

Contextualizing Specific Deterrence in an Era of Mass Incarceration

Athula Pathinayake

Despite being one of the most often-discussed matters within the criminal law sphere, relatively little scrutiny has historically been given to the question of whether and to what extent punishments affect an individual's likelihood to reoffend. The contemporary mass-incarceration crisis choking many judicial systems globally, has prompted an urgent need to reflect on the received wisdom that punishment will deter offenders from reoffending.

This Article seeks to contextualize the current state of research into specific deterrence and recidivism as applied across mature legal jurisdictions. Given the weight placed on the specific deterrent effect of sanctions, especially imprisonment, it is clear that the evidence does not sufficiently support a direct effect. Instead, alternative principles and tools should be sought out and incorporated into sentencing matrices to assist in the ongoing struggle against recidivism in an ethical and efficient manner.

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ATHULA PATHINAYAKE[†]

I. INTRODUCTION

Criminal deterrence theory posits that adverse consequences will discourage criminal behavior and result in individuals within a target group of potential offenders abstaining from crime.¹ This principle has guided sentencing theory in mature legal jurisdictions since the very development of principled punishment.² *General deterrence* is thought to reduce crime by highlighting the negative punitive outcomes a given criminal may be subjected to if caught.³ *Specific deterrence*, or disincentivizing previously punished offenders to recidivate in the future through their personal experience of the displeasure associated with punishment,⁴ has been identified as requiring more consideration as either a supplement or complement to general deterrence,⁵ and is therefore an important area for review and evaluation in the sentencing sphere.

Over the preceding three decades, imprisonment has been the main form of specific deterrence, resulting in the present mass incarceration crisis gripping developed states, such as Australia and the United States.⁶ With the current costs of incarceration being considered unsustainable⁷ and significant criticism levied at the harsh policies enacted in the 1980s and 1990s on the basis that the costs have far outweighed any benefits associated with their implementation and that the significant increases to incarceration cannot be accounted for by changes to the crime rate,⁸ crime reduction has become a major priority for lawmakers. Therefore, it is necessary to consider

[†] LLM (Sydney) MBA (J'Pura) MPET (Deakin), Executive Director, Centre on the Legal Profession, Deakin Law School.

¹ Raymond Paternoster, *Deterrence and Rational Choice Theories*, in 21ST CENTURY CRIMINOLOGY: A REFERENCE HANDBOOK 236, 236 (J. Mitchell Miller ed., 2009).

² JOHN SALMOND, JURISPRUDENCE, 121 (7th ed., 1947).

³ DONALD RITCHIE & SENTENCING ADVISORY COUNCIL STAFF, SENTENCING MATTERS: DOES IMPRISONMENT DETER? A REVIEW OF THE EVIDENCE 7 (2011).

⁴ Ihekwoaba D. Onwudiwe et al, *Deterrence Theory*, in ENCYCLOPEDIA OF PRISONS & CORRECTIONAL FACILITIES 233 (Mary Bosworth ed., 2005).

⁵ See generally ROSS HOMEL, POLICING AND PUNISHING THE DRINKING DRIVER: A STUDY OF GENERAL AND SPECIFIC DETERRENCE (1988).

⁶ See ERNEST DRUCKER, A PLAGUE OF PRISONS: THE EPIDEMIOLOGY OF MASS INCARCERATION IN AMERICA (2011); Claire Spivakovsky, *Australasian Prisons*, in HANDBOOK ON PRISONS (Yvonne Jewkes et al. eds., 2d ed. 2016).

⁷ See, e.g., CHRISTIAN HENRICHSON & RUTH DELANEY, VERA INSTITUTE OF JUSTICE, THE PRICE OF PRISONS: WHAT INCARCERATION COSTS TAXPAYERS, 11–13 (2012).

⁸ THE SENTENCING PROJECT, FACT SHEET: TRENDS IN U.S. CORRECTIONS (2017).

whether the failures of specific deterrence lie in its principles, or in its practice. By understanding the failures of specific deterrence, the precise extent to which specific deterrence should form a part of the sentencing mix can be reconsidered so that its predominant position may be abandoned in favour of a system that employs a more diverse range of sentencing tools.⁹

In part II of this article, the history of specific deterrence and its development throughout the latter half of the twentieth century will be considered. Part III will discuss the philosophical rationales behind specific deterrence and their relative merits. Parts IV and V will present the respective empirical evidence for and against the use of specific deterrence. Part VI will explore the present failures of incarceration to exhibit a specific deterrent effect and Part VII will then develop the arguments/assertions put forward in the paper into recommendations for more effective principles of sentencing.

II. THE HISTORY AND DEVELOPMENT OF SPECIFIC DETERRENCE

Cesare Beccaria and Jeremy Bentham were among the foremost proponents of criminal deterrence theory during its early development.¹⁰ Bentham argued that crime was committed by conscious, rational considerations of the criminal;¹¹ a criminal would carry out a cost-benefit analysis of the outcomes of a crime before offending, only acting if they identified a net positive outcome.¹² This view fails to account for many types of crimes and offenders where rational processes aren't relevant to an offender's decision to commit a crime.¹³ However, this theory persists with proponents of criminal deterrence theory using this view to develop a quantitative economic model of the rational actor.¹⁴

Later developments shifted from the preventive effects of punishment, to more nuanced critiques of the theories which acknowledge that the effects of punishment are not uniform across offenders and potential offenders.¹⁵ This focus on deterrent or preventive punishment later became known as general and specific deterrence, respectively.¹⁶ Later, scholars began to criticize potential crime-stimulating effects of specific deterrence by

⁹ Kate Warner, *Theories of Sentencing: Punishment and the Deterrent Value of Sentencing* 1 (Feb. 8-9, 2014) (paper presented at Sentencing: From Theory to Practice conference in Canberra), https://law.anu.edu.au/sites/all/files/media/documents/events/a4_sentencing_flyer_rego_form1.pdf.

¹⁰ Paternoster, *supra* note 1, at 236–37.

¹¹ JOHANNES ANDENAES, PUNISHMENT AND DETERRENCE 7 (1974).

¹² Kevin C. Kennedy, *A Critical Appraisal of Criminal Deterrence Theory*, 88 DICK. L. REV. 1, 2 (1983).

¹³ Ritchie, *supra* note 3, at 2.

¹⁴ See, e.g., Michael Geerken & Walter Gove, *Deterrence: Some Theoretical Considerations*, 9 L. & SOC. REV. 497, 497 (1975).

¹⁵ Sheldon Glueck, *Principles of a Rational Penal Code*, 41 HARV. L. REV. 453, 460 (1928).

¹⁶ Douglas A. Smith & Patrick R. Gartin, *Specifying Specific Deterrence: The Influence of Arrest on Future Criminal Activity*, 54 AM. SOC. REV. 94, 95 (1989).

encouraging offenders to self-identify as delinquent.¹⁷ Subsequent studies in the 1960s identified that related factors to a given punishment, such as certainty and severity, were more salient to crime prevention than the deterrent effects.¹⁸ Thus, a general academic shift away from deterrence ensued towards rehabilitative theories of sentencing.¹⁹

Deterrence was resurrected as a viable model for punishment following Lipton's influential systematic review of correctional techniques in 1975.²⁰ In this seminal work, rehabilitative efforts in correctional facilities were identified as underperforming methods for reducing reoffending,²¹ signaling a critical milestone in the more widespread adoption of specific deterrence as a modern sentencing objective.²² Following this shift, a greater emphasis was placed on empirical research as opposed to philosophical discussion when evaluating theories of punishment and sentencing.²³ Importantly, this began to challenge the most basic tenet of criminal deterrence theory: that there is a rational choice underpinning an offender's decision to commit a crime.²⁴

From the 1990s onward, this presumption was subjected to increasing skepticism from the behavioral economists.²⁵ Academics began to criticize the treatment of offenders as rational economic actors and proposed that biases and perception were more critical factors to an individual's choice to offend.²⁶ This approach draws substantially on the empirical studies of Kahneman and Tversky from the 1970s,²⁷ precipitating a strong focus on the new era of evidence-based sentencing, which seeks to determine a model of sentencing best-practices using analysis of individual characteristics as they relate to reoffending across historical datasets.²⁸

This most recent shift has resulted in a clear consensus in academic discourse that new techniques must be employed.²⁹ Without sufficient support for any particular method, there is increasing uncertainty with respect to the future of sentencing.³⁰ This places significant pressure on

¹⁷ See generally, FRANK TANNENBAUM, *CRIME AND THE COMMUNITY* (1938).

¹⁸ Charles Tittle, *Crime Rates and Legal Sanctions*, 16 *SOC. PROBS.* 409 (1969).

¹⁹ Smith & Gartin, *supra* note 16.

²⁰ DOUGLAS LIPTON ET AL., *THE EFFECTIVENESS OF CORRECTIONAL TREATMENT: A SURVEY OF TREATMENT EVALUATION STUDIES* (1975).

²¹ *Id.*

²² Smith & Gartin, *supra* note 16.

²³ *Id.*

²⁴ See Onwudiwe et al., *supra* note 4, at 234.

²⁵ Gary S. Becker, *Crime and Punishment: An Economic Approach*, in *ESSAYS IN THE ECONOMICS OF CRIME AND PUNISHMENT* (Gary S. Becker & William M. Landes eds., 1974).

²⁶ Daniel S. Nagin, *Deterrence in the Twenty-First Century*, 42 *CRIME & JUST.* 199 (2013).

²⁷ Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 *SCI.* 1124 (1974).

²⁸ Matthew Kleiman, *Using Evidence-based Practices in Sentencing Criminal Offenders*, in *THE BOOK OF THE STATES 2012* (July 3, 2012), <http://knowledgecenter.csg.org/kc/content/using-evidence-based-practices-sentencing-criminal-offenders>.

²⁹ Warner, *supra* note 9.

³⁰ *Id.*

contemporary academics to propose and test new theories and punishments as the entire field searches for a new paradigm to guide sentencing into the future.

III. THEORETICAL BASIS OF SPECIFIC DETERRENCE

Specific deterrence can be best described as a utilitarian principle where a negative stimulus, such as punishment, causes an offender to cease acting in a manner which places them outside of the law.³¹ It concerns itself solely with the outcomes of a given intervention, failing to address general questions, such as which crimes should be punished or whether punishment is justified in cases where recidivism is not a factor.³² This obviously prevents it from being the sole basis for sentencing, but has not prevented its near universal adoption as the basis for imprisonment, fines, and sanctions across the world.³³ This being said, there is some degree of ambiguity surrounding the implementation of specific deterrence as there are numerous factors critical to its efficacy.³⁴ As a result, one must look to the framework underpinning the concept to glean the principles which will enable its fruitful execution.

A. Certainty and Severity

The core tenet of specific deterrence is that an offender will abstain from criminal activity owing to their negative experience of punishment for a similar offence.³⁵ The punishment itself, therefore, must involve some negative stimuli, such as fines, periods of probationary restrictions, or imprisonment.³⁶ In theory, an individual indicted and sentenced to a period of imprisonment would, owing to the unpleasantness of that experience and the deprivation of their liberty, be less likely to offend in the future.³⁷ In this sense, one would reasonably suspect that the likelihood (certainty) and the size (severity) of the punishment being inflicted has a strong bearing on the associated deterrent effect. Policymakers who subscribe to criminal deterrence theory must, therefore, increase criminal sanctions in accordance with not only aspects of the crime itself, but also the offender's prior

³¹ Nagin, *supra* note 26, at 200.

