuals based on macro-level data, this opens them up to what has been called the ecological fallacy. That is, they assume that what is found in macro-level data reflects what is occurring among the individuals living in that macro-area.

Often, there is a consistency between what one finds on the macro level and what happens to individuals; that is, the inferences are correct. But this is not always the case. Let’s take one example from Table 4.2. As we noted, the research reveals that macro-level units (e.g., states) with high levels of incarceration have low rates of crime. A deterrence theorist would conclude that this is because the individuals living in places with different levels of imprisonment calculate the costs of crime differently. The little accountant in their heads sits up and tries to decide if crime pays. In the get tough geographical locations, the little accountant advises against offending and thus crime rates are lower. In the get lenient geographical locations, the advice is to go ahead and break the law and thus crime rates are higher.

But do macro-level researchers know for sure that individuals look at the risk of incarceration and then make a rational decision about whether to commit a crime? How do they know what individuals are perceiving and thinking? Of course, they do not! Rather, based on the theory of deterrence, they simply infer that people in high incarceration states must be aware of the high costs of crime. Remember: They obtain
their data from statistics collected by the FBI and other government agencies. They never talk to a single living human being.

This interpretation is plausible, but as we have seen, it is almost surely incorrect. In all likelihood, the reason why higher levels of incarceration result in lower crime rates is not because they make people fear punishment but because more offenders are incapacitated. That is, even if no one changed his or her perceptions of the risks associated with crime, crime would go down where he or she lives simply because more people are in prison and not on the street. Again, this is an example of the ecological fallacy: the use of data from the macro or ecological level to make statements—incorrect statements—about individuals.

STUDYING INDIVIDUALS’ PERCEPTIONS OF PUNISHMENT

Now, here is an interesting question: How do you think we can avoid the ecological fallacy? How can we know whether individuals are affected by the certainty and severity of punishment? This is not a trick question. Actually, the answer is a matter of common sense. The answer is that we need to conduct studies where the unit of analysis is the individual respondent!

Lo and behold, many scholars figured this out! In fact, this insight has led to numerous studies being done in which individuals are surveyed about punishment and criminal involvement. These studies have been called perceptual deterrence studies—and I will return to this issue right below. The other way of studying individuals is to examine correctional interventions in which individual offenders are exposed to different levels of punishment. We will focus on this later in this chapter.

In any event, a whole bunch of studies have been conducted that investigate how perceptions of the certainty and severity of punishment are related to delinquent/criminal involvement. The standard study is conducted in this way:

- Develop questions that measure what a respondent thinks will happen if a crime is committed in terms of: (1) the probability of getting caught—the certainty of punishment—and (2) the amount of punishment that will occur once detected—the severity of punishment.
- Measure involvement in crime through a self-report survey (a series of questions about crimes that a person may have committed “in the past year”). Most often, the measure is of “delinquency,” because the sample is drawn from a high school. Some studies of adults, however, do exist.
- Include on the same survey questions measuring other possible causes of crime. These might include, for example, measures of moral beliefs, attachment to parents, commitment to school, association with delinquent peers, and so on.
- In a multivariate model that also controls (i.e., takes into account the effects of) these other variables, see if the measures of certainty and severity of punishment are related to crime in the predicted direction (i.e., with more punishment resulting in lower involvement in delinquency).
Importantly, these studies focus on individuals’ perceptions of punishment. But why the focus on perceptions? Well, there are two reasons. First is a theoretical reason. This is the belief that what precedes a decision to commit a crime is not simply how much punishment actually exists in objective reality but what a person thinks or perceives to be the risks at hand. There is, out there in the world, an objective level of risk of punishment. And we would expect that there would be some correspondence between objective levels of risk and perceived levels of risk. But in the end, individuals make decisions not based on objective risks but on what is inside their own heads—what they perceive to be the risks of committing a crime.

Second is a practical reason. In a survey, perceptual deterrence is relatively easy to measure if one develops appropriate questions. But how would one measure the objective risks to individuals who were completing a questionnaire? In short, methodologically, it is a lot easier to measure perceptions of punishment than objective levels of punishment in the environment.

In any event, in our view, the findings in perceptual deterrence studies are inconsistent. Again, different scholars might read the evidence differently. Why is this so? Well, they may give more weight to some studies than to others. Thus, readers should realize that when scholars are making qualitative judgments about a research literature, their conclusions may differ to a degree. We will return to the point below when we talk about a meta-analysis conducted by Pratt, Cullen, and a bunch of other people.

In Cullen and Jonson’s view, the influence of deterrence on criminal behavior diminishes as the quality of the research study increases. The better the design, the weaker the relationship that exists between perceived deterrence and crime (see also Paternoster, 1987). Three factors are especially relevant here:

- **Controlling for other predictors of crime.** When studies include a full range of variables in addition to measures of deterrence—variables like peer influences, antisocial attitudes, and relationships with parents—the strength of the relationship of deterrence variables to crime decreases. That is, the more fully specified the model is, the weaker the relationship of deterrence to crime.

- **Longitudinal studies of crime.** Studies that follow a sample over time tend to find that perceptions of deterrence at “time 1” are not a strong predictor of delinquency at “time 2.”

- **The experiential effect.** There is also the problem of causal ordering. Deterrence theory predicts that perceptions lead to behavior. But it is also the case that participating in delinquent behavior lowers the perception of deterrence. Studies that control for these prior delinquent experiences—called the experiential effect—tend to report weaker relationships between deterrence and delinquent involvement.

