

## Introduction

*Were it not for the fact that [Cesare Beccaria's *On Crimes and Punishments*] was published more than 250 years ago, I would rank it among the most important contributions to modern criminological thought.*

– Daniel S. Nagin (2019:ix)

Imagine the most widely recognized theory of offending in a scholarly field, criminology, that barely differs in its theoretical articulation after more than 250 years. Imagine, too, a theory that has provided the foundation for the vast bulk of criminal justice policy, including the rise of mass incarceration and a more general shift toward increasingly punitive crime policy. And this is despite little change in the theory or any consistent body of empirical research to support the notion that deterrence-based policies make society appreciably safer. One does not have to imagine because that is the current state of affairs.

Deterrence has provided one of the central explanations of offending in all criminology, and it has guided policy for centuries. Yet it is more complex than many theorists, researchers, and policymakers have assumed. In the traditional view, deterrence is the use of punishment to create fear, pain, and suffering – or, more generally, costs – sufficient to prevent or inhibit crime. With certain, severe, and swift punishment, as the account goes, individuals, groups, organizations, and the like, refrain from crime because of these costs. This view, though, leaves unanswered a large array of basic questions about deterrence. The most basic is this: Under what conditions do legal punishments deter? Despite the accumulation of empirical studies of deterrence, especially over the last several decades, this question has not been systematically answered. Some advances in conceptualizing deterrence have occurred, yet the basic theoretical framework articulated several centuries ago remains largely unchanged.

The situation matters not only for science and the generation of knowledge, but also for policy. Investing in deterrence-based policies that fail to deter or

that may even increase crime clearly is problematic. We argue that revisiting the foundations of deterrence theory is necessary to provide a more complete and accurate account of when and how – the conditions under which – legal punishment may deter. Put differently, revisiting the foundations is necessary to advance scientific progress, including efforts to integrate and make sense of the vast empirical literature on deterrence. Revisiting the foundations of the theory is essential, as well, for placing deterrence-based policies on a stronger scientific footing.

### 1.1 MOTIVATION FOR THIS BOOK

Deterrence theory is a leading theory of crime and has guided, and, indeed, is foundational to nearly all criminal justice policy. However, there has been limited progress in developing the theory. In Chapter 2, we will elaborate on this statement. Briefly, though, the classical account of the theory – originally presented in 1764 in *On Crimes and Punishments* by Cesare Beccaria, an Italian legal philosopher and social reformer – provided brilliant insights into deterrence. Yet it also neglected a number of critical issues, such as how exactly the certainty, severity, and celerity of punishment would interact to deter crime. Jeremy Bentham's (1789) writings extended Beccaria's (1764) insights about the use of legal punishment to deter. His account pointed more clearly to the importance of considering the rewards of crime, but it, too, was incomplete. Collectively, their work provided a platform for explaining the deterrence process. It was not, though, the end point. Their explanations incompletely identified how deterrence works and sometimes missed core features of deterrence. For example, they primarily focused on the costs and rewards of crime, missing that there also are costs and rewards of conformity to law.

As we will discuss, the foundational theoretical issues with which Beccaria (1764) and Bentham (1789) grappled have largely been eclipsed by a focus on narrowly conceptualized empirical studies, which we discuss in Chapter 3. The consequence has been the persistence of an incomplete theory. We address this situation by developing a more complete theory of deterrence, one that builds on the seminal contributions of Beccaria (1764) and Bentham (1789) as well as important advances in extant scholarship. Why, though, has the classical account of deterrence theory, including its limitations, remained largely unchanged?

One reason might be ignorance. It is a simple enough explanation, but does not fit. Why? Beccaria (1764) provided a sophisticated discussion that encompassed several of the dimensions that we will examine. In addition, subsequent scholarship on deterrence has unpacked some of these same dimensions. This includes work on the importance of examining costs and rewards relative to one another, which Beccaria (1764) and Bentham (1789) mentioned. It also includes work on the interactive nature of certainty, severity, and celerity (e.g., Tittle 1969; Stafford et al. 1986; Howe and Brandau 1988; Raskolnikov 2020;

Gómez-Bellví et al. 2023), the functional form of the association of, or mathematical relationship between, crime and punishment certainty, severity, and celerity (e.g., Loughran, Pogarsky, et al. 2012; Mears, Cochran, et al. 2016), and personal vs. vicarious experiences with punishment and punishment avoidance (Saltzman et al. 1982; Stafford and Warr 1993; Piquero and Pogarsky 2002). In short, scholars have identified many important and interesting extensions of deterrence theory, or ways to think about deterrence. The theory itself, however, has remained incomplete, and scholarship increasingly seems to have lost sight of the theory's development as a justification for policies that might effectively address crime.