³² See David Wood, *Retribution, Crime Reduction and the Justification of Punishment*, 22 OXFORD J. LEGAL STUD. 301 (2002).

³³ John Rawls, *Two Concepts of Rules*, 64 PHIL. REV. 3 (1955).

³⁴ VALERIE WRIGHT, THE SENTENCING PROJECT, DETERRENCE IN CRIMINAL JUSTICE: EVALUATING THE CERTAINTY VS SEVERITY OF PUNISHMENT 3 (2010).

³⁵ Warner, *supra* note 9, at 3.

³⁶ Kennedy, *supra* note 12.

³⁷ Raymond Paternoster & Alex Piquero, *Reconceptualising Deterrence: An Empirical Test of Personal and Vicarious Experiences*, 32 J. RES. CRIME & DELINQ. 251 (1995).

behavior and previous convictions.³⁸

Many policymakers have employed harsher sentences and increased monitoring on the belief³⁹ that increased punishment and likelihood of detection are considered significant deterrents against future offending.⁴⁰ The prototypical example are ‘three strikes’ laws, whereby automatic imprisonment for a lengthy period is imposed for any third offence committed, irrespective of its type or seriousness.⁴¹ These laws seek to override an offender’s poor perception of risk by mandating severe penalties following recidivism.⁴² This process forces prior offenders to consider the costs of a further offence as being much larger than their first offence, thereby prompting the cost-benefit calculation for offending to weigh much more heavily on the individual’s decision-making than it would otherwise.⁴³

B. An Experiential Theory

Specific deterrence refers to the behavioral response to the experience of punishment as it plays a major role in expectations of reoffending under the theory to the extent that specific deterrence is also referred to as experiential deterrence.⁴⁴ Just as the first-hand experience of a stimulus is generally regarded as more impactful than a simple second-hand description, specific deterrence may be likened to that personal experience and contrasted with the mere awareness of punishment under general deterrence.⁴⁵ As individuals have been routinely shown to display optimism bias by undervaluing their personal likelihood of experiencing a negative outcome,⁴⁶ the personal experience of a given sentencing outcome or even simply arrest is positioned to force the re-evaluation of an individual’s likelihood of being caught, thereby decreasing their subjective belief in their own chances of evading capture.⁴⁷ Similarly, subjective measures of a punishment’s severity can be increased through first-hand experience of a punitive outcome.

The net result of these factors suggests that the greater an individual’s

³⁸ Dietrich Earnhart & Lana Friesen, *Can Punishment Generate Specific Deterrence Without Updating? Analysis of a Stated Choice Scenario*, 56 ENVTL. RESOURCE ECON. 379, 380–81 (2013).

³⁹ See generally Becker, *supra* note 25.

⁴⁰ Earnhart & Friesen, *supra* note 38, at 380.

⁴¹ FRANKLIN E. ZIMRING ET AL., PUNISHMENT AND DEMOCRACY: THREE STRIKES AND YOU’RE OUT IN CALIFORNIA (2001).

⁴² Wright, *supra* note 34.

⁴³ Hannah Frank, Note, *Unambiguous Deterrence: Ambiguity Attitudes in the Juvenile Justice System and the Case for a Right to Counsel During Intake Proceedings*, 70 VAND. L. REV. 709, 711 (2017).

⁴⁴ Steven Durlauf & Daniel Nagin, *Imprisonment and Crime: Can Both Be Reduced?*, 10 CRIMINOLOGY & PUB. POL’Y 13, 14 (2010).

⁴⁵ Deryck Beyleveld, *Identifying, Explaining and Predicting Deterrence*, 19 BRIT. J. OF CRIMINOLOGY, 205, 209–10 (1979).

⁴⁶ Barry Elliott, *Deterrence Theory Revisited 7* (2003) (unpublished manuscript) (presented at the Road Safety Research, Policing and Education Conference, Sydney, Australia).

⁴⁷ Earnhart & Friesen, *supra* note 38, at 382.

subjective assessment of a punishment's certainty and severity, the greater the chance the individual would (under rational choice theory) avoid the types of offending which would result in their punishment.⁴⁸ Proponents of criminal deterrence theory advocate for harsher penalties with fewer mitigating factors such that offenders would, following their first conviction, place a relatively higher likelihood of future conviction and punishment and therefore avoid offending.⁴⁹ This process clearly identifies how assessments of risk feature prominently in deterrence theory and how experienced sanctions help to amplify perceived risk, thereby resulting in a more pronounced effect on the target individual.⁵⁰ That is, where an individual has been exposed to the negative environment of prison, given the deprivation of liberty, lack of access to recreational facilities or resources, and absence of self-determinism, they will more actively seek to avoid such an experience in the future, prompting them to weigh it more heavily than the benefits they associate with offending in the future.⁵¹

It is important to note, however, that experiences within the criminal justice system which minimize the impact or likelihood of sentencing, may result in an offender underestimating their future chances of capture or the consequences of punishment, making them more likely to offend in the future.⁵² Although advocates of specific deterrence accept this view and request additional measures for first-time offenders, the notion of punishing first-time offenders with harsher penalties and greater chances of receiving them sits uneasily with many social justice advocates.⁵³ Instead, they propose reducing penalties in concert with alternative sentencing measures, because over-imprisonment may have a criminogenic effect by exposing offenders to more serious criminals and marking them as criminals.⁵⁴

C. Distinction from General Deterrence

Distinguishing between general and specific deterrence can prove difficult as they are frequently observed to operate simultaneously and are proposed to exert similar effects on subject individuals.⁵⁵ Traffic laws may

⁴⁸ Raymond Paternoster, *The Deterrent Effect of the Perceived Certainty and Severity of Punishment: A Review of the Evidence and Issues*, 4 JUST. Q. 173 (1987).

⁴⁹ Mirko Bagaric et al., *Bringing Sentencing into the 21st Century: Closing the Gap Between Practice and Knowledge by Introducing Expertise into Sentencing Law*, 45 HOFSTRA L. REV. 785, 806 (2017).

⁵⁰ Julie Horney & Ineke Haen Marshall, *Risk Perceptions Among Serious Offenders: The Role of Crime and Punishment*, 30 CRIMINOLOGY 575 (1992).

⁵¹ *Id.*

⁵² Ellen Raaijmakers et al., *Why Longer Prison Terms Fail to Serve A Specific Deterrent Effect: An Empirical Assessment on the Remembered Severity of Imprisonment*, 23 PSYCH., CRIME, & L. 32, 33 (2017).

⁵³ See, e.g., LAW COUNCIL OF AUSTRALIA, POLICY DISCUSSION PAPER ON MANDATORY SENTENCING (2014).

⁵⁴ Durlauf & Nagin, *supra* note 44, at 21.

⁵⁵ Paternoster & Piquero, *supra* note 37, at 252.

be illustrative of this dichotomy. Stringent traffic laws with strong enforcement and severe sanctions for violations act as general deterrents by signaling to the general population that punishments are common and severe, thereby increasing the public perception that there is a high risk of punishment resulting from driving offences.⁵⁶ Specific deterrence, contrastingly, acts only on individuals who have themselves experienced successful prosecution for such an offence and therefore have a much higher subjective understanding of the negative outcomes and their likelihood than the population who has not undergone such an experience.⁵⁷ Accordingly, general and specific deterrence can be seen as two separate processes which occur independently and act on separate target groups, but stem from the same events.⁵⁸

Despite the near universal adoption of the terminology of general and specific deterrence, there have been attempts to ameliorate the alleged lack of empirical basis for this distinction by eliminating it entirely and altering deterrence theory's focus.⁵⁹ In doing so, academics such as Stafford and Warr have argued that, rather than considering the populations affected,⁶⁰ the focus of deterrence theory should be on the nature of the experience which is said to deter namely: direct, through a personal experience with a punitive outcome, or indirect, the experience is only seen by the subject as being experienced by another.⁶¹ This reconceptualization has the dual benefit of being reconcilable with the majority of current literature whilst simultaneously providing a universal deterrence 'mechanism' which can be studied with respect to different populations and subjects, despite potential flaws with the overall empirical basis for deterrence.⁶²

In either event, an important distinction may be drawn between general and specific deterrence concerning the measurement of each phenomena.⁶³ When determining the effect of specific deterrence empirically, one may readily look to data which outline the recidivism rate for prior offenders in similar categories of crime to determine how a prior experience within the criminal justice system affects future likelihood to reoffend.⁶⁴ Additionally,

⁵⁶ David South, *General Deterrence and Behaviour Change: A Comment on the Australian Psychological Society Position Paper on Punishment and Behaviour Change*, 33 *AUSTL. PSYCHOLOGIST* 76, 77 (1998).

⁵⁷ Mark Stafford & Mark Warr, *A Reconceptualization of General and Specific Deterrence*, 30 *J. RES. CRIME & DELINQ.* 123 (1993).

⁵⁸ Alex Piquero & Greg Pogarsky, *Beyond Stafford and Warr's Reconceptualization of Deterrence: Personal and Vicarious Experiences, Impulsivity, and Offending Behaviour*, 39 *J. RES. CRIME & DELINQ.* 123 (2002).

⁵⁹ Stafford & Warr, *supra* note 57, at 123.

⁶⁰ Elliot, *supra* note 46.

⁶¹ Stafford & Warr, *supra* note 57, at 127.

⁶² Alicia Sitren & Brandon Applegate, *Testing Deterrence Theory with Offenders: The Empirical Validity of Stafford and Warr's Model*, 33 *DEVIAN'T BEHAV.* 492, 493 (2012).

⁶³ Nagin, *supra* note 26.

⁶⁴ Mirko Bagaric, *The Negation of Venting in Australian Sentencing: Denouncing Denunciation and Retribution*, 88 *AUSTL. L. J.* 502, 503 (2014).

more oblique measures of conviction rates, offender sentiment, and arrest rates allow for a detailed study of how each step in the criminal justice process may act as a deterrent.⁶⁵ The primary benefit for the measurement of specific deterrence is the population under consideration (offenders themselves) passing through the criminal justice system to some degree or another and therefore are recorded and able to be studied.⁶⁶ General deterrence, on the other hand, is notoriously difficult to measure, as its effects are claimed to extend to the population as a whole, meaning that one must measure a larger sample of the population in a cohort-style study to gain the same level of analysis as publicly available data on recidivism allows for specific deterrence.⁶⁷

D. Relationship with Other Sentencing Principles

Proportionality has long been seen as being at the core of a principled sentencing framework and serves an integral role in affording legitimacy to judicial decisions.⁶⁸ In brief, proportionality in sentencing refers to punishments fitting the crimes they seek to punish.⁶⁹ Proportionality acts both as a sword, by ensuring sentences are not too lenient for more serious crimes, and a shield, by preventing minor crimes from being excessively punished.⁷⁰ Additionally, it is a well-established principle of the law to avoid sentencing first-time offenders as harshly as frequent offenders to ensure the proportionality maxim is directed at the individual and not the offence.⁷¹ For the purposes of specific deterrence, proportionality ensures not only that the public remain confident in the legal system and accept its fairness, but also that individuals can be afforded greater certainty of punishment, thereby deterring future offending in a manner commensurate with the seriousness of the offence in question.⁷² These two features act in concert to grant legitimacy to the legal process and establish a more effective deterrent against future offending.