Where does this leave us, then, in assessing what perceptual deterrence studies teach us about whether deterrence works to reduce criminal involvement? This is a hard question to answer, but our readings lead to three conclusions:
- It is likely that perceptions of punishment are related to criminal involvement.
- Perceptions of certainty of punishment are more strongly related to criminal involvement than are perceptions of the severity of punishment.
- Compared to other known predictors (i.e., causes) of crime, perceptions of deterrence are a relatively weak to moderate cause of criminal involvement.

This last conclusion—the third one—has important policy implications. It means that get tough policies are likely to have some effect on crime if they can increase perceptions of deterrence. Even so, such policies are likely to leave untouched a range of strong predictors of crime that have nothing to do with punishment. If so, this means that deterrence is a narrow or limited approach to reducing crime.

TWO STUDIES

Are Cullen and Jonson, your authors, correct? Well, relatively recent research seems to confirm our assessment of the existing literature. We will review two studies here—one by Pogarsky et al., which seems to provide a complex investigation of key issues, and one by Pratt et al. (Cullen is an “et” in this study!), which is the most systematic summary of studies in this area.

First, Pogarsky, Kim, and Paternoster (2005) examined waves 6 and 7 (1984 and 1987) of the National Youth Survey, which involved a national sample of over 1,200 youths, to see if being arrested affected perceptions of the certainty of punishment. What would deterrence theory predict? Well, obviously that sanctions directly affect perceptions—that youths who were arrested would now perceive that offending would place them at greater risk of detection and punishment. But the data did not support the deterrence hypothesis. As Pogarsky et al. (2005) note, “Arrests had little effect on perceptions of the certainty of punishment for stealing and attacking” (the two offenses examined in their analysis) (p. 1). They did find, however, that if youths and/or their peers engaged in offending, then the youths’ perceptions of certainty of punishment tended to decline.

What this means, then, is that deterrence theory is likely half correct: (1) If youths offend and get away with it—or see their friends get away with crimes—then perception of certainty declines. But (2) if youths offend and get arrested, this sanction does not cause them to change their perceptions of the certainty of punishment. It is thus unlikely that sanctioning has effects on behavior through perceptions—a core thesis of deterrence theory.

It is risky, of course, to evaluate deterrence theory—or any theory—based on a single study, which is why in a moment we will turn to a meta-analysis that considers the literature as a whole. The issues Pogarsky et al. address are complex, and conflicting evidence exists (see, e.g., Matsueda & Kreager, 2006; Matthews & Agnew, 2008; Pogarsky, 2010). It is clear, however, that the impact of being arrested and receiving a criminal justice sanction on perceived risk of punishment is complex and not fully unraveled (Nagin, 1998; Pogarsky & Piquero, 2003). Further, we do not have much of an understanding of the extent to which get tough policies or, alternatively, reductions in enforcement affect people’s perceptions of the risks of offending. Policy makers assume
that when they pass new laws that escalate punishments (e.g., longer prison terms), offenders will somehow know about this, change their risk perceptions, and refrain from crime. The causal assumptions underlying each link in this chain (new law → changed perceptions → lower crime) are questionable and hardly established. As Daniel Nagin (1998) notes, “knowledge about the relationship of sanction risk perceptions to actual policy is virtually nonexistent” (p. 36). This point is important. Even if the perceived risk of punishment is related to the level of criminal involvement, it is not known whether, for most street offenders, policy changes ever reach their minds, affect their thinking, and alter their behavioral choices.

Second, Travis Pratt, myself (Cullen), Kristie Blevins, Leah Daigle, and Tamara Madensen (2006) set out to examine the results of all studies that had examined perceived deterrence. In this case, we again used a meta-analysis. As alluded to above, part of the problem in the existing reviews of the deterrence literature is that authors conduct a qualitative assessment. This means that they use their judgment to discuss those studies that they think are most important. By necessity, they include or emphasize some studies and exclude or de-emphasize other studies. Such qualitative assessments are likely to lead to scholars reaching different conclusions, if not in kind (i.e., they reach opposite conclusions) then at least in degree (i.e., in the extent to which they find the evidence is favorable to deterrence). One way around this difference in interpretation is to use a meta-analysis, as Pratt et al. (2006) did. Again, a meta-analysis seeks to review all studies and measures their effects quantitatively. Although all approaches have their limits and potential biases, meta-analysis has two advantages. First, it is inclusive of all studies and thus is not susceptible to a scholar’s qualitative judgment—or bias—about what research is important enough to review. Second, it can be replicated by scholars who might question the findings. If you think the data are cooked, then re-do the study!

This project examined 40 studies. The main findings are summarized in Table 4.3, which is taken from the Pratt et al. (2006, p. 385) article. We can boil down what the table says into three essential points:

- Multivariate studies—ones that study how deterrence variables stack up against predictors from other theories—suggest that the effects of certainty of punishment are weak (stronger in samples of college students) and the effects of severity of punishment are weak to non-existent.
- Perception of punishment is thus likely to be a minor cause of criminal involvement.
- Legal sanctions might have effects on future crime not through fear of sanctions but through the non-legal or social costs they evoke. This might include rejection by family members, feelings of shame or guilt, loss of a job, and so on. More research and theory on this possibility are needed.