If the explanation is not ignorance, what is it? Another explanation may be that scholars sometimes zero in on one dimension and, in so doing, obscure others. Call it a "small science" problem. Sometimes it may be easier to unpack this or that issue rather than tackle an entire theory. Or it may be easier to publish an article that takes this approach. In recent decades, science has increasingly prioritized rigorous empirical research. Simultaneously, university and college faculty face greater pressure to publish for tenure and promotion (Petersilia 1991). The advent of readily available data sources and powerful computers, along with the growth in available journal outlets, has pushed scholars toward short, empirical articles, fitting in whatever amount of theory they can within the page limits set by journals (Mears and Cochran 2019).

The end result can be a turning away from developing and improving theory as a means of advancing science. That is a problem. Science can progress in many ways (Merton 1973). These include creating new and better data, using sophisticated analytic techniques for estimating causal relationships, synthesizing empirical research through meta-analyses and systematic reviews, and more (Mears and Stafford 2002). Yet one of the most critical ways is to develop new theories or modify existing ones.

This two-pronged shift – with a turn toward narrowly focused empirical studies and away from refining and improving theory – creates a self-reinforcing problem. Researchers end up focusing on what available data permit and inadvertently miss entire aspects of the deterrence process. For example, research may examine punishment costs without considering the rewards of crime. Or it may examine personal and vicarious experiences with punishment without considering personal and vicarious experiences with other aspects of the deterrence process, such as crime and non-crime (i.e., conformity to law). No doubt, it can be advantageous to more fully understand a particular dimension of any phenomenon. Doing so, though, can distract from a broader constellation of dimensions that could and, as we contend, should be considered, especially when the dimensions are related to one another.

This type of problem surfaces in other ways, as when scholars devise new theories that may be important in their own right but also may illuminate an aspect of deterrence. Pressures to publish empirical work rather than to integrate or revise theories may obscure such possibilities. To illustrate, Sherman's

(1993) defiance theory argues that punishments issued from authorities an individual deems to be illegitimate may generate defiance and then crime. The theory draws attention to the salience of defiance as a crime-inducing motive. It also draws attention to perceived legitimacy as a force that shapes how individuals view punishment costs and rewards. Viewed in this light, the theory explains important aspects of deterrence. Casting it as a distinct theory, however, risks missing a connection to deterrence theory. For example, if individuals commit crime due to defiance, they are likely to be perceiving the rewards of crime as exceeding the costs. The explanation for crime, then, is rooted in the logic of deterrence.

Additional forces may have diverted attention from a fuller, more complete account of deterrence. For example, policy research historically has been shunned in many academic programs (Petersilia 1991). That occurred despite the fact that some of the major theories in various fields, such as sociology, emerged from federally funded policy evaluations (Rossi 1980). In criminology, deterrence-based policies of the 1970s helped to fuel deterrence-focused research (Blumstein 1997; Cullen 2005). Even so, “basic research” – that is, the development and testing of theories – has generally taken priority over “applied” (policy-focused) research (Rossi et al. 2004; Mears 2010; Cooper and Worrall 2012). In addition, the vast bulk of literature evaluating deterrence-based policy has focused not on deterrence theory as a whole but rather simply on whether a given program, practice, or law reduces recidivism or crime or not (see, e.g., Lipsey and Cullen 2007). That work stems from a broader evidence-based policy movement within criminology and criminal justice (Welsh et al. 2024).

Although a positive trend, this movement tends to emphasize empirical evaluation of policy effectiveness, not development of the theory underlying policy or tests of the mechanisms that undergird it (Welsh et al. 2018). Policy evaluation is important. But because of limited funding for criminal justice research, little of it occurs (Blumstein 1997; Mears 2017; Laub 2021). In addition, when evaluations of deterrence-based policies do occur, they typically leave the deterrence processes unassessed. They amount to “black-box” evaluations, focused on demonstrating impact but not the mechanisms that produce it. When the studies do happen to peer into the black box, they typically unpack only one aspect of deterrence, such as punishment severity, and leave other dimensions unaddressed or unacknowledged. Unpacking these dimensions is essential for efforts to conduct research and to translate research findings into actionable policy (Blomberg et al. 2016; Laub 2021).