Although proportionality can be seen as integral to the deterrence theory of sentencing, it can also be viewed as undermining the process by

⁶⁵ For a more detailed discussions of the methods underlying these analyses see Marc Mauer, *The Hidden Problem of Time Served in Prison*, 74 SOC. RES. 701 (2007); Steven D. Levitt, *Why Do Increased Arrest Rates Appear to Reduce Crime: Deterrence, Incapacitation, or Measurement Error?*, 36 ECON. INQUIRY 353 (1998).

⁶⁶ That is, individuals are subjected to measurement at some stage in the process of being apprehended and sentenced. See *id.*

⁶⁷ J. P. GIBBS, CRIME, PUNISHMENT AND DETERRENCE, 39 (1975).

⁶⁸ See, e.g., HOME OFFICE, GREAT BRITAIN, CRIME, JUSTICE AND PROTECTING THE PUBLIC 5 (White Paper, Home Office, 1990).

⁶⁹ R.G. Fox, *The Meaning of Proportionality in Sentencing*, 19 MELB. U. L. REV. 489, 492 (1994).

⁷⁰ Bagaric, *supra* note 64, at 508.

⁷¹ See, e.g., *Ghouse v Eliatamby*, 48 NLR 557 (1947) (Sri Lanka).

⁷² Bagaric, *supra* note 64, at 508.

encouraging the commission of lower-level crimes.⁷³ This occurs through a two-stage process. Firstly, offenders are deterred from committing more serious crimes by experiencing more significant consequences of offending as proportionality would suggest is fair. Secondly, offenders who have experienced more significant penalties are drawn to undervalue the punitive effect of lower-level punishments and therefore, under the theory of specific deterrence, will experience a lower deterrence effect than otherwise would have been demonstrated.⁷⁴ Levmore and Porat, for instance, outlined a four-stage hierarchy to reduce the likelihood of criminal escalation by increasing the marginal sanctions for more serious crimes.⁷⁵ This, they argued, sacrifices the minor crimes' deterrent effect for the greater benefit of increasing marginal deterrence on those with greater negative consequences.⁷⁶

The primary goals of sentencing as stated in legislative frameworks in many jurisdictions typically include deterrence, rehabilitation, denunciation, and community protection.⁷⁷ As a general rule, deterrence is connected to these goals by sharing a utilitarian basis for maximizing positive outcomes and reducing the negative outcomes associated with offending.⁷⁸ However, these goals are frequently incompatible, with, for instance, the best sentencing process for rehabilitating an offender not necessarily acting as the most powerful deterrent from future offending.⁷⁹ This disconnect is problematic for a number of reasons, but, most relevantly, removes the certainty required for specific deterrence to effectively operate.⁸⁰

Given this impediment, there have been frequent calls for reform from all sectors of the legal community,⁸¹ but these have been consistently overruled by judgments limiting any curtailing of judicial discretion.⁸² Two prominent alternatives, which have enjoyed some endorsement by governments, are mandatory minimum sentences and mandatory incarceration.⁸³ These strategies seek to maximize the certainty and severity

⁷³ K.G. Armstrong, *The Retributivist Hits Back*, in THEORIES OF PUNISHMENT 19 (S. E. Grupp ed., 1971).

⁷⁴ Warner, *supra* note 9.

⁷⁵ Saul Levmore & Ariel Porat, *Threats and Criminal Deterrence in Several Dimensions*, 4 U. ILL. L. REV. 1333, 1361 (2017).

⁷⁶ *Id.*

⁷⁷ See, e.g., *Sentencing Act 1991* (Vic) s 5 (Austl.).

⁷⁸ Athula Pathinayake, *The Effectiveness of the Objective of Incapacitation: Is It A Myth?*, 21 J. GENDER, RACE, & JUST. (forthcoming 2018) (manuscript at 5–6) (on file with author).

⁷⁹ See Isaac Erlich, *On the Usefulness of Controlling Individuals: An Economic Analysis of Rehabilitation, Incapacitation, and Deterrence*, 71 AM. ECON. REV. 307 (1981) for a detailed economic approach to these interactions.

⁸⁰ Raymond Paternoster, *Decisions to Participate in and Desist from Four Types of Common Delinquency: Deterrence and the Rational Choice Perspective*, 23 L. & SOC'Y REV. 7 (1989).

⁸¹ See, e.g., Mirko Bagaric, *Sentencing: From Vagueness to Arbitrariness: The Need to Abolish the Stain that is Instinctive Synthesis*, 38 UNIV. NEW S. WALES L.J. 76, 78 (2015).

⁸² *Markarian v. The Queen*, (2006) 228 CLR 357 (Austl.).

⁸³ Neil Morgan, *Capturing Crims or Capturing Votes? The Aims and Effects of Mandatories*, 22 UNIV. NEW S. WALES L.J. 267 (1999).

of punishment at the expense of judicial discretion and proportionality.⁸⁴ Naturally, these arguments have faced substantial criticism from social justice advocates on the basis that they, by their nature, disproportionately impact minority communities and offer no scope for an individual's personal circumstances.⁸⁵

E. Preventing Recidivism

Typically, jurisdictions enact punishment with preventing recidivism as an unwritten, but overarching, goal.⁸⁶ This accords with a government's responsibility to protect its citizens and forms the basis for a significant portion of current academic debate on the issue.⁸⁷ There are many factors which affect the relationship between specific deterrence and recidivism, frequently preventing any real specific deterrent effect from being observed.⁸⁸ DeJong's 1997 analysis, for instance, highlighted that an individual with fewer social connections is more likely to be rearrested soon after release than a more socially connected offender.⁸⁹ However, this analysis also revealed that more experienced offenders had longer durations before rearrest, potentially indicating that an offender's capacity to evade capture plays a larger role.⁹⁰

In any case, it has become clear that incarceration as a specific deterrent has some empirical and theoretical flaws when compared to the direct relationship presumed by many courts and governments.⁹¹ The empirical relationship between incarceration, recidivism and specific deterrence will be established more fully in the following parts.

IV. EVALUATION OF IMPRISONMENT AS A METHOD OF SPECIFIC DETERRENCE

The contemporary literature evaluating specific deterrence is as voluminous as it is flawed, with contradictions and political motivations evident in the conclusions drawn.⁹² Consequently, this analysis only samples the panoply of available research and draws conclusions about imprisonment

⁸⁴ MARVIN FRANKEL, *CRIMINAL SENTENCES: LAW WITHOUT ORDER* (1973).

⁸⁵ George Zdenkowski, *Mandatory Imprisonment of Property Offenders in the Northern Territory*, 22 UNIV. NEW S. WALES L.J. 302 (1999).

⁸⁶ Karin Beijersbergen et al., *Reoffending After Release: Does Procedural Justice During Imprisonment Matter?*, 43 CRIM. JUST. & BEHAV. 63, 64 (2016).

⁸⁷ Steven Heyman, *The First Duty of Government: Protection, Liberty and the Fourteenth Amendment*, 41 DUKE L. J. 507 (1991).

⁸⁸ Christina DeJong, *Survival Analysis and Specific Deterrence: Integrating Theoretical and Empirical Models of Recidivism*, 35 CRIMINOLOGY 561 (1997).

⁸⁹ *Id.* at 571.

⁹⁰ *Id.*

⁹¹ Michael Lynch, *Beating a Dead Horse: Is There Any Basic Empirical Evidence for the Deterrent Effect of Imprisonment?*, 31 CRIME, L. & SOC. CHANGE 347, 359 (1999).

⁹² *Id.* at 347.

and the methodologies underlying the studies.

A. Support for Specific Deterrence and Imprisonment

One of the primary employers of incarceration as a specific deterrent is the United States, which has one of the highest imprisonment jurisdictions in the world.⁹³ Conservative and free market think tanks, like the National Center for Policy Analysis, advocate increased sentences on the basis of alleged crime rate decreases across given time intervals where incarceration has increased.⁹⁴ However, these analyses are unaccountably flawed in their methodology, selecting only specific time intervals to support their conclusion and failing to account for confounding variables, such as economic downturn and changes to government policy.⁹⁵

Proponents of incarceration frequently cite the Minneapolis Domestic Violence Experiment⁹⁶ and its subsequent program of replications⁹⁷ as compelling evidence for incarceration's deterrent effect.⁹⁸ The trial itself consisted of randomizing police responses to domestic violence incidents such that a third of offenders were arrested, a third were counselled, and a further third were physically separated from their partner.⁹⁹ The results overwhelmingly suggested that arrest (and overnight stay in jail as is the practice in Minneapolis) significantly decreased recidivism when compared to the other interventions with 21% of non-arrested offenders and 14% of arrested offenders reoffending within six months.¹⁰⁰

Critics of the program have suggested that the short timeframe of the study fails to account for the typical cycles associated with domestic violence offences which can have longer breaks between episodes than the six-month period of the study.¹⁰¹ The authors themselves have conceded that an observer effect (from the interviewers conducting the study) may result in offenders who were arrested feeling additional scrutiny and therefore

⁹³ NATIONAL RESEARCH COUNCIL, *THE GROWTH OF INCARCERATION IN THE UNITED STATES: EXPLORING CAUSES AND CONSEQUENCES* 33 (Jeremy Travis et al. eds., 2014).

⁹⁴ NATIONAL CTR. FOR POLICY ANALYSIS, *CRIME AND PUNISHMENT IN AMERICA: 1998, POLICY REPORT NO. 219* (1998), <http://web.archive.org/web/19990129005633/http://www.public-policy.org:80/%7Encpa/studies/s219.html>.

⁹⁵ JOHN IRWIN & JAMES AUSTIN, *IT'S ABOUT TIME: AMERICA'S IMPRISONMENT BINGE 140* (Linda Schreiber-Ganster ed., 4th ed. 1997).

⁹⁶ Lawrence Sherman & Richard Berk, *The Specific Deterrent Effects of Arrest on Domestic Assault*, 49 AM. SOC. REV. 261 (1984).

⁹⁷ LAWRENCE SHERMAN ET AL., *POLICING DOMESTIC VIOLENCE: EXPERIMENTS AND DILEMMAS* (1992).

⁹⁸ See, e.g., JEFFREY FAGAN, NATIONAL INST. OF JUSTICE, *THE CRIMINALIZATION OF FAMILY VIOLENCE: PROMISES AND LIMITS* (1996).

⁹⁹ Sherman & Berk, *supra* note 96.

¹⁰⁰ Christopher Maxwell et al., *The Preventative Effects of Arrest on Intimate Partner Violence: Research, Policy, and Theory*, 2 CRIMINOLOGY & PUB. POL. 51, 53 (2002).