So, let us return to the crucial point. We have been examining different types of evidence to see if we can marshal evidence to show that criminal sanctions deter offenders from reoffending. From what we have reviewed in this section, however, the research on perceptual deterrence does not offer strong and consistent support for
**Table 4.3** Summary of Methodological Conditioning Effects for Variables Specified by Deterrence Theory

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Overall Magnitude and Variation by Effect Size Weighting</th>
<th>Sample Characteristics</th>
<th>Model Specification and Research Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certainty</td>
<td>Substantially overestimated in bivariate form; sensitive to weighting by sample size.</td>
<td>Varies significantly by gender (strongest in mixed samples) and much stronger in college student samples.</td>
<td>Effects are significantly reduced when competing theories and experiential effect are controlled; varies considerably according to the dependent variable.</td>
</tr>
<tr>
<td>Severity</td>
<td>Substantially overestimated in bivariate form; loses significance in multivariate designs.</td>
<td>Varies little by sample characteristics; effects are generally weak across all categories.</td>
<td>Varies little by model specification and research design characteristics; effects are generally weak across all categories.</td>
</tr>
<tr>
<td>Composite</td>
<td>Generally non-significant; multivariate effect sizes sensitive to unobserved heterogeneity.</td>
<td>Varies little by sample characteristics; effects are generally weak across all categories.</td>
<td>Varies little by model specification and research design characteristics; effects are generally weak across all categories.</td>
</tr>
<tr>
<td>Non-Legal Costs</td>
<td>Substantially overestimated in bivariate form; not sensitive to weighting procedures.</td>
<td>Varies significantly by gender and race (strongest in mixed gender and race samples) and from samples drawn from the general population.</td>
<td>Effects are stronger (although not significantly) when experiential effect is controlled and in cross-sectional designs.</td>
</tr>
</tbody>
</table>

**SOURCE:** Pratt, Cullen, Blevins, Daigle, and Madensen (2006, p. 385).

**deterrence theory.** While perceptions of deterrence might have some relationship with offending, the effects of such perceptions are likely to be limited and to occur only under specific conditions.

**Deterrence in the Community**

The research reviewed thus far provides important insights into the nature of deterrence and its likely effects on criminal decision making. In our view, however,
Deterrence

this research is largely removed from the correctional system. If deterrence theory is correct, then punishment should work best—and be most easily detected in research—when it is applied directly to offenders within the correctional system. That is, deterrence should be most visible when we compare interventions that impose more punishments on one group of offenders than on another, preferably using an experimental design in which the effects of punishment can be isolated from other potential causes of crime.

In the next section, we will examine whether imprisonment versus non-custodial sanctions achieves deterrent effects. In Chapter 7, we will examine so-called treatment programs that use a get tough, deterrence-oriented approach (e.g., scared straight programs). In this section, however, we review the evidence on attempts to deter offenders in the community by increasing control over them. Just so that readers are aware of the punch line, here is what we will report: Punishment-oriented or control-oriented correctional interventions have little, if any, impact on offender recidivism. This is bad news for correctional deterrence theory.

DO COMMUNITY CONTROL PROGRAMS WORK?

In the 1980s, a movement emerged to bring deterrence into community corrections. This occurred in the intermediate punishment movement. These sanctions were called intermediate because they fell in between prison, which was a harsh penalty, and probation, which was often seen as a lenient penalty (Morris & Tonry, 1990). These sanctions were called punishment because the goal was to increase control over offenders in the community—more surveillance over and more discomfort imposed on them. As a result, this movement was part of the attack on rehabilitation discussed in Chapters 2 and 3. Since nothing worked in rehabilitation—the thinking went—it was foolhardy to deliver treatment services in probation and parole. Better to use probation and parole officers to police and punish the offenders on their case loads.

Intermediate punishments were particularly attractive to conservatives, because using these sanctions allowed them to have their cake and eat it too. In general, conservatives want to get tough with crime. But they also like to keep government taxes and expenditures down. The problem, however, was that rising prison populations were straining state budgets. So, how could one be tough on crime but do so in an inexpensive way? The answer to this seeming riddle: Punish offenders not in prison but in the community! The high expense of imprisonment would be avoided, but offenders would still feel the sting of the law.

Liberals also embraced this movement. That’s because liberals like any reform that does not send offenders to prison! In fact, almost all writings by liberals on corrections are about the evils of prison and why their use should be limited. Intermediate punishments may be punishment, but they are administered in the community or for only short times behind bars (such as in boot camps). Again, for liberals who embraced the nothing works doctrine and forsook rehabilitation—including, by implication, treatment in the community—the policy options that remained were limited. Anything that might provide judges with a reasonable alternative to imposing a prison sentence seemed like a good idea.
So, it seemed as though everyone—from right-wingers to left-wingers—liked the proposal to try to punish or control offenders in the community (Cullen, Wright, & Applegate, 1996). At the heart of this movement was the assumption that if offenders in the community were more closely monitored and threatened with punishments, they would refrain from going into crime. That is, these programs would be cost effective only if offenders were, in fact, deterred. If this did not occur, then offenders initially placed in the community rather than in prison would recidivate and end up in prison anyway. This would upset conservatives: There would be no cost savings, and a bunch of resources would have been wasted trying to monitor offenders in the community. This also would upset liberals: There would be no diversion from imprisonment if offenders were revoked and incarcerated.