Yet another factor that may have impeded progress in advancing deterrence theory is a relative inattention to theory more broadly. As scholars have emphasized, criminal justice scholarship has tended to be atheoretical (Bernard and Engel 2001; Kraska 2006; Cooper and Worrall 2012; Duffee 2015). When reference to theory occurs, deterrence frequently ends up being the main focus. Even then, however, the accounts tend to be fleeting, noting

only that the policy may increase punishment certainty, severity, and/or celerity, and so provide a possible explanation for any observed effect on crime (Nagin, Cullen, and Jonson 2018). We have ended up, then, with a large body of deterrence scholarship that is more policy-oriented and less focused on articulating and testing theory. That leads us to the present – a voluminous body of policy studies without systematic attention to the theoretical foundations of deterrence processes.

Some of the complexity of deterrence has been recognized by scholars (see, e.g., Williams and Hawkins 1986; Sherman 1993; Nagin and Pogarsky 2001; Paternoster 2010; Chalfin and McCrary 2017; Raskolnikov 2020). Even so, there has been little progress in transcending the complexity to create a broader and more coherent theoretical framework. Instead, we have what might be aptly characterized as a hodgepodge of research – lots of empirical research, reviews of it, and theoretical extensions of one dimension or another, but not much that provides a foundation for integrating insights from the mountains of studies. This insight, we should emphasize, is not new. Fifty years ago, Gibbs (1975) made a similar point, and a decade later Piliavin and colleagues (1986:101) acknowledged and echoed it: “Unfortunately, despite numerous calls for a general theory of deterrence, nearly all of the empirical research on the issue takes as its framework ‘a vague congerie of ideas with no unifying factor other than their being legacies of two major figures in moral philosophy, Cesare Beccaria and Jeremy Bentham (Gibbs, 1975:5).’” Almost fifty years later, the point still holds.

The significance of this problem warrants underscoring – without a foundation for integrating work, we are left with disparate strands of disconnected findings. As these accumulate, it becomes increasingly difficult to discern how the findings relate to one another or to deterrence theory more generally. No broader set of principles emerges. Instead, there is the suffocation of theory or the relegation of it to zeroing in on one dimension or another while disregarding others. That limits progress in advancing deeper knowledge about deterrence, and in creating a strong theoretical and empirical foundation for deterrence-based policy.

## 1.2 FOCUS OF THIS BOOK

This state of affairs can be rectified, but, we argue, only through attention to core theoretical issues and a way to connect them. That is what we set out to do in this book. Our focus differs from prior work in that we systematically examine all dimensions intrinsic to deterrence, including ones that have gone largely unaddressed. As part of this focus, we develop theoretical principles that can be used to bring order to a large body of generally disconnected theory and research and, at the same time, to generate new insights and predictions. The end result is what we call comprehensive deterrence theory (CDT). It builds on the original account of deterrence by Beccaria (1764) and on subsequent work,

and does so by creating a comprehensive articulation of the elements that inhere in all deterrence. Our ultimate goal in presenting CDT is to provide a foundation for advancing both science and policy. As we argue, a focus on intrinsic elements of deterrence, and related principles, can identify the conditions under which punishments deter and the conditions under which they do not.

In what follows, we discuss deterrence at length. Before doing so, several preliminary observations warrant discussion. First, our focus is on deterrence theory, not on substantive areas where gaps in deterrence research exist. Raskolnikov (2020) has identified some of the latter, such as the relative inattention to empirical research on deterrence and misdemeanors, white collar crime, or cost–benefit analysis of policies (see also Welsh et al. 2015; Apel 2022). In addition, although we necessarily touch on a large body of research, we do not provide a review of all deterrence research or variants of the theory. Reviews and discussions of these variants already exist (see, e.g., Nagin and Pogarsky 2001; Tonry 2008; Jacobs 2010; Paternoster 2010; Nagin et al. 2018; Apel 2022), including entire chapters in criminological theory textbooks (e.g., Lilly et al. 2019; Akers et al. 2021).