¹⁰¹ Jeffrey Fagan, *Cessation of Family Violence: Deterrence and Dissuasion*, 11 CRIME & JUST. 377, 382 (1989).

improve their behavior.¹⁰² Despite these concerns, subsequent replications have, despite some variation in outcomes,¹⁰³ generally supported the original conclusions made in the experiment.¹⁰⁴

The Boston Gun Project's Operation Ceasefire marks one of the landmark policy interventions utilizing the theory of deterrence.¹⁰⁵ Notwithstanding that general deterrence was the operative principle behind the project, the lessons of the project indicate precisely how certainty, severity, and swiftness can improve the deterrent effect.¹⁰⁶ The trial began due to excessive youth firearm homicides in the Boston area stemming from gang violence which authorities sought to decrease through dramatic intervention amongst violent gangs in the city.¹⁰⁷ This practice saw a substantial decrease in the rate of firearm-related deaths of youth and was especially successful in effectively communicating the consequences of gang violence to target individuals.¹⁰⁸ This was aided by the target population being known to law enforcement officials from prior offences, which may indicate that specific deterrence policies could benefit from similar communication principles for known offenders.¹⁰⁹ Importantly, imprisonment was not the primary method of operation for the strategy. Instead, the focus of the strategy was on police presence and very few penalties more severe than warnings being given out for significant periods of the intervention.¹¹⁰

Research concerning the use of parole as a specific deterrent strategy indicates that refusing parole hearings results in a lower likelihood to reoffend.¹¹¹ This principle suggests that the relative harshness of refusing to consider a prisoner for release at a later stage in their sentence may be effective in increasing the relative severity and certainty of a punishment assisting as a specific deterrent.¹¹² Interestingly, the most significant benefits were observed for medium- and high-rate offenders, indicating that future applications of this method may be an effective strategy for decreasing

¹⁰² LAWRENCE SHERMAN & RICHARD BERK, POLICE FOUNDATION, THE MINNEAPOLIS DOMESTIC VIOLENCE EXPERIMENT 8 (1984).

¹⁰³ Lawrence Sherman et al., *The Variable Effects of Arrest on Criminal Careers: The Milwaukee Domestic Violence Experiment*, 83 J. OF CRIM. L. & CRIMINOLOGY 137, 167 (1992).

¹⁰⁴ See generally, Sherman & Berk, *supra* note 96.

¹⁰⁵ DAVID KENNEDY ET AL., NATIONAL INST. OF JUST., REDUCING GUN VIOLENCE: THE BOSTON GUN PROJECT'S OPERATION CEASEFIRE (2001).

¹⁰⁶ *Id.* at 66.

¹⁰⁷ See David Kennedy et al., *The (Un)Known Universe: Mapping Gangs and Gang Violence in Boston*, in CRIME MAPPING AND CRIME PREVENTION (David Weisburg and J Thomas McEwen, eds., 1997) for a thorough analysis of the scope of Boston gun violence at the time.

¹⁰⁸ KENNEDY ET AL., *supra* note 105, at 2 (2001).

¹⁰⁹ *Id.* at 47.

¹¹⁰ *Id.* at 66 (further discussing details on the hierarchy of interventions utilised in the project).

¹¹¹ John Proctor & Michael Pease, *Parole as Institutional Control: A Test of Specific Deterrence and Offender Misconduct*, 80 PRISON J. 39, 53 (2000).

¹¹² *Id.* at 41.

recidivism.¹¹³ Although this particular study does not directly measure the deterrent effect of incarceration itself, it does suggest features of imprisonment may be better utilized for the purpose of specific deterrence.

B. Criticism of Imprisonment and Specific Deterrence

Analysis of crime and prison trends across suitable timescales consistently indicates there is no direct correlation between imprisonment and crime reduction.¹¹⁴ This particular point is subject to much public skepticism,¹¹⁵ but commands empirical support in the majority of instances.¹¹⁶ For instance, the period from 1972 to 1993, a period of increase in the imprisonment rate, demonstrates no statistically significant connection to the crime rate itself.¹¹⁷ Although this applies primarily to general deterrence, the timeframe reviewed and the rate of recidivism at the time would suggest that these effects should present themselves in the data.

The central notion that individuals weigh the expected costs and benefits before electing to commit a crime has also been subjected to intense criticism.¹¹⁸ In essence, current literature indicates that individuals are likely to undervalue their chances of capture and make irrational choices on the basis of emotional responses, suggesting that rational crimes may frequently be precipitated by irrational decision-making and, therefore, have a much lower likelihood of being deterred by specific deterrence.¹¹⁹ For instance, should an individual decide to rob a store to feel powerful or satisfy some basic need, a previous negative experience in prison is unlikely to substantially alter their behavior as the relevant cost-benefit analysis for rational choice theory does not, in essence, ever transpire.¹²⁰ Coupled with the high proportion of crimes committed by the mentally ill, alcohol- and drug-affected individuals, and those below the poverty line, it is clear that rational assessments are not the sole, nor even the primary, basis for offending.¹²¹

It is also useful to consider variation in the rate of criminal convictions across different offences.¹²² Crimes being divided roughly into rational and

¹¹³ *Id.* at 53.

¹¹⁴ Lynch, *supra* note 91, at 352.

¹¹⁵ See the discussion in Kevin Wozniak, *American Public Opinions About Prisons*, 39 CRIM. JUST. REV. 305 (2014).

¹¹⁶ See, e.g., Durlauf & Nagin, *supra* note 44, at 21 (discussing the criminogenic effects of crime).

¹¹⁷ Lynch, *supra* note 91, at 359.

¹¹⁸ Paternoster, *supra* note 1, at 241.

¹¹⁹ Richard Wortley, *Rational Choice and Offender Decision Making: Lessons from the Cognitive Sciences*, in COGNITION AND CRIME: OFFENDER DECISION-MAKING AND SCRIPT ANALYSES 237 (Benoit LeClerc and Richard Wortley eds., 2014).

¹²⁰ See Jean-Louis Van Gelder, *Emotions in Offender Decision-Making*, in THE OXFORD HANDBOOK OF OFFENDER DECISION-MAKING 466 (Wim Bernasco et al. eds., 2017).

¹²¹ See M. Lyn Exum et al., *The Effect of Alcohol and Arousal on Criminal Decision-Making*, in THE OXFORD HANDBOOK OF OFFENDER DECISION-MAKING 445 (Wim Bernasco et al. eds., 2017).

¹²² Nagin, *supra* note 26, at 226 (2013).

irrational categories, with theft and burglary typically being in the former, and the impulsive crimes of murder and assault generally in the latter,¹²³ rational crimes have much lower conviction rates. This suggests that individuals who commit them may be more capable at avoiding capture, undermining specific deterrence by limiting certainty of punishment.¹²⁴ Furthermore, there are numerous categories of crime where the likelihood of being caught is relatively lower, with estimated average detection rates as low as 20%.¹²⁵ By undermining the certainty and celerity of severe punishments, there are reduced economic rationales for resources being funneled into prisons for the purpose of reducing recidivism.¹²⁶

Another significant issue concerns the potential ill-effects of certain punishments, such as incarceration, on future behavior.¹²⁷ There is a growing body of evidence suggesting imprisonment may actually increase their likelihood of reoffending,¹²⁸ adding to the crime rate. This is especially prevalent among individuals with few to no social ties,¹²⁹ those who are incarcerated from a young age or for significant portions of their life, and those whose life situations are, due to poverty, drugs, or mental illness, improved under incarceration.¹³⁰ A 1999 meta-analysis of studies incorporating 336,052 prisoners from across the world found that longer periods of imprisonment increased recidivism as did incarceration when compared with community-based orders.¹³¹ Similarly, a study of Finnish convicts for four years following their release found that the number of times the offender had previously been incarcerated was positively correlated with recidivism,¹³² again indicating that imprisonment may have some significant issues as a tool for decreasing recidivism.

The primary mechanism for the effect of increased sentence length on recidivism is that longer sentences encourage offenders to reduce their social connections and prevent them from maintaining employment or gaining vocational skills.¹³³ This then leads them to have a greater likelihood of

¹²³ *Id.*

¹²⁴ See, e.g., Katie Fredericks et al., *White Collar Crime: Recidivism, Deterrence, and Social Impact*, 2 FORENSIC RES. & CRIM. INT'L J. 39 (2016) (regarding the distinction between violent and white collar crime in terms of recidivism).

¹²⁵ HANS EYSENCK ET AL., *THE CAUSES AND CURES OF CRIMINALITY* 250 (Plenum Press 1989).

¹²⁶ See Nagin, *supra* note 26.

¹²⁷ Francis Cullen et al., *Prisons Do Not Reduce Recidivism: The High Cost of Ignoring Science*, 91 PRISON J. 48S, 54S–58S (2011).

¹²⁸ Cassia Spohn & David Holleran, *The Effect of Imprisonment on Recidivism Rates of Felony Offenders: A Focus on Drug Offenders*, 40 CRIMINOLOGY 329, 329 (2002).

¹²⁹ Cullen, *supra* note 127, at 53S.

¹³⁰ Ellen Raaijmakers et al., *Changes in the Subjectively Experienced Severity of Detention: Exploring Individual Difference*, 97 PRISON J. 644, 651–52 (2017).

¹³¹ Paul Gendreau et al., *The Effects of Community Sanctions and Incarceration on Recidivism*, 12 FORUM ON CORR. RES. 10, 12 (1999), https://www.csc-scc.gc.ca/research/com2000-chap_3-eng.shtml

¹³² Anssi Keinänen & Tuukka Saarimaa, *Recidivism of Finnish Prisoners – An Empirical Analysis*, 13 (University of Joensuu Department of Economics, Discussion Paper No. 30, 2005), available at <https://www.researchgate.net/publication/42425625>.

¹³³ Cullen, *supra* note 127.

increasing their criminality to gain acceptance among other criminals, provide income, or gain attention.¹³⁴ Prisoners may also be more likely to eschew positive opportunities following release owing to the psychological effect of imprisonment for a long period.¹³⁵ A further study after the *Collective Clemency Bill*¹³⁶ in Italy indicated that reductions to prisoner sentences significantly reduced recidivism.¹³⁷ However, separate data from the United States indicates that sentence length, until at least five years of imprisonment, was not correlated with recidivism.¹³⁸

One of the key criteria identified in the literature is an offender's awareness of the sanctions which will follow from reoffending.¹³⁹ This core component, often seen as subordinate to certainty, deals with an offender's understanding of the legal system and how it operates such that they may better evaluate the negative outcomes which may result from offending.¹⁴⁰ The Boston Gun Project's Operation Ceasefire, outlined in more detail above, offers one of the most successful templates for clear communication with offenders of the future consequences of their behavior.¹⁴¹ Contrast with a 2014 study of offender comprehension of police cautions in which a mere 30% of the officers' communications were understood by offenders and that this was only partially correlated to cognitive ability,¹⁴² the broader implication is that offenders may not comprehend their situation, therefore, specific deterrence may have a more limited application than it is perceived to.¹⁴³

Despite the role of certainty and severity in the specific deterrent effect, many offenders and situations remain substantially unaffected by deterrent effects.¹⁴⁴ Where, for instance, an offender is temporarily intoxicated beyond the point of being able to objectively analyze the costs and benefits of offending, specific deterrent theory cannot be used to evaluate or punish such an offender's actions.¹⁴⁵ Rather than this being merely a small exception, approximately half of all prisoners in state facilities in the United

¹³⁴ *Id.* at 50S.