Could intermediate punishments be designed that would deter offenders? Four main interventions were implemented:

- Intensive probation and parole programs in which offenders were watched closely by officers who had small caseloads and increased contacts
- Electronic monitoring and home confinement (which often went together)
- Drug testing
- Boot camps, which are military-style programs that last for a limited period of time (e.g., three to six months); sometimes this intervention is called shock incarceration

Did these programs work? In 1993, Cullen undertook a project to find all the studies that had evaluated the impact of intermediate punishment programs on recidivism. Cullen was not an expert in the area, but he received a call from Alan Harland, who asked him to prepare a paper for an upcoming conference; the papers were to be published in a book as well (see Harland, 1996). Cullen was about to decline the invitation when Harland said that the participants, including Cullen, would be paid $6,000 to review various aspects of corrections. Readers should realize that except when academics write books, they rarely get paid for anything they publish, including journal articles. Not being independently wealthy, Cullen immediately decided to become an expert in community deterrence programs. He enticed John Paul Wright and Brandon Applegate, then trusted graduate assistants who have gone on to become well-known criminologists, to collaborate on this project (see Cullen et al., 1996). He even told them about the $6,000 and shared some of the loot with them.

When the review began, we—Cullen, Wright, and Applegate—did not know what we would find. But as we secured both published and unpublished studies evaluating intermediate punishment interventions from around the nation, the results did not seem promising. Indeed, in the end, the studies revealed that the deterrence-oriented programs had little impact on offender recidivism. We were able to find a few isolated successes, but these mainly occurred when rehabilitation services were grafted onto the control programs. As we concluded from our review of existing studies: “Intermediate punishments are unlikely to deter criminal behavior more effectively than regular probation and prison placements” (Cullen et al., 1996, p. 114).
It is also possible that Cullen and his collaborators were biased or incompetent criminologists. But even if true, these traits did not affect our reading of the evidence! Indeed, other scholars who have reviewed the extant evaluation literature on this topic have reached virtually the same conclusions (see, e.g., Byrne & Pattavina, 1992; Caputo, 2004; Gendreau, Goggin, Cullen, & Andrews, 2000; MacKenzie, 2006; Tonry, 1998; see also Cullen, Blevins, Trager, & Gendreau, 2005; Cullen, Pratt, Micelli, & Moon, 2002). This is, again, troubling news for deterrence theory. Some of the programs evaluated failed because they were poorly implemented. But even when the programs increased control over offenders, they did not have much of an impact on recidivism. For offenders who are already in the correctional system, there is just not much evidence that trying to punish them makes them less criminogenic. This is a conclusion we will state again in the section on the effects of imprisonment on reoffending. More generally, it appears that bringing offenders into the criminal justice system does little to reduce their criminality and, if anything, worsens it (see, e.g., Bernburg & Krohn, 2003; Bernburg, Krohn, & Rivera, 2006; Chiricos, Barrick, Bales, & Bontrager, 2007; Gatti, Tremblay, & Vitaro, 2009; McGuire, 2002; Petrosino, Turpin-Petrosino, & Guckenburg, 2010).

Before moving forward, however, we do need to add one final qualification. Cullen and Jonson do not contend that deterrence-oriented community programs can never reduce recidivism. The impact of interventions is complex, and it can vary by whether or not the program's administrator is charismatic and competent, the resources allocated to the program, the quality of the program's implementation, the nature of the offenders, the specific intervention used, and the context in which the intervention is taking place. For example, Padgett, Bales, and Blomberg (2006) studied Florida offenders on home incarceration, some of whom were placed on electronic monitoring and some of whom were not. They found data consistent with a specific deterrence effect. Offenders on electronic monitoring were less likely to have their probation revoked for a technical violation or for a new offense. They also were less likely to abscond from supervision.

Another so-called deterrence program receiving publicity is an initiative carrying the acronym of “HOPE”—or “Hawaii’s Opportunity Probation with Enforcement” (Hawken & Kleiman, 2009; Kleiman, 2009). Upon his appointment to the bench in 2001, Judge Steven S. Alm noticed that probationers regularly failed drug tests, missed appointments with probation officers, and broke the law. Most often, these violations triggered no sanction because revoking probation typically meant sending offenders to prison for 5 or 10 years. So, in essence, misbehaving probationers either were treated with the utmost of leniency or, if they had the misfortune of lightning striking, they were whacked with a severe prison sentence.

This approach struck Judge Alm as being, well, stupid. Instead, he succeeded in implementing a much different system that involved two steps: (1) drug-test and other probation violations would lead to immediate, on-the-spot detention, followed shortly thereafter by a hearing (within 72 hours); (2) all offenders would then be punished, but with very short jail sentences (typically several days, at times served on the weekend so as not to interfere with employment). The program thus was oriented to the certain, swift, and mild punishment of probation infractions (Kleiman, 2009). But would the program work or would the system be overwhelmed with violations, hearings, and
sending too many offenders to jail? A rigorous randomized experimental evaluation discovered that compared to those on regular probation, the HOPE probationers failed fewer drug tests, missed fewer appointments, and committed fewer new crimes (Hawken & Kleiman, 2009; Kleiman, 2009). Long-term behavioral change—did this approach reduce drug use and recidivism after offenders left probation supervision?—was not examined. We have been told that Judge Alm has publicly admitted at a 2010 conference sponsored by the National Institute of Justice that HOPE achieves no long-term behavioral effect, but we must await hard data to settle this issue. However, if post-program reoffending is unaffected, then the cost of focusing on short-term compliance with conditions of probation might mean that interventions aimed at more durable offender reform (e.g., treatment programs) are being sacrificed—a trade-off Cullen and Jonson would not wish to make.