Second, we define deterrence as the use of legal punishment to respond to or prevent crime, and the deterrence process as the omission or curtailment of crime due to fear of punishment. We focus on crime because that was the impetus for deterrence theory and constitutes the central basis for most criminal justice policy. Why not also include a focus on antisocial behavior? Not all antisocial behavior is criminal – which is to say, a violation of law. Can crime be viewed as including antisocial behavior? Might it be similar to such behavior? And might the causes be similar? The answer in all cases is, “Yes.” Yet in all these cases, focusing on antisocial behavior means that we lose sight of a crucial distinction – the violation of criminal law and the use of legal punishment to address it. By focusing on crime, we restrict attention to behaviors that violate criminal law and that activate, or have the potential to activate, legal punishment.

This last observation raises a related question: Why focus only on legal punishment? The reason is simple: Legal punishments provided the impetus for deterrence theory and for past and contemporary criminal justice policy. As we will discuss, an account of legal punishment and deterrence might have broader relevance for discussion of how nonlegal punishments may deter. Attention to legal punishments is, however, our main focus.

We include within that focus any of an array of ripple-effect, or indirect, negative consequences that can result from legal punishment. These consequences could be termed “extralegal” punishments. We do not do so because in our view it confuses matters. The consequences are, in most, if not all, instances, part and parcel of legal punishment. For example, any legal punishment may have predictable sequelae, such as losing a job or friends. The punishment and its sequelae create the pain and suffering that ultimately may, or may not, deter individuals from committing crime. Separating the legal

punishment from these sequelae does not, to us, make sense or facilitate understanding. Many sequelae are imposed by law, as when legislatures enact laws barring convicted felons from securing certain types of employment or living in certain areas (Block 2016). Other sequelae are almost certainly contemplated by legislators. For example, sending someone to prison will likely harm ties to family and friends (Bales and Mears 2008; Cochran 2014). That is not only predictable, but also likely intentional. Another way of viewing the matter is that if we treat the many ripple effects of legal punishment as distinct extralegal punishments, we risk losing sight of the fact that legal punishment ultimately drives them. At most, we might gain insight into particular types of pain and suffering, not just those emanating directly from legal punishment but also those emanating from the sequelae and that indirectly contribute to the sum total of pain and suffering that deters. Separating them is not easy, and, again, any attempt to do so obscures that legal punishment lies at the root of the deterrence process.

Additional clarification about extralegal punishment is perhaps necessary. Williams and Hawkins (1986:559) have emphasized that “much of the confusion about the relative effect of legal versus extralegal punishments is a consequence of investigators failing to heed the admonitions of Andenaes (1974) and Gibbs (1975) that legal punishments can prevent crime through mechanisms other than deterrence.” Perhaps, for example, a legal punishment might decrease the respect that others have of an individual. In turn, this seeming “extralegal” punishment decreases an individual’s social bond, which increases their likelihood of offending. Our view, again, is that legal punishment encompasses these types of so-called extralegal punishments insofar as they flow or result from legal punishment. Accordingly, we are focused on legal punishments and all costs and rewards that flow from them, whether direct (e.g., the pain and suffering of prison) or indirect (e.g., the loss of ties to family and friends).

What, finally, about informal punishments from nonlegal third-party entities (Apel and DeWitt 2018)? We recognize that some literature refers to punishments that nonlegal entities – such as parents, schools, organizations, and others – impose as “extralegal.” This labeling is, in our view, also confusing, not least because it incorrectly implies that legal punishment occurred and, therefore, that the nonlegal punishments are “extra.” For example, a school might punish a student regardless of whether any legal system involvement or punishment occurred. “Extralegal” terminology aside, the question is what to do with “informal punishments” that friends, family, schools, and other nonlegal entities might apply in cases of crime. These entities – what might be termed “third parties” – can and sometimes do impose nonlegal punishments. Consequently, deterrence may be at play in these cases. But the processes decidedly differ from those for legal punishments in that no governmental authority is involved. For that reason, we do not include informal punishments in our discussion. We do, though, discuss the potential salience of CDT for

understanding deterrence processes that may be in play when parents and other third-party actors punish. Our conclusion: CDT may extend to informal punishment of crime and non-crime alike, which is to say, deterrence processes may be universal.