¹³⁵ *See, e.g.,* Gendreau et al., *supra* note 131.

¹³⁶ Decreto Legge 4 luglio 2006, n.223, G.U. lug. 4, 2006, n.153 (It.).

¹³⁷ Francesco Drago et al., *The Deterrent Effects of Prison: Evidence from a Natural Experiment*, 117 J. OF POL. ECON. 257, 257–80 (2009).

¹³⁸ U.S. DEPT. OF JUST., PATRICK LANGAN & DAVID LEVIN, BUREAU OF JUST. STATISTICS, *RECIDIVISM OF PRISONERS RELEASED IN 1994* (2002).

¹³⁹ Wright, *supra* note 34.

¹⁴⁰ *See generally* Kirk Williams & Jack Gibbs, *Deterrence and Knowledge of Statutory Penalties*, 22 THE SOC. QUARTERLY 591 (1981).

¹⁴¹ KENNEDY, *supra* note 105, at 30.

¹⁴² Sarah Chaulk, *Measuring and Predicting Police Caution Comprehension in Adult Offenders*, 323 CAN. J. OF CRIMINOLOGY AND CRIM. JUST. 331 (2014).

¹⁴³ *Id.*

¹⁴⁴ Crimes of passion being a notably example explored through the lens of the United States' reliance on the death penalty as an ultimate deterrent. *See, e.g.,* Joanna M. Shepherd, *Murders of Passion, Execution Delays, and the Deterrence of Capital Punishment*, 33 J. OF LEGAL STUD. 283 (2004).

¹⁴⁵ Wright, *supra* note 34, at 2.

States were under the influence of drugs or alcohol at the time of offending.¹⁴⁶ This indicates that specific deterrence cannot be considered as a means of crime reduction in isolation, but must necessarily be enacted in tandem with a number of other approaches to capture relevant conduct.¹⁴⁷

C. *The Effect of Sentence Enhancements*

One of the primary metrics by which the deterrent effect of sanctions is measured is whether increasing severity decreases recidivism. The view that the specific deterrent effect is increased in proportion with increased severity enjoys significant political and popular support, but faces more significant criticism from more detailed empirical reviews.¹⁴⁸ Ordinarily, these studies involve either analyzing data from historical sentences and subsequent recidivism¹⁴⁹ or modelling the impact of sentence enhancement interventions prospectively.¹⁵⁰

Sentence severity studies are frequently plagued by criticism for being unable to distinguish between deterrence and incapacitation effects.¹⁵¹ This methodological dilemma has prevented many authors from asserting that a positive correlation was observed, and has driven some academics to employ statistical manipulation techniques and draw inferences in their attempts to isolate the deterrent effect.¹⁵² Kessler and Levitt, for instance, proposed that incapacitation could be separated from any deterrent effect by simply analyzing the time period in which each would function through sentence enhancements.¹⁵³ In the example provided, California's Proposition Eight, this meant that there would be immediate measurable deterrent effects following the law's implementation (as the base sentence remains unchanged) but that any incapacitation effect would necessarily only eventuate for incarceration after the base sentence had been served when comparing the steady-state models before and after the law change.¹⁵⁴ This novel technique resulted in the authors concluding that Proposition Eight resulted in a 4% decrease in targeted crimes relative to those which were

¹⁴⁶ CHRISTOPHER MUMOLA, BUREAU OF JUST. STATISTICS, SUBSTANCE ABUSE AND TREATMENT, STATE AND FEDERAL PRISONERS, 1997 (1999).

¹⁴⁷ Some critics of specific deterrence have gone as far as advocating for specific deterrence being excluded as a policy tool. See, e.g., Sandeep Gopalan & Mirko Bagaric, *Progressive Alternatives to Imprisonment in an Increasingly Punitive (and Self-Defeating) Society*, 40 SEATTLE U. L. REV. 57, 91 (2016).

¹⁴⁸ Wright, *supra* note 34, at 6.

¹⁴⁹ See, e.g., Gendreau et al., *supra* note 131, at 12.

¹⁵⁰ See, e.g., KENNEDY, *supra* note 105.

¹⁵¹ Daniel Kessler & Stephen D. Levitt, *Using Sentence Enhancements to Distinguish Between Deterrence and Incapacitation*, 42 J. OF L. & ECON. 343, 344 (1999).

¹⁵² See, e.g., David S. Abrams, *Estimating the Deterrent Effect of Incarceration Using Sentencing Enhancements*, 4 AM. ECON. J.: APPLIED ECON. 32 (2012).

¹⁵³ Kessler & Levitt, *supra* note 151.

¹⁵⁴ *Id.* at 345.

unaffected by the law in the first year.¹⁵⁵ Importantly, this effect increased to 20% after a seven year period, indicating the presence of a significant incapacitation effect.¹⁵⁶

Conversely, a 1993 study measured recidivism across three, discrete 24-month time periods following 1,231 randomly sampled driving under the influence (DUI) offences under the purview of the Sacramento judiciary.¹⁵⁷ Over the period studied, courts consistently increased penalties for relevant offences and provided sentence enhancements. The study found no observed distinction between recidivism before and after the increased penalties, indicating that the specific deterrent effect for DUI offences remained largely unchanged by sentence enhancements.¹⁵⁸ The authors justified their conclusion on the basis of *perceived*, rather than objective, certainty and severity being more relevant to specific deterrence,¹⁵⁹ but also identified that their analysis did not take into account extra-legal sanctions offenders may endure on the basis of their individual backgrounds.¹⁶⁰ Sentence length was found to exhibit a significant deterrent effect on repeated drunk driving, with individuals subjected to sentences up to six months.¹⁶¹ For any longer periods of incarceration, this effect was found to diminish whilst shorter sentences did not exert the same negative effect on recidivism.¹⁶² This indicates that, for drink driving offences, imprisonment on the basis of specific deterrence can play an important role in dissuading future offending.

A thorough evaluation of California's 'three strikes' policy of mandating jail time for any third offence, irrespective of its severity, was conducted by Zimring, Hawkins, and Kamin.¹⁶³ Interestingly, only offenders who had committed two of the three offences demonstrated sensitivity to the deterrent effect, indicating that proximity to the mandatory minimum 25-year sentence was a significant factor in deterring.¹⁶⁴ Separately, an innovative study by Helland and Tabarrok sought to distinguish the effect of the 'three strikes' law in California by comparing the arrest rates of offenders who had been convicted of two relevant crimes to those who had committed one relevant crime, then been tried for a second ineligible

¹⁵⁵ *Id.* at 359.

¹⁵⁶ *Id.* at 358.

¹⁵⁷ Rodney Kingsnorth et al., *Specific Deterrence and the DUI Offender: The Impact of a Decade of Reform*, 10 JUST. QUARTERLY 265 (1993).

¹⁵⁸ *Id.* at 283.

¹⁵⁹ Williams & Gibbs, *supra* note 140, at 591.

¹⁶⁰ As the first author discussed more fully in Rodney Kingsnorth et al., *Driving under the Influence: The Impact of Legislative Reform on the Role of Legal and Extralegal Variables in Court Sentencing Practices*, 3 CRIM. JUST. POL'Y REV. 344 (1989).

¹⁶¹ Michael Weinrath & John Gartrell, *Specific Deterrence and Sentence Length: The Case of Drunk Drivers* 17 J. CONTEMP. CRIM. JUST. 105, 118 (2001).

¹⁶² *Id.* at 117.

¹⁶³ ZIMRING ET AL., *supra* note 41.

¹⁶⁴ *Id.* at 65.

offense.¹⁶⁵ The study found that subsequent arrests dropped by 20% for the group with two convictions compared to the other, concluding this a consequence of the sentence enhancement.¹⁶⁶

D. Modern Trends on Specific Deterrence

Presently, there is a significant body of work devoted to analyzing the fundamental nature of deterrence theory and searching for alternative explanations of its mechanisms. The most tenacious of these in recent years has been Stafford and Warr's elimination of the boundaries between the specific and general forms of deterrence.¹⁶⁷ This marked shift resulted in a wide array of applications, most notably, the recent Australian analyses of specific deterrence and drunk driving offences.¹⁶⁸ The overall impression suggests, specific and general deterrence operating independently are interrelated and can both strengthen and diminish one another depending on the offender's background and the context of the offending.¹⁶⁹

This provides opportunities for a more nuanced understanding of deterrence and can enable sanctions to be better adapted to the crimes they seek to reduce. For instance, it is clear from the evidence that drunk-driving and speeding offences are particularly susceptible to specific deterrent effects, whereas other offences require separate strategies to reduce recidivism.¹⁷⁰ This distinction strongly suggests that a new system for the classification of offences would greatly improve guidance for judicial officers and afford an improved method by which specific deterrence could be enacted.

Following on from considerations of the principles underpinning specific deterrence, much debate has emerged on the topic of which factors exert the greatest influence over the deterrent effect. In addition to the well-established principles of severity, certainty, and celerity, modern jurists now consider reward and morality to influence what, if any, deterrent effect is observable.¹⁷¹ Psychologist Barry Elliot, has indicated that punishments can be more effectively absorbed by an offender where they are considered morally legitimate.¹⁷² This notion suggests, in addition to factors surrounding how an offence is punished, the relative immorality of the

¹⁶⁵ Eric Helland & Alexander Tabarrok, *Does Three Strikes Deter? A Nonparametric Estimation*, 42 J. HUM. RESOURCES 309 (2007).

¹⁶⁶ *Id.* at 328.

¹⁶⁷ Stafford & Warr, *supra* note 57, at 123 (1993).

¹⁶⁸ Elizabeth Szogi et al., *Does Getting Away with it Count? An Application of Stafford and Warr's Reconceptualised Model of Deterrence to Drink Driving*, 108 ACCIDENT ANALYSIS & PREVENTION 261 (2017).

¹⁶⁹ Stafford & Warr, *supra* note 57, at 127–8.

¹⁷⁰ Martin Davies, *Offence Behaviour and the Classification of Offenders*, 9 BRIT. J. CRIMINOLOGY 39 (1969).

¹⁷¹ Onwudiwe et al., *supra* note 4, at 236.