In any event, advocates of deterrence can rightly point to this program and say: “See, Cullen and Jonson—you bleeding hearts—deterrence works!” And Cullen and Jonson would have to admit as much. But two rejoinders are crucial to share. First, deterrence is effective in the HOPE program precisely because punishment is applied in a way that is not typically followed in the regular criminal justice system! In the HOPE program, punishment was certain because the probation officers can read a drug test report and can know when someone is not sitting in their office for a scheduled appointment! A sanction can then be applied right away and be kept very short. Again, punishment is certain, swift, and mild. (HOPE offenders are also urged to be responsible and have access to rehabilitation services—so the context is supportive, not mean-spirited.) In the regular system, however, crimes are committed that are never detected (i.e., certainty is low), the sanction might take months or longer to be applied (i.e., swiftness is low), and the punishment can be harsh (i.e., severity is high). The lesson to be learned is that under very narrow or special conditions, it might be possible to deter some offenders for a while (probationers while under supervision). Achieving such a deterrent effect more generally is doubtful and would, ironically, call for getting lenient on crime (see also Durlauf & Nagin, 2011; Kleiman, 2009).

Second and more broadly, occasional findings like these cannot be taken as proof that deterrence theory should be the foundation of corrections. Such studies might provide insights on where deterrence strategies might prove effective—if the results can be replicated in other settings. But in establishing any social policy, it is important to consider the totality of the research. This is one reason why Cullen and Jonson put great faith in works that try to assess all the available evidence on a topic. And in this instance, the vast majority of the evaluation studies cast serious doubt that meaningful reductions in recidivism can be achieved by using correctional interventions that try to get tough with offenders.

**THE RAND ISP STUDY: A CLASSIC EXPERIMENT IN CORRECTIONS**

Again, advocates of deterrence theory should be troubled by the failure of correctional programs to specifically deter offenders to whom more punishment and control
is applied. If deterrence were to work anywhere, it should be in controlled experiments where researchers ensure that offenders are subjected to increased control. But this does not seem to be the case.

To illustrate this point one final time, we will alert you to one of the greatest studies ever undertaken in corrections—an evaluation of control-oriented intensive supervision programs across multiple sites. Joan Petersilia and Susan Turner, who at that time worked for RAND, directed the study. (They are now well-known professors at Stanford University and the University of California, Irvine, respectively.) Why was this study so important? Here are some reasons why we view this investigation as a criminological classic:

- **The study used an experimental design in which offenders were randomly assigned to intensive supervision or to regular supervision (in 12 sites) or to prison (in 2 sites).** This is important because it means that the risk of selection bias was eliminated. In many programs, the treatment effect is contaminated because researchers allow offenders to volunteer for the program. But if those most amenable to the intervention volunteer for it, then the program may appear to be a success not because it works but because offenders more amenable to change joined the treatment group.

- **The study was conducted across 14 sites in nine states.** Since findings can be affected by the context in which a study was conducted, research studies on only one agency are unable to see if the findings reported may not generalize to other places (this is another example of the N-of-1 problem). However, the RAND study examined intensive supervision programs across many contexts. Accordingly, it could assess whether findings were specific to certain contexts.

- **The study was conducted in jurisdictions that agreed to have a control-oriented ISP intervention and in which increased monitoring (contacts with offenders) was going to occur.** This is the issue of the integrity of the intervention. Is it going to be implemented as intended? If not, then we are back to wondering whether the program failed because it was based on a faulty theory (it could never work) or because it was poorly implemented (it could work if done correctly). Importantly, although having problems in two sites, the RAND study was conducted in a way that the intervention had integrity. Offenders randomly assigned to the ISP condition were subjected to more surveillance and control (i.e., some combination of weekly contacts, drug testing, electronic monitoring, and strict probation conditions).

The upshot of all this is that the methodology of the RAND study was rigorous. This means that the study’s findings almost certainly reflect empirical reality and cannot be attributed to some methodological problem. So, what did Petersilia and Turner find? Remember, for deterrence theory to be supported, we would anticipate that offenders placed on intensive supervision would have a lower rate of recidivism.

Alas, this did not occur. “At no site,” reported Petersilia and Turner (1993), “did ISP participants experience arrest less often, have a longer time to failure, or experience arrests for less serious offenses than did offenders under routine supervision” (pp. 310–311). This result is stunning. By chance alone, we might have expected to find some deterrent effect at one of the sites. But this was not the case. Indeed, Petersilia
and Turner realized that they had produced a “strong finding, given the wide range of programs, geographical variation, and clientele represented in the demonstration projects” (p. 311). In fact, in terms of recidivism, the ISP group had a higher rate of official arrest (37%) than the non-ISP group (33%). In short, the control-oriented programs did not work.