### 1.3 GOALS OF THIS BOOK

At the broadest level, the goals of this book are to advance theory and research on deterrence and to contribute to efforts to improve policy. To this end, we have four specific goals: (1) Provide a more complete account of deterrence; (2) Provide a foundation for discerning patterns across diverse strands of deterrence research and, at the same time, for integrating the numerous theoretical elaborations and empirical studies of deterrence; (3) Create new insights and predictions and identify ways to advance knowledge of deterrence; and (4) Inform efforts to understand and improve policy. To this end, we argue not only that there is a need to advance deterrence theory and research but also that one way to proceed is to reconceptualize the theory by distinguishing theoretical principles from intrinsic elements. The latter are dimensions – such as costs and rewards of both crime and non-crime, and the interaction of punishment certainty, severity, and celerity – that inhere in all deterrence processes.

Our central contention is that attention to the intrinsic elements and associated principles provides a foundation for a more complete theoretical account of deterrence. The resulting reconceptualization, CDT, can be used to achieve the other goals, such as integrating theoretical and empirical studies, identifying new and important avenues of research that can contribute to science, and informing public policy. We view this last goal as important in part because deterrence has been a bedrock for so much criminal justice policy. Getting deterrence “wrong” means that we miss opportunities to prevent or reduce crime. Getting it “right” means that we capitalize on those opportunities. To avoid the former and achieve the latter requires explaining why many deterrence-based policies are, or are likely to be, ineffective and, at the same time, identifying conditions necessary for them to effectively reduce crime.

Tittle (1969:417) wrote that “optimal deterrence conditions may vary widely for different kinds of offenses.” This idea has broader relevance – optimal deterrence conditions may vary with respect to all the intrinsic elements of deterrence. That possibility has direct implications for understanding deterrence, for understanding why some policies succeed or fail, and, not least, for developing effective policy.

In presenting CDT, we recognize that a vast literature exists, one that extends and tests deterrence or reconceptualizes parts of it. Indeed, one of us has contributed to such efforts since the 1980s (see, e.g., Stafford et al. 1986; Gray et al. 1991; Stafford and Warr 1993; Ward et al. 1994; Ward et al. 2006), and the other has examined deterrence-based arguments for the effects of different punishments, such as incarceration and lengthier prison terms



(Cochran et al. 2014; Mears and Cochran 2015, 2018; Mears et al. 2015; Mears et al. 2016).

We recognize, too, that arguments can be made for conceptualizing deterrence theory within the broader framework of rational choice theory. Viewed from that framework, deterrence might be seen as constituting but a specific permutation of rational choice theory, in which costs consist of legal punishments and benefits consist of rewards of crime (Becker 1968; McCarthy 2002; Loughran, Paternoster, Chalfin, et al. 2016). Not least, we recognize that a related argument has been made – one that sees deterrence theory and rational choice theory as subsumable under social learning theory (see, e.g., Akers 1990).

A central problem with these arguments is that they take too narrow a focus, losing sight of many of the intrinsic elements of deterrence, including aspects of crime and legal punishment. Perhaps a general theory, such as rational choice theory, may someday be capable of accurately explaining and predicting punishment effects. We are skeptical for the simple reason that the explanation, and any attendant predictions, would have to rise above the specific character and nature of crime and legal punishment. That is what a general theory does. However, in so doing, the theory – like any general theory – is unable to take the character and nature of crime and punishment into account. Rational choice theory does not, for example, naturally lead to distinguishing between observed and perceived costs and rewards of legal punishment. It also does not lead to distinguishing personal and vicarious experiences with punishment or the rewards of crime. By contrast, analysis of crime and legal punishment is more likely to lead to consideration of such dimensions, as Beccaria (1764) did more than 250 years ago.

Put somewhat differently, we advocate the development of theory that expressly theorizes about the problem behavior or phenomenon under consideration (see, e.g., Gottfredson and Hirschi 1990). Societies have long focused on crime as a central social problem and relied on legal punishment to address it. In addition, this focus on legal punishment has largely rested on a deterrence-based logic. Yes, there are other justifications for punishment (Gibbs 1978; Baird and Rosenbaum 1988), such as retribution. Nietzsche ([1887]1967:81) long ago wrote that punishment is “overdetermined by utilities of all kinds,” and Gibbs (1975) laboriously detailed diverse purposes of punishment. Yet the use of punishment to deter – as a means of increasing public safety – has been the central and overwhelming policy justification. And in recent decades it has dominated contemporary criminal justice policy (Gottschalk 2006; Garland 2013; Mears and Cochran 2015; Sherry 2020; Beckett 2022; Mears 2017, 2022).