¹⁷² Elliott, *supra* note 46, at 6–7.

offence itself can impact an individual's propensity to reoffend. Thus, an offender who believes they 'deserve' the sentence imposed will be more heavily deterred by its imposition than one who believes themselves to be unjustly punished.¹⁷³ This can result in offenders behaving defiantly and refusing to accept the 'lessons' of sentencing, resulting in further criminal behavior escaping the specific deterrence effect.¹⁷⁴

Similar psychological explanations have been put forth by Sanson et al., positing that the shame associated with offending and punishment plays a key role in the likelihood of reoffending.¹⁷⁵ This can occur in two primary ways: reintegrative, where the offender and public nature of the offence itself is shameful, and stigmatic, where the offender is personally shamed.¹⁷⁶ Interestingly, whereas reintegrative shaming has the capacity to reduce reoffending, stigmatic shaming can be seen as a contributor to higher recidivism.¹⁷⁷ This occurs because offenders who are already isolated or unable to feel connectedness to the community or the victim will be further alienated by the imposition of a punishment, whereas those with ample connections will be more likely to see their actions as shameful whilst retaining dignity and their position in society.¹⁷⁸

The limitations of deterrence theory are also being more frequently encountered by academics. Elliot, for instance, argues that there are instances where even if punishment is sufficiently certain, deterrence may be limited.¹⁷⁹ This results from the assessment with habitual offenders, for whom punishment is seen as something of a professional risk, there can be a perception of uncertainty surrounding detection and capture. This was generally seen in low-level speeding and other motoring offences, where detection is largely connected with an offender's experience and skills in avoiding police attention; frequently leading offenders to evade detection rather than stop offending.¹⁸⁰

Similarly, offenders almost universally under-estimate their chances of apprehension and recall severity as lower than they recall it from their previous punishment.¹⁸¹ Underestimations of subsequent detection or apprehension are likely, to some extent, to be related to an offender believing they are better equipped to evade capture following their first experience of

¹⁷³ Lawrence B. Solum, *Procedural Justice*, 78 S. CAL. L. REV. 181, 277 (2004).

¹⁷⁴ Lawrence W. Sherman, *Defiance, Deterrence, and Irrelevance: A Theory of the Criminal Sanction*, 30 J. RES. CRIME & DELINQ. 445, 448–49 (1993).

¹⁷⁵ Ann Sanson et al., *Punishment and Behaviour Change: An Australian Psychological Society Position Paper*, 31 AUSTRALIAN PSYCHOL. 157 (1996).

¹⁷⁶ For a more detailed discussion of these issues, see JOHN BRAITHWAITE, *CRIME, SHAME AND REINTEGRATION* (1989).

¹⁷⁷ Sanson et al., *supra* note 175, at 160.

¹⁷⁸ *Id.* at 159.

¹⁷⁹ Elliott, *supra* note 46, at 6–7.

¹⁸⁰ *Id.* at 4–5.

¹⁸¹ See, e.g., Raaijmakers et al., *supra* note 52 (discussing the subjective factors which give rise to an individual's remembered experience in prison).

punishment or increase their incentive to improve their evasive skills.¹⁸² Therefore, while increasing certainty and severity may improve outcomes of specific deterrence in some offenders and for some crimes, its universal application still faces these important theoretical impediments. Young, male drivers, for instance, exhibit some of the most optimism when considering their chances of being detected speeding, suggesting that specific deterrence may have a limited application to this subgroup.¹⁸³

Where offending is the outcome of compulsive behavior, there is much to suggest that prison-based punishments can frequently be impotent in attempting to alter behaviour.¹⁸⁴ The complex psychosocial changes required for an individual to break with their compulsions are unlikely met by the simple imposition of a penalty.¹⁸⁵ This is because such an approach does not address the core motivations of the offender. Any cost-benefit analysis targeted by specific deterrence is unlikely to supersede the offender's core impulses. Such crimes and offenders may be better suited by applying other principles of sentencing, such as rehabilitation and incapacitation.¹⁸⁶

It is equally important to note that, the subjective measure of a punishment's unpleasantness may vary substantially between individuals, reducing the deterrent effect of the same punishment when it is inflicted on separate offenders.¹⁸⁷ This is best illustrated by the imposition of fines where poorer offenders will experience more unpleasantness than wealthier offenders.¹⁸⁸ It can also be said for homeless offenders, for whom incarceration may seem far less threatening and unpleasant than it does to a wealthy homeowner.¹⁸⁹ This distinction undermines many penalties by creating uncertainty of punishment.

Ordinarily, white-collar crimes are considered some of the most sensitive to the effects of specific deterrence. This conception is accepted because specific deterrence acts on an individual's cost-benefit evaluation of their crime and white-collar crimes are generally pre-conceived, carefully evaluated, and executed for profit without emotional motive.¹⁹⁰ Specific deterrence theory uses white-collar crimes as 'template crimes' whereby

¹⁸² Sanson et al., *supra* note 175, at 158–59.

¹⁸³ Elliott, *supra* note 46, at 7.

¹⁸⁴ Cullen et al., *supra* note 127, at 50S.

¹⁸⁵ Elliott, *supra* note 46, at 7.

¹⁸⁶ Durlauf & Nagin, *supra* note 44.

¹⁸⁷ Eric J. Wodhal et al., *Offender Perceptions of Graduated Sanctions*, 59 CRIME & DELINQ. 1185 (2013).

¹⁸⁸ Andrea Schoepfer et al., *Do Perceptions of Punishment Vary Between White-Collar and Street Crimes?*, 35 J. CRIM. JUST. 151 (2007).

¹⁸⁹ MATTHEW WILLIS, AUSTRALIAN INSTITUTE OF CRIMINOLOGY, EX-PRISONERS, SAAP, HOUSING AND HOMELESSNESS IN AUSTRALIA: FINAL REPORT TO THE NATIONAL SAAP COORDINATION AND DEVELOPMENT COMMITTEE 43 (2004).

¹⁹⁰ David Weisburd et al., *Specific Deterrence in a Sample of Offenders Convicted of White-Collar Crimes*, 33 CRIMINOLOGY 587 (1995).

other forms of offending could be compared to analyze their relative deterrence effect. However, analysis of this intuitive logic has resulted in mixed conclusions, with some even finding no observable specific deterrent impact over a 126 month follow-up period.¹⁹¹ Although this study must be considered in the context of others which have noted a reduction in recidivism for white-collar crime, and explained the results by reference to the relative uncertainty and sluggishness around sentencing, it is still instructive regarding the imprecision and variability of the current literature.¹⁹²

More generally, the entire framework underpinning sentencing in Australia has been subjected to intense criticism for failing to maintain appropriate certainty and ceding much sovereignty to the objectives of denunciation and retribution.¹⁹³ Bagaric, for instance, has identified that the Australian judiciary exercises nearly unrestrained discretion in determining sentences, which has resulted in many seemingly contradictory outcomes for comparable offenders.¹⁹⁴ As opposed to the more utilitarian principles of proportionality and deterrence, denunciation and retribution deal with the morality of the crime itself and are therefore more variable to the convictions of the relevant jurist.¹⁹⁵ This not only undermines the sense of fairness, a core component of deterrence in the work of Sanson et al.,¹⁹⁶ but also serves to preclude certainty, as guaranteed by the principle of proportionality, from playing its essential role in specific deterrence as individuals may feel emboldened by an experience with a relatively lenient jurist.

In the United States, similar calls for reform have emerged stemming from the high social and economic costs of mass incarceration.¹⁹⁷ This has largely been led by academic criticism of imprisonment as a specific deterrent on the grounds that there is insufficient empirical evidence to support its use in that capacity.¹⁹⁸ These calls have almost universally denounced the ‘tough on crime’ era of the 1980s and 1990s as being the primary contributor to mass incarceration and alternatives to imprisonment as the path for the future.¹⁹⁹ However, the reliance on imprisonment as the primary means of specific deterrence has failed to produce compelling evidence to date, especially when considered in relation to increasing the

¹⁹¹ *Id.*

¹⁹² Katie A. Fredericks et al., *White Collar Crime: Recidivism, Deterrence, and Social Impact*, 2 FORENSIC RES. & CRIMINOLOGY INT’L J. 39 (2015).

¹⁹³ Mirko Bagaric, *The Negation of Venting in Australian Sentencing: Denouncing Denunciation and Retribution*, 88 AUSTL. L. J. 502 (2014).

¹⁹⁴ *Id.* at 503.

¹⁹⁵ ANDREW VON HIRSCH, CENSURE AND SANCTIONS 9–10 (1993)

¹⁹⁶ Sanson et al., *supra* note 175, at 157.

¹⁹⁷ Bagaric et al., *supra* note 49.

¹⁹⁸ Cullen et al., *supra* note 127, at 60S.

¹⁹⁹ John D. Jackson, *Justice for All: Putting Victims at the Heart of Criminal Justice?*, 30 J.L. & SOC’Y 309, 311 (2003).

harshness of sanctions.²⁰⁰

E. Recent Studies on the Practical Realities of Specific Deterrence

Although there have been a number of studies on the issue in the past, it has not been until recently that meta-analyses of observable trends across a number of methodologically diverse reports to quantify the impact of imprisonment on retributivism have been possible. This has not only yielded a much clearer picture of the relationship between imprisonment and crime prevention, but also challenged many of the assumptions underpinning the judicial frameworks for sentencing which are commonly implemented across the world. The primary advantage of these reviews is that trends which appear convincing in an individual study may be negated when considered in the context of a number of contradictory studies, affording them greater overall significance.²⁰¹

One notable systematic review in recent years by Zane, Welsh and Mears in 2016²⁰² considered outcomes for underage offenders tried in adult courts as is allowed for many serious offences in the United States. Across nine separate studies, the authors determined that trial as an adult, which is associated with increased penalties, failed to result in any additional deterrent effect and, contrary to the expectations of specific deterrence theory, reoffending actually marginally increased in the studied groups.²⁰³ This adds further support to the notion that prison exhibits a criminogenic effect as observed in the landmark 2009 review conducted by Nagin et al.²⁰⁴ Many papers cited in this study have reached similar conclusions, indicating that any justice system which employs imprisonment as a means of specific deterrence is failing to abide by the best available evidence to the contrary.

A further development to studies in this field has been the incorporation of inmate interviews to the data collection process.²⁰⁵ This has enabled offender perception to play a much more important role in analyzing the impacts of imprisonment and the psychological impacts of incarceration.²⁰⁶ One such study considered the connection of inmates' perceived experiences in prison to their sanctions for driving whilst intoxicated and their future

²⁰⁰ Cullen et al., *supra* note 127, at 60S.

²⁰¹ Bruce E. Wampold et al., *Meta-Analysis in the Social Sciences: A Useful Way to Make Sense of a Series of Findings from a Large Number of Studies*, 1 ASIA-PAC. EDUC. REV. 67 (2000).

²⁰² Stephen N. Zane et al., *Juvenile Transfer and the Specific Deterrence Hypothesis*, 15 CRIMINOLOGY & PUB. POL'Y 901 (2016).

²⁰³ *Id.* at 915.

²⁰⁴ Daniel S. Nagin et al., *Imprisonment and Reoffending*, 38(1) CRIME & JUST. 115 (2009).

²⁰⁵ Heith Copes et al., *Inmates' Perceptions of the Benefits and Harm of Prison Interviews*, 25 FIELD METHODS 182 (2013).