In supplementary analyses on programs in California and Texas, Petersilia and Turner explored one more issue. Although the intensive supervision programs across the sites were designed to deliver control and deterrence, offenders differed in whether they received treatment services. Petersilia and Turner (1993) found that recidivism was lower among offenders who participated more extensively in rehabilitation programs. As they noted, “higher levels of program participation were associated with a 10–20 percent reduction in recidivism” (p. 315). It thus appears that deceasing offenders’ criminality requires programs that move beyond punishment and deliver treatment services to offenders—a finding detected by other researchers as well (Bonta, Wallace-Capretta, & Rooney, 2000; Lowenkamp, Flores, Holsinger, Makarios, & Latessa, 2010; Lowenkamp, Latessa, & Smith, 2006; Paparozzi & Gendreau, 2005; see also Gendreau, Cullen, & Bonta, 1994).

Given these findings, we might have expected that jurisdictions around the nation would have avoided surveillance-only ISPs. But this is not the case; people running corrections do not always embrace evidence-based practices. Thus, in Hamilton County, Ohio—the home county of Cincinnati—the state of Ohio spent $1.7 million to fund an intensive supervision program meant to keep offenders in the community and out of prison. In the program, 23 officers supervise between 68 and 80 offenders. They “function like a law enforcement unit,” having offenders visit their offices once a week and seeing supervisees in the community once a month (Coolidge, 2009, p. A1). Predictably, the evaluation results were dismal, with the program being “so ineffective that the convicts in it are more likely to commit crimes than others convicted of similar crimes who never receive supervision” (p. A1). Only 29% of offenders completed the ISP successfully. A county official lamented that his “biggest frustration is that while the state pays for probation officers, it does not provide money for the programming needed to help rehabilitate people” (p. A10).

Cullen and Jonson feel compelled to note that this insight on the need to supplement control with treatment services has been known for the better part of two decades. Hmm! Should we pay attention to this research? Nooooo! Instead, let’s not go to the library, read the research, and see if ISPs are a good idea. Let’s rely on commonsense deterrence thinking (don’t hot stove tops deter?). And let’s spend $1.7 million of the taxpayers’ money and then wonder why the law enforcement–oriented ISP does not work. Does the concept of correctional quackery come to mind?

The Effects of Imprisonment

STUDYING IMPRISONMENT AND RECIDIVISM

“Okay,” deterrence fans might say, “we have just been warming up with all these other studies. Let’s get down to what really matters: putting offenders in prison. All
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these other correctional sanctions—including intensive supervision—leave lawbreakers in the community. They will never learn their lesson until they are incarcerated. After all, prisons are painful and virtually nobody wants to be there. That's why there are bars, locks, guard towers with armed correctional officers, barbed-wire fences, and high walls."

The effects of imprisonment, then, are the litmus test for deterrence as a correctional theory. Its advocates bet that people who go to prison will be less likely to recidivate than those who are given a non-custodial sentence. Further, they bet that those sent to prison for longer rather than shorter sentences and who live in harsher rather than softer conditions will also be less likely to reoffend. Okay, the bets are made. Let's roll the dice—look at the data—and see who is the winner: the get tough crowd or the bleeding-heart liberals who do not like prisons?

Well, deciding the winner is not simple due to an amazing criminological oversight. Despite more than 2.4 million people behind bars on any given day, we know remarkably little about how prisons affect recidivism. Cullen and Jonson are not saying that we criminologists know nothing; some decent studies have been undertaken. But given the human and financial cost of America's 40-year policy of mass incarceration, it is incredible that our knowledge base in this area must be considered suggestive rather than definitive. Still, given what we do know, the data are not overly favorable to deterrence theory. The dice have come up mostly snake eyes.

An initial problem for deterrence theory is the high levels of recidivism among those who go to prison. There is variation in recidivism across states, jurisdictions within states, and prisons, but there is a rule of thumb that seems to hold true across time. First, among those who enter prison for the first time, the recidivism rate is about one third. Second, among all those sent to prison—which include first-time, second-time, and multiple-time inmates—the recidivism is about 60% to two thirds. The follow-up period is typically three years. Now, offenders can be returned to prison for new crimes or for not obeying the conditions of parole, such as failing to show up for scheduled meetings with the parole officer, absconding from the jurisdiction, getting drunk, or affiliating with other criminals. Either way, it seems right off that a lot of offenders are not scared straight by their prison experience.

Of course, the empirical issue is whether such offenders are more likely to refrain from crime than those given sentences in the community. Again, deterrence theory predicts that prison is a higher cost than a community-based penalty. A custodial sentence is thus seen to deter more than a non-custodial sanction. The problem is a shortage of really good studies that use a randomized experimental design to place offenders in the community versus in prison. Readers might see the ethical problems of using the luck of the draw—random assignment—to determine who does or does not go to prison. As a result, criminologists typically study this issue through a quasi-experimental design in which a group of inmates is compared with a group of offenders under community supervision. In making comparisons between offenders sent to prison versus the community, a special challenge is to account for selection bias. Thus, if more serious or higher-risk offenders are sent to prison ("selected" for prison), then, of course, the prison group will have higher recidivism rates. Studies account for these effects by controlling statistically for these risk differences.
One more point is important to share. Because correctional deterrence theory is based on rational choice theory, prison is conceived of as a cost of committing a crime. Criminologists, however, see this approach as truncating reality. For them, imprisonment is not a cost but a social experience. This experience exposes offenders not only to pains (costs) but also to a range of experiences that may make crime more likely. These might include socializing with other antisocial offenders for years on end or having conventional social bonds to families cut off. Criminologists are concerned that these experiences may overwhelm concerns about punishment and result in the net effect of prisons being criminogenic. This perspective is sometimes called labeling theory. It makes the opposite prediction to deterrence theory: Labeling and treating people as offenders—especially sending them to prison—sets in motion a number of processes that increase, rather than decrease, criminal involvement.