We argue that CDT, with its explicit focus on crime and legal punishment and on principles and intrinsic elements of deterrence, provides a foundation both for a more complete and accurate understanding of deterrence and for integrating the large and disparate strands of deterrence research. Even small

advances in this direction will contribute substantially. Without an ability to integrate prior work, scientific progress is stifled. And there is, too, the risk of duplication, with studies unintentionally and unnecessarily repeating one another.

In addition, we argue that CDT provides a foundation for identifying a wide range of new questions and predictions that prior accounts have not anticipated. Gibbs (1997) advocated that diverse criteria be used to evaluate theories. All else being equal, for example, one theory is better than another when it has greater predictive accuracy or explains more dependent variables. A variant of this criterion is that a theory should identify new questions and predictions that other theories do not. CDT can be used in just this way. In so doing, it can shed light on deterrence and, we believe, on other theories of crime and punishment.

Not least, we argue that CDT can explain the conditions under which legal punishments deter and, by extension, why some legal punishments fail to deter. This focus on legal punishment and its salience for policy should be emphasized. To the extent that there will always be a criminal justice system of some kind, there exists a need for a science of punishment. Any such science ideally would take stock of different ways, going beyond punishment, to achieve public safety and justice. However, as long as deterrence stands as a key justification for policy, such a science should also be capable of identifying the conditions under which legal punishments deter, have no effect, or are criminogenic. That goal is especially important given the substantial investment over the past four decades in get-tough approaches to public safety. Here, then, attention to theory for its practical benefits – improving policy – is indicated (Bedeian 2016).

The book develops these arguments in more detail, and is structured as follows. In Chapter 2, we describe the origins of deterrence theory and problems with the too-narrow conceptualization of deterrence. We discuss the problems within the context of contemporary criminology and criminal justice policy. Many policies rest on weak or inaccurate understanding of deterrence, or are premised on research that has limited generalizability. One example: A great deal of criminal justice policy focuses only on punishment severity as a way of influencing deterrence, but one can increase deterrence in other ways, such as increasing the certainty of punishment or increasing the rewards of non-crime.

In Chapter 3, we discuss the current state of research on deterrence, highlighting critical limitations and, again, the need for an approach that can help to advance the field and policy. Review of extant work on specific and general deterrence, objective and perceptual deterrence, experiential effects, and other areas of deterrence scholarship makes clear that additional problems – besides the too-narrow conceptualization of deterrence inherited from the eighteenth-century accounts of it – exist. These problems include a large body of disconnected and inchoate research, the lack of a unifying theory for connecting

research findings or generating new questions, incomplete recognition of the elements that inhere in deterrence and their importance to understanding it, limitations in research that derive from the incomplete understanding of deterrence, and the persistent lack of an answer to a basic question: Do legal punishments deter? This state of affairs is what motivated and guided development of CDT.

In Chapter 4, we identify eight intrinsic elements that inhere in all deterrence processes. Identifying the elements is a first step in reconceptualizing deterrence theory. The elements include: (1) costs and rewards of crime and non-crime; (2) interaction of punishment certainty, severity, and celerity; (3) the form of the relationship (e.g., linear or curvilinear) between crime and punishment certainty, severity, and celerity; (4) objective costs and rewards of crime and non-crime, along with perceptions of these costs and rewards; (5) personal and vicarious costs of crime and non-crime; (6) personal and vicarious rewards of crime and non-crime; (7) duration of costs and rewards; and (8) punishment levels, changes, and level-change combinations. As we discuss in the chapter, some, but not all, elements have been recognized in prior work. In addition, little consideration has been given to systematically investigating the implications of the intrinsic nature of the elements or how they are involved in deterrence processes.

In Chapter 5, the heart of the book, we present CDT. We identify the core principle of CDT, additional principles that flow from consideration of the intrinsic elements, and predictions that can be made based on them. The chapter presents both a set of core theoretical arguments and a wide range of corollaries that predict when and how legal punishment deters. The theory argues that deterrence consists of all eight intrinsic elements that individually and collectively deter crime. An essential insight from CDT is that there is no universal deterrent effect of a given punishment. Rather, deterrence involves contingent effects that depend on the configuration of the intrinsic elements. Because these can vary greatly, so too can the effects of punishment. This insight has profound implications for understanding the limited state of research to date, the limited generalizability of many extant studies, and the ineffectiveness of many policies. It also has implications for understanding how policy could be improved.