²⁰⁶ Beverley Reece Crank, *Adapting to Incarceration: Inmate Perceptions of Prison Life and Adjustment* (Apr. 10, 2010) (unpublished Master's thesis, Georgia State University) (on file with Scholarworks at Georgia State University).

intentions to reoffend.²⁰⁷ There was, however, little to no support for a specific deterrent effect observed in the study, as offenders indicated their likelihood to reoffend remained predominantly unchanged by exposure to sanctions.²⁰⁸ However, the authors did note that offenders who subjectively perceived a higher certainty of punishment were marginally dissuaded from reoffending, suggesting that the specific deterrent effect is relevant, but that prison is an ineffective means of exerting it.²⁰⁹

The conclusions being drawn in other jurisdictions are substantially similar to the United States' experience, with many Nordic countries continuously contributing to the body of evidence decrying the use of prison as a specific deterrent. A 2013 analysis in Finland considered the effect of imprisonment versus community service and suspended sentences on recidivism.²¹⁰ This particular study failed to identify any significant distinction between reoffending by individuals who were imprisoned and those who faced alternative sentences.²¹¹ The only difference identified by the authors showed, as has been consistent in similar studies in recent years, that recidivism actually increased for the incarcerated group.²¹²

Recollection of the unpleasantness of imprisonment is an essential requirement for any specific deterrent effect, as an individual can only be prompted to avoid a negative stimulus if the negative stimulus can be remembered at the time any future offending is contemplated. This principle formed the basis for a 2017 report on how offenders remembered their prison experiences and the degree to which this matches their contemporary experiences whilst in prison.²¹³ Although recalled severity correlated strongly with reported severity in prison, there was a clear decrease in recalled severity for longer periods of incarceration suggesting that there could be factors unrelated to incarceration itself which impact on the relative aversion reported by offenders.²¹⁴ This not only indicates that prison may reduce the specific deterrent effect when used for long periods, but also implies that prison may not be an effective means of deterring in the first place. These propositions require further study to support them, with analysis of the specific psychological features increasing recalled aversion being highly relevant to any alternatives to imprisonment which could be proposed.

An innovative approach to specific deterrence research in the

²⁰⁷ Jeff A. Bouffard, *Examining Specific Deterrence Effects on DWI Among Serious Offenders*, 63 CRIME & DELINQ. 1923 (2017).

²⁰⁸ *Id.* at 1938.

²⁰⁹ *Id.*

²¹⁰ Reno Siren & Jukka Savolainen, *No Evidence of Specific Deterrence Under Penal Moderation: Imprisonment and Recidivism in Finland*, 14 J. SCANDANAVIAN STUD. CRIMINOLOGY & CRIME PREVENTION 80 (2013).

²¹¹ *Id.* at 94.

²¹² *Id.*

²¹³ Raaijmakers et al., *supra* note 130, at 651–52.

²¹⁴ *Id.* at 659.

Netherlands considered the impact of immigration detention on migrant attitudes towards remaining in the country or seeking to return to their country of origin.²¹⁵ Here the mechanism of specific deterrence would act to encourage detained individuals to seek return. The authors found that there was a limited deterrent effect among some individuals within the studied sample, primarily related to their social ties to the Netherlands and unrelated to any features of the detention itself.²¹⁶ It also suggested that perceived legitimacy of punishment was a critical factor in determining the size and presence of the deterrent effect, supporting the propositions of Sanson et al.²¹⁷ This factor further supports the inclusion of psychological expertise in determining the relative benefits of different sanctions into the future.

An emergent philosophy in the sentencing sphere has been that of eschewing specific deterrence as a sentencing strategy and instead treating crimes as behavioral problems and targeting responses in accordance with appropriate sentencing alternatives.²¹⁸ This would, as opposed to considering all crimes as deterrable wrongs, tailor responses to reduce recidivism. Employing a strategy such as this necessarily involves significant further study of the best responses to offences, and requires a broadening of the sentencing arsenal to include promising alternatives to imprisonment as will be discussed in Part IV. This approach would further improve outcomes by ensuring that any intervention is undertaken on the basis of appropriate evidence, rather than the often-identified discretion decried by legal academics.²¹⁹

A development linked to this is the tailoring of punishments to offenders themselves, rather than the offences they commit.²²⁰ This notion ensues from the discovery that individuals can exhibit widely divergent responses to the same type of penalty and that their responses can be correlated to readily determinable personal characteristics.²²¹ A study by Fine and van Rooji on a sample of 223 adults demonstrated that individuals with a higher degree of self-control and rule orientation were, on average, more sensitive to the deterrents with which they were confronted than other groups.²²² Crucially, this implies that some punishments will only be effective as deterrents in certain segments of the population. Not only does this limit the use of any form of specific deterrent to specific target groups, also raises an important

²¹⁵ Arjen Leerkes & Mieke Kox, *Pressured into a Preference to Leave? A Study on the "Specific" Deterrent Effects and Perceived Legitimacy of Immigration Detention*, 51 L. & SOC'Y REV. 895 (2017).

²¹⁶ *Id.* at 923.

²¹⁷ Sanson et al., *supra* note 175.

²¹⁸ Bouffard, *supra* note 207, at 1940.

²¹⁹ Bagaric, *supra* note 64, at 504.

²²⁰ Helen M. Annis & David Chan, *The Differential Treatment Model*, 10 CRIM. JUST. & BEHAV. 159 (1983).

²²¹ *Id.*

²²² Adam Fine & Benjamin van Rooij, *For Whom Does Deterrence Affect Behaviour? Identifying Key Individual Differences*, 41 L. & HUM. BEHAV. 354 (2017).

ethical question: whether the widely accepted convention of equal treatment under the law should take priority over the potential benefits tailored punishments could precipitate. Many authors discussing evidence-based sentencing have, *inter alia*, grappled with this particular issue and have generally determined that dividing individual sentences based on personal characteristics rather than the circumstances of their offending violates offenders' rights.²²³

One of the more unique attempts to supersede the current understanding of specific deterrence has been the incorporation of Confucian concepts into a more internally focused notion of shame and punishment.²²⁴ Proponents of this measure argue that the demonstrable failure of external punishments mean that only internal reflection can provide the means to alter future behavior effectively.²²⁵ Although the author does not specifically indicate how such a system would operate, the concept that an offender's individual conception of their own offending and sanctions may be relevant to sentencing provides a promising area to be investigated in future research.

Fundamentally, it is difficult to precisely isolate and measure the effect of specific deterrence.²²⁶ This is primarily because of the multiplicity of interactions every aspect of the criminal justice system has on reoffending, preventing researchers from confidently asserting that any deterrent effect has actually been observed.²²⁷ Scholarly work on this subject frequently identify these impediments and seek to justify their methodologies in spite of the uncertainty they create, rather than employing experimental designs to overcome them.²²⁸ This can contribute to a number of potential 'false positives' in the literature, over-emphasizing the specific deterrent effect and encouraging judiciaries to engage with potentially ineffective sentencing practices. Furthermore, over-reliance on deterrence theory as an explanation for observed reductions in recidivism carries a high risk of ignoring alternative explanations which could contribute substantially to reducing the crime rate.²²⁹ Therefore, it is clear that many methodological developments are required to facilitate a more accurate study of specific deterrence and ensure that the wide body of available data is adequately analyzed to yield more effective sentencing.

²²³ See generally Sonja B. Starr, *Evidence-Based Sentencing and the Scientific Rationalization of Discrimination*, 66(4) STAN. L. REV. 803 (2014).

²²⁴ Lee Hsin-Wen, *Taking Deterrence Seriously: The Wide-Scope Deterrence Theory of Punishment*, 36(1) CRIM. JUST. ETHICS 2 (2017).

²²⁵ *Id.*

²²⁶ Raymond Paternoster, *How Much Do We Really Know About Deterrence?*, 100(3) CRIM. L. & CRIMINOLOGY 765, 766 (2010).

²²⁷ *Id.* at 773.

²²⁸ See, e.g., Bouffard, *supra* note 207, at 1939–41.

²²⁹ See, e.g., Jihye Jeon, *The Strengths and Limitations of the Statistical Modeling of Complex Social Phenomenon: Focusing on SEM, Path Analysis, or Multiple Regression Models*, 9 INT'L J. OF ECON. & MGMT. ENGINEERING 1634 (2015).

V. ALTERNATIVE APPROACHES

Much of the present literature has, as identified above, indicated that imprisonment is a flawed and ineffective method of specific deterrence. Accordingly, the focus of deterrence theory research has moved towards identifying potential alternatives and quantifying their effects as specific deterrents. This has primarily involved intervention-based studies measuring recorded rates of recidivism before and after a given policy has taken effect.²³⁰ Several studies have yielded promising results, with some indicating superior specific deterrent effects to current imprisonment strategies.

Subjugating deterrence to a more encompassing concept of compliance has been proposed as a method to broaden the measures which may serve to reduce recidivism.²³¹ The principle underlying this strategy is as an offender's understanding of compliance increases, the more likely they will elect not to offend.²³² While this is partly the result of the certainty of sanctions being increased, it can be better explained as being more about the education of offenders in their criminal activity.²³³ The use of fines, preventative education, and increasing awareness served to significantly reduce the reported likelihood to offend.²³⁴ Importantly, however, this particular area has been largely devoted to compliance in a commercial sense, rather than considering non-organizational crimes.²³⁵ Accordingly, any results cannot necessarily be extrapolated to all crimes without further study within those specific areas.

Probation has often been touted as an appropriate alternative to imprisonment as it typically enjoys significantly reduced costs to prisons and simultaneously avoids many of the precipitant factors for the criminogenic effect exerted by incarceration.²³⁶ One such program, Project Hope in Hawaii, sought to reduce drug abuse and associated reoffending through a probation program emphasizing abstinence with rapid and automatic sanctions (including treatment programs) for ongoing drug use.²³⁷ The trial was considered a success compared to typical probation programs; reoffending decreased and drug use was less likely to continue.²³⁸ This

²³⁰ See, e.g., ZIMRING ET AL., *supra* note 41.

²³¹ Albert J. Reiss, Jr., *Consequences of Compliance and Deterrence Models of Law Enforcement for the Exercise of Police Discretion*, 47(4) L. & CONTEMP. PROBS. 83, 122 (1984).

²³² Elliott, *supra* note 46, at 3.

²³³ Rob van der Noll & Barbara Baarsma, *Compliance with Cartel Laws and the Determinants of Deterrence – an Empirical Investigation*, 13 EUROPEAN COMPETITION J. 336 (2017).

²³⁴ Sanson et al., *supra* note 175, at 157.

²³⁵ See e.g., Van der Noll & Baarsma, *supra* note 233, at 336.

²³⁶ Michelle S. Phelps, *The Paradox of Probation: Community Supervision in the Age of Mass Incarceration*, 35 L. POL'Y 51, 52 (2013).

²³⁷ Angela Hawken & Mark Kleiman, *Managing Drug Involved Probationers with Swift and Certain Sanctions: Evaluating Hawaii's HOPE* (Dec. 2, 2009) (unpublished report) (on file with the National Criminal Justice Reference Service).