Does Imprisonment Deter?

When Cullen was a criminological pup—just starting out in the field—he read a fascinating book by Gordon Hawkins (1976) called *The Prison*, which contained a fascinating chapter called “The Effects of Imprisonment.” Hawkins criticized the easy acceptance by virtually all criminologists that institutions were schools of crime and that inmates all suffered prisonization. Yet he also rejected the notion that prisons somehow reduced criminal propensities. While “inmates are not being corrupted,” concluded Hawkins, “neither their attitudes nor their behavior are being affected in any significant fashion by the experience of imprisonment” (pp. 72–73). With some qualifications added, the gist of his message was that prisons may not have much of an enduring effect on offenders’ future criminality.

Cullen thought that this was an intriguing possibility and, as inmate populations expanded, he waited for a wealth of empirical studies assessing this null effect conclusion reached by Hawkins. And he waited, and waited, and waited. Somewhat shockingly, although criminologists continued to decry prisons and assume that they had bad effects on people’s lives—something Cullen wanted to believe—they did not conduct much research to confirm this belief. Did it really matter, though, that criminologists felt comfortable believing, but not empirically validating, their prisons-as-schools-of-crime ideology? It did for one important reason: Policy makers from across the nation did not share this view. In particular, many conservative legislators thought that incarcerating offenders was a neat idea because it would scare bad people into acting like good people. If criminologists had presented compelling evidence that this was not the case, it might have curbed this insatiable appetite to lock up more and more people.

Over the years, Cullen kept an eye out for studies that might provide data on the effects of imprisonment. Then, in 1993, Sampson and Laub published their classic book, *Crime in the Making*. They had found data originally collected by Sheldon and Eleanor Glueck in the subbasement of the Harvard Law School library, which followed...
1,000 boys born in the 1930s' Boston area for nearly two decades (starting in 1939–1940). Sampson and Laub reconstructed and reanalyzed the data, with their main interest devoted to understanding what led some, but not other, boys to follow a criminal life course. Embedded in their larger study, however, Cullen found an assessment of what happened when boys were sent to prison, controlling for all other factors. Importantly, Sampson and Laub discovered that serving time in prison weakened conventional social bonds (e.g., to quality marriage and work), which in turn increased recidivism. In short, imprisonment did not deter; this experience was criminogenic.

A 2002 study by Cassia Spohn and David Holleran reached a similar conclusion. Using 1993 data from offenders convicted of felonies in Jackson County, Missouri (which contains Kansas City), they compared the recidivism rates of 776 offenders placed on probation versus 301 offenders sent to prison. They followed offenders for 48 months. Here are their major findings:

- Being sent to prison increased recidivism.
- Those sent to prison reoffended more quickly than those placed on probation.
- The criminogenic effect of prison was especially high for drug offenders, who were five to six times more likely to recidivate than those placed on probation.

These findings are not limited to the United States. Thus, questions about the deterrent effects of prisons also are raised by Paula Smith's (2006) study of 5,469 male offenders in the Canadian federal penitentiary system. Smith discovered that imprisonment increased recidivism among low-risk offenders. Similarly, in a study that compared first-time inmates with a matched sample of non-imprisoned offenders in the Netherlands, Nieuwbeerta, Nagin, and Blokland (2009) found that imprisonment increased recidivism over three years.

A limited number of literature reviews of existing studies on prison effects have been conducted, including one that Cullen and Jonson published with Daniel Nagin, who headed up the project (Nagin, Cullen, & Jonson, 2009; see also Gendreau et al., 2000; Smith, Goggin, & Gendreau, 2002; Villetez, Killias, & Zoder, 2006). Most notably, Jonson (2010) herself recently conducted a comprehensive meta-analysis of published and unpublished investigations of the effects of imprisonment on recidivism—85 studies, which is a lot of work! It is difficult to reach definitive conclusions because of the lack of studies using random experimental designs. Still, no matter who did them or what strategy for synthesizing findings was used, the clear consensus of the reviews is that imprisonment versus a non-custodial sanction either has a null effect or slightly increases recidivism. The policy implications of this growing body of research are quite important. As economist Levitt (2002) notes, “it is critical to the deterrence hypothesis that longer prison sentences be associated with reductions in crime” (p. 443). When such critical evidence cannot be found—as is the case here—it is time to rethink deterrence theory.

One final possibility exists: Maybe it is not prison per se, but being in a prison that has particularly harsh living conditions. Maybe we have to make inmates suffer to make them realize the folly of reoffending. No country clubs, just dungeons!
Admittedly, the evidence here is scarce. But, again, the studies that do exist report results contrary to the predictions of deterrence theory. Research reported by economists Chen and Shapiro (2007) explored whether inmates sentenced to easier prison conditions (minimum security level) or harsher prison conditions (higher security level) within the Federal Bureau of Prisons were more likely to recidivate. They concluded that harsher prison conditions did not reduce recidivism and, “if anything . . . may lead to more post-release crime” (2007, p. 1). Drago, Galbiati, and Vertova (2008) report similar results with Italian inmates, finding no evidence that harsher living conditions decrease recidivism.