In Chapter 6, we describe steps that can be taken to advance deterrence theory using CDT. We discuss, for example, the possibility of identifying second-level principles that integrate CDT's first-level principles. There is, too, the possibility of advancing CDT by investigating causes of the intrinsic elements and modifying the principles or creating new ones. Another avenue to pursue entails identifying how deterrent processes and effects may vary across different individuals, groups, conditions, types of crime, and units of analysis. Still other avenues involve incorporating offending theories into CDT and contemplating how deterrence processes may vary when considering offending onset, persistence, and desistance.

In Chapter 7, we clarify the theoretical arguments through discussion of issues and questions that may arise in conceptualizing, testing, and evaluating not only CDT but also, more generally, that can arise in deterrence research. For example, we discuss the nature of punishment. Deterrence scholarship understandably has examined the idea that punishments may deter. What has *not* been systematically theorized or empirically studied is punishment itself. Historical accounts exist, of course. And many scholars certainly have detailed many aspects of certain types of punishment, such as the death penalty. However, deterrence scholarship lacks a coherent foundation for predicting the effects of a wide variety of legal punishments, or how to distinguish when one type of punishment meaningfully differs from another. Similarly, there is a great deal of confusion about legal vs. extralegal punishment as well as specific vs. general deterrence. The chapter examines these and other issues with an eye toward clarifying CDT and charting directions for improving deterrence scholarship.

In Chapter 8, we discuss policy implications that flow from CDT. Our account points to many implications. Perhaps foremost is the conclusion that we simply have insufficient research to ground deterrence-based policies. There are, though, other equally important implications. We argue that, based on CDT, many deterrence-based policies are likely to be ineffective and may increase rather than decrease crime. At the same time, it is likely that deterrence-based policies *can* be effective, but only under certain conditions. We extend this reasoning to argue that CDT can be used to inform deterrence-based policies in jails (for shorter sentences) and prisons (for longer sentences) as well as schools.

Finally, in Chapter 9, we revisit the book's central argument and conclusions from each chapter. We conclude that there has been substantial misunderstanding about core aspects of deterrence, which can be addressed by working from a comprehensive approach to theorizing deterrence and using this approach to guide and evaluate research. We conclude, too, that most extant deterrence-based policies cannot and will not appreciably deter crime, and may even worsen it. The solution lies in policies grounded in stronger science built on better theory and research. Our sincere hope is that CDT provides a helpful step in that direction.

We cover a great deal of territory with this book and know that some readers may find certain parts of more interest than others. We offer, therefore, a few suggestions for how to proceed. The simplest approach, of course, is to read the book from beginning to end. It will provide the most complete understanding of the historical, scientific, and policy context for thinking about deterrence, what CDT is, how it differs from classical deterrence theory, and the theory's implications for science and policy.

Some readers, however, may be primarily interested in the theory of deterrence that we advance. If you fall into this second group, we recommend starting with Chapter 4 (which provides the foundations for the theory),

proceeding to Chapter 5 (which presents CDT), and then turning to Chapter 9 (which summarizes CDT and its implications). At that point, perhaps read Chapter 6 (which describes ways of advancing CDT) and Chapter 7 (which clarifies a number of questions about the theory and about theorizing deterrence). Then return to the beginning and read the remaining chapters.

For a third group of readers, the history of deterrence theory and research on it may be of primary interest. For readers in this group, we recommend starting with Chapter 2 (which places deterrence within historical and social context), Chapter 3 (which discusses research on deterrence), and Chapter 7 (which discusses a range of conceptual issues related to thinking about and studying deterrence). From there, either read Chapters 4–6 (which center on CDT) or Chapter 8 (which discusses CDT's relevance for policy) and Chapter 9.

Not least are readers who may be most interested in policy. If you fall into this camp, we recommend you begin with Chapter 2, then move to Chapter 8 (which details policy implications and recommendations based on the theory). From there, pick and choose as interest dictates. For example, Chapter 6 provides a discussion focused on next steps for advancing CDT, but this discussion is relevant for thinking about policy as well. Similarly, Chapter 7 provides a broad-ranging discussion of conceptual issues, such as the nature of punishment, that bear directly on deterrence and policy. Perhaps read these chapters next, then move on to the remaining chapters.

Whatever approach you take, know that deterrence is far from the simple idea that some research and much policy suggests. Legal punishments may deter. That core notion is simple. But, like many things in life, much rests in the details. What *exactly* does it take for punishments to deter? The answer is more complex – and interesting – than is apparent at first glance.