²³⁸ *Id.* at 27

potentially indicates that interventions emphasizing personal responsibility for reform may enjoy success by enabling offenders to exercise their own agency and reducing stigmatizing effects from imprisonment or mandatory rehabilitation. Criticism has been levied at this assessment, that despite being a promising strategy for future consideration, it is unproven in its theoretical basis and may be corrupted by offenders becoming more aware of its implementation.²³⁹ Additionally, it has the potential to reduce available rehabilitation services for offenders, as these would no longer be mandatory, and may have very limited scope in its application to those who seek to reform themselves irrespective of the intervention.²⁴⁰

The electronic monitoring of offenders has seen a rapid implementation across the developed world, largely to recent technological advances improving the reliability and reducing the costs associated with its use.²⁴¹ Typically, the system involves attaching a device to an offender (typically an ankle bracelet) which is tracked via radio frequency or global positioning system to restrict the movements of offenders.²⁴² This acts as a specific deterrent by increasing both the certainty of detection, as an offender's whereabouts are continuously monitored, and of punishment, as offenders are made aware of the precise punitive escalation to be expected by engaging in proscribed activity. Importantly, electronic monitoring creates a specific deterrent effect by forcing offenders to understand the risks of reoffending and subjectively recognize that they are being constantly monitored.²⁴³ This is the 'observer effect,' where individuals subject to scrutiny typically exhibit more conformist and lawful behavior than those who do not believe they are being 'watched.' Electronic monitoring also boasts the capacity to exist as either a 'front-end' use as an alternative to sentencing, or as a means of complementing parole programs, being 'back-end.'²⁴⁴ This affords it greater flexibility of use, enabling community protection concerns to be dealt with,²⁴⁵ and electronic monitoring being far more cost effective than imprisonment with the potential to provide for a much larger number of offenders at a fraction of the cost.²⁴⁶

Electronic monitoring has been subjected to its fair share of criticism.

²³⁹ Francis T. Cullen et al., *Before Adopting Project Hope: Read the Warning Label: A Rejoinder to Kleiman, Kilmer and Fisher's Comment*, 78 FED. PROB. 75 (2014).

²⁴⁰ *Id.*

²⁴¹ Marietta Martinovic, *GPS-EM Sanctions for Serious Sex Offenders: The Application and Outcomes in the United States and Australia*, 34 J. TECH. HUM. SERV'S 82 (2016).

²⁴² Lorena Bartels & Marietta Martinovic, *Electronic Monitoring: The Experience in Australia*, 9 EUROPEAN J. PROB. 80 (2017).

²⁴³ Marc Renzema and Evan Mayo-Wilson, *Can Electronic Monitoring Reduce Crime for Moderate to High-Risk Offenders?*, 1 J. EXPERIMENTAL CRIMINOLOGY 215 (2005).

²⁴⁴ MONICA HENDERSON, *BENCHMARKING STUDY OF HOME DETENTION PROGRAMS IN AUSTRALIA AND NEW ZEALAND* 6 (2006).

²⁴⁵ *Id.* at 14 (discussing the various safeguards being implemented for safety).

²⁴⁶ See, e.g., JOHN K. ROMAN ET AL., *THE URBAN INSTITUTE, THE COSTS AND BENEFITS OF ELECTRONIC MONITORING FOR WASHINGTON, D.C.* (2012).

The primary issue is the degree to which electronic monitoring may negatively impact rehabilitation.²⁴⁷ Individuals may be placed on an electronic monitoring program without being equipped with the appropriate resources to alter their circumstances to reduce reoffending. Accordingly, the evidence is reasonably thin on whether electronic monitoring is actually effective in reducing reoffending or whether its use can be primarily associated with community protection.²⁴⁸ As with the majority of advocated interventions, electronic monitoring does have its faults, but its use as a cost-effective and low psychological impact tool must be studied further for the benefits it may bring to the sentencing sphere.

Perhaps the simplest recommendation for reducing imprisonment, without sacrificing the specific deterrence effect that prison may exert, has been to reduce prison terms for offenders through increasing good behavior reductions and making parole available to offenders sooner than is presently the case.²⁴⁹ This would decrease the overall incarcerated population (as individuals would be released sooner on average) whilst leaving prison to exert its deterrent effect on individuals who are released. The other clear advantage would be that the punishment of prison would gain greater legitimacy by appearing fairer on individuals who exhibit appropriate behavior whilst incarcerated.²⁵⁰ As a result, offenders would be more likely to accept and learn from their punishment than if they exhibited the well-documented defiance effect, whereby disagreement with the fairness of an offender's experience can result in a greater propensity to reoffend.²⁵¹

Similar alternatives have been proposed to effectively prevent future offending by targeting an offender's underlying psychological disposition. Typically, this has involved considering internal and external notions of shame, which can isolate or integrate an offender, depending on their perspective at the time.²⁵² Interventions based on these theories vary significantly, but are generally focused on integrating preventative and reactionary schemes to target offenders and would-be offenders through education.²⁵³ Sanson et al. propose a three tiered system, whereby reoffending is prevented through continued education, rehabilitation and specialized alternatives to the traditional criminal justice system.²⁵⁴ This system incorporates celerity of punishment, by trying offenders promptly

²⁴⁷ Marc Renzema, *Electronic Monitoring's Impact on Reoffending* 9 (Mar. 24, 2003) (unpublished manuscript) (on file with CorrectTech LLC).

²⁴⁸ Marc Renzema & Evan Mayo-Wilson, *Can Electronic Monitoring Reduce Crime for Moderate to High-risk Offenders?*, 1 J. EXPERIMENTAL CRIMINOLOGY 215, 232–33 (2005).

²⁴⁹ Anita Gibbs & Denise King, *The Electronic Ball and Chain? The Operation and Impact of Home Detention with Electronic Monitoring in New Zealand*, 36 AUSTRALIAN & N.Z. J. CRIMINOLOGY 1, 5–6 (2003).

²⁵⁰ Sanson et al., *supra* note 175, at 157.

²⁵¹ *Id.*

²⁵² JOHN BRAITHWAITE, *CRIME, SHAME, AND REINTEGRATION* (1989).

²⁵³ Sanson et al., *supra* note 175, at 157.

²⁵⁴ *Id.* at 157–58.

and frequently exhibiting a stronger deterrent effect as their behavior is more readily associated with the corresponding sanction. Importantly, strategies such as these seek to directly alter future behavior of offenders to reduce recidivism whilst largely ignoring other sentencing principles. Although this purely utilitarian view is likely to reduce imprisonment and improve outcomes for some matters, its application to matters where recidivism is already unlikely, such as the murder of an adulterous spouse, has no theoretical basis.²⁵⁵ This suggests that, rather than considering a policy such as this as a panacea for the present woes of sentencing, its use should be confined to areas where it can be effectively implemented.²⁵⁶

A further insight from psychology and behavioral economics has been the concept of ‘ambiguity aversion’ the phenomenon where individuals, when incomplete information is available on one of a number of outcomes, will select the approach which has the lowest ambiguity.²⁵⁷ This concept has been applied in the criminal justice system suggesting the decreasing certainty of punishment may result in potential reoffenders exhibiting ambiguity aversion by over-estimating their probability of apprehension and sanction.²⁵⁸ This may take the form of randomizing police controls to make detection less certain or even preventing the publication of certain information enabling white collar criminals to assess the chances their crimes will be discovered. Importantly, however, this only applies to risk-averse individuals.²⁵⁹ Risk-neutral or risk-seeking individuals will not be captured by this strategy, as they may actually become emboldened by the ambiguity, thereby increasing crime.²⁶⁰ These issues obviously warrant further consideration and study, which would be best served by outlining an intervention which could be implemented to test these proposals, undertaking it in concert with a control group which does not receive the intervention, and determine whether any effect has been observed.

VI. CONCLUSION

The principle of specific deterrence serves in many jurisdictions as one of the most compelling justifications for sentencing and imprisonment. It is clear from the above assessments that there is a pronounced lack of empirical backing for its use. This, coupled with methodological flaws in the analysis

²⁵⁵ Joanna M. Shepherd, *Murders of Passion, Execution Delays, and the Deterrence of Capital Punishment*, 33 J. LEGAL STUDIES 283 (2004).

²⁵⁶ Matthew DeMichele, *Electronic Monitoring: It is a Tool, Not a Silver Bullet*, 13 CRIMINOLOGY & PUB. POL'Y 393 (2014).

²⁵⁷ Frank, *supra* note 43.

²⁵⁸ *Id.*

²⁵⁹ Maria Bigoni et al., *Risk Aversion, Prospect Theory, and Strategic Risk in Law Enforcement: Evidence from an Antitrust Experiment* 1, 3 (SSE/EFI Working Paper Series in Econ. & Fin., Working Paper No. 696, 2008).

²⁶⁰ See generally the discussion in Richard H. McAdams & Thomas S. Ulen, *Behavioural Criminal Law and Economics* 1 (John M. Olin Program in Law & Econ., Working Paper No. 440, 2008).

of specific deterrents, leads one to conclude that the necessary information to enact specific deterrence with accuracy and effectiveness still remains to be determined by future research. Ideally, this would involve substantial improvements to experimental design and the incorporation of moral and ethical norms, societal and cultural values, religion, and individual experience and identity into the factors which may aid in predicting and preventing an offender from reoffending.

Criminal behavior has numerous causes and, accordingly, applying the outmoded notion that all crimes are predicated on a cost-benefit analysis will necessarily fail to result in the optimum model for preventing recidivism.²⁶¹ The fundamental motivations of offenders cannot be reduced to such a simple formula and one must therefore look to areas of education, counselling, medical intervention, and rehabilitation to find alternatives which can serve to improve outcomes as is desperately necessary. Simply threatening all offenders with punishment will only increase the number of individuals being punished, without reducing the rate at which they continue to do so. Specialized and individualized approaches to different categories of crime and offenders are integral to reduce recidivism and should become more prominent in the literature as these alternatives are developed.

From considering unsuccessful alternative interventions, it is clear that the way in which we treat sentencing is presently insufficient and fails to develop in response to cost and social pressures. By identifying offenders and analyzing the factors which drive them to commit a crime, criminal behavior can be better understood as can, ultimately, how to prevent it.²⁶² Incorporating psychological approaches to offending can only serve to improve the range of tools at the disposal of the justice system and outcomes. Thus, continuing to investigate interdisciplinary approaches is vital to incorporating a renewed theory of specific deterrence into a more effective sentencing arsenal. These findings may seem unsatisfactory, as they fail to neither wholly condemn nor openly embrace specific deterrence in its current form. However, it is important to remember that criminology can be found in the innumerable interactions between psychology, politics, economics, and the law. Accordingly, Walker and Padfield's somewhat sardonic observations prove fitting as a final word on the subject:

Naïve claims that deterrent policies are effective – or totally ineffective – have been replaced by the less exciting realization that some people can be deterred in some situations from some type of conduct by some degree of likelihood that they will be penalized in some ways; but that we do not yet know enough to enable us to be very specific

²⁶¹ Durlauf & Nagin, *supra* note 44.

²⁶² *Id.*

about the people, the situations, the conduct, or the likelihood or nature of the penalties.²⁶³

²⁶³ NIGEL WALKER & NICOLA PADFIELD, *SENTENCING: THEORY, LAW, AND PRACTICE* 101 (1996).