Let us drive home this point with one final example. In Maricopa County, Arizona (home of Phoenix), Sheriff Joe Arpaio has earned national attention for his administration of the county jails. He is a conservative’s dream correctional official, keeping costs at a minimum while creating harsh living conditions for offenders. Many inmates live in tents and thus are exposed to the extreme Arizona summer heat. He dresses them in pink underwear and striped uniforms. They work on chain gangs. Television is limited to the Disney and Weather channels. His philosophy is that discipline and discomfort will teach offenders a lesson and deter their offending. As Sheriff Arpaio proudly asserts in his autobiography, carrying the subtitle *America’s Toughest Sheriff*:

Most—and I mean 70 percent—choose to learn nothing, choose to keep breaking the law, choose to keep returning to jail. If all those inmates who comprise the 70 percent are just too stupid or corrupted or just plain vicious to go straight for their own good or the good of their families, then maybe my jails will convince a few, or maybe more than a few, to obey the law and get an honest job just to stay out of the tents and away from the green bologna. (Arpaio & Sherman, 1996, p. 50)

As he continues about his jail’s tough regimen:

That might sound harsh to you. I don’t know. If it sounds harsh, that’s all right, because jail is a harsh place. Jail is not a reward or an achievement, it is punishment. Amazingly, much of society seems to have forgotten that unvarnished reality. If you’ve ever visited my jails, tent or hard facility variety, you know I haven’t forgotten. I promise the people I never will. (Arpaio & Sherman, 1996, p. 51)

Sheriff Arpaio was so confident in the deterrent powers of his jail that he enlisted Arizona State University criminologists John Hepburn and Marie Griffin (1998) to conduct an evaluation of his practices. A random assignment experiment was not possible, but a comparison could be made of jail inmates’ recidivism before and after Sheriff Arpaio took office and instituted his get tough living conditions. As Hepburn and Griffin noted (1998), the key research question was this: “To what extent do recent changes in the policies and programs that affect the conditions of confinement in the jail add to the deterrent effect of detention?” (p. 6).

After reading this chapter, we suspect you can predict what the study found. The first problem for Sheriff Arpaio is the high recidivism rate of his jail population. As Hepburn and Griffin (1998) report, “within 30 months following release from jail,
61.8% of the offenders studied were rearrested for some new offense and 55.2% of the offenders studied were rearrested for a felony offense” (p. 38). No magic bullet cure for recidivism was found. The second problem for Sheriff Arpaio was that the recidivism rate before and after he implemented his regimen remained virtually the same. As Hepburn and Griffin concluded, “there is no indication here that the policies and programs recently initiated by the Sheriff’s Office add to the deterrent effect of detention” (p. 40).

Sheriff Arpaio’s hubris about his correctional theory was undaunted by these data. So much for evidence-based corrections. But why should he change? We are certain he passionately believes in what he does. The electorate seems to love him, reelecting him without worry and repeatedly. He also has a national reputation (Arpaio & Sherman, 1996, 2008). His treatment of offenders is celebrated and often seen as amusing, especially the tent city and the pink underwear. Ha! Ha! What is not appreciated—what is not so funny—is the potentially high cost of running a jail based on a correctional theory with limited empirical support. What if Sheriff Arpaio had used his charisma, his organizational skills, and political acumen to implement correctional practices supported by the evidence? How many offenders’ lives might he have saved? How many victimizations might he have prevented? What a shame.

Conclusion: The Limits of Deterrence

We have taken a lengthy excursion across the types of evidence that can be used to assess deterrence theory. We will boil our conclusions down to four take-away points:

- There is evidence of a general deterrent effect of both having a criminal justice system and of having a criminal justice system that does a better, rather than a poorer, job of catching offenders. The size of this effect is in question, and whether this “size” is seen as larger or smaller may depend on your vantage point. Thus, the effect of deterrence versus that of other causes of crime is limited. Still, it would seem better to have a system that catches offenders than one that does not. None of us, Cullen and Jonson suspect, would like to live in a community that was marked by the lawlessness of the Wild West. Letting people offend with impunity is not a good idea—especially if they are allowed to go on a crime spree where Cullen and Jonson live!

- We cannot discount that criminal sanctions have a deterrent effect with some offenders. Criminologists have not developed a systematic theory of the criminal sanction (Cullen & Jonson, 2011b; Sherman, 1993). We need to understand the conditions under which punishing offenders makes them more or less likely to recidivate.

- Most important, there is no evidence that punitive-oriented correctional sanctions—such as intensive supervision programs, prisons as opposed to community-based placements, lengthier versus shorter sentences, and harsher
living conditions—reduce recidivism. The failure of deterrence theory to be supported when punitive correctional interventions are evaluated is damning evidence. The existing evidence, in fact, leads us to doubt whether, across all offenders, punishment has a specific deterrent effect.

- Deterrence theory appears to be based on a limited understanding of criminal behavior. Criminologists, especially life-course scholars, have documented an array of factors that are implicated in criminal participation in different stages in life. When correctional interventions ignore these causes of reoffending, their impact on recidivism will be weak, if not non-existent.

In the end, correctional deterrence theory seems to rest on a shaky evidentiary foundation. In designing the content of interventions with offenders, better options exist. In the chapter to follow, we explore another get tough option: If offenders cannot be scared straight, then we can save crime by locking them up and getting them off the streets.